DWD

Planning, Design and Access Statement

NORTH CRAY ROAD ENERGY STORAGE SYSTEM (ESS)

LAND AT NORTH CRAY ROAD, SIDCUP

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Revision	Description	Originated	Checked	Reviewed	Authorised	Date
1.0	FINAL	OW	CD	CD	RB	April 2025
DWD Job Number: 17947						

1.0 INTRODUCTION

Overview

1.1 This Planning, Design and Access Statement ('PDAS') has been prepared in support of an application for full planning permission submitted to the London Borough of Bexley ('LBB' or the 'Council') for the North Cray Road Energy Storage System ('ESS') under the provisions of the Town and Country Planning Act 1990 (as amended) ('TCPA') on behalf of Net Zero Thirty Two Limited (the 'Applicant'), with the application being managed by Firstway Energy Limited. DWD Property and Planning has prepared this PDAS and is the planning agent for the application.

1.2 The Proposed Development comprises the construction and operation of an ESS of up to 200 megawatts ('MW') electrical capacity, including earthworks, site access, landscaping and associated infrastructure, and a cable connection route to the connection point at an existing National Grid substation and associated infrastructure on land at North Cray Road, Sidcup. The substation is known as Hurst Grid Substation and is located approximately 1.45 kilometres ('km') northeast of the Site.

1.3 The Proposed Development will take energy from the electricity grid when demand is higher or supply is lower, thus operating in either 'energy charge', 'energy storage' or 'energy discharge' modes while providing support balancing services to the National Grid. The Site, including all physical infrastructure, is located within the administrative area of LBB.

1.4 The UK Government has committed to meeting a legally binding target of net-zero carbon emissions by 2050, which now includes an accelerated political target of 2030 for a net zero electricity system under the Labour Government, known as Clean Power 2030. The Government's 'Clean Power 2030' document (released in December 2024) forecasts how much energy storage we need to decarbonise the grid by 2030 – being 23-27 Gigawatts of battery capacity and 4-6 GW of long duration energy storage. London Plan (2021) states (at Paragraph 9.2.1) that "*the Mayor is committed to London becoming a net-carbon city*". Whilst LBB is yet to declare a climate emergency, the Council has published a 'Climate Change Statement and Action Plan 2022 to 2026', which aims to reduce carbon emissions and supports low-carbon energy. Considering the above, there is a clear and established need to build out many more energy storage installations across the UK in order to meet grid demand and increase our security of supply by 2030.

1.5 To achieve these targets, major investment is needed in proven technologies, such as low carbon and renewable energy and battery storage, which are supported by planning policy at the local, London and national level. As such, considerable weight is being attached to ESS proposals provided

they can be mitigated sufficiently. Energy storage proposals, such as the Proposed Development, help to support the development of renewable energy, which is intermittent by its nature, taking energy from the grid at times of higher supply/lower demand and feeding it back at times of lower supply/higher demand. This added flexibility is key if the UK is to achieve widescale reliance on renewable energy.

1.6 Further to this, energy storage was redefined by the Government under the Energy Act (2023) to form a distinct subset of generation, it defined the storage as energy that was converted from electricity and is stored for the purpose of its future reconversion into electricity. In essence, Energy Storage under UK law is considered as renewable energy generation.

1.7 The Proposed Development Site (the 'Site') comprises approximately 9.44 hectares ('ha') of agricultural land, and consists of the area in which the ESS compound is proposed (the 'Main Site') which is 7.0 ha, an access track connecting the Main Site to North Cray Road, and the underground cable corridor, which runs northwards along the access track, before joining North Cray Road and travelling westward to join the A223. It will then continue northwards along the A223, before turning onto the A2018 and then turning again onto Stable Lane. It continues southwards along Stable Lane until it reaches land owned by National Grid. The Proposed Development would deliver a biodiversity net gain of over +80% in habitat units and +20% hedgerow units, through landscape planting and retained/enhanced habitats at the Site.

1.8 The ESS compound would be situated in a field parcel comprised of agricultural land, which is within the London Green Belt, located approximately 700 metres ('m') northeast of Ruxley, 1 km south of North Cray, 1.2 km northeast of Foots Cray, and 2.6 km east of Sidcup. The Site is bound to the north, west and east by agricultural fields / undeveloped land, and to the south by the polytunnels associated with Honeywell Farm, as well as further adjoining agricultural fields, which are characterised by large industrial and agricultural-type buildings.

1.9 This planning application uses the "Rochdale Envelope" principles. The Rochdale Envelope is a widely accepted approach to energy and infrastructure proposals under the TCPA and there is guidance on the use of it by the Planning Inspectorate and the Overarching National Policy Statement for Energy EN-1. In practice, the Rochdale Envelope requires planning proposals to be considered using a 'worst case' approach, in other words, what is assessed at the planning application stage represents the maximum that would be built out under any forthcoming permission. This leaves the Applicant with flexibility to discharge final detail by planning condition (such as layout and infrastructure design) which are equal to or smaller than the original proposals

without forming a material departure from the planning permission. The Rochdale Envelope provides flexibility in design options where details of the project or technology are not available, while still ensuring the impacts of the final development are fully assessed.

1.10 Planning permission is being sought to operate for the temporary period of 40 years. Following this timeframe, and the cessation of energy operations the infrastructure would be removed and the Site restored to its present use and condition. The Applicant would accept a time limit on the Proposed Development of 41 years from the date of first operation to allow for 40 years of operation and 1 year of decommissioning.

The Applicant

1.11 Firstway Energy is a UK based energy storage developer with a portfolio of sites across England and Wales. Firstway Energy's ethos is to provide utility scale energy storage systems to support the UK's transition to Net Zero. Firstway Energy carefully select sites with low material impacts, particularly visual, and work closely with local communities to be a good neighbour before, during and after installation.

Pre-Application Consultation

1.12 The Applicant has carried out an appropriate and meaningful pre-application engagement exercise in respect of the Proposed Development from 23 January 2025 to 21 February 2025, primarily focused on the local community and key stakeholders. This involved the issue of introductory letters to key stakeholders such as the London Fire Brigade, Ward Councillors for St Mary's and St James Ward, Senior officers at London Borough of Bexley, Cabinet Member for Communities and Housing, and Shadow Member for Housing, Climate Change, Transport, Environment and Leisure. The letters provided information on the Proposed Development and offered the opportunity for a meeting with the Applicant's team before the proposals were finalised.

1.13 The Applicant also issued consultation letters to closest residences and businesses to the Site, as the people most likely to be affected by the Proposed Development. The letter drop area was determined with a view to consulting of the nearest or most relevant residential streets/areas (such as North Cray Road itself) and businesses within the vicinity of the Site. Larger business and industrial parks within Foots Cray and Ruxley were scoped out due to their distance from the Site and limited impacts that would be felt. Residential settlements east of the Site were scoped out due to the intervening Stone Hill Woods. The consultation letters provided introductory information on the Proposed Development, including a preliminary version of the indicative layout plan for comment. Included within the consultation letter were details of how local residents could

access a dedicated consultation website set up by the Applicant and how comments could be made before the close of the consultation period.

1.14 Full details of the community engagement undertaken, including a summary of the feedback received from the consultation, the Applicant's response and changes made to the Proposed Development is provided within the submitted Statement of Community Involvement. The main changes to the Proposed Development included changing the orientation/layout of the ESS compound to minimise landscape and visual impact, allow more space for environmental enhancements, locate infrastructure away from noise sensitive receptors, locate sensitive infrastructure outside of shallow surface water flood extents, and to be in-line with the National Fire Chief Council ('NFCC') 'Draft Guidance on Grid Scale Battery Energy Storage Systems' (2024).

1.15 Pre-application engagement was also undertaken with LBB, via the submission of a Pre-Application Advice Request on 23 January 2025 (Ref. 25/00139/PREAPM). Prior to the receipt of the formal LPA advice, the Applicant's appointed planning consultant (DWD) undertook an accompanied site visit with the LBB officer on 19th February 2025.

1.16 The formal LBB pre-application advice response was received from LBB on 11 March 2025 ('the Pre-application Advice'), with the Case Officer noting that "*given the imperative of mitigation climate change and achieving net zero, it is likely the project can make an early contribution to the clean power pathway required to achieve net zero*." However, they did recognise that there "*may be demonstrable very special circumstances (VSCs) and/or potential justification for development in this location relating to 'grey belt' for erecting the facility on Green Belt designated land*".

1.17 The Pre-application Advice also made reference to National Policy Statement EN-1 which sets out that the planning system should support the transition to a low carbon future and support, amongst other things, renewable and low carbon energy and associated infrastructure, stating: "*Given the context provided by NPS EN-1 and the Framework, it is concluded that an ESS project more than likely represents much needed associated infrastructure*". Further to this, the LBB response goes on to acknowledge the importance of the capacity of the local grid connection and early access to the grid: "*In addition to this, it is acknowledged that one of the constraints to the early development of renewable and low carbon energy and associated infrastructure is the ability to access the local grid. It is understood that in some places, notwithstanding the appetite to develop projects, grid connections are not available for several years. Thus, given the imperative of mitigation climate change and achieving net zero, it is likely the project can make an early contribution to the clean power pathway required to achieve net zero*."

1.18 The Officer also made reference to relevant national, London and local policy regarding climate action and resilience, and the 'East London Subregional Local Area Energy Plan' (LEAP) which LBB are currently engaging with the GLA on the preparation of the Plan, due for completion in Autumn 2025.

1.19 The Officer's advice note outlined the following additional considerations in assessing the level of acceptability:

- Principle of Development – Green Belt;
- Principle of Development – SINC & Ancient Woodland;
- Principle of Development – Alternative Site Selection;
- Design & Impact on Character of Local Area;
- Neighbour Amenity;
- Transport;
- Ecology & Biodiversity;
- Waste (inc. Excavated or Imported Material(s) and Spoil);
- Safety & Security (inc. Fire Safety);
- Climate Change & Environment;
- Drainage & Flooding;
- Contaminated Land;
- Agricultural Land Classification; and
- Structural stability of land.

1.20 The Pre-application Advice also noted that whilst part of the Site is located within an area designated as a Mineral Safeguarding Area under the Bexley Local Plan policies map it is unlikely that the proposal would have any impact on this designation given that the area will only used for access, utilising existing access tracks and roads.

1.21 Since the receipt of the formal Pre-application Advice, a meeting was held with LBB on 11 March 2025 primarily to discuss the construction routing and site access considerations. In the meeting it was raised that there is a local (non-statutory) listed building (Manor Farm farmhouse) which adjoins the site access.

1.22 Since that meeting it has also been confirmed via email correspondence on 25 March 2025 that:

- An Energy Statement is not required as the Proposed Development is in essence energy storage in the UK is considered as low carbon energy generation;
- The need for a referral to the GLA is yet to be confirmed however may not be required given the floorspace of the Proposed Development does not meet Category 3D in the TCPA (Mayor of London) Order 2008, and a statement to this effect is located later in this section at Paragraph 1.30;
- The Proposed Development is not CIL liable as it does not comprise gross internal area, and a statement to this effect is located later in this section at Paragraph 1.31;
- Viewpoint 10 would be retained as it shows the potential impact of the new access and localised vegetation clearance and an additional viewpoint would be included in the location on North Cray Road as requested by LBB; and
- A Construction Traffic Management Plan (CTMP) should be submitted with the planning application and a Construction Environmental Management Plan (CEMP) can be secured by way of a planning condition.

1.23 The Planning Application is supported by a comprehensive suite of technical reports and assessments (complete list provided on the following page), which robustly assess the impacts and provide recommendations. The submitted planning application addresses all matters raised at the pre-application stage, and the Applicant will continue to work with the Local Planning Authority and the relevant statutory consultees throughout the determination of the application.

1.24 The full pre-application response from the Case Officer is included at Appendix 1 to this report.

1.25 The Applicant contacted London Fire Brigade on 5 March 2025 to initiate pre-application discussions regarding the design requirements of the Proposed Development in relation to fire safety and emergency response. A response has not yet been received prior to the submission of this application.

Environmental Impact Assessment

1.26 The 2017 Town and Country Planning (Environmental Impact Assessment) Regulations (as amended) (EIA Regulations) apply to applications for planning permission under the 1990 Town and Country Planning Act.

1.27 The Applicant submitted a request for an Environmental Impact Assessment ('EIA') Screening Opinion from the Council on 23 January 2025 (Ref. 25/00137/SCREEN) and an acknowledgement was received on 28 January 2025 from the Council stating that an opinion would be issued within three weeks, by 13 February 2025.

1.28 On 19 February 2025, LBB issued a Screening Opinion to the Applicant which confirmed that the Proposed Development did not constitute 'EIA development'. A copy of the EIA Screening Opinion is contained at Appendix 2 to this Report.

Planning Application Submission

1.29 The application submission consists of the following documents:

- Application Cover Letter;
- Application Form and Certificates;
- Community Infrastructure Levy ('CIL') form;
- Planning, Design and Access Statement ('PDAS') (this document);
- Green Belt Assessment Report prepared by DWD;
- Plans (the full list of plans is itemised at Appendix 3 of this report);
- Statement of Community Involvement prepared by DWD;
- Sustainable Design, Construction and Renewable Energy Statement prepared by DWD;
- Landscape, Townscape and Visual Impact Assessment prepared by RHLA Limited;
- Illustrative Landscape Masterplan Prepared by RHLA Limited;
- Cultural Heritage Assessment prepared by Cotswolds Archaeology;
- Preliminary Ecological Appraisal prepared by Engain Ecology;
- Biodiversity Net Gain Assessment prepared by Engain Ecology;
- Construction Traffic Management Plan prepared by Mott MacDonald;
- Noise Assessment prepared by Tetra Tech;
- Geo-Environmental Desk Study prepared by Red Rock Geoscience;
- Health Impact Assessment by Nimbus;
- Flood Risk Assessment and Drainage Strategy prepared by Calibro;

- Outline Energy Storage Safety Management Plan prepared by Firstway Energy; and
- Arboricultural Impact Assessment prepared by Tree Heritage.

1.30 The planning application has been submitted electronically and the requisite application fee has been paid via the Planning Portal.

1.31 Category 3D in the Town and Country Planning Act (Mayor of London) Order 2008 (the Order) requires that buildings with a floorspace more than 1,000sqm and in the Green Belt be referred to the Greater London Authority ('GLA'). In the Order, floorspace means "the total floor space in a building or buildings". The footprint (or gross external area) of the Proposed ESS would be 126.61sqm and therefore falls short of the floorspace requirement stipulated in Category 3D.

1.32 In terms of Community Infrastructure Levy liability, the Proposed Development would not comprise 'gross internal area' and therefore would not be CIL-liable.

The Purpose and Structure of this Document

1.33 The primary purpose of this PDAS is to demonstrate how the design of the Proposed Development is a suitable response to the Site and its setting, and to demonstrate that it can be adequately accessed. Furthermore, how the Applicant has taken account of relevant planning policy and the extent to which the Proposed Development is compliant with the Statutory Development Plan.

1.34 In doing so, this PDAS draws upon and cross-refers, where relevant, to the other documents that form part of the planning application submission.

1.35 The PDAS has been prepared to also satisfy Article 9 of the Town and Country Planning (Development Management Procedure) (England) Order 2015. Article 9 requires that all applications for major development, such as the Proposed Development, are accompanied by a 'design and access statement' that should:

- Explain the design principles and concepts that have been applied to the development;
- Demonstrate the steps taken to appraise the context of the development and how the design of the development takes that context into account;
- Explain the policy adopted as to access, and how policies relating to access in relevant local development documents have been taken into account;
- State what, if any, consultation has been undertaken on issues relating to access to the development and what account has been taken of the outcome of any such consultation; and

- Explain how any specific issues which might affect access to the development have been addressed.

1.36 The above details are primarily set out in Sections 4 and 6 of this PDAS.

Structure

1.37 The structure and content of this PDAS is set out as follows:

Table 1.1: Planning Design and Access Statement Structure

SECTION	TITLE	OVERVIEW
Section 2	The Site and Surrounding Area	Describes the Site and its key features, the planning history of relevance that relates to it, any local planning designations and allocations that apply, and the Applicant's site selection process.
Section 3	The Proposed Development	Provides an overview of the Proposed Development, including use, amount, layout, appearance and access.
Section 4	Design and Access	Outlines the approach taken to, and details of, the design of the Proposed Development and its access.
Section 5	Planning Policy Context	Sets out the legislative and policy framework for the determination of the planning application.
Section 6	Assessment of the Proposed Development	Provides an assessment of the Proposed Development against relevant policy at national and local level.
Section 7	Summary and Conclusions	Sets out the conclusions of this PDAS in terms of the overall acceptability of the Proposed Development.

2.0 THE SITE AND SURROUNDING AREA

2.1 This section describes the location and key features of the Site and surrounding area, identifies any relevant planning and environmental designations.

Location, Description and Use

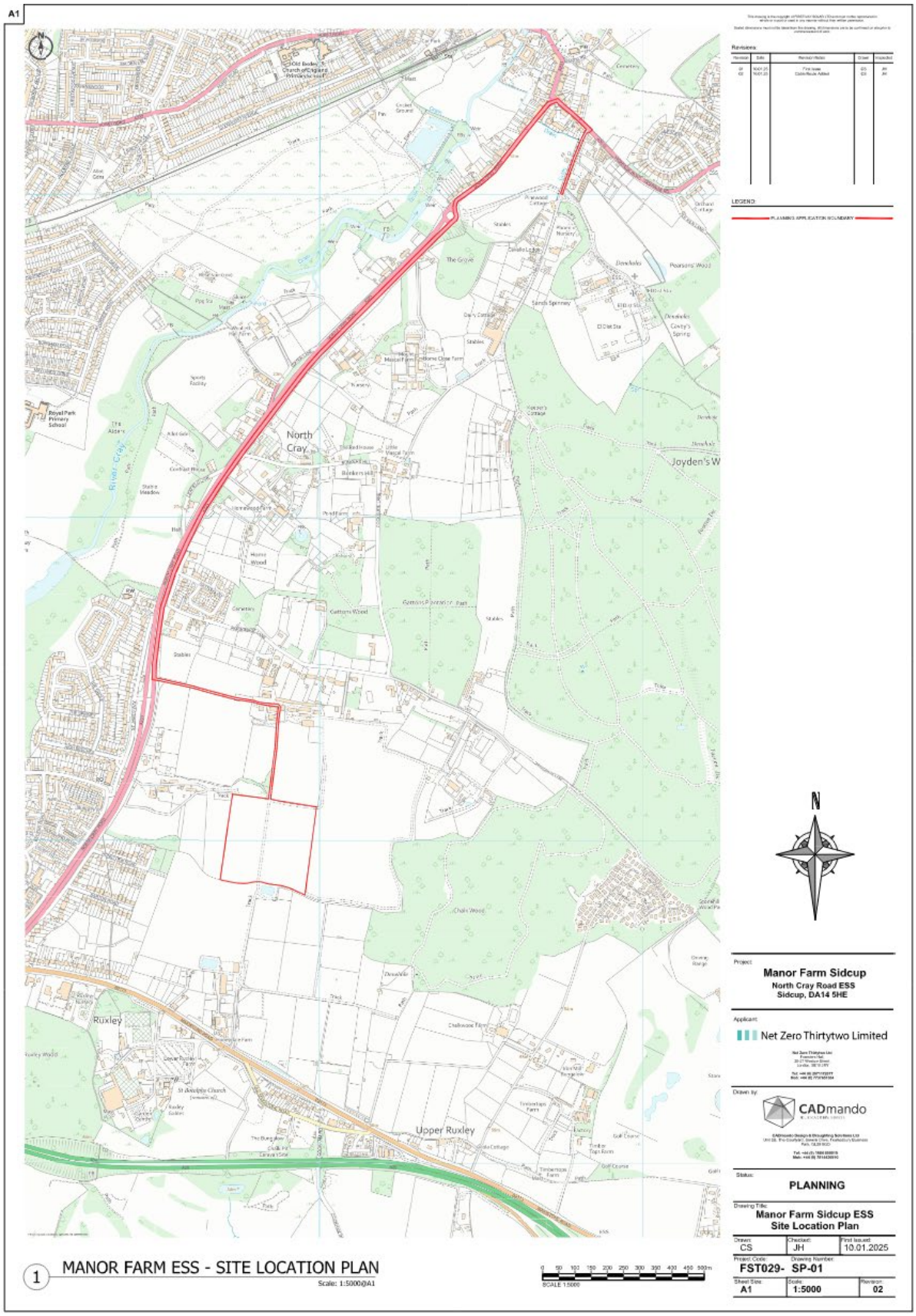
2.2 The Site comprises agricultural land located to the south of North Cray Road and to the east of the A223. The entire Site covers an area of approximately 9.44 ha, with the Main Site covering 7.0 ha and is bound to the north, west and east by agricultural fields / undeveloped land, and to the south by polytunnels associated with Honeywell Farm, as well as further adjoining agricultural fields, which are characterised by large industrial and agricultural-type buildings. The Site Application Boundary is shown in Figure 2.0 below.

2.3 The Site comprises the Main Site (where to ESS compound is proposed to be located), part of the access connecting the Main Site to North Cray Road and the underground cable corridor. The Main Site and access comprise of agricultural land, located approximately 700 m northeast of Ruxley, 1 km south of North Cray, 1.2 km northeast of Foots Cray, and 2.6 km east of Sidcup.

2.4 The underground cable corridor runs northwards along the access track, before joining North Cray Road and travelling westward to join the A223. It then continues northwards along the A223, before turning onto the A2018 and turning again onto Stable Lane. It continues southwards along Stable Lane until it reaches land owned by National Grid, located approximately 1.45 km northeast of the Site. It is considered that all underground cabling works undertaken on land under the control of National Grid, including connecting the cable to the substation, will be done so under National Grid's statutory powers and therefore are not required for inclusion in the red line Application Site.

2.5 The closest residential properties are located approximately 230 metres ('m') west of the Main Site, off of the A223 and on Cornell Close. Further residential areas are located approximately 300 m north on North Cray Road, which also include a riding school and stables, Yashu Farm, and Joyden Woods slightly further north. Approximately 400 m to the east are Stone Hill Woods and Chalkwood Farm. Larger and more notable settlements lie to the west and south in Sidcup, Ruxley and Foots Cray, along with the A223 and B2173 respectively. The immediate surrounding area consists of mainly agricultural fields and woodland, developing into industrial and commercial uses and residential areas to the south and west.

Figure 2.0: Site Application Boundary



Planning, Heritage, and Environmental Designations

2.6 A review of the LBB Local Plan Policies Map and the Government's MAGIC Mapping software has confirmed that the Site is not covered by, nor adjacent to, any environmental or heritage designations. However, the Site is in the London Area Metropolitan Green Belt landscape designation and, with part of the Site in the northeast within a Mineral Safeguarding Area, both of which are non-statutory designations.

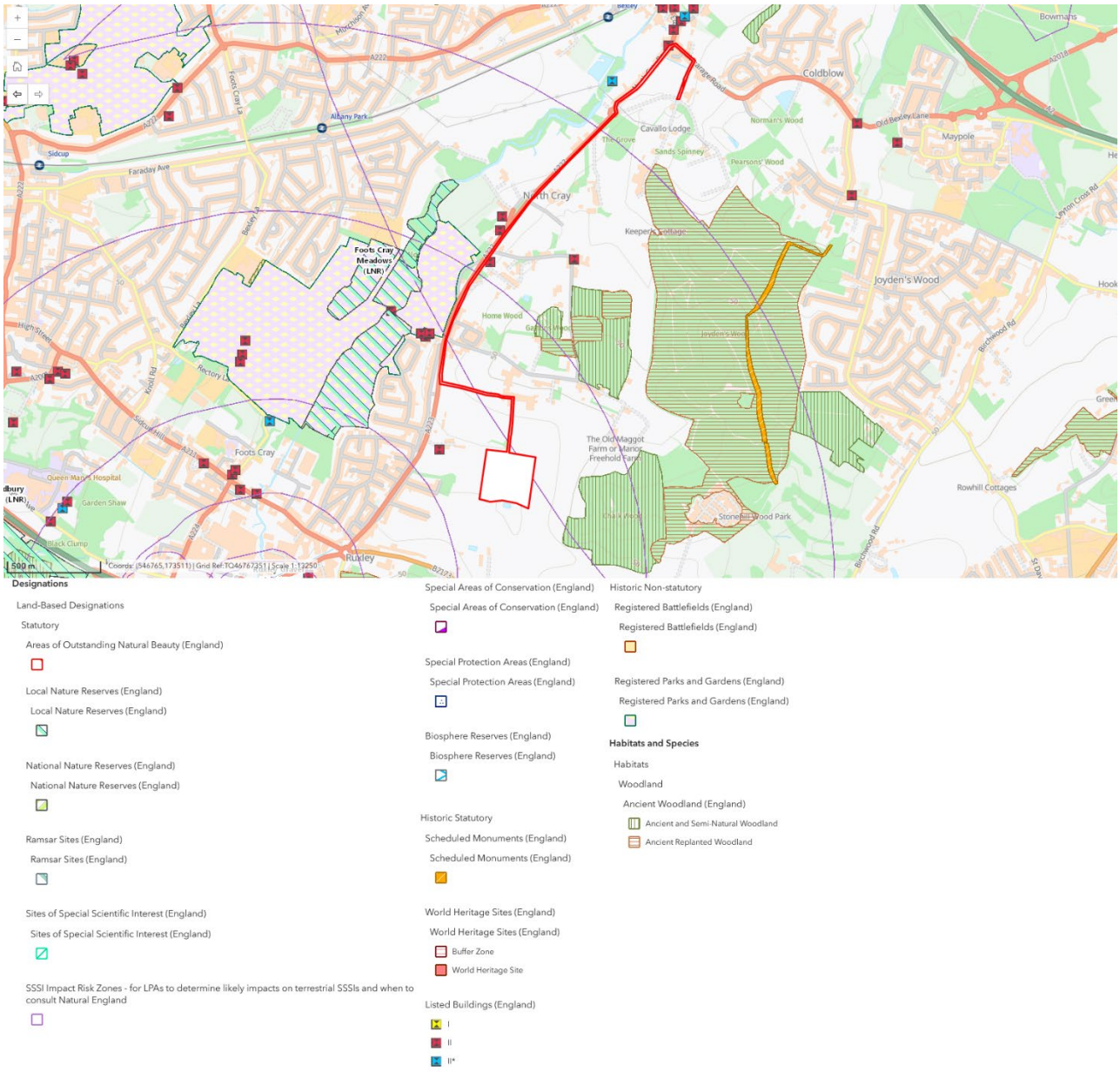
2.7 The Site is not covered by any Site of Special Scientific Interest ('SSSI'); however, it is within the Impact Risk Zone for the Ruxley Gravel Pits SSSI, approximately 1.2 km to the south-west. Within 2 km of the Site, there are pockets of ancient woodland approximately 635 m to the south in Ruxley Wood, 250 m to the east in Chalk Wood, 730 m northeast in Joyden's Wood, 550 m to the north in Gatton Woods and Gatton Plantation. The Foots Cray Meadows Local Nature Reserve ('LNR') and North Cray Wood are approximately 670 m to the west.

2.8 There are a number of Grade II listed buildings within 2 km of the Site, with the closest being Cray Hall approximately 260 m to the west. The non-statutory designated Foots Cray Place Registered Park and Garden ('RP&G') is 670 m to the west, within which several of these listed buildings are located. There is one Grade II* listed building located approximately 1.1 km to the west of the Site. There are also two Scheduled Monuments in the surrounds, being Ruxley Church approximately 650 m to the south and the Faesten Dic (medieval frontier work in Joyden's Wood) approximately 1.2 km to the east. A non-statutory locally Listed Building (Manor Farm Farmhouse) adjoins the site access track in the north, which does not appear on the Local Plan policies map. The High Beeches Conservation Area is located approximately 300 m to the west of the Site, separated by the A223, as indicated on the Local Plan Policies map in Figure 2.3.

2.9 The cable route is also not covered by any statutory environmental or heritage designations, although is adjacent to a Grade II* and several Grade II listed buildings along the A223, and the North Cray Conservation Area (a non-statutory designation). It is slightly closer to the aforementioned Foots Cray RP&G and Foots Cray Meadows LNR, which are 20 m and 160 m west respectively at the closest point.

2.10 The relationship between the Site and these listed buildings and other assets is shown in Figure 2.1 below.

Figure 2.1: MAGIC Map Extract – Environmental and Heritage Designations



2.11 As shown in Figure 2.2a, the Site comprises a mixture of Grade 2 and Grade 3 agricultural land according to nationally available provisional Agricultural Land Classification ('ALC') data, which does not distinguish between Subgrades 3a and 3b. The site-specific ALC Report submitted as part of this application confirms that the Main Site comprises predominantly Subgrade 3a (good quality) (89%) agricultural land, with a small portion of Grade 2 (very good quality) (11%) agricultural land, as shown in Figure 2.2b. However, the Applicant notes that the loss of this land is extremely limited while the Proposed Development offers substantial benefits. In addition, the proposed use would not be permanent and would revert to agricultural land following decommissioning. The cable route is almost entirely comprised of land designated as 'urban'.

Figure 2.2a: National ALC Map Extract – Agricultural Land Classification

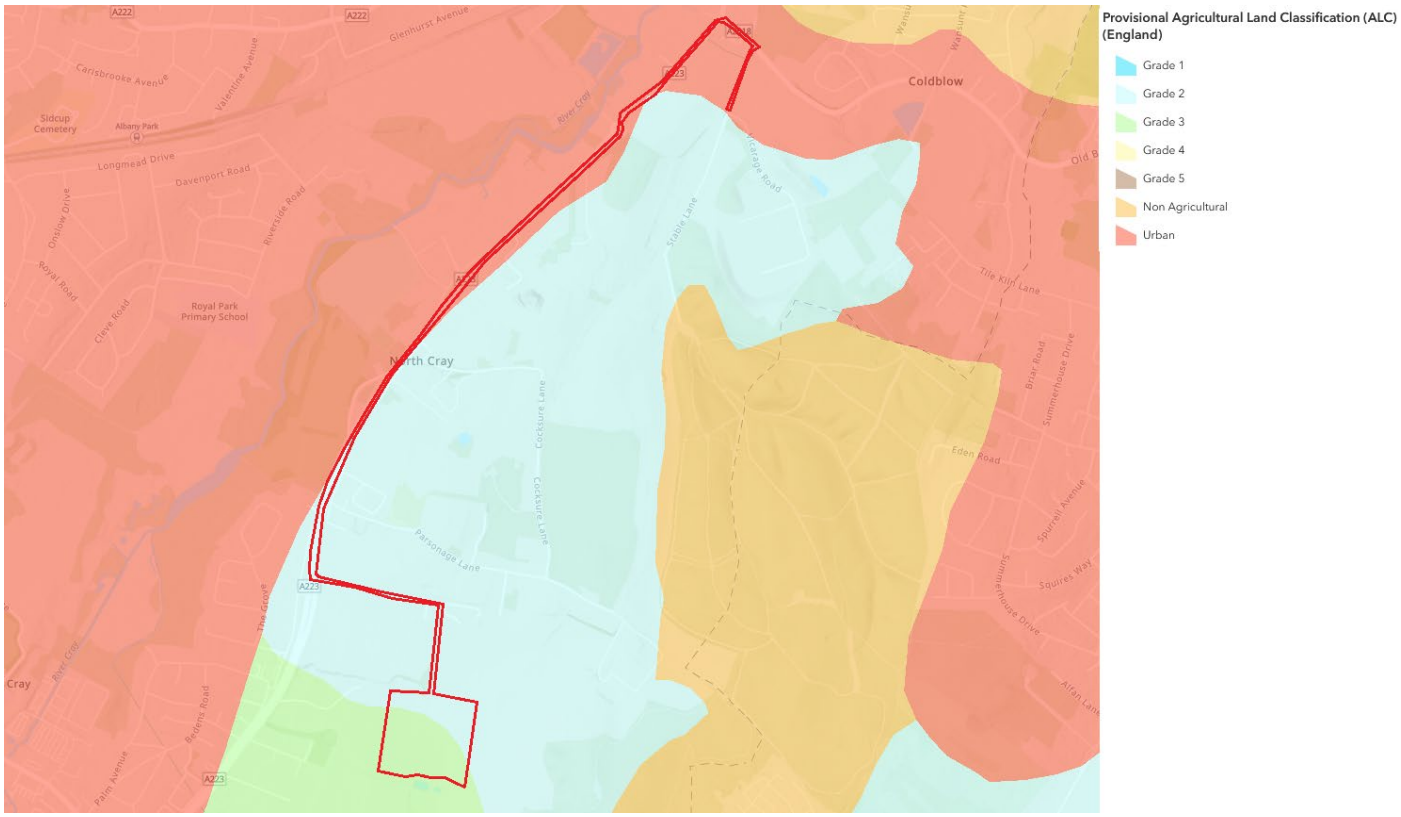
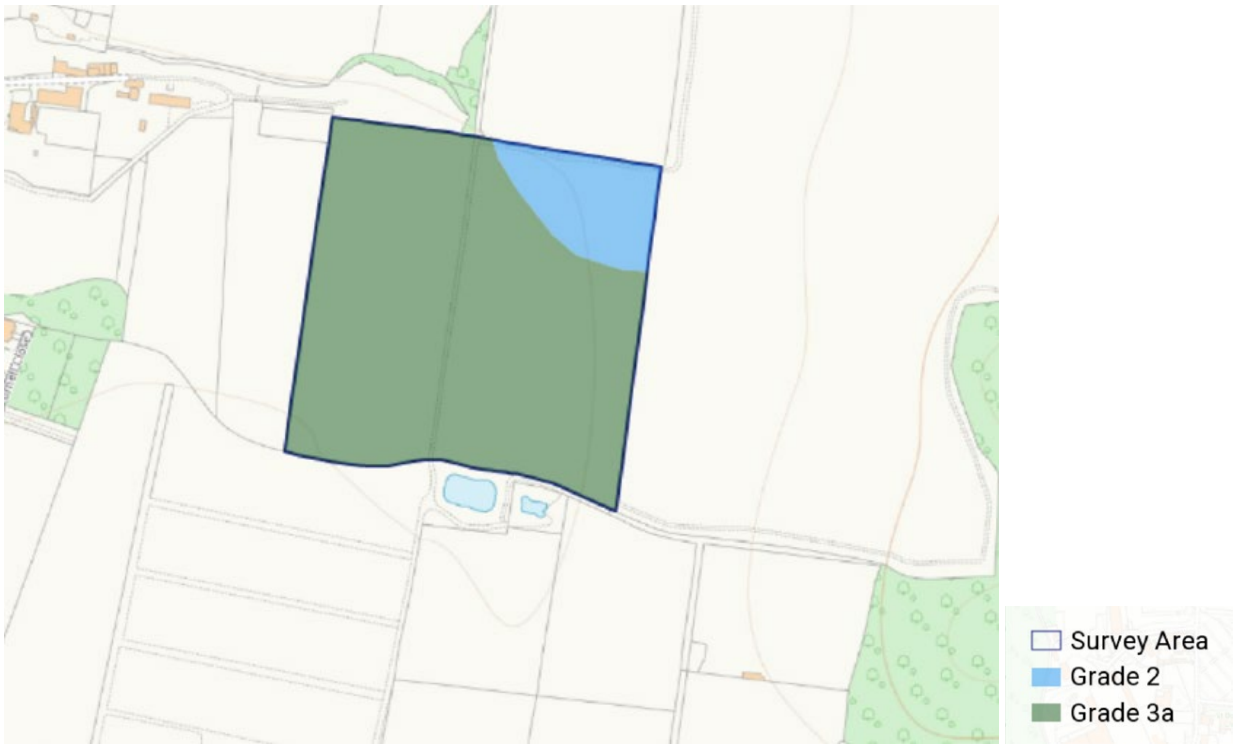


Figure 2.2b: Site-Specific Agricultural Land Classification Survey

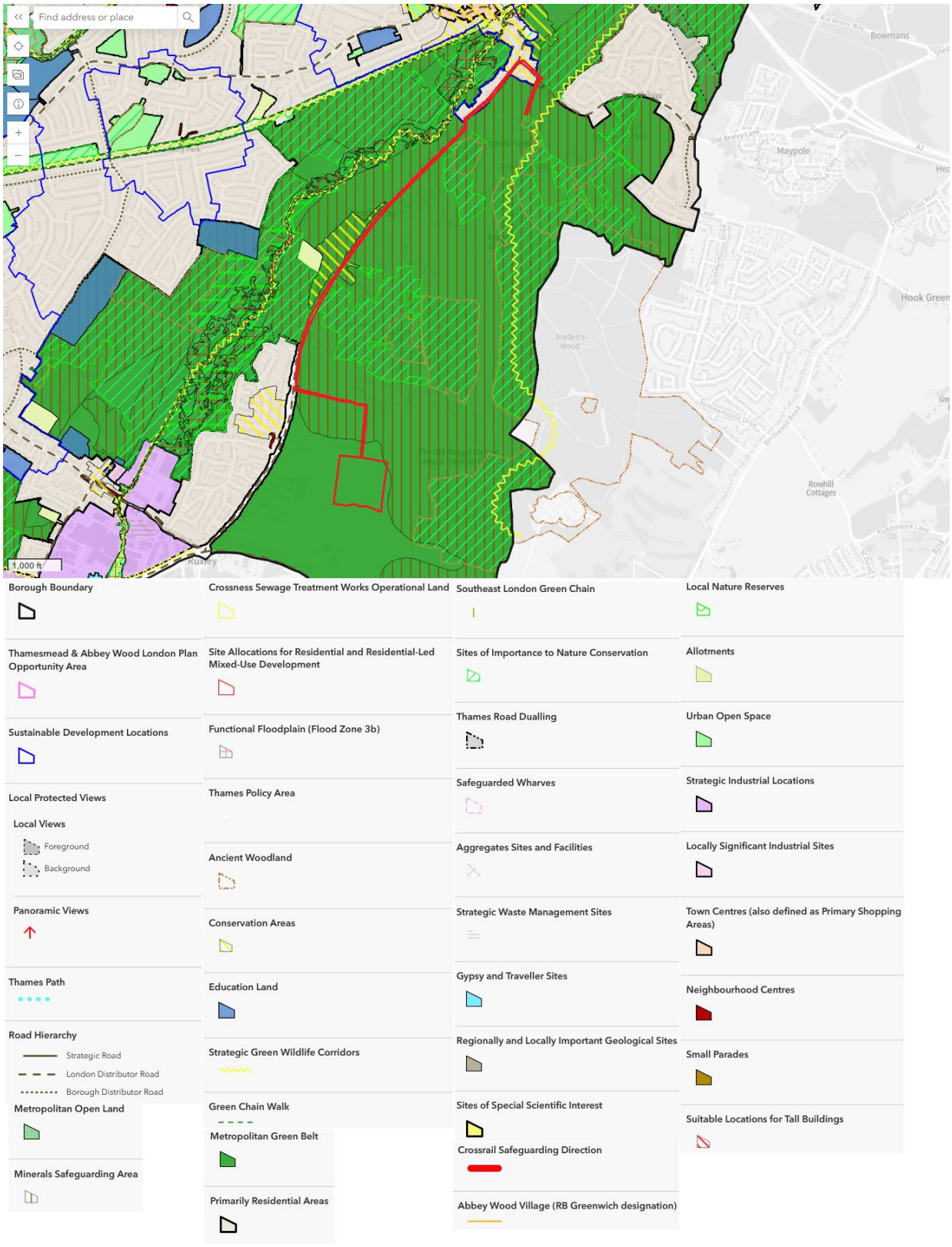


2.12 As shown in Figure 2.3, the Local Plan policies map indicates that the aforementioned business parks and industrial areas to the southwest of the Site in Ruxley are identified as predominantly Strategic Industrial Land ('SIL') and Locally Significant Industrial Land ('LSIL') as 'employment growth, innovation and enterprise', 'telecommunications and digital infrastructure', 'new waste management facilities' and 'tall buildings and building heights'. The SIL and LSIL designations are also identified under the London Plan (2021).

2.13 A small portion of the Site in the northeast corner is covered by a Minerals Safeguarding Area ('MSA').

2.14 The Local Plan policies map identifies the majority of the cable route to be covered by a London Distributor Road, being the A223, an MSA, and the Metropolitan Green Belt. It is briefly covered by the North Cray Village Conservation Area to the centre and the Bexley Village Sustainable Development Location and Old Bexley Conservation Area to the north. The end of the cable route, along Stable Lane, adjoins the Sands Spinney SINC and ancient woodland.

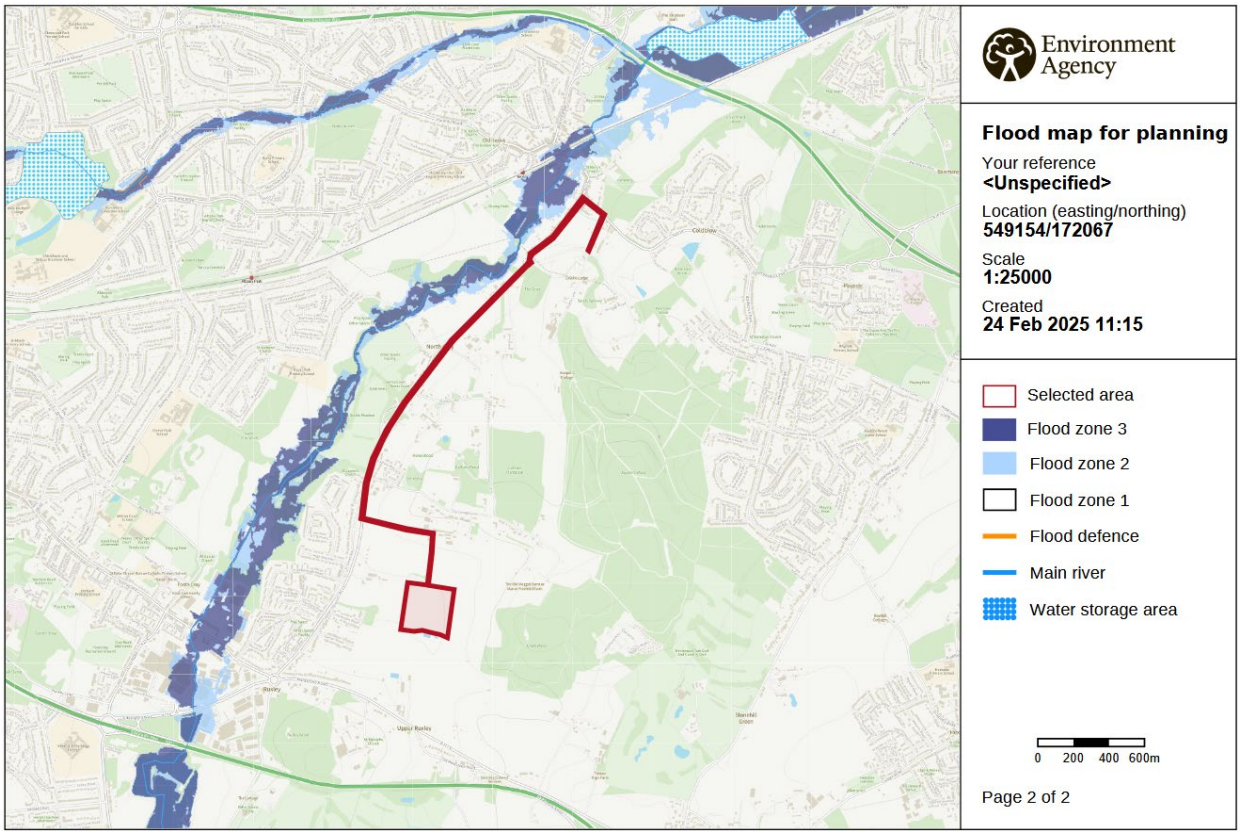
Figure 2.3: Extract from LBB's Adopted Proposals Online Map and Key



2.15 The Flood Risk Map for Planning in Figure 2.4 shows that the Site is located entirely in Flood Zone 1, the area at lowest risk of flooding. Flood Zone 1 is defined by the Environment Agency ('EA') as areas with a low probability of flooding.

2.16 Whilst the cable route is within Flood Zone 1, it will be buried and waterproofed and therefore not at risk of flooding or causing flooding once laid. Nevertheless, as the Site size is in excess of 1 ha, therefore in order to comply with the National Planning Policy Framework ('NPPF'), a Flood Risk Assessment has been submitted as part of this application.

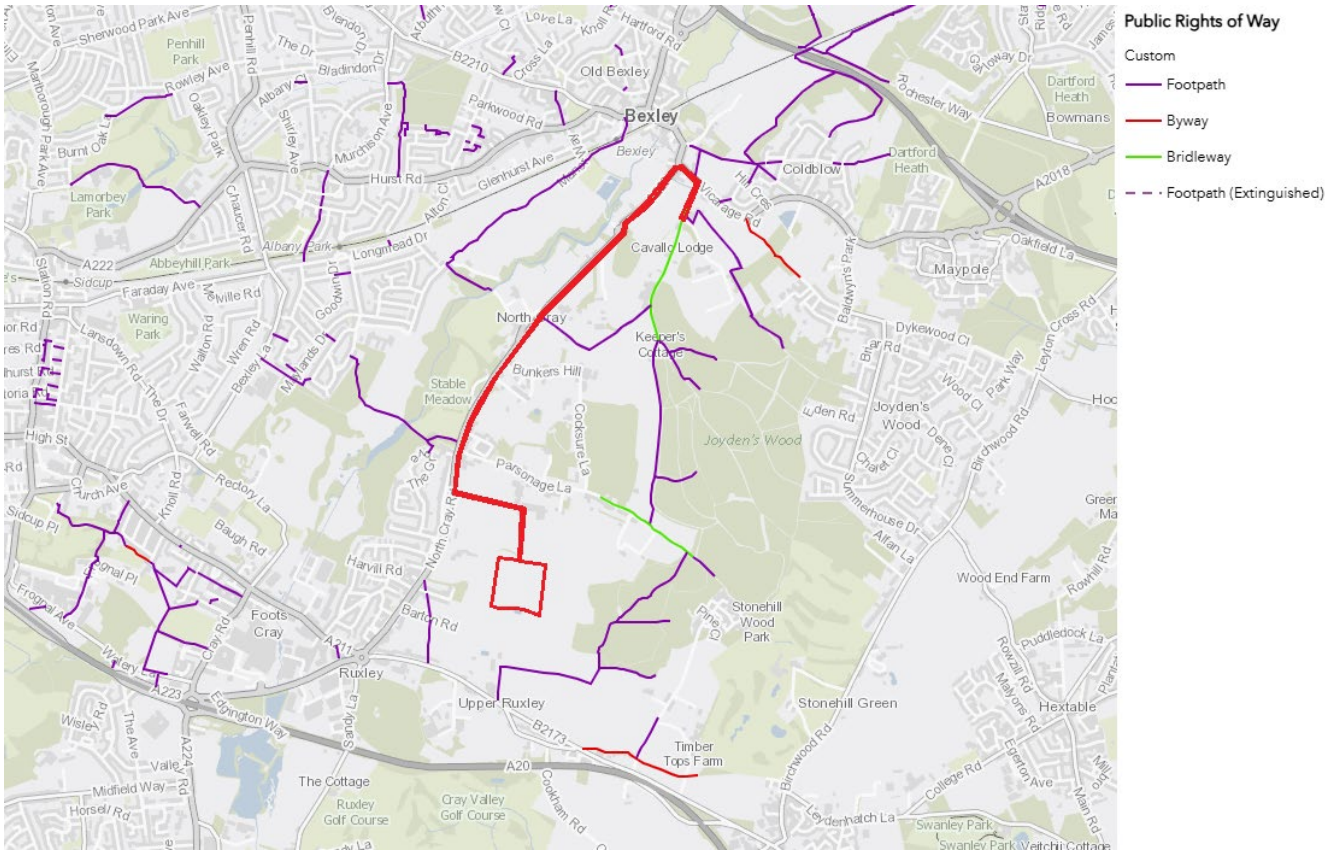
Figure 2.4: EA Flood Risk Map for Planning Extract



2.17 There are no Public Right of Ways ('PRoWs') within or adjacent to the Main Site, as shown by Figure 2.5 below. The nearest PRoWs to the Main Site are footpath FP171 approximately 350 m southwest and footpath FP141 to the south. However, the cable route is adjoined by public footpath FP134 and overlaps with part of bridleway BDW250, which runs down Stable Lane.

2.18 Nevertheless, the area where the energy storage units will be installed will be provided with security fencing to protect both the public and the Proposed Development.

Figure 2.5: LBB PRoW Map Extract and Key



Relevant Planning History

2.19 A review of the key planning history for the Site has been undertaken and has not found any relevant planning history for the redline area.

2.20 After a review of satellite imagery, the Borough's public access planning register and the Government's Renewable Energy Planning Database (last updated October 2024), no approved applications for ESS developments are within close proximity to the Site.

3.0 PROPOSED DEVELOPMENT

3.1 This section provides a description of the Proposed Development, including its main components, and how it is likely to be constructed and operated.

Overview

3.2 This application seeks full planning permission for the 'Proposed Development' which comprises the following:

- The erection of up to 200 energy storage units (7.81m (L); 1.72m (W); and 2.8m (H)), each comprising lithium-ion battery cells complete with an energy storage management system and mechanical ventilation, and transformers which are to be connected to each energy storage unit within the proposed ESS compound, also including:
  - electrical cabling and electrical connection corridor to 132kV switchyard;
  - 25no. Twin Skid TX units which would be situated between 2no. Inverter Units (total of 50no. Inverter units);
  - 50no. ESS Interface cabinets;
  - 2no. Customer Switchroom;
  - 1no. Storage container;
  - 2no. Welfare containers;
  - 132kVSubstation Compound with associated equipment and District Network Operator Control Room structure;
  - site security (including fencing, security gates and CCTV);
  - customer control room and;
  - water hydrants and 2 x 240,000 litre water tanks.
- Other associated development works include:
  - Site preparation;
  - Provision of site access;
  - Provision of site drainage; and
  - Landscaping and biodiversity management areas on land adjoining the proposed ESS compound.

3.3 The Proposed Development benefits from proximity to a National Grid substation from which the ESS will be connected using underground cabling laid under agricultural land and highway

(carriageway or pavement)[1]. The applicant has an agreed connection with the Distribution Network Operation (DNO). It is considered that all underground cabling works undertaken on land under the control of the UK Power Networks, including connecting the cable into the substation, will be done so under UK Power Networks' statutory powers (and therefore are not required for inclusion in the proposed red line boundary).

3.4 It is envisaged that the capacity of the Proposed Development would be up to 200 MW. The proposed ESS will store electricity from the National Grid that can be released when required along with critical balancing services. It is recognised that the description of development is typically clear about output and therefore we have stated an upper amount of 200 MW. However there remains a possibility that in the future efficiency and technological gains mean that more can be delivered at this site without further environmental effects and contribute more to the urgent national need for low carbon electricity. In this case a non-material amendment application may be applied for in the future.

3.5 The exact design is yet to be confirmed. Aspects of the Proposed development which are to be confirmed include the selection and appointment of an ESS integrator, detailed design (including the vendor and model of plant), the selection and appointment of Construction Contractor (or Construction Contractors), further ground investigations, the accuracy of existing services and utilities information and agreements with existing services and utilities operators.

3.6 This planning application uses the 'Rochdale Envelope' principles. The Rochdale Envelope is a widely accepted approach to energy and infrastructure proposals under the TCPA. In practice, the Rochdale Envelope requires planning proposals to consider maximum parameters where flexibility is to be retained. A planning condition can then be used on the decision notice requiring any final dimensions/elevations and locations to be submitted and agreed with the Council.

3.7 Wherever an element of flexibility is maintained, likely worst-case impacts have been reported within the application documents.

3.8 Table 3.1 below sets out the parameters that have been assessed within the planning submission. Each scheme component is described further in the subsequent sections.

[1] The proposed development could also take a private wire connection at a later date, subject to planning.

Table 3.1: Assessment Parameters

SCHEME COMPONENT	APPLICABLE PARAMETERS
Energy Storage Unit	Maximum dimensions: 7.8m (L) x 2.44m (W) x 2.65m (H) Maximum number of units proposed: 200 See Drawing Ref. FST029 - SD05_rev01
Inverter units	Maximum dimensions: 3.0m (L) x 2.0m (W) x 2.2m (H) Situated on concrete plinth measuring 2.35m. Maximum number proposed: 200 See Drawing Ref. FST029 - SD07_rev01
132kV Substation	72.57m (L) x 45.33m (W) x 6.77m (H) See Drawing Ref. FST029 - SD01_rev02 and FST029 - SD02_rev02
ESS Interface Cabinet	1.9m (L) X 0.8m (W) X 1.8m (H) Maximum number proposed: 50 See Drawing Ref. FST029 - SD08_rev01
Twin Skid	5.47m (L) X 2.19m (W) X 2.5m (H) Maximum number proposed: 25 See Drawing Ref. FST029 - SD06_rev01
Welfare Container	12.2m (L) X 2.59m (W) X 2.75m (H) Maximum number proposed: 2 See Drawing Ref. FST029 - SD02_rev01
Spare Parts Container	12.2m (L) X 2.59m (W) X 2.75m (H) Maximum number proposed: 1 See Drawing Ref. FST029 – SD10_rev01
CCTV Camera and Pole	4m (Height) See Drawing Ref. FST029 – SD13_rev01

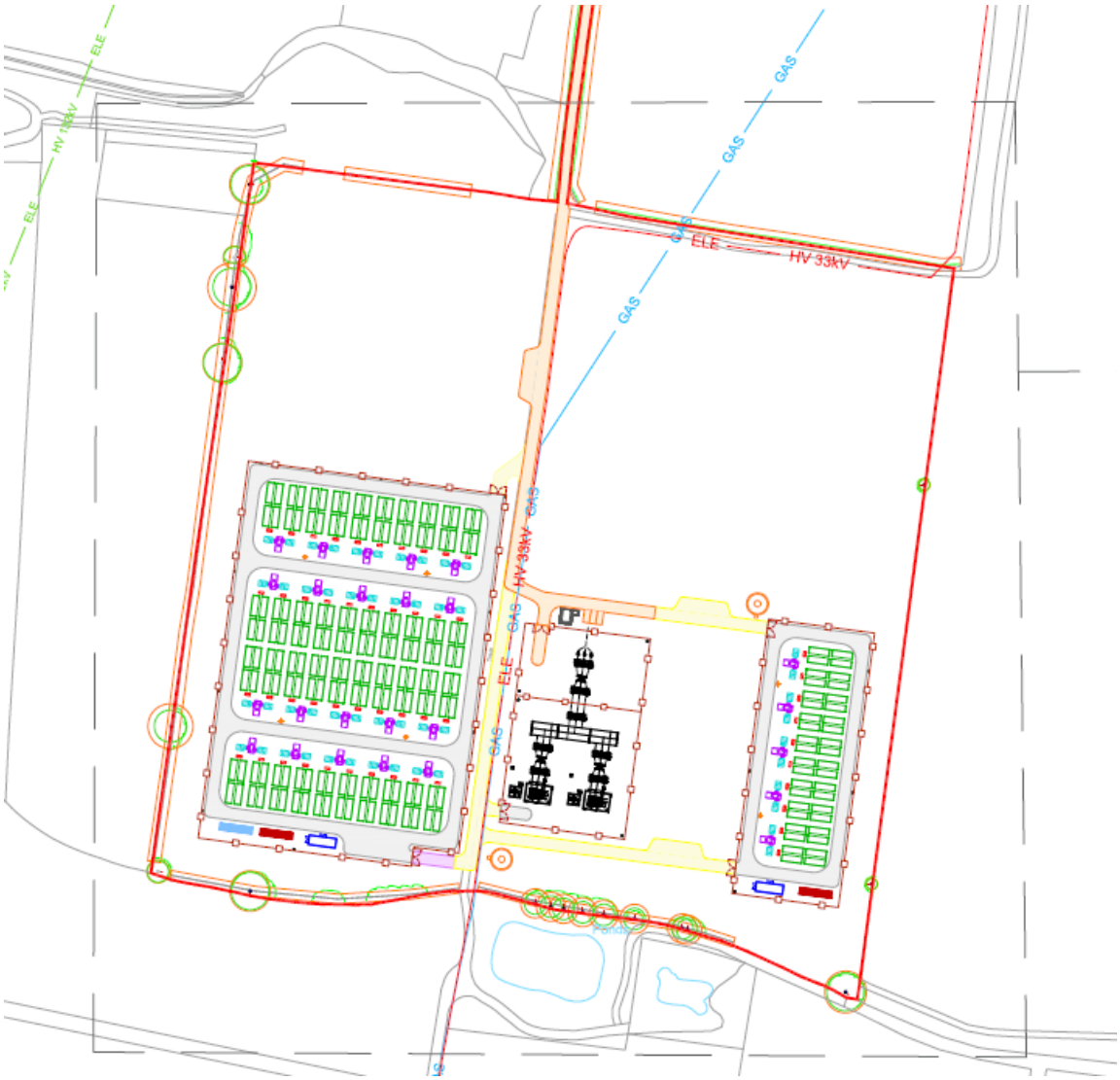
SCHEME COMPONENT	APPLICABLE PARAMETERS
Palisade Fence and Security Gate	Palisade Fence 2.4m (H) Security Gate: 6.0m (L) See Drawing Ref. FST029 – SD14_rev01
DNO Control Room	6.87m (L) X 5.59m (W) X 3.25m (H) Maximum number proposed: 1 Situated on concrete plinth measuring 3.4m. See Drawing Ref. FST029 – SD03_rev01
Customer Switchroom	10.4m (L) X 3.73m (W) X 3.26m (H) Maximum number proposed: 2 Situated on concrete plinth measuring 4.1m. See Drawing Ref. FST029 – SD04_rev01
Access Track	4.5m (Width) See Drawing Ref. FST029 – SD15_rev01
Water Tank	2.02m (Height) Maximum number proposed: 2 See Drawing Ref. FST029 - SD11_rev01
Water Hydrant	0.59m (Height) See Drawing Ref. FST029 – SD12_rev01
Aux Transformer	2.2m (L) X 1.74m (W) X 2.11m (H) Situated on concrete plinth measuring 2.26m. See Drawing Ref. FST029 – SD16_rev01

3.9 All details of materials, finishes and colours for the piece of infrastructure listed in Table 3.1 are to be submitted to and agreed with LBB via planning condition prior to the commencement of development.

3.10 Using the above Table 3.1 as maximum parameters, an appropriate degree of flexibility has been incorporated into the application and supporting reports. To support this approach, indicative plans (such as layout and infrastructure) depicting a 'maximum envelope' have been submitted with the planning application.

3.11 An Indicative Site Layout Plan adopting these parameters is shown in Figure 3.1 below.

Figure 3.1: Indicative Site Layout



Site Selection

3.12 The Proposed Site was selected for a number of relevant reasons, which can be summarised as follows:

- **Availability of the land.** The applicant is in control of the land required to implement the project, which is crucial to the delivery of the project and in meeting the urgent national need for this type of infrastructure.

- **The feasibility and proximity of the Site to a suitable connection to the electricity grid.** The proximity, technical feasibility and deliverability of a connection to the high voltage National Transmission System ('NTS') are crucial to the delivery of this infrastructure. A grid scale connection is necessary for this scale of ESS and shorter connections such as this reduce transmission losses. Here a suitable connection is available to the National Grid land north of the Site, and furthermore the National Grid substation, which is relatively short in length.
- **The availability of suitable road access to the Strategic Highway Network.** Road access is required for construction in order to bring in bulk materials, the energy storage units, and large items of plant such as transformer components, as well as for future maintenance and augmentation of the proposed ESS. The application includes access to the existing wider road network via North Cray Road, which has suitable and short onward access to the A223 (N Cray Road) with minimal impact on sensitive receptors, such as residential properties.
- **The distance of the Site from sensitive receptors.** As set out in Section 2 the Main Site is separated from residential properties and environmental and heritage statutory designations.

3.13 The high suitability of the Proposed Development Site along with the national need for the Proposed Development corresponds to an identified need for this type of development at this location. The principle of an ESS development of this approximate size and scale is therefore considered to be acceptable. Further information on site selection and need can be found in the submitted Site Selection Report and Green Belt Assessment Report which forms part of this planning application.

3.14 The particular characteristics of the North Cray Road ESS application are considered further within this section.

Timing, Phasing and Augmentation

3.15 It is envisaged that the Proposed Development could have an operational life of up to circa 40 years, plus one year for decommissioning.

3.16 In total, the Proposed Development is predicted to take up to approximately 12 months to construct. The Applicant would appoint experienced contractors for all construction works/phases.

3.17 At present it is assumed that during commercial operation, regular unit augmentations will take place to ensure that the energy storage units are returned to their original capacity, with a small proportion of cells augmented each time. The augmentations will likely comprise the provision of

replacement battery cells and will incorporate the necessary control and protection, power conversion and temperature control systems.

Size and Design

3.18 The design of the ESS in general seeks to maximise durability and reliability due to the importance of the infrastructure, in terms of both regular and long-term maintenance requirements. Materials and finishes will be selected to meet this objective and also to ensure that the appearance of the Proposed Development does not materially deteriorate over its operating lifetime.

3.19 For reference, Figure 3.2 below illustrates an example picture of an operational ESS facility.

Figure 3.2: Example image of an operational ESS facility

Energy Storage Units

3.20 A number of battery chemistries are currently available (i.e. are technically proven, reliably maintainable and commercially viable) and have been deployed across industry. These include lithium-ion, which the Applicant has committed to and which this planning application seeks to allow for.

3.21 A range of factors (e.g. ESS integrator, battery chemistry, initial power capacity, duration/ energy storage capacity and subsequent augmentation) will influence a number of specific energy storage unit characteristics, including for example, number of units and dimensions. These will subsequently influence the ESS arrangement / layout.

3.22 The height for a typical energy storage unit is up to 2.8 m above ground level (AGL). See submitted indicative drawing: 'ESS Unit' FST029-SD-05.

3.23 Transformers and power conversion systems within each ESS group are required to convert and step up the voltage of the Direct Current (DC) electricity delivered from the energy storage units,

before it reaches the main step-up transformer(s) located within the site located substation. Transformers and a power conversion unit will therefore be located adjacent to each ESS group.

Substation (Transformers and Switchgear)

3.24 The Proposed Development will include a 132kV high voltage ('HV') substation area. The substation will be located to the east of the Proposed ESS Area and will include a main step-up transformer(s), air insulated switchgear (AIS) or gas insulated switchgear (GIS/ or Clean Air Technology) with cable sealing ends and a switchroom. Within the compound the location of maintenance parking is shown.

3.25 The highest piece of equipment within the compound being a height of 6.77 m.

Electrical Cabling (and associated Electrical Connection)

3.26 Electrical cabling will be used to make the electrical connection between the ESS enclosure and the substation, and between the substation and the National Grid Land. The cabling will be laid underground (approximately 1 m below AGL). The electrical connection route (between the Proposed ESS Area and National Grid Land) would run northwards along the access track, before joining North Cray Road and travelling westward to join the A223. It would then continue northwards along the A223, before turning onto the A2018 and turning again onto Stable Lane. It then continues southwards along Stable Lane where it will meet an unnamed access road to the east that is a part of National Grid land. Once it reaches National Grid land, the underground cable will travel southeastwardly along this road until it reaches the Hurst Substation compound, at which point all works within the substation will be undertaken by National Grid.

Energy Storage Safety Management / Fire Protection Strategy

3.27 An Outline Energy Storage System Safety Management Plan ('OESMP') for the Proposed Development has been produced by the Applicant and provides information relating to Building Regulations (UK Government, 2010), relevant British Standards and the other relevant standards that the Proposed Development will ensure compliance with. The Proposed Development will include a cooling and fire protection system and a fire suppression system.

3.28 Energy storage safety will be managed by the installation and retention of cooling, monitoring and fire protection systems and through regular inspections and maintenance. In addition, a fire suppression system will be installed to manage the risk that any fire would pose to staff on site and/or neighbouring property.

3.29 The submitted OESMP describes the safety systems (particularly fire safety and emergency management) proposed at this preliminary (concept) design stage.

Surface Water Drainage and Attenuation

3.30 The access road will comprise a permeable surface and any earthworks along the cabling route will be replaced on a like for like basis. Therefore, surface water runoff from these components of the Site will drain in line with the existing scenario.

3.31 Surface water runoff will be drain via the sealed gravel sub-base (for fire management purposes) of the ESS and electrical infrastructure areas to sump manholes before discharging directly to ground via an infiltration basin, see Appendix C: 'ESS Area Drainage Strategy' (Drawing Ref. 24-432-60-100) of the Flood Risk Assessment.

3.32 Source control (including additional storage and water quality treatment) is provided by the gravel sub-base of the ESS and electrical infrastructure areas, which will be lined with an impermeable geotextile membrane to ensure no infiltration through the base.

3.33 Automatic shut off valves will be provided at the sump manhole connections to the swale to manage any potential pollution of groundwater in the event of an abnormal or emergency situation, such as fire or leakage from site infrastructure.

3.34 Further information can be found in the Flood Risk Assessment submitted as part of this application.

Site Security and Lighting

3.35 Access to the Proposed Development Site will be strictly controlled. Operational security of the Proposed Development will be achieved by providing suitable fencing around the ESS compound Area perimeter (up to approximately 2.4 m above AGL). Site security will be continuously remotely monitored via the use of CCTV/ security cameras utilising infra-red (invisible) lighting (attached to emergency lighting columns, approximately 3.0 m AGL in height).

3.36 There will be no permanent/ regular lighting, and only emergency/ intermittent and task lighting is proposed. The maintenance (intermittent) lighting will be motion sensitive (for example, controlled by an infrared motion sensor system), and will switch on only when movement within the Proposed Development Site is detected or when essential operational maintenance is required. The emergency/ intermittent lighting will be highly directional (for example, controlled by cowling) to avoid excessive light spillage beyond the boundary fencing. The lighting scheme for the Proposed Development will be secured by planning condition and submitted to the LPA for approval prior to the commencement of development. The lighting design will ensure compliance with the relevant guidance including the 'Guidance Note 01/21 for the Reduction of Obtrusive Light' (Institute of Lighting Professionals (ILP), 2021) and 'Bats and Artificial Lighting in the UK – Guidance Note 08/18' (Bat Conservation Trust/ ILP, 2018).

3.37 Temporary lighting during the construction stage will be carefully designed to reduce egress or other disturbance onto road users and to prevent any impact on any ecological receptors.

Access

3.38 Access to the Proposed Development Site will be required for construction of the Proposed Development and during operation for workers, occasional inspection/ maintenance visits and/or augmentation of battery cells.

3.39 During both construction and operation, the Site would be accessed via an existing agricultural access track approx. 350 m west of Manor Farm. This access point can already accommodate agricultural and large vehicles and would be retained and improved, including localised widening on the North Cray Road / A223 North Cray Road junction to accommodate left in/ left out Heavy Goods Vehicle ('HGV') movements. This track would connect to North Cray Road to the north of the Site, providing onward access to the A223.

3.40 New access tracks within the Site comprising permeable hardcore will facilitate movement from the consented access points and within the Site for construction and maintenance. This will include appropriate turning areas for vehicle manoeuvring, allowing construction and operation vehicles to enter and exit the Site in forward gear. It is envisaged that topsoil layers would be excavated to expose a suitable base on which to build the track. The track would then be built up by laying crushed stone, rolled in layers. It is envisaged that the tracks would utilise existing access points between field and crossing points over ditches, where possible.

3.41 Access routes within the Site have been designed to accommodate the relevant emergency vehicles (including fire and rescue service vehicles) for abnormal situations, including secondary access / exit point as advised by the National Fire Chiefs Council ('NFCC') 2023 guidance note entitled 'Grid Scale Battery Energy Storage System planning – Guidance for FRS' ('the NFCC Guidance'). The access and exit points in respect of emergency vehicles are shown in full on the submitted Fire Strategy Plan (Ref. FS-01).

3.42 There are no PRoW within the Site nor on the boundaries of the Site that would be affected in terms of access and safety during construction and operation.

Construction

3.43 In total, the Proposed Development is predicted to take up to approximately 12 months to construct. The Applicant would appoint an experienced contractor(s) for all construction phases.

Construction Vehicles and Routing

3.44 The Construction Traffic Management Plan ('CTMP') submitted with this application sets out that construction vehicle routing to / from the Site access is proposed via an existing agricultural / farm access track, which would be retained and improved, connecting to North Cray Road and providing onward access to the A223, with construction vehicles turning left-in to and right-out of the Site.

3.45 For construction routing, the CTMP takes into account the 7.5 tonne weight restrictions on North Cray Road. The construction vehicle routing of HGVs to / from the Site is proposed via upgraded access off North Cray Road with the wider route to/from the Site using different routes when approaching or leaving the Site. When approaching the Site vehicles will utilise the A2, A2018 Old Bexley Lane, A2018 Dartford Road, A223 North Cray Road and North Cray Road. The egress arrangements will utilise North Cray Road, A223 North Cray Road, A223 Edington Way and A20 Sidcup By-Pass Road. Should it be preferred for the construction vehicles to approach and leave the Site in the same route then roundabout junctions are present either side of the Site access on A223 North Cray Road to facilitate this, as detailed in the CTMP.

3.46 As discussed in detail in Section 6 of this PDAS and the CTMP, construction vehicle trips will be limited to 2 Heavy Goods Vehicles (HGVs) per day, comprising one rigid bodied HGV (up to 10m in length) and one articulated HGV. This will generally be equivalent to 10 HGVs per week and would not exceed 10 HGVs on any single day. There will be 50 construction staff / contractors travelling to the Site each day, and where possible, will travel together in a mini-bus or car sharing.

Construction Environmental Management

3.47 The Construction Contractor will be required to prepare and implement a Construction Environmental Management Plan ('CEMP'), this would be submitted to the LPA via a suitably worded planning condition. The CEMP will set out general measures and working hours; environmental communications and training requirements; environmental monitoring and audit requirements; and hazard planning/ emergency response/ incident reporting requirements. In addition, environmental impact avoidance and identified mitigation and monitoring measures will be provided in the CEMP.

Construction Working Hours

3.48 Table 3.2 provides the proposed core construction working hours; these would be controlled through a final CEMP to be prepared by the contractor and secured by condition. The CEMP would be based upon the Framework CEMP which accompanies this planning application.

Table 3.2: Proposed Core Construction Working Hours

DAY	WORKING HOURS
Monday to Friday	07:30 – 18:30 (except bank holidays)
Saturday	08:00 – 13:00

Electrical works and pre-commissioning activities

3.49 Following the equipment installation, electrical works and pre-commissioning activities will be undertaken. This will include final equipment/ plant checks and the start-up of individual component parts.

Commissioning

3.50 Following the electrical works and pre-commissioning activities, commissioning will be undertaken. The commissioning will prove the technical acceptability of the equipment/ plant. Reliability tests will demonstrate the fitness for purpose of the ESS prior to commercial operation, whilst performance tests will demonstrate that the ESS complies with the performance guarantees. Reliability and performance (and also availability) will also be demonstrated by operating the ESS under commercial conditions for a period of time.

3.51 After commissioning, the North Cray Road ESS will be operated and maintained in such a manner as to keep it safe and in good condition. Where relevant, the operation and maintenance will take account of the requirements of any authorities or third parties such that the North Cray Road ESS integrity is not compromised.

Operation

3.52 This planning application seeks a 40-year operating life for the ESS.

3.53 During its operational life, oversight and management of the operational facility, including regular inspection and maintenance visits, will be undertaken by staff located off-site, visiting the Site as required. Continuous and remote monitoring will also be undertaken.

3.54 After commissioning, the Proposed Development will be operated and maintained in such a manner as to keep it safe and in good condition. Where relevant, the operation and maintenance will take account of the requirements of any authorities/ third parties such that the Proposed Development integrity is not compromised.

3.55 The Proposed Development will operate continuously in either 'energy charge', 'energy storage' or 'energy discharge' modes, including when providing support balancing services to the National Grid. Between each mode, there will be no material difference in the Proposed Development operational characteristics.

3.56 During normal operation, the Proposed Development will generate negligible traffic movements.

Operational Safety

3.57 For the Proposed Development, the Applicant will partner with a proven supplier of EES, and from the outset, operational safety will be embedded in every layer of the ESS's controls and hardware.

3.58 An Outline Energy Storage System Safety Management Plan (OESMP) has been submitted with this planning application which sets out the initial embedded design principles within the Proposed Development to ensure the location and design is appropriate, as detailed later in Section 4 of this Document. A Detailed Energy Storage System Safety Management Plan (DESMP) will be secured by planning condition which will be submitted to the Council for approval, in consultation with the London Fire Brigade, prior to the operation of the development. The final DESMP will consider any relevant risks and set out any required control/ mitigation measures and will ensure the safe management of the ESS at all levels, and will include the additional design measures for the chosen infrastructure.

Operating Working Hours

3.59 The Proposed Development requires the ability to operate 24/7. Though it should be noted that the development will be largely unmanned during these periods and would be functioning intermittently depending on factors such as grid demand.

Decommissioning

3.60 At the end of the Proposed Development's operational 40-year lifetime, the Proposed Development will be decommissioned and the Site restored to its former condition. The Applicant would seek to agree a planning condition which would require the submission of a Decommissioning Strategy to LBB within one year of the Proposed Development ceasing operation.

3.61 Where at the end of their design life, certain elements of the Proposed Development are considered to have some residual life remaining, the operational life of components may be extended (e.g. substation compound). If the operating life of a particular component were to be extended (and approved under separate planning application), the Proposed Development would be upgraded in line with the legislative requirements at that time. Decommissioning will take account of the prevailing environmental legislation and guidance in place at the time. Notice will

be given to the relevant statutory authorities, including LBB, and any necessary authorisations/ permissions(s) will be acquired/ obtained.

4.0 DESIGN AND ACCESS

4.1 This section sets out the approach that the Applicant has taken to the design and access of the Proposed Development.

Design Principles

4.2 The main design principles adopted by the Applicant are set out below:

- Design Principle 1: position the main components to minimise environmental impact;
- Design Principle 2: seek opportunities for the management and enhancement of biodiversity;
- Design Principle 3: provide a functional layout and design that makes the best use of the location and provides for efficient storage of electricity;
- Design Principle 4: seek to assimilate the Proposed Development into the local landscape as far as possible;
- Design Principle 5: ensure that the Proposed Development is safe, including with respect to fire;
- Design Principle 6: ensure that the Proposed Development does not adversely impact motorway users; and
- Design Principle 7: ensure safe and efficient access to the public highway.

4.3 These principles are referenced where applicable in the remainder of this section.

Design Approach

4.4 The Proposed Development has been designed to be as visually unobtrusive as possible to avoid harm to the openness of the Green Belt and significant impact on the surrounding landscape. The Main Site is relatively flat, and the ESS equipment would be set within the retained field boundaries and new planting and would be bound by defensible and durable features. Further, the proposed ESS Compound would be rendered a dark green to aid in its integration with the tonal colours of the landscape.

4.5 The infrastructure related to the Proposed Development is functional in appearance and of a type that is not considered to be harmful during operation, furthermore, it is proposed to be situated in such a way to avoid negatively impacting upon any environmentally sensitive areas while ecological enhancements have been proposed. The approach that has been taken to the design of the

Proposed Development is considered appropriate given its context and purpose – to take energy from the Grid, store it until an appropriate time and feed it back to the Grid.

4.6 The proposed planting and landscape improvements, including new and enhanced hedgerows, new native trees, a new woodland belt and new native shrub planting have been designed to provide visual screening and general landscape improvements using native species which will integrate the Development in the wider landscape and at the same time provide a biodiversity net gain.

4.7 An Outline Energy System Management Plan (OESMP) and Fire Strategy Plan (Ref. FS_01) are submitted with this application. The Applicant contacted London Fire Brigade on 5 March 2025 to initiate pre-application discussions regarding the design requirements of the Proposed Development in relation to fire safety and emergency response. A response has not yet been received prior to the submission of this application.

4.8 The Applicant has taken account of the National Fire Chief Council ('NFCC') 2023 draft guidance note entitled 'Grid Scale Battery Energy Storage System planning – Guidance for FRS' in the design of the project. National Planning Practice Guidance ('NPPG') advises that applicants are encouraged to consider the guidance set out within the document when preparing a planning application (PPG Paragraph: 034 Reference ID: 5-034-20230814). Appendix 4 to this report sets out how the design of the ESS compound has been tailored to comply with the NFCC guidance and ensure safety in the abnormal event of an emergency at the Site.

Design Evolution

4.9 The design process for the Proposed Development has been an iterative one. A number of options have been considered for the design and layout of the Proposed Development.

4.10 The main changes to the Proposed Development, in terms of its design, including the following:

- The Site was specifically selected out of a larger parcel of land in order to reduce impact on the Green Belt.
- The orientation/layout of the Proposed Development was designed to minimise visual impact and allow more space for environmental enhancements, locate infrastructure away from noise sensitive receptors and to locate sensitive infrastructure outside of shallow surface water flood arching extents.
- The orientation/layout of the Proposed Development was designed to ensure that the ESS compounds can be accessed from at least two directions, in accordance with the NFCC Fire Safety Guidance.

- Water Tanks and water hydrants have been incorporated into the layout at two locations and around the ESS compound respectively, in accordance with the NFCC Fire Safety Guidance and also to ensure maximum access to water in the event of a fire.
- Specific landscaping and ecology measures have been developed to allow the Site to assimilate into the landscape, reduce any impact on the landscape and the Green Belt, and to provide the maximum possible biodiversity net gain.
- Automatic shut off valves will be provided at the sump manhole connections to the swale to manage any potential pollution of groundwater in the event of an abnormal or emergency situation, such as fire or leakage from site infrastructure.
- Utilising existing passing places on North Cray Road to allow HGVs to pass each other on the access road.

Layout and Siting

4.11 The layout of the Proposed Development has been designed with respect to technical requirements, the nature of the Site and receptors within the surrounding area. The infrastructure has been sited in such a way to allow for the most efficient import, storage and export of electricity, while also reducing impacts on the landscape and nearby receptors, minimising flood risk and maximising biodiversity gains.

Access

4.12 It is proposed that access for construction and maintenance vehicles will be provided via an existing agricultural access track, which would be retained and improved, as mentioned in Section 3 of this PDAS. This track would connect to North Cray Road to the north of the Site, providing onward access to the A223. The access route would run southwards across agricultural land for a short distance before reaching the Main Site. The proposed Site access route is shown in the Proposed Site Layout (Drawing Ref. FST029-PL-01 and FST029-PL-02).

4.13 Within the Site, an internal access road will be provided for construction vehicles, including appropriate turning areas for vehicle manoeuvring, allowing HGVs to enter and exit the Site in forward gear, and allowing HGVs to be held within the Site for inbound vehicles to avoid banking along the public highway network. This space will remain within the Site during operation for vehicles to turn around to enter/exit in forward gear.

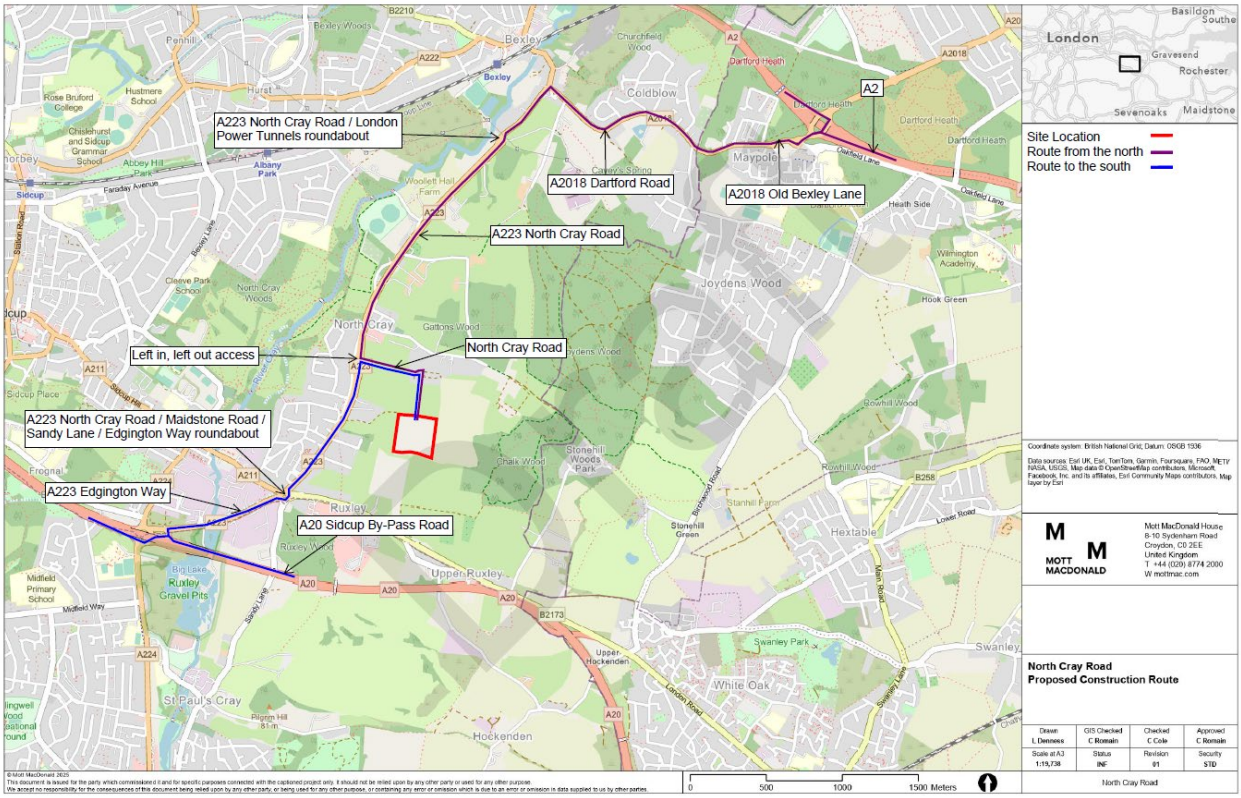
4.14 For construction routing, the CTMP takes into account the 7.5 tonne weight restrictions on North Cray Road. The construction vehicle routing of HGVs to / from the Site is proposed via upgraded

access off North Cray Road with the wider route to/from the Site using different routes when approaching or leaving the Site. When approaching the Site vehicles will utilise the A2, A2018 Old Bexley Lane, A2018 Dartford Road, A223 North Cray Road and North Cray Road. The egress arrangements will utilise North Cray Road, A223 North Cray Road, A223 Edington Way and A20 Sidcup By-Pass Road. Should it be preferred for the construction vehicles to approach and leave the Site via the same route, then roundabout junctions are present either side of the Site access on A223 North Cray Road to facilitate this, as detailed in the CTMP.

4.15 Emergency access to the ESS and water tanks / hydrants will be provided along the boundary of the ESS and allows for dual access/egress points in accordance with the NFCC guidance and discussions with the local fire service. This is explained further on the following page in the section entitled 'Safety'.

4.16 There are no PRoW within the Site nor on the boundaries of the Site that would be affected in terms of access and safety during construction and operation.

Figure 4.1: Construction Vehicle Routing



4.17 As such, the Site is considered to benefit from a suitable access during both construction and operation, including during emergencies.

Public Right of Way

4.18 There are no PRoWs within or adjacent to the Site. The nearest PRoWs are footpath FP171 and footpath FP141 approximately 350 m southwest and south respectively.

Safety

4.19 An OESMP has been submitted with this planning application with the objective of setting out the relevant mechanisms to ensure that any ESS related safety risks are considered, understood, accounted for, and mitigated as far as practicable throughout the lifetime of the Proposed Development. It sets out the initial embedded design principles within the Proposed Development to ensure the location and design is appropriate, including:

- ESS unit clusters are setback 3m from the nearest cluster to prevent the spread of fire.
- Secondary access/exit points for emergency vehicles are proposed to provide multiple routes to enter/exit the ESS compounds.
- Access tracks are proposed next to each energy storage unit cluster at a minimum to enable fire service vehicles to manoeuvre around the clusters, in the unlikely event of a fire.
- All ESS units are located a minimum of 10m away from existing and proposed vegetation.
- Water tanks are proposed for London Fire Brigade to access in the unlikely event of fire. Fire hydrants are also proposed across the Main Site.
- All site service roads are suitable for HGVs, given the need to locate the containers/units and other installations using transporters of a similar size and weight to that used by the FRS. All internal access routes have been tracked for use by fire service vehicles.

4.20 The strategy for future ESS development is the means to ensure that any ESS-related safety risks continue to be considered, understood, accounted for, and mitigated as far as practicable throughout the ESS lifetime.

4.21 The strategy will allow for the:

- Future detailed assessment and evaluation of risks to outline how the further development of the ESS design, construction, operation and maintenance will be in accordance with the relevant regulations and standards, and recognised industry best practice;
- Future establishment and integration of any safety features and measures (i.e. emergency response features and measures) through the further development of the ESS design, construction, operation and maintenance; and,

- Future consultation and engagement with relevant consultees/stakeholders.

4.22 It is understood that the formal requirement covering the provision of further details (i.e. an updated Safety Management Plan) will be facilitated via a suitable condition to be incorporated into the planning permission.

4.23 Temporary lighting during the construction stage and infrared CCTV cameras during the operational stage will be carefully designed to reduce egress or other disturbance.

Landscape and Biodiversity

4.24 A Landscape, Townscape and Visual Impact Appraisal ('LTVIA') has been produced by RHLA and forms part of the planning application submission. The assessment considers the effects of the Proposed Development on both the landscape (landscape impact) and on representative viewpoints from around the Site (visual impact), including from PRoWs, and a Green Belt assessment.

4.25 The Proposed Development has been designed to respect the character of the landscape and uses the strong field pattern to integrate the scheme as far as practicable. Existing landscape features would be retained, protected, and strengthened; including the retention of all existing field margins (hedgerows and ditches) except where necessary for access and standoffs from boundary habitats. Two sections of hedgerows will need to be cut back to widen the access road. No trees would require removal to allow for the Proposed Development.

4.26 The new planting will help integrate the Proposed Development into the receiving landscape as well as delivering green infrastructure enhancements. The Landscape Strategy Plan is submitted as part of this application and includes:

- Retaining boundary trees and hedgerows, where possible, and enhancing hedgerows with additional native tree planting;
- Introducing a 3m wide strip of native mixed shrub planting in the south;
- Utilising existing site access points, existing tracks and field entrances (where possible);
- A new native hedgerow with trees on the eastern boundary;
- A new linear woodland feature (10m wide) along the northern edge of the Proposed ESS;
- New native trees in the south eastern boundary;
- Planting a species rich meadow mix within and outside of the Proposed ESS compound;

- Incorporating appropriate buffers to ecological features, including a minimum 30m buffer to the outlier badger sett from the Proposed ESS and the construction footprint. The area around the badger sett will be planted with fruit trees to provide an enhanced foraging resource; and
- Biodiversity protection zones along retained notable habitats and hedgerows.

4.27 The proposed layout and landscape strategy is illustrated on the submitted Landscape Strategy Plan.

4.28 The landscaping and planting proposals associated with the Proposed Development would bring about significant ecological benefit when compared to the present situation at the Site by the planting of meadow and hedgerows with associated ecological/ connectivity benefits and include species that enhance biodiversity.

4.29 For more detail, please refer to the LTVIA submitted as part of the planning application which includes an indicative Landscape Strategy Plan.

5.0 PLANNING POLICY CONTEXT

5.1 This section provides a brief overview of the relevant planning policy and guidance at local, London and national level. The design of the Proposed Development has been influenced by these policies and the proposals are assessed against them in Section 6 of this report.

5.2 The planning application will be determined in accordance with section 70(2) of the Town and Country Planning Act 1990 (as amended), which states that in dealing with applications, local planning authorities shall have regard to the provisions of the statutory development plan and to other material considerations.

Statutory Development Plan

5.3 The Statutory Development for the administrative area of LBB comprises:

- The Bexley Local Plan (adopted 26 April 2023);
- The Bexley Local Plan Policies Map (adopted 26 April 2023);
- Bexley Sustainable Design and Construction Guide Supplementary Planning Document ('SDP') (adopted October 2007); and
- The Mayor's London Plan (March 2021).

5.4 The following policies from the London Plan are considered to be of most relevance:

- Policy GG2 – Making the best use of land;
- Policy GG5 – Growing a good economy;
- Policy GG6 – Increasing efficiency and resilience;
- Policy D3 – Optimising site capacity through the design-led approach;
- Policy D4 – Delivering good design;
- Policy D11 – Safety, security and resilience to emergency;
- Policy D12 – Fire safety;
- Policy D13 – Agent of Change;
- Policy D14 – Noise;
- Policy HC1 – Heritage conservation and growth;
- Policy G1 – Green infrastructure;

- Policy G2 – London's Green Belt;
- Policy G5 – Urban greening;
- Policy G6 – Biodiversity and access to nature;
- Policy SI 1 – Improving air quality;
- Policy SI 2 – Minimising greenhouse gas emissions;
- Policy SI 3 – Energy infrastructure;
- Policy SI 7 – Reducing waste and supporting a circular economy;
- Policy S1 10 – Aggregates;
- Policy SI 12 – Flood risk management;
- Policy SI 13 – Sustainable drainage;
- Policy T1 – Strategic approach to transport;
- Policy T2 – Healthy Streets;
- Policy T4 – Assessing and mitigating transport impacts; and
- Policy T5 – Cycling.

5.5 The following policies from the Local Plan are considered to be of most relevance:

- Policy SP1 – Achieving sustainable development – the spatial strategy;
- Policy SP5 – Placemaking through good design;
- Policy DP11 – Achieving high-quality design;
- Policy SP6 – Managing Bexley's heritage assets;
- Policy DP14 – Development affecting a heritage asset;
- Policy SP8 – Green infrastructure including designated Green Belt;
- Policy SP9 – Protecting and enhancing biodiversity and geological assets;
- Policy DP20 – Biodiversity and geodiversity in developments;
- Policy DP21 – Greening of development sites;
- Policy DP22 – Sustainable transport;

- Policy DP24 – Impact of new development on the transport network;
- Policy DP27 – Minerals and aggregates;
- Policy DP28 – Contaminated land and development and storage of hazardous substances;
- Policy SP14 – Mitigating and adapting to climate change;
- Policy DP30 – Mitigating climate change;
- Policy DP31 – Energy infrastructure;
- Policy DP32 – Flood risk management; and
- Policy DP33 – Sustainable drainage systems.

Other Material Considerations

National Planning Policy

5.6 The National Planning Policy Framework ('NPPF') was adopted in March 2012 and was most recently updated in December 2024. It sets out the Government's planning policies for England and how these are to be applied. The policies contained within the NPPF are expanded upon and supported by the National Planning Practice Guidance ('NPPG'), which was first published in March 2014 and has been periodically updated since.

5.7 NPPG considered most relevant to the Proposed Development includes:

- Climate Change;
- Green Belt;
- Historic Environment;
- Natural Environment;
- Open Space, sports and recreation facilities, public rights of way and local green space;
- Renewable and low carbon energy; and
- Strategic environmental assessment and sustainability appraisal.

5.8 The National Policy Statements (NPSs) make up the planning policy framework for examining and determining Nationally Significant Infrastructure Projects (NSIPs). As the Proposed Development is not a NSIP, the NPSs are not directly relevant; however, they do form important material considerations in the determination of the planning application. Paragraph 5 of the NPPF confirms this, stating "*National policy statements form part of the overall framework of national planning*

policy, and may be a material consideration in preparing plans and making decisions on planning applications". In addition, paragraph 1.2.1 in NPS EN-1 states that "*In England and Wales this NPS [NPS EN-1] is likely to be a material consideration on applications that fall under the Town and Country Planning Act 1990 (as amended)".*

5.9 The following NPSs are relevant:

- Overarching NPS for Energy (NPS EN-1); and
- NPS for Renewable Energy Infrastructure (NPS EN-3).

Other

5.10 In June 2019, the Government raised the UK's ambition on tackling climate change by legislating for a net-zero greenhouse gas emissions target for the whole economy by 2050. As of July 2024, the newly elected Labour government have proposed an accelerated commitment to decarbonise the UK's electricity system by 2030, a full 20 years earlier than the nationwide 2050 legal commitment.

5.11 Decarbonising the power sector is integral to achieving this goal and requires major investment in proven technologies, such as energy storage, which are supported by planning policy at a local and national level.

5.12 In addition, whilst not planning policy documents, the following also form material considerations:

- National Infrastructure Commission – Net Zero: Opportunities for the Power Section (2020);
- National Infrastructure Commission – Net Zero: Commission Recommendations and the Net Zero Target (2020);
- International Renewable Energy Agency – Battery Storage for Renewables: Market Status and Technology Outlook (2015);
- Net Zero Strategy: Build Back Greener (2021);
- British Energy Security Strategy (2022);
- Powering Up Britain – Energy Security Plan (2023); and
- Energy security Bill (2023) and Energy Act 2023.

6.0 ASSESSMENT OF THE PROPOSED DEVELOPMENT

Principle of Development

Policy Summary

6.1 The NPPF sets out its support for renewable energy development in Chapter 14 (Meeting the challenge of climate change, flooding and coastal change). Paragraph 161 states that: "*The planning system should support the transition to net zero by 2050. It should help to…support renewable and low carbon energy and associated infrastructure".*

6.2 Paragraph 168 goes on to state:

"*When determining planning applications for all forms of renewable and low carbon energy developments and their associated infrastructure, local planning authorities should:*

a) not require applicants to demonstrate the overall need for renewable or low carbon energy, and give significant weight to the benefits associated with renewable and low carbon energy generation and the proposal's contribution to a net zero future."

6.3 NPS EN-1 features more specific information on the role of storage with paragraph 3.3.25 stating that it *"…has a key role to play in achieving net zero and providing flexibility to the energy system, so that high volumes of low carbon power, heat and transport can be integrated*."

6.4 Paragraph 3.3.26 goes on to state that:

"Storage is needed to reduce the costs of the electricity system and increase reliability by storing surplus electricity in times of low demand to provide electricity when demand is higher. There is currently around 4GW of electricity storage operational in GB, around 3GW of which is pumped hydro storage and around 1GW is battery storage."

6.5 Paragraph 3.3.27 highlights the benefits range from the local to the national level: "*Storage can provide various services, locally and at the national level. These include maximising the usable output from intermittent low carbon generation (e.g. solar and wind), reducing the total amount of generation capacity needed on the system; providing a range of balancing services to the NETSO and Distribution Network Operators (DNOs) to help operate the system; and reducing constraints on the networks, helping to defer or avoid the need for costly network upgrades as demand increases.*"

6.6 London Plan Policy GG5 (Growing a good economy) states that those involved in planning and development must "*recognise and promote the benefits of a transition to a low carbon circular economy to strengthen London's economic success*."

6.7 Policy GG6 (Increasing efficiency and resilience) adds that they must also "*seek to improve energy efficiency and support the move towards a low carbon circular economy, contributing towards London becoming a zero-carbon city by 2050."*

6.8 London Plan Policy SI 2 (Minimising greenhouse gas emissions) provides direct support for ESS, stating that development should "*maximise opportunities for renewable energy by producing, storing and using renewable energy on-site*."

6.9 London Plan Policy SI 3 (Energy infrastructure) states that: "*development plans should: 1) identify the need for, and suitable sites for, any necessary energy infrastructure requirements, including energy centres, energy storage and upgrades to existing infrastructure*". Paragraph 9.3.12 goes on to reiterate the need for producing and storing renewable energy, stating that "*The ability to efficiently store energy as well as to generate it can reduce overall energy consumption, reduce peak demand and integrate greater levels of renewable energy into the energy system.*"

6.10 Local Plan Policy SP1 (Achieving sustainable development – the spatial strategy) states that "*All new proposals for development must conform with the following principles of securing sustainable development in Bexley, where appropriate, protect and enhance the natural and built environment by adapting to and mitigating the impacts of climate change*."

6.11 Local Plan Policy SP14 (Mitigating and adapting to climate change) states that "*The Council will actively pursue the delivery of sustainable development by supporting developments that achieve zero-carbon and demonstrate a commitment to drive down greenhouse gas emissions to net zero.*"

6.12 Paragraph 7.45 within the 'policy implementation' of Local Plan Policy DP31 (Energy infrastructure) states: "*Renewable energy schemes will be strongly promoted in the borough and encouraged as part of development proposals where they are effective, viable and practical. Applications for renewable energy generation will be expected to demonstrate how the proposal has been sensitively designed to integrate into the local environment, minimising any potential negative impacts, both physically and environmentally*." Paragraph 7.3 gives specific support to climate change mitigation via "*new technologies and renewable energies."*

6.13 At a local level, the 'Bexley Climate Change Statement and Action Plan 2022-2026' (2023) also notes the importance of growing the green economy locally, with opportunities such as low-carbon energy and electric vehicles.

Assessment

6.14 The principle of development is heavily supported by both local and national policy, and the London Plan, due to its contribution to the development and economic growth of the district and UK. This includes adopted local policy support for renewable energy provided that it does not result in unacceptable impacts to the landscape, natural environment, surrounding land users and air quality, and utilising existing infrastructure wherever possible. There is also a significant and demonstrable need for the Proposed Development as set out below.

6.15 Energy storage was redefined by the Government under the Energy Security Bill (2023) and subsequent Energy Act 2023 to form a distinct subset of generation, it defined the storage as energy that was converted from electricity and is stored for the purpose of its future reconversion into electricity. In essence, Energy Storage under UK law is considered as low carbon energy generation.

6.16 Further to this, the Government's recent 'Clean Power 2030' document (released in December 2024) forecasts how much energy storage we need to decarbonise the grid by 2030 – being 23-27 Gigawatts of battery capacity and 4-6 GW of long duration energy storage. Essentially there is an urgent need to build out energy storage proposals across the UK in order to meet grid demand and increase our security of supply by 2030, so considerable weight is being attached to ESS proposals provided they can be mitigated sufficiently.

6.17 The Proposed Development facilitates renewable generation by creating much needed flexibility and applicability. It is therefore a vital part of a low carbon energy system and an important piece of 'low carbon energy generation' infrastructure. This is critical for the transition to a low carbon future, as outlined in local and national policy. Renewable energy sources such as wind and solar power are naturally intermittent. The Proposed Development is capable of taking energy from the grid when energy supply is higher than use, such as on a particularly sunny or windy day, and feed it back onto the grid when there is more demand and/or less supply.

6.18 The Proposed Development is compatible with local policies to safeguard the built and natural environment, landscape character and features of recognised importance for biodiversity – as demonstrated in this Statement. The design principles for the Proposed Development will ensure it will be sensitively designed to avoid unacceptable impacts in terms of visual appearance or noise. The proposals will not result in significant traffic generation nor hydrological impacts. Accordingly, the Proposed Development is supported by NPFF (paragraphs 161 and 168), NPS EN-1 (paragraph 3.3.25), Policies GG5, GG6, SI 2, SI 3 of the London Plan, and Policies SP1 and SP14 of the Local Plan.

6.19 The Site is located within the Green Belt and the Proposed Development is not listed as one of the exceptions in paragraph 154 of the NPPF. However, it is considered that the Site should be taken as 'Grey Belt' land and that the Proposed Development would not constitute 'not inappropriate' development against the tests in Paragraph 155 of the NPPF, for reasons outlined in the submitted Green Belt Assessment report, and therefore is excluded from the policy requirement to give substantial weight to any harm to the Green Belt, including its openness. Nevertheless, should the LPA consider the Site is within the Green Belt, not Grey Belt, and by virtue be 'inappropriate development', the Green Belt Assessment report concludes, on balance, that the benefits significantly outweigh any harm to the Green Belt, and that Very Special Circumstances exist.

6.20 London Plan Policy SI 3 states that development plans should identify suitable areas for the location of energy storage systems, however, no such locations are identified within the Bexley Local Plan. The remainder of this Section demonstrates that there are no unacceptable impacts associated with the Proposed Development and that the planning balance weighs heavily in favour of it.

6.21 It is therefore considered that the principle of the Proposed Development complies with relevant planning policy.

Land use and Development in the Green Belt

Policy Summary

6.22 Paragraph 153 of the NPPF requires planning decisions to give substantial weight to any harm to the Green Belt, including its openness, and requires 'inappropriate development' in the Green Belt not be approved unless very special circumstances exist. Paragraph 154 goes on to list the exceptions to 'inappropriate development'.

6.23 Paragraph 160 of the NPPF notes that elements of many renewable energy projects will constitute inappropriate development in the Green Belt. In these instances, developers will need to demonstrate very special circumstances if projects are to proceed, which may include the wider environmental benefits associated with increased production of energy from renewable sources.

6.24 However, Paragraph 155 of the NPPF sets out a Framework for instances where development would be considered 'not inappropriate' where it is within the Grey Belt and meets the other policy tests. It states that: "*The development of homes, commercial and other development in the Green Belt should also not be regarded as inappropriate where all the following apply:*

a. The development would utilise grey belt land and would not fundamentally undermine the purposes (taken together) of the remaining Green Belt across the area of the plan;

b. There is a demonstrable unmet need for the type of development proposed;

c. The development would be in a sustainable location, with particular reference to paragraphs 110 and 115 of this Framework; and

d. where applicable the development proposed meets the "Golden Rules" requirements set out in Framework paragraphs 156 and 157."

6.25 The most recent updates to the NPPG 'Advice on the role of the Green Belt in the Planning System'[2] expand upon the introduction of the 'grey belt' in the NPPF. Paragraph: 009 (Reference ID: 64-009-20250225) states, that where grey belt sites are not identified in existing plans or Green Belt assessments, it is expected that authorities should consider evidence, in light of this guidance, on:

- whether the site strongly contributes to the Green Belt purposes a, b or d; and
- whether the application of policies to areas and assets of particular importance identified in footnote 7 to the NPPF (other than Green Belt) provide a strong reason to restrict development; and
- whether development of the site would fundamentally undermine the purposes of the remaining Green Belt across the plan area, as set out in national policy and this guidance.

6.26 Paragraph: 010 (Reference ID: 64-010-20250225) goes on to state that where a site is judged to be grey belt, and to not fundamentally undermine the purposes of the remaining Green Belt across the plan area if released or developed, wider considerations will still be relevant to the consideration of development proposals on the site. These would include determining whether the development would not be inappropriate development in the Green Belt, as set out in Paragraph 155 of the NPPF. Where a development is not inappropriate in the Green Belt, this does not itself remove the land from the Green Belt nor require development proposals to be approved.

6.27 The PPG clarifies at Paragraph: 014 (Reference ID: 64-014-20250225) that Footnote 55 of the NPPF sets out that development is considered to be not inappropriate development on previously developed land or grey belt, then this is excluded from the policy requirement to give substantial weight to any harm to the Green Belt, including to its openness.

[2] Green Belt - GOV.UK

6.28 London Plan Policy G2 (London's Green Belt) states that "*The Green Belt should be protected from inappropriate development:*

1. *development proposals that would harm the Green Belt should be refused except where very special circumstances exist,*
2. *subject to national planning policy tests, the enhancement of the Green Belt to provide appropriate multi-functional beneficial uses for Londoners should be supported.*

Exceptional circumstances are required to justify either the extension or de-designation of the Green Belt through the preparation or review of a Local Plan."

6.29 London Plan Policy GG2 states that *"To create successful sustainable mixed-use places that make the best use of land, those involved in planning and development must protect and enhance London's open spaces, including the Green Belt, Metropolitan Open Land, designated nature conservation sites and local spaces, and promote the creation of new green infrastructure and urban greening, including aiming to secure net biodiversity gains where possible."*

Local Plan Policy SP1 (Achieving Sustainable Development – Spatial Strategy) clarifies that development proposals must conform with the following principles of securing sustainable development in Bexley, where appropriate: *"b. Protect and enhance the natural and built environment by:*

i. adapting to and mitigating the impacts of climate change, including flood risk;

ii. focussing new development on urban, brownfield sites in accessible locations; and,

iii. optimising the efficient management of waste and existing natural resources".

6.30 Local Plan Policy SP8 (Green infrastructure including designated Green Belt) states that development must support open spaces by, amongst other things:

a) "protecting Metropolitan Green Belt and Metropolitan Open Land from inappropriate development;

b) encouraging beneficial use of Metropolitan Green Belt such as opportunities for public access, outdoor sports and recreation, retaining and enhancing landscapes, visual amenity, biodiversity or to improve damaged and derelict land;"

Assessment

6.31 The site-specific ALC Report submitted as part of this application confirms that the Main Site comprises predominantly Subgrade 3a (good quality) (89%) agricultural land, with a small portion

of Grade 2 (very good quality) (11%) agricultural land. However, the applicant notes that the loss of this land is extremely limited while the Proposed Development offers substantial benefits. In addition, the proposed use would not be permanent and would revert to agricultural land following decommissioning. A Site Selection Report submitted in support of this planning application, which reviewed previously developed land and agricultural land within 3 km of the point of connection, concludes that there are no reasonable alternative locations of lesser environmental value on which the Proposed Development can be viably located.

6.32 The Proposed Development is located in the Metropolitan Green Belt and is within the countryside being outside of the Sustainable Development Locations set out in the Local Plan. The Proposed Development is not considered to compromise the conservation and enhancement of the countryside for the sake of its intrinsic character and beauty, the diversity of its landscapes, heritage and wildlife and wealth of its natural resources. These points are further covered in the remainder of this section and in the LTVIA, CHA and EcIA which accompany this submission.

6.33 The context of the surrounding Metropolitan Green Belt is influenced by humanising factors and industrial land uses in the immediate vicinity of the Site, such as the polytunnels associated with Honeywell Farm adjoining to the south, the A223 and B2173, nearby business and industrial parks, and the residential areas of Ruxley, North Cray and Foots Cray. The Proposed Development will be set within the existing retained field boundaries and new planting, as proposed in the Landscape Masterplan submitted with the application. Within these areas of new and existing screening, the above ground features of the Proposed Development, being the ESS Compound Area and substation, are bound by defensible and durable features which help to enclose the Proposed Development. As such, the Proposed Development would not be incongruous with nearby land uses and development which are also within Green Belt areas.

6.34 While the Site does not comprise Previously Developed Land, the Site does not strongly contribute to Green Belt Purposes (a), (b) or (d) for the reasons listed below and is considered to be Grey Belt as per the definition within the NPPF:

- The Site is physically and visually separated from large built up areas of Greater London and Dartford, of which the nearby areas of Bexley and Swanley physically contained in themselves by road networks and established woodlands so as to contain sprawl;
- Despite being undeveloped / greenfield land, the Site does not form part of a strategic gap between towns and therefore would not contribute to merging of towns;

- The Site does not make contribution to preserving the setting and special character of historic towns; and
- Development of the Site would not undermine the purposes of the remaining Green Belt in the plan area, as it would not undermine the purpose to safeguard the countryside from encroachment given the localised landscape, townscape and visual effects, the consolidated ESS layout, the temporary nature of the Proposed Development and the beneficial changes from new landscaping. Furthermore, the Proposed Development would not conflict with the purpose of recycling derelict and urban land as it has been demonstrated in the SSR that there are no reasonable alternative locations of lesser environmental value on which the Proposed Development can be viably located.

6.35 The removal of the Site from the Green Belt would not fundamentally undermine the five purposes (taken together) of the remaining Green Belt across the Plan area, achieving Criteria a of Paragraph 155 of the NPPF. Furthermore, the Proposed Development is 'not inappropriate' development within the Green Belt as it satisfies the relevant Criteria b, c and d in Paragraph 155 of the NPPF, in so far that there is demonstrable unmet need for the Proposed Development and it would be located in a sustainable location.

6.36 National policy confirms that if development is 'not inappropriate' development, then it is excluded from the policy requirement to give substantial weight to harm and any other harm to the Green Belt, including to its openness, and would not need to set out a case for 'very special circumstances'. Notwithstanding, the Applicant has included an assessment of these aspects in the event that LBB does not deem the Site to be Grey Belt, and that the Proposed Development would be 'inappropriate development' in the Green Belt. This assessment concludes that the Proposed Development would not give rise to unacceptable environmental effects and when all of the benefits of the Proposed Development are combined, they clearly outweigh any harm to the Green Belt and any other harm, and that Very Special Circumstances exist. The detailed assessment is contained within the Green Belt Assessment submitted with this planning application. The significant benefits include:

- sufficient electricity to power 647,590 households for 2 hours;
- the need for renewable energy generation, its role in meeting the challenge of climate change and the UK Government's 2030 target;
- the requirement for the grid-scale ESS in this location;

- an agreed grid connection;
- addressing national energy security;
- diversification of energy sources and real-time balancing;
- economic and social benefits;
- employment and support for the rural economy;
- reduced energy costs;
- wider environmental benefits including BNG; and
- the temporary and reversible nature of the proposal.

6.37 The Proposed Development also represents a form of farm diversification, allowing the farmer owner to an open alternative income stream which will help to protect the wider farming business from losses which may be incurred due to extreme weather or other unforeseen events, helping to ensure its long-term future.

6.38 The Proposed Development is considered to comply with national and local policies, and the London Plan, relating to development in the Grey Belt and Green Belt and the countryside. Refer to the submitted Green Belt Assessment for more information regarding the classification of the Site as the Grey Belt and the assessment of the Proposed Development as 'not inappropriate' development.

Mineral Safeguarding

Policy Summary

6.39 NPPF Paragraph 225 states that "*Local planning authorities should not normally permit other development proposals in Mineral Safeguarding Areas if it might constrain potential future use for mineral working*".

6.40 London Plan Policy S1 10 (Aggregates) states: "*Development proposals should be designed to avoid and mitigate potential conflicts with sites safeguarded for the transportation, distribution, processing and/or production of aggregates, in line with the Agent of Change principle*."

6.41 Local Plan DP 27 (Minerals and aggregates) states: "*5. Planning permission will not be granted for non-mineral development that would lead to the unnecessary sterilisation of mineral resources within a Minerals Safeguarding Area, as defined on the Policies Map, unless: a. The applicant can demonstrate to the satisfaction of the MPA that the mineral concerned is not of economic value; or b. The mineral can be extracted to the satisfaction of the MPA without unacceptable community*

and environmental impacts prior to the development taking place; or c. The development is exempt because it consists of: i. ii. alteration/extensions to existing buildings; householder applications; iii. change of use; iv. prior notifications; or v. advertisements."

Assessment

6.42 A small portion of the Site in the north-east corner is within a Mineral Safeguarding Area ('MSA'). However, this is limited to the part of the Site which would be used for access, utilising the existing access tracks and roads and the footprint of the Proposed ESS and other new development has been cited to avoid the MSA.

6.43 The Proposed Development is 'non-mineral development' and would not be 'exempt development' under Local Plan Policy DP 27. Given the part of the Site within the MSA relates to existing infrastructure and would be used for site access purposes, it is not considered that it would lead to unnecessary sterilisation mineral deposits or constrain potential future use for mineral working.

6.44 Notwithstanding, permission is being sought for a temporary 40 year period, after which time the Site would be returned to its former use.

Scale, Appearance and Design

Policy Summary

6.45 The NPPF is clear at paragraph 131 that the creation of high quality, beautiful and sustainable buildings and places is fundamental to what the planning and development process should achieve. Paragraph 135 asserts that planning decisions should inter alia ensure that development: will function well and add to the overall quality of the area, not just for the short term but over the lifetime of the development; is visually attractive as a result of good architecture, layout and appropriate and effective landscaping; and is sympathetic to local character and history, including the surrounding built environment and landscape setting, while not preventing or discouraging appropriate innovation or change.

6.46 London Plan Policy D4 (Delivering good design) states that "*Where appropriate, visual, environmental and movement modelling/ assessments should be undertaken to analyse potential design options for an area, site or development proposal. These models, particularly 3D virtual reality and other interactive digital models, should, where possible, be used to inform plan-making and decision-taking, and to engage Londoners in the planning process."* It continues by saying that "*Design and access statements submitted with development proposals should demonstrate that the proposal meets the design requirements of the London Plan*."

6.47 Local Plan Policy SP5 (Placemaking through good design) states that "*the Council will seek to ensure that:*

a) all development within the borough is of high-quality design, contributes positively to the local environment, and protects the best elements of Bexley's character;

b) design enhances social cohesion and health and wellbeing and considers the principles of inclusive and active design, in order to support good physical and mental health; and,

c) design considers the relationships between building and spaces, including its contribution to and shaping of the public realm."

6.48 Local Plan Policy DP11 (Achieving high-quality design) notes that development should, amongst other things:

a) "ensure that the layout, height, scale and massing, façade treatment, and materials are complimentary to the surrounding area contribute positively to the street scene;

b) provide a high standard of landscaping design, appropriate to the proposal and with regard to the character of the surrounding area

c) ensure that appropriate levels of privacy, outlook, natural daylight and other forms of amenity are provided

d) ensure existing properties' amenity is appropriately protected

e) ensure that all proposed development and uses do not unacceptably affect residents or occupiers of either the proposed development or of existing neighbouring residents, businesses and community facilities by means of noise, odour, vibration and light spill or other disturbances."

Assessment

6.49 The 'Design' of the Proposed Development, including with reference to its scale and appearance, is covered in more detail in Section 4 of this document.

6.50 Other than the Green Belt, which was discussed above, the Site is not subject to any locally, nationally or internationally important landscape designations nor are there any views within the High Beeches Conservation Area to the Site.

6.51 The Site benefits from existing landscaping on the southern and western, and part of the northern boundaries. There is also scattered vegetation and pockets of woodland to the west and east,

slightly further afield. Nevertheless, the Proposed Development presents considerable opportunity for further landscape and biodiversity mitigation and enhancement.

6.52 The scale and design comply with Policy DP11 of the Local Plan in its contribution to mitigating impact on views and landscape. Given the tallest element of the Proposed Development would extend to 6.77 m (above ground level or 'AGL'), being the substation, and the Proposed ESS Compound Area comprising a single storey (maximum 3 m AGL), it is not considered that the Proposed Development would not form an incongruous feature in the surrounding area.

6.53 The Proposed Development has been designed to practically fulfil its purpose of storing electricity in a safe and economic manner. However, it has also been designed as far as possible to avoid adverse impacts by ensuring sensitive siting and layout which is compatible within its location, together with maintaining the quality of the area by retaining existing tree belts and accesses, introducing landscaping, and improving the current largely vacant character of the Site through appropriate boundary treatment and security perimeter. Further to this, the proposed materials and finishes to be used at the proposed ESS compound will be similar to those of surrounding land uses, such as the polytunnels to the south to the south of the Site.

6.54 As demonstrated in Section 4 of this report, it is considered that the Proposed Development is high quality, safe and efficient, with all potential adverse impacts being mitigated insofar as is possible. Specific mitigation measures have been proposed to reduce anticipated impacts to an acceptable level in all elements of the proposal and these are covered in the remainder of this report.

6.55 For these reasons, the Proposed Development is considered to be acceptable and complies with planning policy in terms of scale, appearance and design.

Landscape and Visual

Policy Summary

6.56 Paragraph 135 in the NPPF states that decisions should ensure developments *"…c) are sympathetic to local character and history, including the surrounding built environment and landscape setting, while not preventing or discouraging appropriate innovation or change..."*. The NPPF also asserts, at Paragraph 187, that decisions should contribute to and enhance the natural and local environment by inter alia protecting and enhancing valued landscapes.

6.57 London Plan Policy G5 (Urban greening) notes that *"Major development proposals should contribute to the greening of London by including urban greening as a fundamental element of site and building design, and by incorporating measures such as high-quality landscaping (including trees), green roofs, green walls and nature-based sustainable drainage."*

6.58 Local Plan Policy DP11(b) (Achieving high-quality design) states that development proposals should "*provide a high standard of landscaping design, appropriate to the proposal and with regard to the character of the surrounding area*."

6.59 Local Plan Policy SP8 (Green infrastructure including designated Green Belt) pays specific regard to the Metropolitan Green Belt, stating that development here should retain and enhance landscapes, visual amenity, biodiversity or to improve damaged and derelict land.

6.60 Local Plan Policy SP9 (Protecting and enhancing biodiversity and geological assets) requires landscaping proposals to use native plant species of local provenance.

6.61 Local Plan Policy DP21 (Greening of development sites) adds that *"Development proposals will be required to provide a high standard of landscape design, having regard to the well-being, water, wildlife and character of the surrounding area, ensuring sustainable planting for the long term and be supported by appropriate management and maintenance measures."* It continues: *"Planting and landscaping within developments and ecological buffer zones:*

a) will be required to contribute to habitats and features of landscape and nature conservation importance; and,

b) must not include 'potentially invasive, non-native species' and, where found on a site, appropriate measures to remove these species must be taken as part of the redevelopment."

Assessment

6.62 A Landscape, Townscape and Visual Impact Assessment ('LTVIA') has been submitted as part of this application, which includes a Green Belt Assessment that is considered in the Green Belt Assessment prepared by DWD which accompanies this planning application.

6.63 Other than the Green Belt, which was discussed above, the Site (including the ESS Site, access and cable route) is not subject to any locally, nationally or internationally important landscape or townscape designations nor is the Site within or adjacent to a conservation area, and does not comprise any listed buildings. As mentioned previously, there is a locally listed building adjoining the site access track and the cable route corridor does pass through the Old Bexley Conservation Area.

6.64 The ESS Site and surrounds benefit from a gently undulating landform with land generally rising to the northern and southern edges, and the Main Site being within a low lying position within the landscape/townscape forming part of the valley floor. The ESS Site benefits from existing landscaping on the northern, southern and western boundaries with the boundary vegetation

generally being in good condition, however, there are no rare or distinctive landscape features within the Main Site. Further to this, there are no rare or distinctive features associated with the existing access track, which is already used as a farm access, nor the cable route corridor, which is predominantly an existing road corridor. There is also scattered vegetation and pockets of woodland to the west and east, slightly further afield.

6.65 The ESS Site is generally representative of the wider agricultural land uses and a common feature in the landscape. The Site is also heavily influenced by the surrounding urbanising components of the 'urban fringe', including existing industrial land uses (i.e. the polytunnels and large scale farm buildings to the south), the A223 and B2173, and the residential areas of Ruxley, North Cray and Foots Cray, and therefore is not afforded a sense of remoteness nor wildness.

6.66 This assessment demonstrates that the Proposed Development would be successfully accommodated within the existing landscape pattern and would be assimilated into the surrounding landscape without causing any significant adverse long-term change to the landscape character, visual amenity, or existing landscape attributes of the area. The siting of the ESS compound avoids and reduces the potential landscape, townscape and visual effects by locating equipment close to existing structures of similar height (i.e. the polytunnels in the south) and away from residential receptors, avoiding more elevated land in the northern part of the field, and with the substation positioned to be in-line with existing trees to soften any views to it, all of which allows the visual openness to be retained across the Site. Further to this, equipment has been designed to limit height of equipment in contrast to potential taller equipment and careful choice of rendering for the ESS containers and palisade fencing (i.e. dark green tone) to reflect the surrounding landscape.

6.67 The submitted Landscape Strategy Plan indicates that the Proposed Development will offer enhancements in the form of retaining and enhancing existing vegetation on the boundaries of the ESS Site, new native scrub along the southern edge of the ESS Site to form an understorey layer of existing planting, new native tree planting particularly to screen views from PRoW, woodland belt across the central part of the ESS Site and new fruit trees in the north-west. It is considered that the landscaping enhancements and urban greening proposed would satisfy the requirements of London Plan Policy G5 and Local Plan Policy DP21.

6.68 In terms of landscape effects, the LTVIA concludes that the higher tier of effects (major and moderate adverse) are focused during construction of which the effects are temporary and at the Site level during operation due to the change from an undeveloped field to an ESS, and landscape

effects on the host Local Townscape Character Area (LTCA) 2: North Cray Arable within which the ESS Site and Site access sit. It is important to note that the latter effects on LTCA 2 would only be perceived at a very local scale and from few publicly accessible locations due to the small and consolidated layout of the Proposed ESS. These landscape effects during construction would be temporary and during operation are predicted to reduce to 'negligible adverse' to 'moderate adverse' with the maturation of the proposed planting at Year 10 allowing for greater physical and visual enclosure of the ESS Site. There would also be beneficial changes associated with changes to vegetation cover and biodiversity opportunities from the proposed Illustrative Landscape Masterplan.

6.69 Landscape effects arising from the site access during construction would result from construction machinery, albeit it would comprise smaller vehicles than associated with farming activity, and also localised alterations to landform and vegetation to accommodate visibility splays at the junction. The operational effects would be negligible adverse given the site access will follow the existing route albeit the new access would be more developed in character than the existing grass track and lane. Landscape effects arising from the construction of the cable route corridor would arise as a result of localised excavation however would be temporary, localised within the existing road corridor and roadside vegetation would remain. Operational effects would be neutral given the cable route corridor would be located underground.

6.70 The visual assessment concludes that the higher tier construction effects (major and moderate adverse) would be localised to receptors in close proximity to the ESS Site, including recreational receptors along public footpath FP141 to the south, residents in a more elevated position within the landscape to the north and south, and in all instances would be temporary. During operation, the higher tier visual effects would be from close range views of the ESS equipment from footpath FP141. However, the overall massing of the ESS equipment would be reduced by the dark green rendering and its height below the existing hedgerow on the north of the Site thereby allowing for visual openness to remain. Further to this, residents at a greater distance to the north and south would receive views of the substation which sits above the height of the existing polytunnels albeit these views would be softened by intervening taller trees and partially screened during summer months at Year 1. Subject to the mitigation measures, these effects would reduce to 'minor adverse' to 'neutral' as planting matures at Year 10. The overall operational visual effects of the Proposed Development are expected to be low due to the limited locations from which the ESS would be visible, given the low-lying position of the ESS Site and intervening topography, the density of the intervening vegetation in both winter and summer months, and intervening

development. Where the ESS Site is partly visible from certain receptors, it is generally seen in the context of intervening polytunnels and agricultural buildings and/or its visibility would be reduced during the summer months when deciduous vegetation is in leaf. Visual effects from the access and cable corridor would only occur during the construction phase, and are therefore temporary. In operation, with the cable corridor below ground, views would remain as existing.

6.71 In terms of the character of the night sky, during the construction phase, any lighting associated with the construction of the ESS equipment would be temporary, localised and very small in scale, such that any glare of light trespass would not alter the character of the night sky. During operation, the Proposed Development would not be lit, and therefore there would be no change to the character of the night sky, which would remain an E3 and E4: high brightness district.

6.72 The Proposed ESS is a temporary and reversible development that sits quietly in the landscape without emitting significant amounts of noise or movement.

6.73 It is therefore considered that the Site and receiving environment have the capacity to accommodate the Proposals. The Proposed Development will not result in significant harm to the landscape character or visual environment during operation and, as such, it is considered that the Proposed Development can be successfully integrated in this location and is supportable from a landscape and visual perspective.

6.74 For these reasons, the Proposed Development is considered to be acceptable and in compliance with planning policy in terms of landscape and visual impact.

Cultural Heritage

Policy Summary

6.75 Listed Buildings and Conservation Areas are protected under the Planning (Listed Building and Conservation Areas) Act (1990). In relation to development proposals, section 66 states that:

"…in considering whether to grant planning permission for development which affects a listed building or its setting, the local planning authority or, as the case may be, the secretary of state shall have special regard to the desirability of preserving the building or its setting or any features of special architectural or historic interest which it possesses".

6.76 In relation to Conservation Areas, section 72 states that "…*special attention shall be paid to the desirability of preserving or enhancing the character of that area*".

6.77 The regime for scheduling is set out in the Ancient Monuments and Archaeological Areas Act (1979).

6.78 The NPPF states at paragraph 207:

"In determining applications, local planning authorities should require an applicant to describe the significance of any heritage assets affected, including any contribution made by their setting. The level of detail should be proportionate to the assets' importance and no more than is sufficient to understand the potential impact of the proposal on their significance. As a minimum the relevant historic environment record should have been consulted and the heritage assets assessed using appropriate expertise where necessary. Where a site on which development is proposed includes, or has the potential to include, heritage assets with archaeological interest, local planning authorities should require developers to submit an appropriate desk-based assessment and, where necessary, a field evaluation".

6.79 The NPPF at Paragraph 212 specifically concerns designated heritage assets, stating that:

"When considering the impact of a proposed development on the significance of a designated heritage asset, great weight should be given to the asset's conservation (and the more important the asset, the greater the weight should be). This is irrespective of whether any potential harm amounts to substantial harm, total loss or less than substantial harm to its significance."

6.80 Paragraph 213 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. Substantial harm to or loss of

a) grade II listed buildings, or grade II registered parks or gardens, should be exceptional;

b) assets of the highest significance, notably scheduled monuments…should be wholly exceptional."

6.81 London Plan Policy HC1 (Heritage conservation and growth) notes, "*Development proposals affecting heritage assets, and their settings, should conserve their significance, by being sympathetic to the assets' significance and appreciation within their surroundings… Development proposals should avoid harm and identify enhancement opportunities by integrating heritage considerations early on in the design process."* It goes on to state that: "*Development proposals should identify assets of archaeological significance and use this information to avoid harm or minimise it through design and appropriate mitigation. Where applicable, development should make provision for the protection of significant archaeological assets and landscapes. The protection of undesignated heritage assets of archaeological interest equivalent to a scheduled monument should be given equivalent weight to designated heritage assets*".

6.82 Local Plan Policy SP6 (Manging Bexley's heritage assets) states that "*The Council will manage Bexley's heritage and archaeological assets, whilst seeking opportunities to make the most of these assets; including adapting to and mitigating the effects of climate change*."

6.83 Local Plan Policy DP14 (Development affecting a heritage asset) adds that "*Development proposals with the potential to directly or indirectly impact on a heritage asset or its setting should meet NPPF requirements to describe the significance of the asset and demonstrate how the proposal conserves or enhances the significance of the asset*." It goes on to state: "*10. Development proposals should be assessing the archaeological potential of sites and then retaining, in situ, archaeological evidence within sites, wherever possible. Where archaeological evidence cannot be retained, the appropriate levels of archaeological investigation and recording should be undertaken prior to the redevelopment of the site*."

Assessment

6.84 A Cultural Heritage Desk Based Assessment (DBA) is submitted alongside this planning application.

6.85 As stated previously, the Site is not subject to any statutory heritage designations. Within 2 km of the Site, there are a number of Grade II listed buildings, with the closest being Cray Hall approximately 260 m to the west and one Grade II* Listed Building approximately 1.1 km to the west of the Site There are also two Scheduled Monuments in the vicinity, being Ruxley Church approximately 800 m to the south and the Faesten Dic (in Joyden's Wood) approximately 1.2 km to the east. Within 2km of the Site, there is the non-statutory designated Foots Cray Place Registered Park and Garden (RP&G) approximately 350 m to the north-west, within which several of these listed buildings are located. The High Beeches Conservation Area is located approximately 300 m to the west of the Site, separated from the Site by the A223, and the North Cray Village Conservation Area approximately 600m north of the Site. There is one Locally Listed Building, the Manor Farm Farmhouse (LLB1) located c.270m to the north of the Site and immediately adjacent to the Site's access route.

6.86 The Settings Assessment within the DBA identified one designated heritage asset, Grade II Listed Cray Hall (NHLE 1064240) and one Locally Listed Building, Manor House Farmhouse, as being potentially sensitive to the Proposed Development due to their proximity to and potential intervisibility with the Site. The Settings Assessment found the Site forms a peripheral component of the wider semi-rural setting of Cray Hall and Manor House Farmhouse which is considered to make limited positive contribution to their significance, however, the Site itself makes no meaningful contribution to the significance of Cray Hall and Manor House Farmhouse through being

an element of their setting. It is therefore considered that the Proposed Development will not alter the setting of the Grade II Listed Cray Hall and Locally Listed Manor Farm Farmhouse in a way which would negatively affect their significance, or the experience and understanding of the special interest. Therefore, no harm is found.

6.87 Further to this, the Proposed Development would not create a perceptible increase in noise pollution or traffic associated with the access track which adjoins the Farmhouse and any increase in traffic would not be incongruous with the historic experience of the asset as a farmhouse with an active farm with machinery and vehicles in operation. Therefore, the Proposed Development would not have a significant adverse impact on the immediate setting of the Farmhouse and there would be no harm to its significance. Further to this, works within the curtilage of locally listed buildings do not require Listed Building Consent.

6.88 The DBA confirms that the Proposed Development would not change any key element of the setting of any heritage assets within the study area that may impact on their heritage significance. On that basis, the Proposed Development will result in no harm to the significance of any designated or non-designated heritage assets.

6.89 Further, there will be no impact upon the setting of the High Beeches Conservation Area.

6.90 The DBA has not identified significant known archaeological remains within the Site, and there is considered to be low potential for any highly significant unknown archaeological remains to survive buried in the Site. Therefore, no highly significant archaeological remains would be truncated by the Proposed Development.

6.91 The DBA has identified the potential for archaeological remains to survive within the Site but it is considered unlikely such remains would be of significance to preclude the Proposed Development or influence the design. Any physical development effects of less significant archaeological remains that may be present within the Site would primarily result from groundworks during construction. As such, further investigation or mitigation may be required at an appropriate stage in the development process and could be secured by a suitably worded planning condition.

6.92 The underground cable route to the point of connection predominantly runs along the A223. The DBA submitted confirms that it has been excluded from assessment as it is contained wholly within the footprint of the previously impacts of the public highway and therefore associated works with laying of the cable would have no impact on archaeological or heritage resources.

6.93 The hedgerows along the north, south and west of the Site comprise 'important' historic hedgerows as laid out in the Hedgerows Regulations 1997, being a non-designated heritage asset. The proposed indicative layout (Drawing Ref FST029-PL-01-rev06) indicates that these hedgerows would be retained as part of the proposal.

6.94 The Proposed Development is therefore in full conformity with National Planning Policy and the relevant policies of the London and Local Plan in relation to cultural heritage.

Biodiversity

Policy Summary

6.95 Paragraph 193 of the NPPF asserts that when determining planning applications, local planning authorities should inter alia apply the following principles:

c) "if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;

d) development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons, and a suitable compensation strategy exists; and

e) …opportunities to improve biodiversity in and around developments should be integrated as part of their design, especially where this can secure measurable net gains for biodiversity or enhance public access to nature where this is appropriate."

6.96 London Plan Policy G1 states: "*Development proposals should incorporate appropriate elements of green infrastructure that are integrated into London's wider green infrastructure network*."

6.97 London Plan Policy G5 states: "*Major development proposals should contribute to the greening of London by including urban greening as a fundamental element of site and building design, and by incorporating measures such as high-quality landscaping (including trees), green roofs, green walls and nature-based sustainable drainage*."

6.98 London Plan Policy G6 (Biodiversity and access to nature) explains that *"Development proposals should manage impacts on biodiversity and aim to secure net biodiversity gain."*

6.99 Local Plan Policy DP11(b) requires that development proposals: "*provide a high standard of landscaping design, appropriate to the proposal and with regard to the character of the surrounding area*".

6.100 Local Plan Policy SP9 (Protecting and enhancing biodiversity and geological assets) states that the Council will protect and enhance the natural environment, seek biodiversity enhancements, net gains for biodiversity and improved access to nature, particularly in areas of deficiency, through new development and projects that help deliver opportunities for green infrastructure with preference given to enhancements that help to deliver the targets for habitats and species set out in the London Plan and local biodiversity action plans and strategies.

6.101 Local Plan Policy DP20 (Biodiversity and geodiversity in developments) continues, "*Development proposals will only be permitted where it can be demonstrated that:*

a) a strict approach to the mitigation hierarchy has been taken (i.e. avoid, mitigate, compensate and net gain) and all unavoidable impacts on biodiversity can be justified;

b) completion of the development will result in a measurable long-term net gain for biodiversity, as demonstrated through the application of an acceptable method of measurement, and/or impact assessments;

c) biodiversity enhancement measures and where appropriate mitigation measures have been incorporated within the design, layout and materials used in the built structure and landscaping;

d) opportunities to help connect and improve the wider ecological networks, wildlife corridors and stepping stones for wildlife have been taken by creating linkages through the development site;

e) deficiencies in access to nature conservation are reduced, where possible; and,

f) opportunities to increase wildlife aesthetic value and visual connections with important features have been considered."

6.102 Local Plan Policy DP21 (Greening of development sites) states:

"*Development proposals should set out what measures have been taken to achieve urban greening onsite; and all new major developments should quantify what urban greening factor (UGF) score has been achieved.*

Development proposals should set out what measures have been taken to achieve urban greening onsite; and all new major developments should quantify what urban greening factor (UGF) score has been achieved."

Assessment

6.103 The Site is not located within or adjacent to the boundary of a statutory designated site for nature conservation. However, the Site is within the Impact Risk Zone for the Ruxley Gravel Pits SSSI, approximately 1.2 km to the south-west, separated from the Site by roads and the settlement of Ruxley. There is one Local Nature Reserve (LNR) within the 2km search area: Foots Cray Meadows LNR is 630m north-west of the site, separated from the Proposed Development by North Cray Road and the settlement of North Cray. Within 2 km of the Site, there are pockets of ancient woodland to the north, east and south.

6.104 The impact of the Proposed Development on biodiversity is considered in the submitted Ecological Appraisal ('EcIA') and BNG Assessment which form part of the planning application. This includes a Phase 1 Habitat Survey, scoping survey for protected species, and further Phase 2 surveys for badger and wintering bird surveys.

6.105 The Site comprises agricultural land sown with grass cover of negligible botanical value, with species-rich and well-established boundary hedgerows, however, they do not meet the requirements to be classified as 'important' within the Hedgerow Regulations 1997.

6.106 In terms of protected species, the Site has the potential to support foraging bats in the arable field, however, none of the trees on the edges of the Site have potential to support roosting bats. Further to this, the Site has potential to support reptiles, dormice, voles and hedgehogs, despite none found during field evidence / surveys. In terms of nesting birds, the most activity of birds was within the boundary hedges and the only birds seen over the Site were flying over and the habitats are intensively managed and unlikely to be used by ground-nesting birds. An outlier badger sett was found within the hedgerows in the northeastern/northwestern edge of the Site however there were no signs of activity and no other evidence of badger were recorded on the Site. All ecological features were deemed to be of Site level or Local level value.

6.107 There are no ponds on the Site however a pond adjoins the southeast boundary of the Site, which appears to be associated with the adjoining polytunnels and agricultural packing and distribution centre, and unlikely to be used by breeding GCNs.

6.108 The EcIA submitted with the application concludes that subject to the inbuilt mitigation measures, there would be no residential adverse ecological impacts or effects during construction and operation. The assessment makes 'avoid by design' and 'mitigation by design' recommendations which have been factored into the design of panel and infrastructure layout, and/or the landscape strategy:

- Siting the Proposed ESS within the open field, avoiding boundary hedgerows;
- Utilising existing site access points, existing tracks and field entrances (where possible);
- Incorporating appropriate buffers to ecological features, including a minimum 30m buffer to the outlier badger sett from the Proposed ESS and the construction footprint. The area around the badger sett will be planted with fruit trees to provide an enhanced foraging resource;
- Biodiversity protection zones along retained notable habitats and hedgerows;
- Retaining boundary trees and hedgerows, where possible, and enhancing hedgerows with additional native tree planting;
- introducing a 3m wide strip of native shrub planting along the southern boundary;
- Introducing a new hedge on the eastern boundary;
- Introducing a new linear feature (10m wide) of native trees and shrubs along the northern edge of the Proposed ESS;
- Introducing new native trees in the south-eastern boundary;
- Planting a species rich meadow mix within and outside of the Proposed ESS compound;
- Tool-box talks; and
- Pre-construction nesting bird surveys and scheduling certain works to avoid the breeding season of nesting birds, such as clearance works, habitat manipulation.

6.109 The submitted BNG Assessment and Metric, indicates that modified grassland would be replaced by hardstanding and buildings. Modified and other neutral grassland around the ESS margins, mixed scrub and new trees in the north-east of the Site and along the northern boundary of the ESS is proposed, resulting in BNG of over +80% habitat units and +20% hedgerow units, well in excess of the 10% mandatory BNG, and an Urban Greening Factor >4.

6.110 As such, the Proposed Development presents the opportunity to enhance the biodiversity value of the area, which will be secured via suitably worded planning conditions for:

- a detailed landscaping strategy and planting design;
- sensitive lighting scheme;
- a BNG Plan (using DEFRA template);

- a Habitat Management and Monitoring Plan (using DEFRA template);
- biodiversity enhancements / creation; and
- a Construction Environmental Management Plan (CEMP).

6.111 For these reasons, the Proposed Development is considered to be acceptable and in compliance with planning policy in terms of biodiversity.

Flood Risk

Policy Summary

6.112 Paragraph 170 in the NPPF states that 'inappropriate development' in areas at risk of flooding should be avoided by directing development away from areas at highest risk (whether existing or future). Additionally, paragraph 182 confirms that "*Applications which could affect drainage on or around the site should incorporate sustainable drainage systems to control flow rates and reduce volumes of runoff, and which are proportionate to the nature and scale of the proposal. These should provide multifunctional benefits wherever possible, through facilitating improvements in water quality and biodiversity, as well as benefits for amenity. Sustainable drainage systems provided as part of proposals for major development should:*

a) take account of advice from the Lead Local Flood Authority;

b) have appropriate proposed minimum operational standards; and

c) have maintenance arrangements in place to ensure an acceptable standard of operation for the lifetime of the development."

6.113 Policy SI 12 (Flood risk management) of the London Plan notes that *"Development proposals should ensure that flood risk is minimised and mitigated, and that residual risk is addressed. This should include, where possible, making space for water and aiming for development to be set back from the banks of watercourses."*

6.114 Policy SI 13 (Sustainable drainage) requires development proposals to follow the drainage hierarchy: "*Development proposals should aim to achieve greenfield run-off rates and ensure that surface water run-off is managed as close to its source as possible. There should also be a preference for green over grey features, in line with the following drainage hierarchy:*

1. *rainwater use as a resource (for example rainwater harvesting, blue roofs for irrigation)*
2. *rainwater infiltration to ground at or close to source*

3. *rainwater attenuation in green infrastructure features for gradual release (for example green roofs, rain gardens)*
4. *rainwater discharge direct to a watercourse (unless not appropriate)*
5. *controlled rainwater discharge to a surface water sewer or drain*
6. *controlled rainwater discharge to a combined sewer."*

6.115 Local Plan Policy SP14 (Mitigating and adapting to climate change) states that *"The Council will actively pursue the delivery of sustainable development by supporting new and enhanced green infrastructure, including greening of development sites such as living roofs, and the contribution green infrastructure can make to managing flood risk and surface water, and to the mitigation of the urban heat island effect."*

6.116 Policy DP32 (Flood risk management) of the Local Plan adds that "*All proposals for development in Flood Zones 2 and 3, and all proposals on sites of 0.25 hectares or larger regardless of what flood zone the site is in, must include a site-specific flood risk assessment (FRA), including a drainage impact assessment "* It goes on to state: "*Development must not increase flood risk on-site or off-site, and exceedance flows must be considered and appropriately managed*".

6.117 Policy DP33 (Sustainable drainage systems) of the Local Plan requires:

"*1. All development proposals, whether increasing or decreasing the impermeable area of the site, will be required to manage surface water through sustainable drainage systems (SuDS) in line with all national, regional and local policies and related guidance, in order to minimise flood risk, improve water quality and enhance biodiversity and amenity*.

2. In addition, all development proposals will be required to demonstrate that:

a. the drainage for the site achieves greenfield runoff rates for flood events up to and including 1 in 100 years plus 40% climate change…

3. Development proposals on sites of 0.25 hectares or greater require a drainage strategy, which must be accompanied by a suitable maintenance management plan"

Assessment

6.118 A Flood Risk Assessment and Drainage Strategy (Drawing Ref. 24-432-60-100) has been submitted as part of this application.

6.119 The entirety of the Proposed Development Site is located in Flood Zone 1, and the risk of flooding from surface water, groundwater, sewers or artificial sources is low. Parts of the site are considered

to be at a mapped risk of surface water flooding, however, with the exception of access tracks, no development is proposed in areas at risk of surface water flooding.

6.120 It is proposed that runoff from proposed ESS compound will be contained in the sealed gravel base beneath the infrastructure, for reasons of fire management in order to detain contaminated water in the unlikely event of a fire. Therefore the gravel bases would be providing the storage of design rainfall with the infiltration basin providing the discharge destination.

6.121 Further to this, all access roads will be permeably surfaced and any earthworks along the cabling route will be replaced on a like for like basis. Therefore, surface water runoff from these components of the Site will drain in line with the existing scenario.

6.122 Further, runoff from the more isolated infrastructure would mimic existing conditions by directing runoff to the gravel bases before soaking into the ground, and can accommodate a 1 in 100 year +25%, 12 hour duration storm with accounting for climate change.

6.123 No infrastructure is proposed within the predicted surface water flooding extents, with the exception of the permeable access tracks that would not result in a negative impact on surface water movements.

6.124 The pond located to the south of the Site would not have an impact on surface water flooding due to its bunded nature, being used in association with the agricultural facility directly south of the Site.

6.125 With the implementation of the readily deliverable mitigation measures, the proposals presented are sustainable in terms of flood risk and in full compliance with local and national policies and guidance, and the London Plan.

Traffic and Transport

Policy Summary

6.126 Paragraph 109 in the NPPF encourages developers to consider inter alia the potential impacts of development on transport networks, and how these can be addressed, and opportunities to promote walking, cycling and public transport use. Paragraph 116 in the NPPF states that "*Development should only be prevented or refused on highway grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network, following mitigation, would be severe, taking into account all reasonable future scenarios*."

6.127 London Plan Policy T1 (Strategic approach to transport) states that *"All development should make the most effective use of land, reflecting its connectivity and accessibility by existing and future*

public transport, walking and cycling routes, and ensure that any impacts on London's transport networks and supporting infrastructure are mitigated."

6.128 London Plan Policy T2 (Healthy Streets) sets out that development proposals should demonstrate support for the ten Healthy Streets indicators and ensure that developments are suitably permeable to local walking and cycling networks, whilst Policy T5 (Cycling) supports the removal of barriers to cycling.

6.129 London Plan Policy T4 (Assessing and mitigating transport impacts) states that *"A. Development proposals should reflect and be integrated with current and planned transport access, capacity and connectivity…*

E. The cumulative impacts of development on public transport and the road network capacity including walking and cycling, as well as associated effects on public health, should be taken into account and mitigated.

F. Development proposals should not increase road danger."

6.130 Policy DP22 (Sustainable transport) of the Local Plan outlines that "*the Council will expect to see measures in all development proposals that facilitate and promote walking, cycling, public transport and shared mobility."*

6.131 Policy DP24 (Impact of development on the transport network) of the Local Plan notes that "*Proposals should not have a significant negative effect on the safety of any users, including vulnerable users of the transport network such as pedestrians and cyclists. Proposals should identify, minimise, and mitigate potential negative impacts and seek to achieve a net positive effect on safety wherever practicable*."

Assessment

6.132 Site access during the construction and operation will be via an existing agricultural/farm access track approx. 350 m west of Manor Farm, which would be retained and improved (including localised widening), despite already catering for large vehicles associated with the existing operation of the farm. This track would connect to North Cray Road to the north of the Site, providing onward access to the A223. Layout drawings which show the available visibility splays for the access junctions and swept path analysis have been prepared to accompany this PDAS in the outline Construction Traffic Management Plan ('CTMP'). The outline CTMP would be updated prior to construction works starting, as appropriate, to reflect the final agreed strategy and any associated measures.

6.133 For construction routing, the CTMP takes into account the 7.5 tonne weight restrictions on North Cray Road. The construction vehicle routing of HGVs to / from the Site is proposed via upgraded access off North Cray Road with the wider route to/from the Site using different routes when approaching or leaving the Site. When approaching the Site vehicles will utilise the A2, "2018 Old Bexley Lane, A2018 Dartford Road, A223 North Cray Road and North Cray Road. The egress arrangements will utilise North Cray Road, A223 North Cray Road, A223 Edington Way and A20 Sidcup By-Pass Road. Should it be preferred for the construction vehicles to approach and leave the Site in the same route then roundabout junctions are present either side of the Site access on A223 North Cray Road to facilitate this, as detailed in the CTMP.

6.134 During the 12-month construction programme, two Heavy Goods Vehicles (HGVs) will typically access the Site per day, comprising one rigid bodied HGV (up to 10 m in length) and one articulated HGV. This will generally be equivalent of 10 HGVs per week, and would not exceed 10 HGVs on any single day. No abnormal loads are anticipated however in any event, the appropriate arrangements would be made and the Highways Authority notified in the event. There will be up to 50 construction staff / contractors at peak times travelling to the Site each day, and where possible, will travel together in a mini-bus or car sharing. Parking of all Site related vehicles would not be permitted off-site on the highway network and would be accommodated within the Site.

6.135 Within the Site, an internal access road will be provided for construction vehicles, including appropriate turning areas for vehicle manoeuvring, allowing HGVs to enter and exit the Site in forward gear, and allowing HGVs to be held within the Site for inbound vehicles to avoid banking along the public highway network. This space will remain within the Site during operation for vehicles to turn around to enter/exit in forward gear.

6.136 It is considered that this volume of vehicle trips is minimal and will have a negligible impact on the operational capacity and safety of the local highway network during construction.

6.137 Once the Proposed Development becomes operational, the frequency of vehicle movements would be much lower than in the construction phase and the vehicle types would generally be limited to maintenance visits by LGVs (generally two per month). It is estimated that one HGV trip may occur per annum to replace items / equipment, with no abnormal loads anticipated. Operational vehicle movements to the site are considered to be in line or below the vehicle movements associated with the current agricultural uses of the Site.

6.138 Personal Injury Collision (PIC) data from Transport for London's (TfL) Collision Data for the most recently available 5 year period (1/10/2019-30/09/2024) for the surrounding highway network in

the vicinity of the Site does not indicate clustering of accidents that would indicate deficiency in the highway network that could result in an increase in accidents as a result of the Proposed Development, and therefore is not considered to have a significant adverse impact on highways safety.

6.139 For these reasons, the Proposed Development is considered to be acceptable and in full compliance with planning policy in terms of transport and access.

Pollution, Amenity and Health

Policy Summary

6.140 Paragraph 102 of the NPPF sets out that planning decisions should promote safety and take into account security and defence requirements by adequately addressing possible malicious threats and natural hazards.

6.141 Paragraph 135 in the NPPF states that developments should *"…(f) create places that are safe, inclusive and accessible and which promote health and well-being, with a high standard of amenity for existing and future users".*

6.142 Paragraph 187 of NPPF states that planning decisions should contribute to and enhance the natural and local environment by:

"e) preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability. Development should, wherever possible, help to improve local environmental conditions such as air and water quality, taking into account relevant information such as river basin management plans; and

f) remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate."

6.143 London Plan Policy D3 (Optimising site capacity through the design-led approach) states that *"Development proposals should deliver appropriate outlook, privacy and amenity…help prevent or mitigate the impacts of noise and poor air quality."*

6.144 London Plan Policy D11 (Safety, Security and resilience to emergency) requires development proposals to: "*Development proposals should maximise building resilience and minimise potential physical risks, including those arising as a result of extreme weather, f ire, flood and related hazards. Development should include measures to design out crime that – in proportion to the risk – deter terrorism, assist in the detection of terrorist activity and help mitigate its effects. These measures*

should be considered at the start of the design process to ensure they are inclusive and aesthetically integrated into the development and the wider area."

6.145 London Plan Policy D12 (Fire Safety) requires all major development proposals to be submitted with a Fire Statement, which is an independent fire strategy, produced by a third party, suitably qualified assessor, as per the requirements set out within Part B of Policy D12.

6.146 London Plan Policy D13 (Agent of Change) outlines that *"New noise and other nuisance-generating development proposed close to residential and other noise-sensitive uses should put in place measures to mitigate and manage any noise impacts for neighbouring residents and businesses."*

6.147 London Plan Policy D14 (Noise) states that development proposals should manage noise by avoiding significant adverse noise impacts on health and quality of life.

6.148 London Plan Policy SI 1 (Improving air quality) states that "*Development proposals should not:*

a) lead to further deterioration of existing poor air quality

b) create any new areas that exceed air quality limits, or delay the date at which compliance will be achieved in areas that are currently in exceedance of legal limits

c) create unacceptable risk of high levels of exposure to poor air quality."

6.149 London Plan Policy GG3 (Creating a Healthy City) outlines the requirements of those involved in planning and development in order to improve the health of Londoner's and to reduce health inequalities. The Policy proposes that planning applications assess the potential impacts of development proposals on the mental and physical health and wellbeing of communities, in order to mitigate any negative impacts, maximise potential positive impacts, and help reduce health inequalities, for example through the use of HIAs. It goes on to state that those involved in planning and development must *"Assess the potential impacts of development proposals and Development Plans on the mental and physical health and wellbeing of communities, in order to mitigate any potential negative impacts, maximise potential positive impacts, and help reduce health inequalities, for example through the use of Health Impact Assessments". For the purposes of HIA, a 'major development' is defined as "10 or more residential units (or a site of 0.5 ha or more), or 1,000 square metres or more of non-residential floorspace (or a site area of 1 ha or more)".*

6.150 Local Plan Policy SP8 (Green infrastructure including designated Green Belt) notes that development should protect *"new, or existing, amenity space that has been provided as part of a development, including incidental green spaces that add amenity value."*

6.151 Local Plan Policy DP11 (Achieving high-quality design) requires development to:

c) ensure that appropriate levels of privacy, outlook, natural daylight and other forms of amenity are provided

d) ensure existing properties' amenity is appropriately protected

e) ensure that all proposed development and uses do not unacceptably affect residents or occupiers of either the proposed development or of existing neighbouring residents, businesses and community facilities by means of noise, odour, vibration and light spill or other disturbances.

f) …

g) ..

h) apply the principles of designing out crime whilst maintaining an attractive, connected environment.

6.152 Local Plan Policy D16 (Health Impact Assessment) states that "*major applications are required to complete and submit a desktop health impact assessment checklist as part of the planning application*."

6.153 Local Plan Policy DP28 (Contaminated Land and development and storage of hazardous substances) states: "*1. Where development is proposed on contaminated land or potentially contaminated land, a desktop study and site investigation, including appropriate proposals for remediation will need to be carried out where required*."

6.154 Local Plan Policy DP31 (Energy Infrastructure) states at Paragraph 7.45: "*Renewable energy schemes will be strongly promoted in the borough and encouraged as part of development proposals where they are effective, viable and practical. Applications for renewable energy generation will be expected to demonstrate how the proposal has been sensitively designed to integrate into the local environment , minimising any potential negative impacts, both physically and environmentally*."

6.155 The Sustainable Design and Construction Guide SDP encourages sustainable design and construction practices and includes 7 objectives and principles, addressing themes of protection of the natural and local environment, land being safe for development, conserving natural resources and reducing emissions, ensuring comfort and safety in new developments and minimising adverse effects of the construction process on the surrounding environment. The SPD requires that

developers submit a sustainable design and construction proposal with their planning application using the template provided by LBB.

Assessment

6.156 A Noise Assessment is submitted alongside this planning application, which includes noise monitoring surveys to identify the existing noise environment in and around the Main Site, and noise modelling to predict the noise impact of the proposed development on existing noise sensitive receptors (NSRs).

6.157 The nearest noise sensitive receptors to the Main Site are approximately 230 m to the west of the Site boundaries. It is notable that the Site is located in an agricultural setting and in close proximity to other industrial and commercial uses, such as the packing and distribution centre to the south, which would be typically trafficked.

6.158 The Noise Assessment compared the predicted cumulative noise levels from the Proposed Development with existing background noise at the NSRs and advised that the operational noise from the Proposed Development will not have a significant impact on the surrounding environment with the change in noise levels having No Observed Adverse Effect during both the daytime and night-time periods. It should be noted that the Proposed Development is not expected to operate continuously, however, to present a worst-case assessment, the Noise Assessment has assumed operation during the daytime and night-time periods.

6.159 Further to this, the noise intrusion levels at NSRs is predicted to be below the BS8233/WHO criteria for noise intrusion.

6.160 Overall, considering the BS 4142 assessment outcomes in the context of the existing sound environment and noise policy requirements, noise impacts from operation of the Proposed Development would not be deemed significant. It is not considered that any specific measures are required to prevent significant adverse effects.

6.161 Further to this, it is also expected that construction noise from the Proposed Development would not be significant at the nearest sensitive receptors, and any noise mitigation measures could be included in a Construction Environmental Management Plan (CEMP) secured by way of a suitably worded planning condition.

6.162 Construction lighting would be limited to the construction hours stated previously in this PDAS. Any operational lighting will be motion activated security lighting and due to separation distances and

design measures is unlikely to give rise to local amenity concerns. A lighting strategy could be secured via planning condition if required.

6.163 The Proposed Development would not result in any emissions to air during its operation other than those from vehicles associated with periodic maintenance/inspection visits to the Site. Emissions associated with the construction phase would relate to construction vehicles. Furthermore, it is considered that emissions would be offset several times over by the significant contribution of the Proposed Development to supporting a renewable energy supply.

6.164 Furthermore, the design and layout of the Proposed Development has been be developed in accordance with the NFCCs 'Draft Guidance on Grid Scale Battery Energy Storage Systems' (2024), and an Outline Energy Storage Safety Management Plan (OESMP) is submitted with the planning application. A Detailed OESMP could be secured by a suitably worded planning condition.

6.165 A Geo-Environmental Report is submitted in support of the planning application, which includes a Phase 1 Contamination study and land quality desk study. It concludes that there is low likelihood of extensive contamination on the Site and unlikely to pose risk to future users of the Site, and therefore an intrusive investigation and assessment is not required with respect to human health or the environment.

6.166 With regards to land stability, there is the potential for natural subsidence hazards as a result of dissolution features in the chalk bedrock. Whilst no signs were recorded within the Site during a walkover, the desk study recommends that a geophysical study of the Main Site be undertaken prior to the commencement of works, which can be secured by a suitably worded planning condition.

6.167 A Health Impact Assessment is submitted with the planning application which concludes that the Proposed Development would have neutral to positive health impacts, subject to the recommended mitigation and enhancement measures (e.g. CTMP, CEMP, OESMP and DESMP, and landscape enhancements). As such, it does not recommend any further health impact assessment requirements nor mitigation.

6.168 Furthermore, a Sustainable Design and Construction Statement is submitted alongside this planning application, which demonstrates the Proposed Development accords with the relevant objectives and principles set out in the SPD template.

6.169 Therefore, the proposed development complies with the NPPF and local policies, and the London Plan.

7.0 SUMMARY AND CONCLUSIONS

7.1 Net Zero Thirty Two Limited and Firstway Energy, a partner of the Applicant, is seeking full planning permission under the Town and Country Planning Act 1990 for the installation and operation of an ESS and associated infrastructure, including an underground connection cable to an existing National Grid substation.

7.2 The principle of ESS is supported by local and national policy, and the London Plan, largely due to its key role in supporting a highly renewable electricity system which is required in order to meet the UK Government's legally binding target of net-zero carbon emissions by 2050, and in October 2021 committed to a net zero electricity system much earlier than this (2035). Most recently, the new Labour government has announced that they are bringing this date forward to 2030. Further to this, 'energy storage' was redefined by the Government under the Energy Security Bill (2023) and subsequent Energy Act 2023 to form a distinct subset of generation, it defined the storage as energy that was converted from electricity and is stored for the purpose of its future reconversion into electricity. In essence, Energy Storage under UK law is considered as low carbon energy generation.

7.3 It has been demonstrated that the Proposed Development complies with planning policy and there are significant benefits associated with it. The Site is considered to be within the Grey Belt and the Proposed Development would be considered as 'not inappropriate' development under Framework 143 of the NPPF. Notwithstanding, should LBB consider that the Site is within the Green Belt, and by virtue 'inappropriate development' the applicant has demonstrated a robust case for Very Special Circumstances for development within the Green Belt and outweighs any harm to the Green Belt (see separate Green Belt Assessment report submitted with this application). The environmental and technical reports that form part of the planning application submission demonstrate that there would be no unacceptable environmental impacts (i.e. 'any other harm').

7.4 The North Cray Road ESS would have an operational life of 40 years and will provide vital frequency stabilisation and fast acting reserve capacity to the National Grid. Being located on land on which the Applicant has the necessary rights, it can be deployed in a timely manner and could be constructed in around 12 months following the discharge of conditions contained on any forthcoming planning permission. The development has an agreed grid connection with the DNO, UK Power Networks, and would significantly contribute to the government's ambitions of having a net zero grid by 2030.

7.5 The Proposed Development, through the siting, layout and anticipated controls and conditions referred to in this application, demonstrates a high level of conformity with National Planning Policy, National Planning Practice Guidance, the London Plan (2021), and the relevant policies of the Bexley Local Plan (2023). No material considerations indicate against the granting of planning permission.

7.6 These factors, when combined with the significant need for renewable energy, mean that the planning balance (and, in particular, when considered in the context of the test under Section 38(6) of the Planning and Compulsory Purchase Act 2044) is weighted significantly in favour of the Proposed Development and demonstrate Very Special Circumstances.

7.7 The Applicant therefore respectfully requests that planning permission is granted for the Proposed Development.

APPENDIX 1: LONDON BOROUGH OF BEXLEY PRE-APPLICATION ADVICE RESPONSE

Development Management
Place
Civic Offices, 2 Watling Street,
Bexleyheath, Kent, DA6 7AT
Telephone 020 8303 7777

The person dealing with this matter is:
Email:

Our reference: 25/00139/PREAPM

Date: 11 March 2025

F.A.O. Rob Booth

BY EMAIL:

Dear Rob Booth,

Erection of an energy storage system and associated works and boundary treatment at Manor Farm, North Cray Road, Sidcup.

PROPOSAL

Advice is sought on the provision of a Battery Energy Storage System (BESS/ESS - used interchangeably through this report) and associated infrastructure including internal access roads, 2.4m-high security fencing and underground cabling to connect the ESS to the Hurst Grid Substation, approximately 1.45km to the northeast of the proposed ESS. The cabling would be laid largely adjacent to A223 ('North Cray Road'). Means of access to the site is proposed using an existing access point from North Cray Road and utilising existing private tracks to the north and east of the proposed ESS, with access through or via Manor Farm to the north, an occupied farmhouse and partially abandoned group of farm buildings.

OUTLINE OF SITE AND PROPOSAL

The ESS and associated infrastructure will occupy a fenced area of approximately 3.82 hectares of land, with associated access routes and underground cabling linking the ESS to the Hurst Grid Substation. The ESS will have a total electricity import capacity of 200 Megawatts (MW), which is capable of powering approximately 650,000 homes.

At this stage, there is no indication for what length of time the homes could be powered for. The ESS is proposed to be operational for a 40-year period, with the site then restored to its former state.

The site of the ESS is designated Green Belt land. In addition, part of the access route to the north of the ESS is on land designated as a Mineral Safeguarding Area. The route of the underground cabling is largely along North Cray Road, a London distributor road. The cabling route goes through North Cray Conservation Area. The ESS will be sited on agricultural land approximately 350m to the east of North Cray Road. This is a small area of woodland to the north of the field and the access point, which travels south from Manor Farm and ultimately the access to North Cray Road. Open agricultural land is to the east, with intensive agricultural consisting of fields covered by polytunnels. There are further undeveloped fields not used for agricultural purposes to the west, beyond an existing hedgerow. The nearest sensitive receptors are residential dwellings on Cornell Close approximately 215m to the west beyond an area of woodland. The land the ESS is proposed on is flat. However, the application site is a modestly lower elevation than surrounding land which gently slopes upward away from the site in all directions.

A plan has been submitted showing an additional structure associated with the ESS on the field to the east of the access point to the field. The submitted plan also indicates the presence of an existing gas main beneath the site. However, the gas main location appears indicative.

RELEVANT PLANNING HISTORY

No relevant history or nearby developments relevant to the proposed scheme.

RELEVANT PLANNING CONSIDERATIONS

<u>The Development Plan</u>

The adopted Development Plan for the London Borough of Bexley comprises; the Bexley Local Plan (2023) and the London Plan (2021).

The Development Plan for the area, which includes the Bexley Local Plan and the Mayor's London Plan, should be read in its entirety. Planning guidance produced by the Government, the Mayor of London, and by the Council expands on Development Plan policies and has material weight when taking planning decisions.

The London Plan, as the spatial development strategy for London, provides the strategic framework. It does not however preclude boroughs from bringing forward policies relevant to their areas where locally specific circumstances and evidence suggests this would not undermine the objectives of the London Plan and where such an approach can be considered to be in general conformity with the London Plan. The Local Plan does this. It is also silent where the London Plan policy does not require a local approach. The London Plan 2021 plan period runs from 2019 to 2041, and the

Local Plan to 2038. Longer term London Plan objectives may fall beyond the timeframe of the Local Plan although the key objective of sustainable development underpins both documents. The Local Plan contains strategic, non-strategic and site allocation (for residential and residential-led mixed-use development) polices along with supporting text.

Other material considerations

The National Planning Policy Framework (2024) acts as guidance for local planning authorities and decision-takers, both in drawing up plans and making decisions about planning applications. At the heart of the NPPF is a presumption in favour of sustainable development. The document forms a key and material consideration in the determination of any planning permission.

PLANNING ASSESSMENT

The main considerations include:

- Principle of Development – Green Belt
- Principle of Development – SINC & Ancient Woodland
- Principle of Development – Alternative Site Selection
- Design & Impact on Character of Local Area
- Neighbour Amenity
- Transport
- Ecology & Biodiversity
- Waste (inc. Excavated or Imported Material(s) and Spoil).
- Safety & Security (inc. Fire Safety)
- Climate Change & Environment
- Drainage & Flooding
- Contaminated Land
- Agricultural land classification
- Structural stability of land

CONSULTATION RESPOSNES

Strategic Planning

It is not considered that this site strongly contributes to the purposes of (a), (b) or (d) of Paragraph 143 of the NPPF (e.g. the site does not strongly contribute to these purposes). As assessment for 'grey belt' can only be assessed against (a), (b) and (d), it is considered that there is potential for it to be successfully demonstrated by the applicant that this site can be considered 'grey belt'. The assessment and justification would be that development on this site would not result in unrestricted sprawl of the built-up area (compliance with (a); that the development would not result in the merging with one another (compliance with (b)); and, that any development would not result in harm to the setting and special character of a historic town (compliance with (d)).

On this basis, the proposed development would then in turn be assessed against paragraph 155 of the NPPF, development including 'other development in the Green Belt', which this proposal would constitute. The development would need to be assessed against all parts of Paragraph 143, purposes of the Green Belt, including points (c) and (e). With regards to point (c), it is considered that there is potential that the development would result in encroachment into the countryside. The applicant will need to demonstrate that there is no encroachment. Or, if there is some encroachment, that the harm to the Green Belt caused by such encroachment would be negligible. There is no NPPF definition of 'encroachment' so a view would have to be taken when presented with a planning application. With regards to (e), it will be crucial that a planning application is supported with a robust Alternative Site Assessment (ASA). It is acknowledged that there are certain constraints with regards to the location of an ESS development, such as distance from a Point of Connection (POC). An appropriate search area is suggested as 2km from the POC. Available or potential derelict land should be included, including former industrial land etc.

With regards to demonstrating an unmet need for the type of development, NPS EN-1 covers the role of energy storage. The Framework sets out that the planning system should support the transition to a low carbon future and support, amongst other things, renewable and low carbon energy and associated infrastructure. Given the context provided by NPS EN-1 and the Framework, it is concluded that an ESS project more than likely represents much needed associated infrastructure. However, the applicant should ultimately demonstrate this as part of their submission.

In addition to this, it is acknowledged that one of the constraints to the early development of renewable and low carbon energy and associated infrastructure is the ability to access the local grid. It is understood that in some places, notwithstanding the appetite to develop projects, grid connections are not available for several years. Thus, given the imperative of mitigation climate change and achieving net zero, it is likely the project can make an early contribution to the clean power pathway required to achieve net zero. Whilst the LPA accepts it will be likely demonstrable that there is an unmet need for this kind of development, the onus is on the applicant, and they should provide quantifiable evidence of an unmet need for this type of development.

Turning to the requirement that the development be in a sustainable location. Whilst the application site is not within a Sustainable Development Location (SDL), access would be afforded with relative ease from North Cray Road. It is considered likely that the applicant will be able to demonstrate this requirement can be met.

The 'Golden Rules' do not apply to this development type.

Conclusion: There is the potential that the site could be argued as 'grey belt' against the definition provided within the NPPF. The applicant/their agents then really need to focus on the requirements of paragraph 155, specifically a). where it needs to be demonstrated that the development would not fundamentally undermine the purposes (taken together) of the remaining Green Belt across the area of the plan. Alternative

sites would also need to be explored to meet e). If these matters cannot be addressed/demonstrated to officers' satisfaction, then we should revert to considering the site as inappropriate development and [consider] against VSCs.

Strategic Planning – Site Designation (agricultural land)

The prospective applicants should be aware that the NPPF states that where significant development of agricultural land is demonstrated to be necessary, areas of poor-quality land should be preferred to those of a higher quality. Any full application will need to address this point.

Strategic Planning – Mandatory Biodiversity Net Gain (BNG)

It has been noted that the pre-application statement indicates that a BNG assessment is to be carried out in connection with the proposals. Whilst the statement refers to relevant development plan policies, the applicant should consider the mandatory requirement under Schedule 7A of the Town and Country Planning Act 1990. The council expects all opportunities for on-site BNG to be maximised. Guidance on BNG is available at https://www.gov.uk/government/collections/biodiversity-net-gain.

Strategic Planning – Urban Greening

There is a requirement under both London Plan Policy G5 and Bexley Local Plan Policy DP21 for development to achieve a minimum level of greening. The application should be supported by an Urban Greening Factor (UGF) calculation. In line with urban greening best practice, it is expected that the greening measures address locally specific conditions of the site. Further guidance is available at https://www.london.gov.uk/programmes-strategies/planning/implementing-london-plan/london-plan-guidance/urban-greening-factor-ugf-guidance, and https://www.london.gov.uk/programmes-strategies/urban-greening-biodiversity-net-gain-design-guide.

Strategic Planning – Sustainability

Relevant London Plan policies relating to sustainability include SI 2, which discusses the need to minimise greenhouse gas emissions and SI 3, which relates to the storage of green energy. Local Plan Policy SP14 – mitigating and adapting to climate change, is the most relevant to the proposal. The submission does not make it clear whether the BESS will cater for green energy sources, but notwithstanding this it is acknowledged that the project may potentially have a role in helping in the transition to a greener energy and energy security. Current Local Plan policy focus is on encouraging green/renewable energy schemes, facilitating the decentralisation and decarbonisation of the energy network. The applicant should therefore ensure that these objectives are met and a strong justification for why there is a need for the proposed BESS to be

located within Bexley, and how this will be of benefit. Any application will need to be accompanied by an assessment of alternative sites.

The London Borough of Bexley supports developments that achieve zero-carbon and demonstrate a commitment to drive down greenhouse gas emissions to zero. The council is currently engaging with the GLA on the production of the East London Subregional Local Area Energy Plan (LAEP), which will help identify necessary energy infrastructure requirements as well as opportunities to decarbonise London's energy system. The East London LAEP is due for completion by Autumn 2025. Further information can be found at https://www.london.gov.uk/programmes-strategies/better-infrastructure/infrastructure-coordination/planning-service/local-area-energy-planning-london.

Contaminated Land

No objection in principle. However, given the location the applicant should be aware of the potential for 'swallow holes' that can 'crop up' in the area. It is recommended that structural and land stability investigations are carried out.

Environmental Health

It is noted the applicant intends to submit a Noise Impact Assessment ('NIA'). The 12-month construction phase of the development has the potential to cause some disturbance to local residents in terms of noise and dust emissions, which will need to be adequately mitigated and controlled through the imposition of planning conditions.

Operational air quality impacts are anticipated to be negligible, with those associated with construction phase able to be minimised through adoption of best practices. Maintenance visits whilst the site is operational are expected to be relatively infrequent and consequently not expected to result in adverse impacts.

It is recommended that the applicant carries out early consultation with London Fire Brigade, OFGEM (or other relevant regulators).

Environmental Health will make further comments on receipt of the NIA.

Transport and Development

The proposal site is located approximately 400m east of North Cray Road and is accessed from North Cray Road, which is an 'unmade public right of way' and the proposal would include improvements for construction vehicle access to the site.

Upon completion of the construction of the ESS, it is unlikely there would be regular traffic movements to and from the site and subsequently the proposals would have no adverse effect on the local highway network. Nonetheless, the applicant should provide a Construction Traffic Management Plan to monitor the effects of the proposals on the local highway network.

Placemaking

The Landscape Visual Impact Assessment (LVIA) note states that the visual receptor for 'Viewpoint 10' is road users to the A223. However, due to dense roadside trees and the natural landform on A223, the existing site is not visible to road users. It is recommended to relocate the viewpoint to North Cray Road.

With regards to the proposal's impact on the surrounding area, the information provided is currently minimal. The applicant should provide further design details that, given the site location, reflect a sensitive approach to design and consider the experience of residents and visitors to the area. The council will expect to see demonstration of this through, amongst other design considerations, the architectural expression and scale of structures and green sustainable principles integrated into the proposal.

Local Lead Flood Authority (LLFA)

The LLFA would have no objections to the planned development, provided that a full drainage strategy is included in any planning application. As indicated in submitted information, the land is currently undeveloped, and the proposed works are likely to increase the surface water runoff rate. The LLFA would expect the site to achieve the greenfield runoff rate for all return periods and not increase flood risk elsewhere. The inclusion of Sustainable Drainage elements at an early stage in the project development will allow such elements to be incorporated more easily and provide greater overall benefits. The applicant should follow the drainage hierarchy, as set out in Policy SI13 in the London Plan.

RESPONSE

Introduction

The NPPF sets out that the purpose of the planning system is to contribute to the achievement of sustainable development, including the provision of homes, commercial development and supporting infrastructure in a sustainable manner. Sustainable development has three interdependent overarching objectives – economic, social and environmental. Planning decisions play an active role in guiding development towards sustainable solutions, taking local circumstances into account to reflect the character, needs and opportunities of each area.

As set out under Section 4 of the NPPF, Local Planning Authorities are to approach decisions on proposed development in a positive and creative way. Early engagement, as demonstrated under this pre-application, is encouraged and enables better coordination between public and private resources to lead to improved outcomes for the community.

Principle of Development – Climate Emergency

As a starting point, it is advisable that the application is submitted referring to current global events and current legislation regarding the climate emergency and ongoing geo-political events impacting the United Kingdom's energy security. The submitted documents do not make any significant reference to this and supporting information should robustly and clearly set the background for the need for such infrastructure in light of these issues.

Principle of Development – Green Belt

The ESS is proposed on land designated as Green Belt. In assessing any planning application, the Local Planning Authority (LPA) must give substantial weight to harm to the Green Belt, including its openness, except for development on grey belt land, which is not inappropriate. Harm to the Green Belt can only be approved in Very Special Circumstances (VSCs), which exist only if the harm is clearly outweighed by other considerations (Paragraph 153, NPPF).

Paragraph 154 lists exceptions where development in the Green Belt is not inappropriate. The proposed ESS does not fall under any of these exceptions.

However, Paragraph 155 allows other forms of development to be considered not inappropriate in the Green Belt where all the following criteria are met:

- The development would utilise grey belt land and would not fundamentally undermine the overall purposes of the Green Belt.
- There is a demonstrable unmet need for the development.
- The development is in a sustainable location, as per Paragraphs 110 and 115 of the NPPF.
- Where applicable, the proposal meets the 'Golden Rules' (Paragraphs 156-157), though these apply only to housing development and are not relevant here.

The NPPF defines grey belt as previously developed land or land that does not strongly contribute to Green Belt purposes (a), (b), or (d) of Paragraph 143. The NPPG (updated February 2025) clarifies that:

- Villages are not considered large built-up areas, supporting the argument that land within or adjacent to them may not strongly contribute to purpose (a).
- The extent of contribution to Green Belt purposes should be assessed using a sliding scale, ranging from strong, moderate, to weak/no contribution.
- A site is only excluded from grey belt designation if other Footnote 7 policies provide a strong reason for refusal, aside from the Green Belt designation itself.

Given these parameters, an initial review by the LPA indicates that the application site may be capable of being classified as grey belt land. The applicant is advised to robustly justify this by addressing the tables provided in the updated NPPG.

Assuming the site is classified as grey belt, the applicant must satisfy the four criteria of Paragraph 155:

(a) Use of Grey Belt Land and Impact on Green Belt Purposes: The applicant must assess all Green Belt purposes, including those not covered in the grey belt assessment:

- (c) Safeguarding the countryside from encroachment – Demonstrate why the development does not constitute encroachment or why any encroachment does not undermine this purpose.

- (e) Supporting urban regeneration – Submit a robust Alternative Site Assessment (ASA) within a 2km radius of the Point of Connection (POC), identifying and justifying why no alternative, previously developed sites are viable or preferable.

(b) Demonstrable Unmet Need: The LPA acknowledges that the need for ESS development is likely to be demonstrable, but the applicant must formally evidence this.

(c) Sustainable Location: Paragraphs 110 and 115 require major developments to be in sustainable locations. The proposed ESS would generate negligible trips, and while the site is not well-served by public transport, this is unlikely to be a significant concern given the nature of the development.

(d) Golden Rules: Not applicable, as they only relate to housing.

If the site does not qualify as grey belt or is otherwise considered inappropriate development, the applicant must demonstrate Very Special Circumstances (VSCs). VSCs exist only where harm to the Green Belt, and any other harm, is clearly outweighed by other considerations (Paragraph 153, NPPF).

Paragraph 160 acknowledges that ESS may be considered a renewable energy project, and such projects within the Green Belt are often inappropriate. The applicant must justify VSCs, potentially including wider environmental benefits, such as increased renewable energy production, regardless of whether the renewable source is on- or off-site.

Even if a development is not inappropriate, this does not remove the land from the Green Belt or guarantee approval. Other policies, including the adopted local plan and the NPPF as a whole, will still apply.

The NPPG clarifies that if a development is deemed not inappropriate on grey belt land, then substantial weight is not given to harm to the Green Belt, including its openness. In this case, the proposal would not require justification through VSCs.

Finally, applicants should ensure compliance with London Plan policies GG2 (Making the best use of land) and G2 (London's Green Belt), demonstrating consistency with their requirements.

DISCLAIMER: With regards to the green and grey belt, these comments are provided based on an officer level assessment which has been informed by current government guidance and are made without prejudice to the outcome of a future Green Belt Review (which the Council will be undertaking).

Principle of Development – Minerals Safeguarding Area

A small part of the application site is on land designated for the safeguarding of minerals. From the submitted plans, it is highly unlikely the proposal would have any impact on this designation given that the area designated will only be used for access, utilising existing access tracks and roads. Nonetheless, it is advised that this is clarified in any submission.

Principle of Development – Alternative Site Selection

Given the proposed ESS's location relatively remote from the Hurst Grid Substation and siting on Green Belt land in the open countryside, a robust and clear alternate site selection strategy will need to be demonstrated. Justification for both the overall need for the ESS on a national and regional level, demonstration of alternative sites including in nearby boroughs (Bromley, Dartford) will need to be presented to demonstrate to the LPA that there are no viable alternatives that would result in less harm will need to be put forward. Consideration of likely local opposition in this regard is also recommended. It is acknowledged that, no matter where located, this type of development will be controversial. However, the onus is on the applicant to duly address understandable concerns given the site's location. It should also be demonstrated why the extent of the land is required, demonstrating that the site is as compact as reasonably possible and the co-location of facilities closer to the Hurst Grid Substation is not possible and what the reasons are.

Character and Appearance

Section 12 of the NPPF sets out national policy guidance in relation to achieving well-designed places. Planning decisions are expected to ensure developments function well over the lifetime of the development, whilst being visually attractive in terms of architecture, layout and landscaping whilst being sympathetic to local character and the landscape setting. The potential of sites should be optimised.

Paragraph 131 of the NPPF states that the creation of high quality, beautiful and sustainable buildings and places is fundamental to what the planning and development process should achieve, with good design is a key aspect of sustainable development. As set out in Paragraph 135, planning decisions should ensure that developments:

- Will function well and add to the overall quality of the area, not just for the short term but for over the lifetime of the development.
- Are visually attractive as a result of good architecture, layout and appropriate and effective landscaping.

- Are sympathetic to local character and history, including the surrounding built environment and landscape setting, while not preventing or discouraging appropriate innovation or change (such as increased densities).
- Establish or maintain a strong sense of place, using the arrangement of streets, spaces, building types and materials to create attractive, welcoming and distinctive places to live, work and visit.
- Optimise the potential the site to accommodate and sustain an appropriate amount and mix of development (including green and other public space) and support local facilities and transport networks.
- Create places that are safe, inclusive and accessible and which promote health and wellbeing, with a high standard of amenity for existing and future users, and where crime and disorder, and the fear of crime, do not undermine the quality of life or community cohesion or resilience.

Bexley Local Plan Policy SP5 sets out that development within the Borough must be of a high-quality design and contribute positively to local character. DP11 goes on to set out that development should consider the character, including landscape character, of the surrounding area.

It is acknowledged by the LPA that the type of development proposed would appear functional and utilitarian rather than designed to be 'beautiful'. Nonetheless, efforts should be made to ensure that appropriate landscaping, making use of appropriate species types, is provided to mitigate and, where appropriate, screen the proposed development from general view. It is observed that the BESS would be constructed upon flat land at a lower elevation than the surrounding area, which, depending on proposals for land levels, may result in a form of development particularly prominent from the surrounding area. Landscape screening should consist of appropriate types and species of plants that would relate to the surrounding landscape and complement, support or encourage the return of locally protected or threatened biodiversity. The applicant should also explore if elements of the proposed structure could be housed in low level, agrarian style buildings that would be less impactful than having the most unsightly and utilitarian elements of the proposal open and visible.

<u>Impact on Surrounding Land Use</u>

Paragraph 187(e) of the NPPF states that new development should not be impacted or cause impact to the local environment through unacceptable impacts through soil, air, water or noise pollution or land instability. Paragraph 198 goes on to set out that development should mitigate and reduce impacts from noise, which can result in significant adverse impact on the quality of life of nearby occupiers. Planning decisions will identify tranquil areas, with the impacts of light pollution on surrounding land uses and occupiers of surrounding buildings also identified, and mitigation required. Information should be submitted to demonstrate that the equipment will not cause any harmful glare that may affect surrounding properties or traffic.

London Plan Policy D13 explains the Agent of Change Principle. The onus on mitigation impacts from existing surrounding land uses or caused by proposed land uses is on the

proposed development. New noise and other nuisance-generating development proposed close to residential and other noise-sensitive uses should mitigate such noise or other nuisances. Policy D14 goes on to set out that development proposals should avoid significant adverse noise impacts and mitigate/minimise noise impacts that may result from or to existing or proposed development.

Bexley Local Plan Policy DP11 sets out that it should be ensured that development does not result in undue impact upon neighbouring amenity through loss of privacy or outlook, daylight or impacts on any other forms of amenity, including noise, odour, vibration or light spill.

The applicant should ensure that any submission for planning permission is supported with robust assessments relating to noise outbreak and mitigation. It is likely that noise impacts could be appropriately mitigated (if mitigation is required) through landscaping, bunding and acoustic barriers. However, the applicant is reminded to consider the appearance of such mitigation. In addition to noise, consideration to light overspill will be required, both upon nearby dwellings and upon wildlife that may be impacted by lighting overspill. An external lighting assessment will be required.

Transport

Paragraph 109 sets out that transport issues should be considered early, with development proposals ensuring impacts on the transport network are addressed, including the provision of sustainable transport options, consideration of movement patterns and realising opportunities from existing transport networks.

London Plan Policy T2 sets out that development proposals should demonstrate support for the ten Healthy Streets indicators and ensure that developments are suitably permeable to local walking and cycling networks, whilst T5 supports the removal of barriers to cycling.

Bexley Local Plan Policy DP22 sets out, amongst other things, that developments proposals should facilitate and promote cycling and walking, whilst DP24 sets out that proposals should not have undue impact on road safety or unsuitable use of roads that would prejudice the road hierarchy.

Given the type of development proposed, it is not envisaged that trip generation would have any undue impact on the function of roads surrounding the application site nor generate any meaningful additional traffic. However, during construction phase, it is likely there will be some impact on the local road network. It is expected that any proposal is supported with a robust construction traffic management plan and/or construction environmental management plan (CTMP/CEMP). It will also be likely that that through imposition of a condition that, prior to commencement of the proposed scheme, the condition of the surrounding road network will be recorded, with the road network condition then reviewed post-completion of the development. Any damage or degradation of the road network attributable to the construction of the development would need to be repaired at the developer's expense.

It is also of note that there are footpaths and byways proximate to the development site. These footpaths must not be closed at any time during the construction of the scheme without consent. It is expected that walking and cycling infrastructure proximate to the site are retained or improved as part of the development, as required.

It is observed that the intention is to utilise an existing access point from North Cray Road, used to access Manor Farm. The applicant would be expected to explore whether this intersection, the road layout and highway safety has been appropriately considered.

Ecology, Biodiversity & Landscaping

In England, Biodiversity net gain (BNG) is mandatory from 12 February 2024 under Schedule 7A of the Town and Country Planning Act 1990 (as inserted by Schedule 14 of the Environmental Act 2021). Developers must deliver a BNG of 10%. This means development will result in more or better-quality natural habitat than there was before development. It is not considered that the proposed development would meet any of the exceptions. However, if the applicant believes that the development would be exempt, this case will need to be put forward under a full planning application.

Section 15 of the NPPF sets out that planning decisions should contribute to and protect valued landscapes, recognising the intrinsic character of the countryside and the wider benefits of ecosystem services. It sets out that net gains for biodiversity should be secured. Development proposals, wherever possible, should improve local environmental conditions including water quality.

Paragraph 193 states that, where significant harm to biodiversity cannot be avoided through alternate site selection, mitigation or compensation, then planning permission should be refused. The loss or deterioration of irreplaceable habitats (such as ancient woodland) should be refused unless in wholly exceptional circumstances. Paragraph 195 states that the presumption in favour of sustainable development does not apply where there are significant effects on habitat sites.

London Plan policy G1 states that development proposals should incorporate elements of green infrastructure that integrate into London's wider green infrastructure network. G5 goes on to set out that major development proposals should contribute to the greening of London and include elements of greening such as landscaping, trees and green roofs/walls et al. G6 states that SINCs should be protected, with the mitigation hierarchy already addressed elsewhere in this response needing to be adhered to.

Bexley Local Plan Policy DP11(b) sets out that a high standard of landscape design is expected, with due regard to the character of the surrounding area. Policy SP9(h) states that it should be ensured that landscaping makes use of native plant species of native provenance. Policy DP20 goes on to set out that landscaping should contribute to the enhancement of biodiversity and appropriately mitigate impacts of the proposed

development. DP20(2) states that an ecological buffer zone must be provided to ensure designated sites of conservation are appropriately protected from proximate development.

The majority of the application site is currently fallow agricultural land. It is expected that the application is submitted with an appropriate and robust landscaping plan, which demonstrates appropriate landscaping as set out in relevant local and national policy. Of particular note will be proposed landscaping that will act as a buffer between the development and nearby sensitive receptors, such as residential uses. It is expected that a robust ecological impact assessment will be submitted that demonstrates an appropriate scheme with suitable species of planting to improve local biodiversity. Given the existing land use as fallow agricultural grassland, a 10% biodiversity net gain would be expected to be easily achievable, and the LPA will expect a far greater net gain to be achieved.

Waste (inc. Excavated Materials)

London Plan Policy SI 7 sets out that circular economy principles should apply to development proposals, in order to promote a circular economy and reduce waste. The re-use of materials is strongly encouraged. The policy sets out that excavated material should be reused at a 95% rate.

Bexley Local Plan DP27 states that all development proposals should consider how the re-use and recycling of construction, demolition and excavation waste materials can be maximised on-site or, if this is not possible, within London.

The application site is set across largely flat land, that will not be expected to require substantial re-grading or reprofiling to accommodate the proposed BESS. It is expected that any excavated material is reused on the site, potentially contributing to bunding or improved landscaping that will be appropriate when considering the landscape character of the surrounding area. Should there be excavated material surplus to requirements, a robust strategy for the re-use or appropriate off-site recycling of this waste must be demonstrated in submission of the planning application.

It is acknowledged that the development proposed will not be a significant waste generator.

Safety & Security (inc. Fire Safety)

Paragraph 102 of the NPPF sets out that planning decisions should promote safety and take into account security and defence requirements by adequately addressing possible malicious threats and natural hazards.

London Plan Policy D11 sets out that development proposals should maximise building resilience and minimise potential physical risks, including those from extreme weather events, fire, flood and related hazards. Development proposals should include measures that design out crime in proportion to risk. Policy D12 goes on to set out that

all development proposals must achieve the highest standards of fire safety, ensuring a variety of design features are considered and implemented into proposed schemes. The policy goes on to set out that all major development proposals should be submitted with a fire statement, setting out the requirements of the fire statement therein.

Bexley Local Plan DP11(h) states that all development proposals should follow the principles of designing out crime.

It is expected that any future planning application is submitted with the support of a robust fire and similar emergency strategy. It is likely a key concern of the proposed development is potential fire or explosive risks, whether or not this is the case. A robust and clear fire assessment and strategy encompassing the latest policy and technology relating to fire avoidance and suppression should be set out. Access to water or other relevant fire retardants to extinguish fires should be demonstrated. Consultation with the London Fire Brigade will be carried out.

The risk of trespass into the site should be addressed with appropriate boundary treatments forming part of the development proposals, as well as security lighting and CCTV systems.

Climate Change & Air Quality

Paragraph 161 of the NPPF states that the planning system should support the transition to net zero by 2050, taking full account of climate change. It should help to contribute to a radical reduction in greenhouse gas emissions and support renewable and low carbon energy and associated infrastructure.

London Plan Policy SI 1 sets out that major development should be net zero-carbon. Major development must be accompanied by a detailed energy strategy to demonstrate that the net-zero carbon will be achieved.

Bexley Local Plan SP14 sets out that the Council will pursue the delivery of sustainable development, supporting developments that achieve net-zero and demonstrate commitment to reducing greenhouse gas emissions. Policy DP30 sets out that major development proposals must meet London Plan requirements in relation to whole-life carbon emissions.

As already addressed, and notwithstanding the green belt issues, the principle of providing a BESS is likely acceptable given the declared climate emergency and geopolitical events globally, with the benefits recognised of storing low carbon or renewable energy and addressing the climate emergency. However, notwithstanding this fact, direct impacts of the proposed development must be addressed. It is expected that the application site is net-zero in terms of carbon generation. Appropriate on-site power generation etc. should be demonstrated with an energy strategy submitted with a planning application.

Drainage & Flooding

A suitable SuDS (sustainable urban drainage systems) strategy must be employed to ensure that greenfield run-off rates are achieved and to counter the effect of increasing the surface water flood risk.

It is a requirement that the SuDS hierarchy is correctly followed and that surface water is dealt with on site at source as much as possible (As required by the Mayor's London Plan 2016, the Building Regulations, Bexley's SFRA, the SuDS Manual and "Sewers for Adoption").

The Council's Sustainable Drainage Design and Evaluation Guide provides further details of this and can be found on line, via the following link.

https://www.bexley.gov.uk/services/planning-and-building-control/planning-policy/supplementary-planning-documents-spds

In addition to this you should be mindful that:

- The development must not make the flooding worse either on or off site as per National Planning Policy Framework (NPPF) and where possible will reduce the flood risk overall.
- Exceedance routes for the 100 year design storm plus climate change, to be plotted and protected under planning (NPPF & Designing for exceedance in urban drainage (Ciria 635)).
- Surface Water discharge into a Foul Sewer is strictly not allowed and likewise Foul discharge into a Surface Water Sewer is strictly not allowed.
- The drainage designs must also comply with Building Regulations Part H and comply with Thames Water Authority adoptions and approvals.
- Thames Water Utilities Limited should be consulted regarding any new sewer connections, sewer capacities, new water supplies and new water meters.

It is of note that there is a pond located on the site of the proposed BESS. This pond would need to be considered, as it likely has some contribution to the natural drainage of the immediate area.

Contaminated Land

Paragraph 187(f) sets out that the remediation of contaminated or unstable land should be taken into account through decisions for planning permission. Adequate site investigation should be carried out prior to development. Furthermore, Bexley Local Plan Policy DP28 sets out that where development is proposed on contaminated land, a desktop study and site investigation will be required.

It is not expected that the application site features areas of contaminated land. Nonetheless, a planning application should be supported with a suitably scoped desktop assessment. A planning condition will be required setting out the procedures should contaminate land be identified during the construction process.

Greater London Authority (GLA) Referrable

It is likely that the application will be referrable to the GLA. Category 3D of The Town and Country Planning (Mayor of London) Order 2008 sets out that development on land allocated as Green Belt or Metropolitan Open Land that would involve the construction of a 'building' with a floorspace of more than 1,000 square meters should be referred. It is advised that advice is sought directly from the GLA prior to the submission of a full planning application.

Environmental Impact Assessment (EIA) Development

A screening opinion has been provided under application 25/00137/SCREEN confirming the development is not considered EIA development.

Agricultural Land Category

The applicant will need to demonstrate what agricultural land category the agricultural land the development is proposed to fall under. If the agricultural land is considered 'good' or better, then appropriate details and justification will be required. It is acknowledged that the proposal is for a temporary 40-year period, which should assist in informing such justification.

Planning Obligations and CIL

Bexley's Community Infrastructure Levy (CIL) came into force on 30th April 2015. CIL is a system of planning charges for the funding of infrastructure to help make new development sustainable. It has largely replaced the previous system of Section 106 planning obligations except for securing site mitigation measures and affordable housing provision.

Bexley's CIL charge for the proposed development ('all other uses') in this location would be £10 per square metre. Further details of Bexley's CIL can be found on the Council's website: https://www.bexley.gov.uk/services/planning-and-building-control/planning/community-infrastructure-levy-cil

In addition to the above, the proposal would be liable for the Mayoral CIL, which is charged at £25 per square metre (plus indexation) of net additional floorspace.

CIL is payable on commencement of development.

Gas Assets

It is noted from submitted plans and documents that it appears there is an underground gas main within the application site. Due consultation will be required with the relevant bodies to address this prior to the submission of an application.

Pre-commencement conditions

Regulations require pre-commencement conditions to be agreed with the applicant/agent. If that agreement is not forthcoming it may result in the planning permission being refused. As part of a planning application, the Planning Authority will write to requesting agreement to such conditions. It is in your/your client's interests to respond promptly to that request, and it is good practice if pre-commencement conditions can be agreed as early as possible.

List of Documentation to be submitted with application

The link below takes you to a document which details the requirements for the valid submission of different types of planning applications to the London Borough of Bexley.

https://www.bexley.gov.uk/services/planning-and-building-control/planning/make-planning-application

The key documents to be submitted will include the following. This is not necessarily an exhaustive list; please refer to national and local validation requirements as per the above link.

- Completed Application Form
- Signed Ownership and Agricultural Holdings Certificate
- Application fee
- Location plan
- Site / block plan
- Sections and site levels
- Elevations of structures
- Boundary Treatment details
- Planning Statement
- Design and Access Statement
- Justification relating to 'Grey Belt' Assessment
- Noise Assessment
- Health Impact Assessment
- Construction Environmental Management Plan
- Alternative Site Selection Assessment
- Agricultural Land Quality Statement
- Drainage and SUDS Information
- Desktop Contamination Assessment
- Draft Planning Obligations List (if applicable)
- Sustainable Design, Construction and Renewable Energy Statement
- Landscaping Plan(s) and Planting Schedules
- Ecological Impact Report
- Fire Assessment and Strategy
- Urban Greening Factor Information
- Biodiversity Net Gain Information

- Energy Strategy

CONCLUSION

The principle of the erection of a Battery Electric Storage System (BESS) is considered acceptable for the purposes of addressing the ongoing climate emergency, however the land designation of the site as green belt is problematic. There may be demonstrable very special circumstances (VSCs) and/or potential justification for development in this location relating to 'grey belt' for erecting the facility on Green Belt designated land. However, these must be robustly presented in the submission of a full planning application.

Should the development be found to be acceptable on Green Belt designated land, it is expected that any planning permission would be for a lengthy albeit temporary period of 40 years.

It is expected that robust landscaping and mitigation is included with any planning application, with high quality landscaping appropriate for the character of the local area included. Landscape and ecology professionals should be consulted with early in the process, with a biodiversity net gain of 10% expected as an absolute minimum. It is considered that, given the nature of the application site, a far greater % increase is achievable, and this will be pursued by the LPA.

The proposed access point from North Cray Road to the north of the development site, whilst acceptable, should be considered more carefully with regards to any improvements that may be required, particularly to allow access by construction vehicles.

The applicant should carefully review this document, which addresses a number of other considerations that will be addressed and considered in a full planning application.

Yours sincerely,

Principal Planning Officer
Planning Department – Development Management
Place

APPENDIX 2: EIA SCREENING DIRECTION

Development Management
Planning Department
Regeneration & Growth
Civic Offices, 2 Watling Street,
Bexleyheath, Kent, DA6 7AT
Telephone 020 8303 7777

The person dealing with this matter is:
Email:

Our Application Reference Number: 25/00137/SCREEN

Date: 19 February 2025

Ollie Williams
Net Zero Thirty-Two Limited
C/O DWD
69 Carter Lane
London
EC4V 5EQ

BY EMAIL

Dear Ollie Williams,

Re: Request for a Screening Opinion under Regulation 6 of the Town and Country Planning (Environmental Impact Assessment) Regulations 2017 for a 'Proposed 200mw energy storage system (ESS) and associated infrastructure.' at 'Land at North Cray Road, Sidcup, DA14 5AW'

This report responds to the request submitted on 23 January 2025, under Regulation 6 of the Town and Country Planning (Environmental Impact Assessment) Regulations 2017 (the "EIA Regulations"). Advice on when an EIA is likely to be required is provided by the National Planning Practice Guidance (PPG).

- Cover Letter prepared by DWD dated 23 January 2025 (Reference 17901)
- Appendix 1 – Location Plan
- Appendix 2 – Magic Map
- Appendix 3 – Local Plan Policies Map
- Appendix 4 – Flood Risk
- Appendix 5 – Public Right of Way Map
- Appendix 6 – Sensitive Areas
- Appendix 7 – Standard Drawing: ESS Unit
- Appendix 8 – Standard Drawing: PCSK Inverter
- Appendix 9 – Manor Farm Sidcup ESS: Proposed Site Layout Plan

Introduction

The site, located in open countryside approximately 325 metres to the east of the A223 ('North Cray Road'), is proposed for the development of a 200MW Energy Storage System (ESS), along with associated infrastructure. The location plan shows land will also be required along the southbound carriageway of A223, a stretch of A2018 ('Vicarage Road') and Stable Lane to connect to the Hurst Grid Substation, located approximately 1.9km to the northeast. The site location plan indicates the 200MW ESS would occupy an area of approximately 6.9 hectares. The applicant has requested that the London Borough of Bexley determine whether the scheme constitutes 'EIA development' under the EIA regulations.

Review of Screening Criteria

I can confirm that the Planning Authority is of the view that the proposed development would fall under 'Schedule 2, Part 3(a) 'Industrial installations for the production of electricity, steam and hot water'.

The site is not within a 'sensitive area' and the thresholds have been applied.

The applicable thresholds and criteria for this type of development as outlined in Schedule 2 is:

- The area of the development exceeds 0.5 hectares.

The applicable thresholds are met.

The proposed scheme is screened on the basis of a 'Schedule 2 development' for the purpose of the EIA regulations to determine whether the proposed development is likely to have significant effects on the environment, and hence whether an Environmental Assessment is required. The EIA regulations and National Planning Practice Guidance (NPPG) requires the Planning Authority to take into account the selection criteria as set out in Schedule 3 of the EIA regulations when deciding whether a Schedule 2 development is an EIA development.

These include:-

1. Characteristics of development

2. Location of development

3. Characteristics of the potential impact.

To aid the Planning Authority in the determination as to whether the proposal is likely to have significant environmental effects, the Planning Authority has also had regard to indicative thresholds and criteria as set out in the EIA regulations and NPPG and has used a matrix for this purpose (attached as an appendix). This screening opinion should be read in conjunction with the appended screening matrix.

1. **Characteristics of development**

(a) The size of development:- The site (including cable run) is approximately 11.5 hectares.

(b) Cumulation with other development: - it is not considered that there are other significant developments within proximity that would create a cumulative effect.

(c) Use of natural resources: - Construction is akin to normal building/highway construction and will involve the use of land, soil, water, materials/minerals and energy. There are likely to be non-renewable material/minerals used.

(d) Production of waste: - the development would not produce any significant waste.

(e) Pollution and nuisances: – Noise, vibration and dust expected from the construction activities; however, it is not considered to be significant or long term. Mitigation of any noise, dust, vibration can be achieved. Noise and vibration may continue once the site is operational, but mitigation of any noise and vibration can be achieved.

(f) Risk of major accidents and or disasters, including those caused by climate change:

The development would involve the standard risks associated with any such build out and operation.

For the operational process there is a risk of battery fires.

There are specific guidelines by the National Fire Chiefs Council [NFCC] regarding Battery Energy Storage Systems [BESS], linked to Section 7 of the Fire and Rescue Services Act 2004. There will be a requirement to provide details of the design, firefighting access and facilities at the site, and a Site Specific Risk Information (SSRI) in the form of an effective Emergency Response Plan.

An outline Battery Safety Management Plan (oBSMP) (or similar) and Battery Safety Management Plan (BSMP) should be submitted with the planning application.

The London Fire Brigade would be notified/consulted on any planning application.

With the above regimes and procedures imposed, adopted, implemented and adhered to, the risk of accidents should be sufficiently mitigated and be low.

There is no evidence that the proposal would have any significant adverse impacts upon climate change.

(g) Risk to human health:

For the operational process there is a risk of battery fires, which may create a fire and air pollution incident.

As above, there are specific guidelines by the National Fire Chiefs Council [NFCC] regarding Battery Energy Storage Systems [BESS], linked to Section 7 of the Fire and Rescue Services Act 2004. There will be a requirement to provide details of the design, firefighting access and facilities at the site, and a Site Specific Risk Information (SSRI) in the form of an effective Emergency Response Plan.

An outline Battery Safety Management Plan (oBSMP) (or similar) and Battery Safety Management Plan (BSMP)will be submitted with the planning application.

The London Fire Brigade would be notified/consulted on any planning application.

With the above regimes and procedures imposed, adopted, implemented and adhered to, it is considered that there are not likely to be any significant effects to human health.

2. **Location of Development**

(a)Existing Land Use: – Agricultural.

The potential for impact in terms of the location of the development, on agricultural land, is not significant. Mitigation can be incorporated in the development to minimise any impacts on surrounding land uses. The potential for impact is unlikely to be significant.

(b)Relative abundance, quality, regenerative capacity of natural resources: - The potential for impact is considered limited.

(c) Absorption capacity of the natural environment: - The proposal is not within any sensitive location and the impacts on natural resources are limited. The proposal is not within or adjacent to any national environmental designation.

Likelihood of significant effects is not anticipated.

3. **Types and Characteristics of the Potential Impact**

(a) Magnitude & Extent of impact: - The magnitude and extent of the proposal on human health, population, biodiversity, land, soil, water, air, climate, material assets, cultural heritage and the landscape are unlikely to be significant with appropriate mitigation measures (including those noted above in 1(f)) are unlikely to give rise to any significant environmental effects.

(b) Nature of Impact : - The construction process will likely produce, dust/air pollution and noise. With appropriate mitigation measures they are unlikely to give rise to any significant environmental effects. Noise and vibration may continue to be an issue once the site is operational, but mitigation of any noise and vibration can be achieved.

The impacts on groundwater are not considered to be significant.

(c) Transboundary nature of impact: - It is not considered any operational impacts are likely to carry significantly beyond the proposal site.

(d) Intensity and complexity of impact: - The magnitude and complexity of any impacts are not considered to be substantial.

(e) Probability of Impact: – Most of the operational impacts are likely to be relatively localised.

(f) Expected onset, duration, frequency and reversibility of the impact: - The majority of the impacts on human health, population, biodiversity, land, soil, water, air, climate, material assets, cultural heritage and the landscape are temporary and of duration of the construction period. The majority of impacts associated with the construction can be mitigated and are not considered permanent.

On completion of the construction works there are likely to be operational impacts, but with the noted mitigation it is unlikely to give rise to any significant effects.

(g) Cumulation with other existing/approved development: - The proposal is unlikely to give rise to any significant additional impacts to the area, in isolation or cumulatively.

(h) Possibility of reducing the impact: - The majority of potential impacts are primarily localised and as such can be readily mitigated.

Conclusion

Having completed the screening exercise, for the reasons given above and in the attached matrix, the Local Planning Authority considers that the proposed development is unlikely to have significant effects on the environment and under the terms of the Town and Country Planning (Environmental Impact Assessment) Regulations 2017 it is not EIA development.

Decision:

EIA not required.

Yours sincerely,

Mr M Norwell
Director of Place

APPENDIX 3: LIST OF PLANS SUBMITTED

No.	Reference	Title
1	FST029 - PL00_rev05	Existing Site Layout
2	FST029- PL01_rev06	Proposed Site Layout (Overall)
3	FST029- PL02_rev04	Proposed Site Layout (ESS)
4	FST029 - SP01_rev05	Site Location Plan
5	FTS029-EL-01_Rev01	Contextual Elevations (Sheet 1 of 2)
6	FTS029-EL-02_Rev01	Contextual Elevations (Sheet 2 of 2)
7	FST029 - FS01_rev02	Fire Strategy Plan
8	FST029 - SD01_rev01	132Kv Substation (Plan)
9	FST029 - SD02_rev01	132Kv Substation (Section)
10	FST029 – SD03_rev01	DNO Control Building
11	FST029 – SD04_rev01	Customer Switch room
12	FST029 - SD05_rev01	ESS Unit
13	FST029 - SD06_rev01	Twin Skid
14	FST029 - SD07_rev031	PCSK Inverter
15	FST029 - SD08_rev01	Interface Cabinet
16	FST029 - SD09_rev01	40ft Welfare Container
17	FST029 – SD10_rev01	40ft Spare Parts Container
18	FST029 - SD12_rev01	Water hydrant
19	FST029 - SD13_rev01	CCTV Camera and Pole
20	FST029 – SD14_rev01	2.4 Palisade Fence and Security Gate
21	FST029 - SD15_rev01	Access Track
22	FST029-SD16_rev01	Aux transformer
23	FST029 - SD17_rev01	240,000l Water Tank
24	Figure 12	Illustrative Landscape Masterplan