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BALANCING THE GRID

East Claydon Battery Energy Storage System (BESS)

Environmental Impact Assessment Scoping Opinion Request

5 July 2023

Document Control

Company:	Statera Energy Ltd
Project:	East Claydon Battery Energy Storage System (BESS)
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Executive Summary

Statera Energy Limited is seeking planning permission for the development of a Battery Energy Storage System, comprising a battery storage facility with associated infrastructure, access and landscaping on land located off Hogshaw Road, Granborough, MK18 3NL. The Proposed Development will be known as the East Claydon Battery Energy Storage System (BESS) Project.

The Proposed Development

The proposed BESS facility is located on land to the South of East Claydon National Grid substation. The entirety of the proposed battery storage facility will be located within the administrative area of Buckinghamshire Council and comprises a collection of agricultural fields covering a total area of approximately 25.85 hectares (ha).

Environmental Assessment

It is the view of Statera Energy Limited and Buckinghamshire Council that the East Claydon Battery Energy Storage System (BESS) Project will require an Environmental Impact Assessment (EIA) to be undertaken in compliance with the provisions of the Town and Country Planning (EIA) Regulations 2017. An Environmental Statement (ES) will, therefore, be prepared and will form part of our future planning application.

This Scoping Report has been prepared to support the request for a Scoping Opinion on the information to be provided in the ES. A review of the likely significant effects of the Project has been undertaken so as to identify, for the purposes of this Scoping Request, the potential topics for assessment.

This has involved undertaking an initial review of baseline environmental conditions, identifying the key potential impacts that may arise during construction and operation.

In summary, the following topics are proposed to be scoped into the EIA for the East Claydon Battery Energy Storage System (BESS) Project:

- Landscape and Visual
- Ecology and Biodiversity
- Archaeology (Buried Heritage)
- Built Heritage
- Noise and Vibration
- Hydrology and Floodrisk
- Climate Change and Carbon / Greenhouse Gas Emissions
- Traffic and Transport

The topics that are proposed to be scoped out of the EIA are as follows:

- Land Use
- Air Quality
- Population and Health
- Geology, hydrogeology and ground conditions
- Materials and Waste
- Project Vulnerability

Contents

1 INTRODUCTION

1.1.1 Statera Energy Limited (hereinafter referred to as the 'Applicant') is seeking planning permission for the development of a Battery Energy Storage System ('BESS'), comprising a battery storage facility with associated infrastructure, access and landscaping (the 'Proposed Development') on land located off Hogshaw Road, Granborough, MK18 3NL (the 'site'). The site covers a total area of approximately 25.85 hectares (ha) and is located within the administrative boundary of Buckinghamshire Council ('BC').

1.1.2 An Environmental Impact Assessment (EIA) Screening Request was issued to BC in May 2023. BC provided a Screening Opinion (Reference: 23/01438/SO) on 8th June 2023 which, following consideration of the relevant selection criteria for screening, concluded that the development falls within Schedule 2 of the Town and Country Planning (Environmental Impact Assessment) Regulations 2017 (as amended) (hereafter referred to as the 'EIA Regulations'), BC concluded that the Proposed Development is likely to result in significant environmental impacts. Therefore, in exercise of the powers granted by Regulation 6(6) of the EIA Regulations, BC adopted an EIA Screening Opinion that an EIA is required for the Proposed Development, the BC Screening Opinion is provided at Appendix A.

1.1.3 This EIA Scoping Opinion Request Report ('EIA Scoping Report') has been prepared on this basis and seeks to robustly and proportionately scope the Environmental Statement ('ES') which will be submitted alongside the planning application. The planning application, which the Applicant intends on submitting in 2023 to BC, will be a full (detailed) application.

2 THE SITE

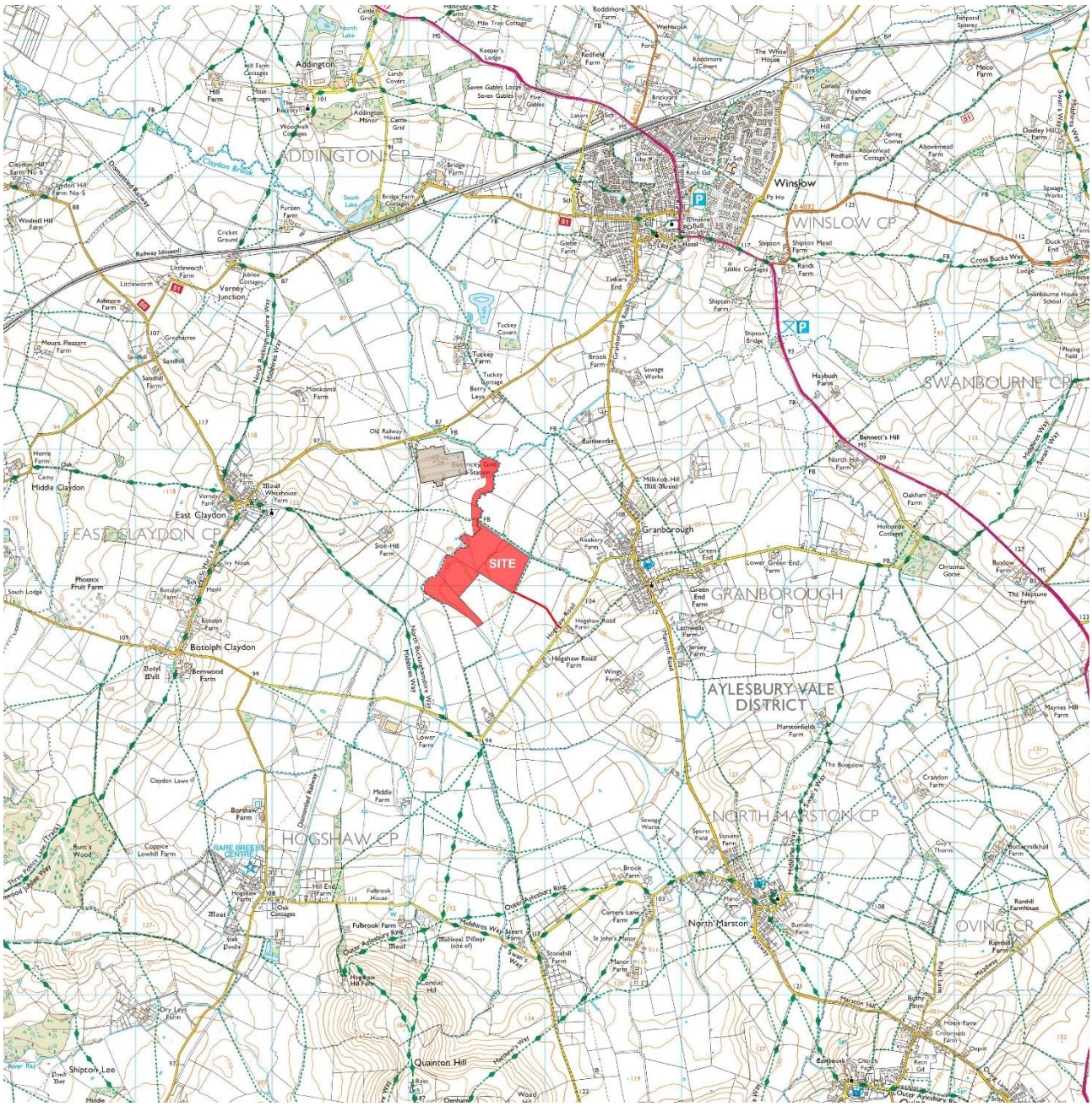
2.1.1 The site, as shown on Figure 1 and Figure 2, is centred around National Grid Reference (NGR) SP 75557 25324, located on land to the South of East Claydon National Grid substation and between the settlements of Granborough and East Claydon in the county of Buckinghamshire.

2.1.2 The site is irregular in shape and comprises a collection of agricultural fields, predominantly in use for arable farming.

2.1.3 Nearest residential properties are located at Granborough adjacent to Hogshaw Road some 500m to the west of the site, and at Hogshaw Road immediately opposite the proposed site access. East Claydon substation is some 75m distance at closest point, Sion Hill farm is circa 415m to the east.

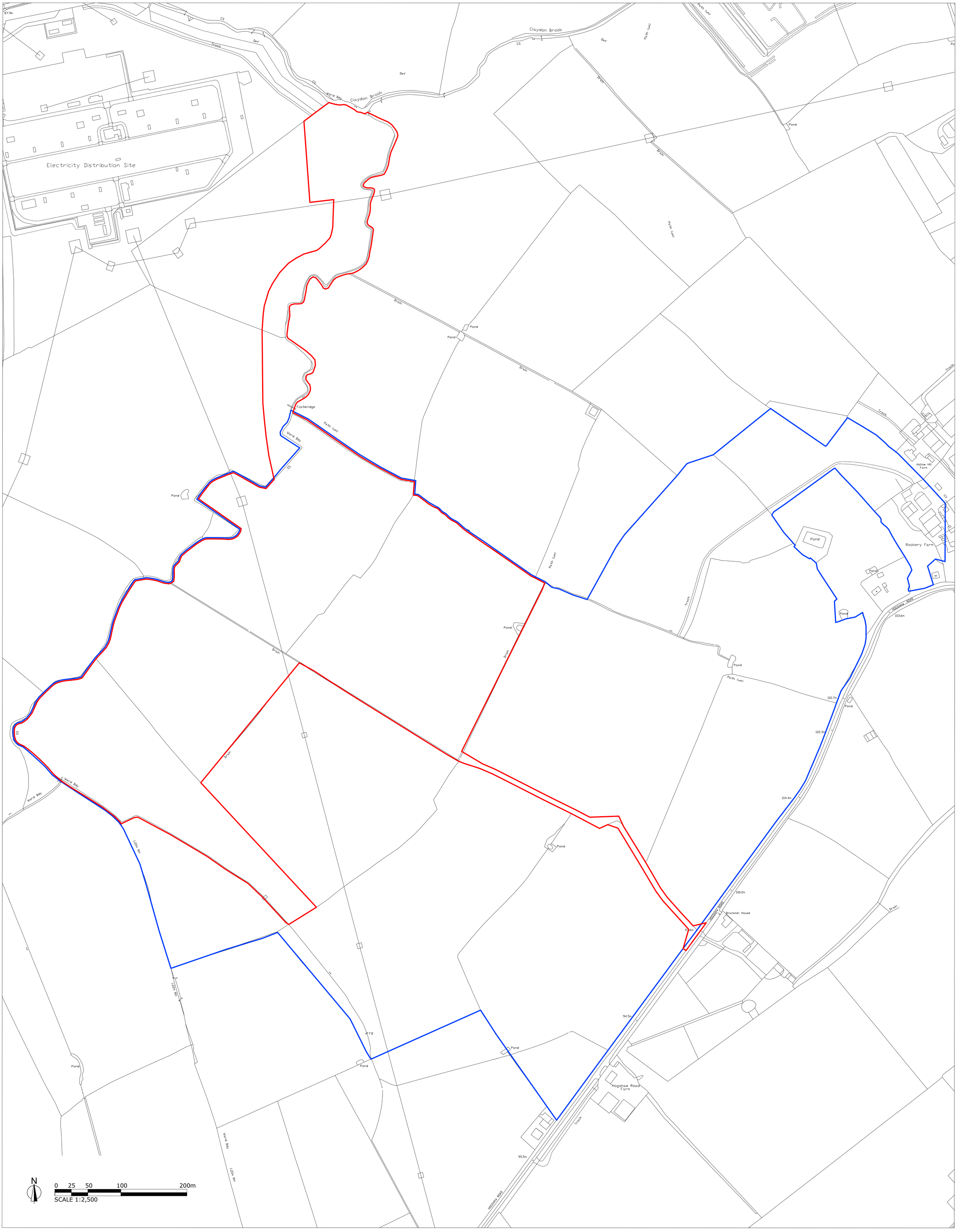
2.1.4 The site is accessed from the south by an access onto Hogshaw Road. Two public rights of way (PRoW) sit adjacent to the site (GRA/2/1 and GRA 2/2), one bounding the site to the north and the other running to the east of the proposal site boundary, these two PRoW routes intersect near to the northeastern corner of the proposal site.

Figure 1: Site Location Plan



Drawing not to scale

Figure 2: Indicative Planning Application Redline Boundary



STATERA
BALANCING THE GRID

Legend

Site boundary

Land ownership

Revision	Date	Comment
-	-	-

ON BEHALF
STATERA

PROJECT
EAST CLAYDON BESS

DATE	18th November 2022
SCALE	1 : 2,500 @ A1
DWG No	SL261__L__X__LP__01
APPROVED	CMcD

TITLE
LOCATION PLAN

3 THE PROPOSED DEVELOPMENT

3.1 Purpose

3.1.1 BESS facilities provide a means of allowing electricity from the grid to be imported and stored at times of low demand/high generation, which can then be exported back into the grid at times of higher demand / system stress.

3.1.2 System frequency is also a continuously changing variable that is determined and controlled by the second-by-second (real time) balance between system demand and total generation. If demand is greater than generation, the frequency falls while if generation is greater than demand, the frequency rises. If the transmission system is not maintained within the required frequency tolerance, system stress can result in widespread power supply issues and damage to network infrastructure.

3.1.3 Battery storage is a key part of this energy strategy and provides NG with balancing services to help accommodate the increasing level of renewable energy generation.

3.1.4 By importing excess renewable energy from the grid and storing it, batteries can capture energy that would otherwise be lost / unutilised. In respect of their storage ability, batteries offer opportunities to support the intermittent nature of renewables by storing the excess energy they produce and importing it back into the grid when demand requires.

3.1.5 During situations when primary power sources (e.g. traditional power stations) are interrupted, BESSs can bridge the gap in production, thus avoiding potential blackouts. It should be noted that the UK electricity network is wholly interconnected and issues in one geographic location can have far reaching implications on the network. Accordingly, BESSs offer additional capacity to deal with system stress and any variations in grid frequency at both a local and national level.

3.1.6 As has been recognised by National Grid's System Operability Framework (SOF): *"Faster response is more effective and so less response is needed if speed can be increased.*" BESSs are able to respond more rapidly than other types of balancing services, as they have no start-up delays. As such BESSs can balance the real-time requirements of the national grid more efficiently.

3.2 The Proposed East Claydon BESS

3.2.1 The Proposed Development comprises sound insulated lithium ion battery units housed within 888 shipping containers which have been modified to accommodate batteries with 38 inverter houses and outdoor transformers (see Figure 3). Depending on battery technology selection, the containers will be approximately 12m long, 2.4m wide and 2.9m high. There will also be 7 switch and control units of approximately 13m length, 5m width and 3.9m in height. Each Inverter House would be designed to have the characteristics of small agricultural buildings and would typically be less than 5m to ridge, appearing similar to small commercial chicken houses rather than tall storage barns.

3.2.2 Furthermore, the Proposed Development will comprise the following components:

- The development would include a substation compound comprising transformers, busbars and other equipment of up to 9m in height;
- The whole facility would be enclosed within a mesh security fence of up to 2.4m in height, with the substation compound enclosed in a palisade fence of similar height;

- The grid connection would be via high voltage underground cable from the National Grid East Claydon substation to the north west of the Proposed Development;
- Extensive landscaping and Biodiversity Net Gain (BNG) enhancement through new woodland, new hedgerow, wildflower grassland and new native shrub planting, and provision of attenuation ponds;
- Landscaping and habitat creation will be included in the development proposals to compensate for any loss of habitats on the site.
- 5.5m wide crushed stone access track to the development site from Hogshaw Road, extending across the development site up to the substation;
- Loose permeable gravel around the battery units and buildings
- Crushed stone access tracks throughout the site, dissecting the areas of loose permeable gravel and providing access between rows of battery containers;
- Storage containers providing welfare facilities;
- Storage containers providing spare parts storage;

3.2.3 An indicative masterplan layout for the proposed BESS facility is shown in Figure 3, with Figure 4 illustrating the container design which will house the battery units. Figure 5 provides an indicative illustration of inverter building design.

3.2.4 The potential for the characteristics of the development design and size to be likely to give rise to significant environmental effects is further considered in detail on a topic by topic basis within sections 5 and 6 of this report.

3.3 Location of the Proposed Development: environmental sensitivity

3.3.1 The Proposed Development site is agricultural land not subject to any statutory environmental designations.

3.3.2 The Site does not lie within a nationally designated landscape area. The local area is currently affected by electrical infrastructure associated with the substation. The quality of the landscape and the sensitivity to a development of this type is considered to be below average.

3.3.3 The nearest substantial residential areas are Granborough and East Claydon; Granborough being 650m to the east and East Claydon 1,300m to the west. The residents of Granborough are the closest residential receptors.

3.3.4 Overall, the site location is not considered to have high environmental sensitivity. Further details are provided on a topic-by-topic basis in the sections below.

Figure 3: Indicative Masterplan Layout

N

0 25 50 100 150m

SCALE 1:2,000

Footbridge

Public Right of Way (um)

Ford Rd

Pond

Scrub

New woodland

Proposed attenuation pond

SUBSTATION

Water tanks

GATE

WILDFLOWER GRASSLAND

Track

Hollow Hill Farm

Rookery Farm

Pond

103.6m

100.7m

102.3m

104.4m

100.2m

Bracknell House

94.5m

Drain

Legend

- Site boundary
- Existing trees
- Existing hedgerows
- New woodland planting
- New native shrub planting
- New substation compound
- 2.5m high weld-mesh security palisade fencing
- Crushed stone access track
- 5.5 wide crushed stone access track
- Existing hedgerow removed
- Attenuation pond
- Loose permeable gravel
- Wildflower grass
- Overhead electricity clearance zone
- Flood zone boundary
- Proposed hedgerow planting
- Public Right of Way
- Proposed trees
- Inverter building (total 37)
- Transformer
- Battery container (total 888)
- Storage container
- Control room (total 7)

Revision	Date	Comment
-	-	-

ON BEHALF

STATERA

PROJECT

EAST CLAYDON BESS

DATE	15 February 2023
SCALE	1 : 2,000 @ A1
DWG No	SL261__L__X__GA__1
APPROVED	CMcD

TITLE

MASTERPLAN

Figure 4: Container Housing Batteries

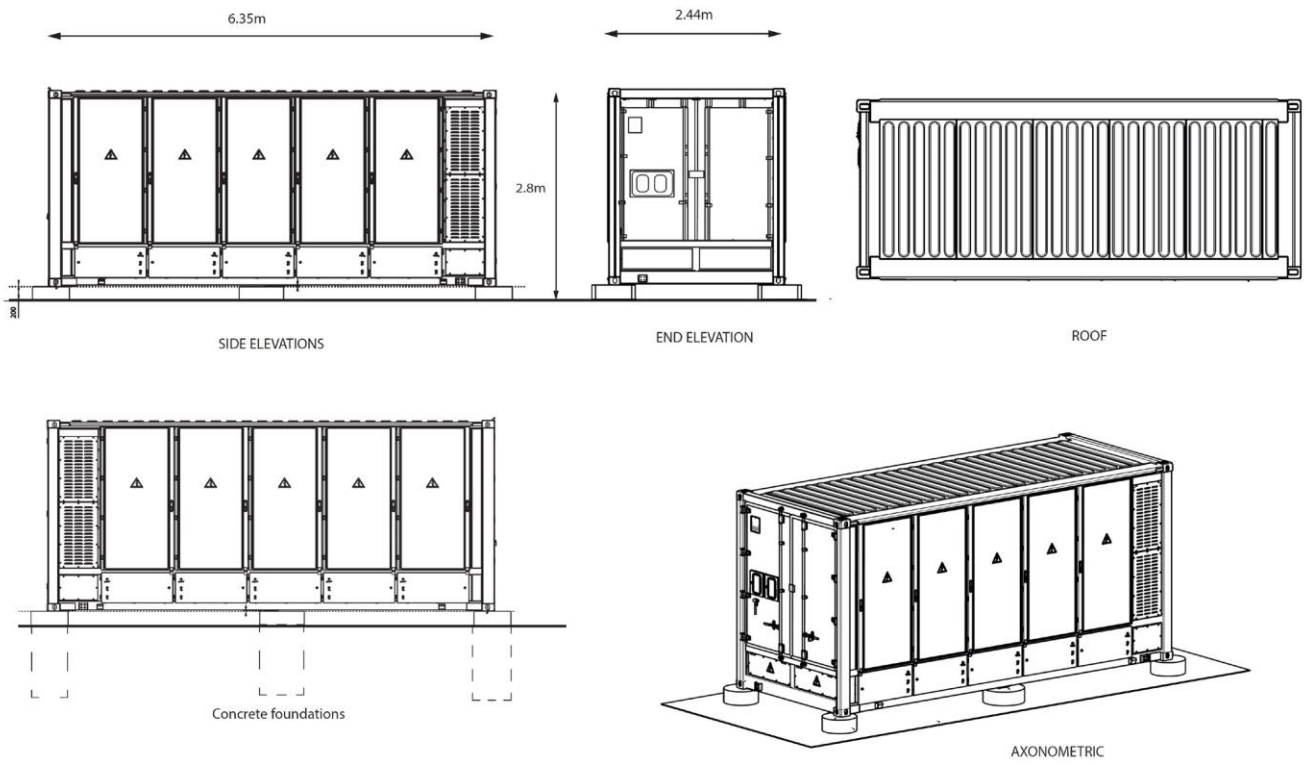
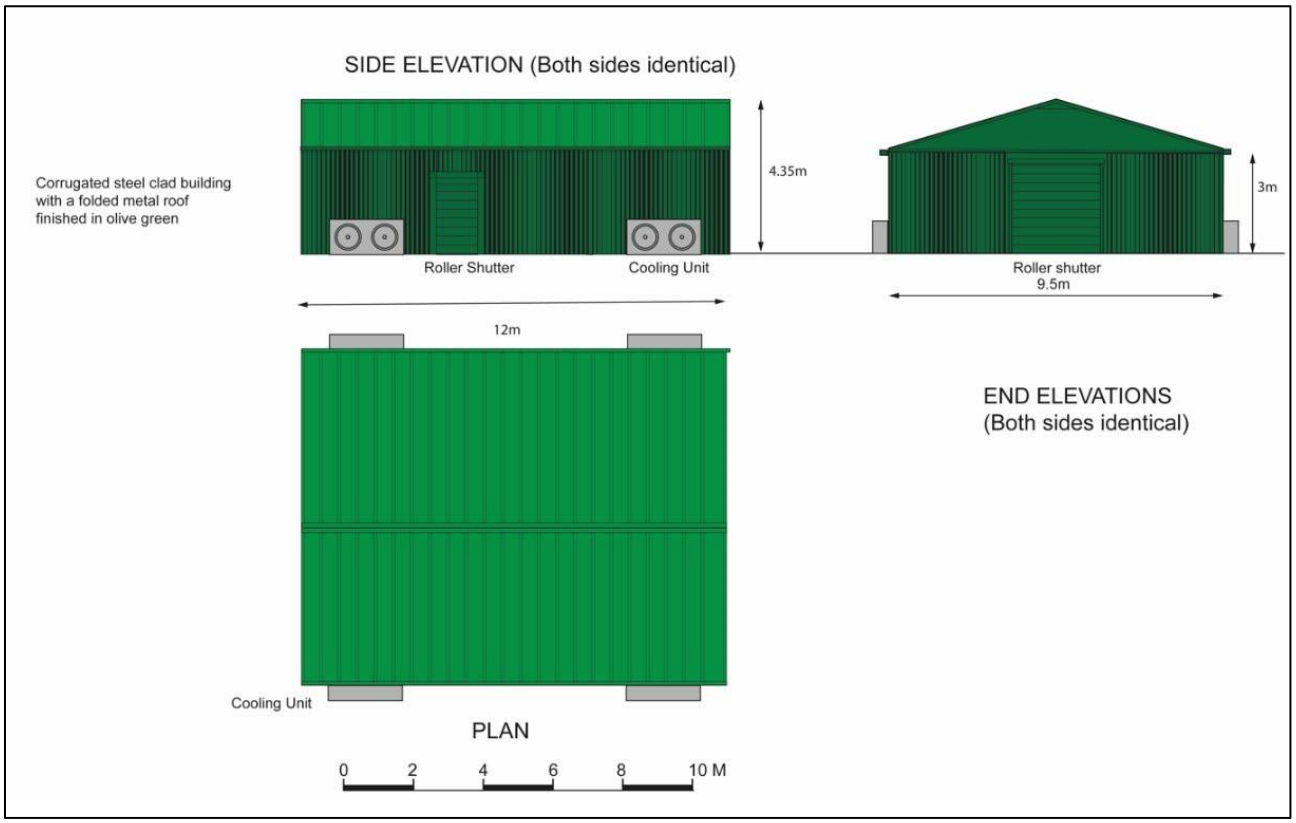


Figure 5: Indicative Inverter Building Plan



3.4 Construction

3.4.1 Construction of the development is anticipated to be undertaken over 12-18 months' duration.

3.4.2 In overview, construction activities will comprise:

- Enabling works
- Ground civil works
- Main civil works
- Electrical connection works
- Commissioning

3.4.3 Typical construction plant to be used will include excavators, drilling rigs, graders and haulage vehicles, mobile and tower cranes, heavy and light goods vehicles.

3.4.4 Normal construction working hours will be Monday to Friday 08:00–18:00 and Saturday 08:00–13:00.

3.4.5 Construction laydown areas would be located within the site.

3.4.6 It is proposed that construction operations would also be controlled by a Construction Environmental Management Plan (CEMP) to be approved by the Council.

3.5 Landscaping and Habitat Creation

3.5.1 Landscaping and biodiversity net gain areas would be provided as part of the development, including embedding the electrical equipment within a wooded green infrastructure which will also have a screening function. Storm water will be attenuated with swales and/or ponds which will also be landscaped and managed to enhance biodiversity.

3.5.2 Extensive landscape works will be undertaken throughout the development as landscape and visual mitigation and to achieve biodiversity net gain (BNG). These areas will include new woodland planting, hedgerow planting, wildflower meadow and nature ponds which will also be used to attenuate storm water runoff from the Proposed Development.

3.5.3 Details of the location, quantum and design of habitat planting will be specified within the planning application alongside a target level of BNG of approximately 10% net gain.

3.6 Drainage

3.6.1 The existing site is undeveloped, and the BESS facility will increase the low permeability area. The battery and substation infrastructure will sit on a porous gravel surface. The layout plan at Figure 3 includes locations for attenuation ponds, to ensure there will be no increase in the amount of water that flows into nearby watercourses. Surface run off will need to be controlled at an agreed runoff rate to be agreed with the Lead Local Flood Authority (LLFA) / BC.

3.6.2 A flood risk assessment and drainage strategy will be submitted with the planning application.

3.7 Operating Hours and Staff

3.7.1 Due to the nature of the BESS facility, and unlike a traditional power station, the facility needs to respond very rapidly to calls of frequency voltage and reactive power support and peaks in energy demand. It is therefore not possible to forecast any standard hours of operation or operational staff numbers. However, even when in operation, there is minimal on-site activity required during the plant life-cycle. The facility will be unmanned and be remotely controlled / monitored and operatives will only visit the site on an ad hoc basis.

3.8 Access and Parking

3.8.1 In operation the development would generate minimal staff traffic movements and would use a private access road from Hogshaw Road.

3.8.2 Within the site, internal access roads would be provided as shown indicatively in Figure 2. A small number of parking spaces will be made available for occasions when personnel attend site.

3.9 Decommissioning

3.9.1 The Proposed Development is designed and intended to function for 40 years. Following this 40-year lifespan, and should the facility be decommissioned, all above ground structures would be removed from the site, with the maximum value being recovered from materials and equipment via re-use or recycling at the time. The decision on how much of the below ground infrastructure would be retained would be agreed with the landowner and any other interested parties, accounting for decommissioning methods and timescales at the time.

3.9.2 Decommissioning activities are therefore expected to give rise to types of potential impacts that are similar to construction and which would be no greater in terms of magnitude or duration. No significant effects during the decommissioning phase are considered likely.

3.9.3 Given that the site will mainly consist of grassland with minimal foundations, hard surfacing and heavy infrastructure, restoring land will be relatively straightforward and easier in comparison to more intrusive developments which require more extensive foundations.

3.10 Risk of major accidents and/or disasters

3.10.1 Fire risk is considered to be the only potentially relevant accident or disaster for the BESS site.

3.10.2 The spacing of containers will be based on National Fire Protection Association standard NFPA855 (standard for the installation of stationary energy storage systems) which requires 10ft separation between containers. NFPA855 is a commonly applied and well-respected standard for batteries in the UK.

3.10.3 The likely battery technologies have also been tested to UL9540A to rack level and the Lithium Iron Phosphate chemistry does not exhibit thermal runaway until temperatures are in the region of 150-200 degrees C, which is well above all thermal cut outs, and almost certainly never to be seen in operation.

3.10.4 The batteries themselves also have overtemperature protection and fire suppression initiation.

3.10.5 The Applicant has engaged with Buckinghamshire Fire and Rescue Service (FRS) as part of an early engagement process. Working alongside Buckinghamshire FRS, the Applicant will produce a Fire Liaison Strategy developing a long-term approach whereby fire and rescue liaison takes place throughout the complete cycle associated with the BESS planning, implementation, and operational phases.

4 APPLICATION OF THE EIA REGULATIONS

4.1 EIA Regulations

4.1.1 The applicable EIA legislation in England for the Proposed Development is the Town and Country Planning (Environmental Impact Assessment) Regulations 2017 (the EIA Regulations), as amended. Further guidance is provided in the National Planning Practice Guidance, published by the Department for Levelling Up, Housing and Communities.

4.2 Screening and Requirement for EIA

4.2.1 The EIA regulations[1] provide criteria and thresholds at which certain types of development projects should be screened to determine whether a project is an 'EIA development'.

4.2.2 The Proposed Development does not fall under any of the project descriptions within Schedule 1 and is therefore not 'Schedule 1 Development' that would automatically require an EIA. The Proposed Development does fall within the definition under paragraph 3(a) (Energy industry – Industrial installations for the production of electricity, steam and hot water), as listed in Column 1 of Schedule 2 and exceeds the 0.5 hectares threshold for that category under Column 2 of Schedule 2. It is therefore considered to constitute Schedule 2 development under the EIA Regulations.

4.2.3 A Schedule 2 development does not require EIA to be undertaken in all cases. The development in question must be considered against the criteria provided in Schedule 3 of the Regulations to determine whether significant effects on the environment are likely. Schedule 3 includes the characteristics and location of the development and the characteristics of the potential impact.

4.2.4 BC within their June 2023 Screening Opinion conclude that the Proposed Development is likely to have significant individual and cumulative environmental impacts and that EIA is required. In line with the BC EIA Screening Opinion, the Applicant will undertake an EIA of the Proposed Development and submit an Environmental Statement (ES) in support of the planning application. The BC EIA Screening Opinion is also appended to this report as Appendix A.

4.3 The Approach to EIA

4.3.1 EIA is a process carried out which examines available environmental information to ensure that the likely significant environmental effects of certain projects are identified and assessed before a decision is taken on whether a project is granted planning permission. This means that environmental issues can be identified at an early stage and projects can then be designed to avoid or to minimise significant adverse environmental effects, and that appropriate mitigation and monitoring can be put in place.

4.3.2 Regulation 4 of the EIA Regulations sets out the EIA process. Specifically, Regulation 4(2) states that:

> "the EIA must identify, describe and assess in an appropriate manner, in light of each individual case, the direct and indirect significant effects of the Proposed Development on the following factors:

[1] The Town and Country Planning (Environmental Impact Assessment) Regulations 2017

a. *population and human health;*

b. *biodiversity;*

c. *land, soil, water, air and climate;*

d. *material assets, cultural heritage and the landscape;*

e. *the interaction between the factors referred to in sub-paragraphs (a) to (d).”*

4.3.3 As part of the EIA scoping process, the potential for likely significant effects, during the enabling and construction works, once the Proposed Development is complete and operational, and following the decommissioning of the Proposed Development has been considered through review of the following environmental topics:

- Socio-Economics,
- Population and Health;
- Traffic and Transport;
- Air Quality;
- Noise and Vibration;
- Wind Microclimate;
- Daylight, Sunlight, Overshadowing, Light Intrusion and Solar Glare;
- Landscape and Visual Impacts;
- Built Heritage;
- Archaeology (Buried Heritage);
- Geology, hydrogeology and ground conditions;
- Land Use (Land Take and Soils);
- Ecology and Biodiversity;
- Water Resources, Drainage and Flood Risk;
- Materials and Waste;
- Climate Change and Carbon / Greenhouse Gas Emissions; and
- Project Vulnerability.

4.4 EIA Scoping

4.4.1 EIA Scoping forms one of the first stages of the EIA process. Requesting an EIA Scoping Opinion from a local planning authority, under Regulation 15 of the EIA Regulations, involves the preparation of an EIA Scoping Opinion Request Report (or EIA Scoping Report) and its submission to the local planning authority is part of a formal request for their opinion on the content or ‘scope’ and approach to the EIA.

4.4.2 The purpose of scoping is to identify:

- The important environmental issues and topics for consideration in the EIA;
- The baseline conditions and assessment methodology to be used for assessment;

- Any potentially sensitive receptors that may be affected by the development being proposed;
- The appropriate space boundaries of the EIA: the site boundary and surrounding environmental context;
- The information necessary for decision-making; and
- The topics of which could result in potential significant effects from the development during its enabling and construction, operation and decommissioning.

4.4.3 In accordance with the requirements of the Town and Country Planning (Development Management Procedure) Order 2015 (article 18, Schedule 4) this EIA Scoping Report will need to be issued by the local planning authority to the statutory consultees that are considered to have an interest in the EIA of the Proposed Development and should be consulted as part of the EIA Scoping process. It is expected that the local planning authority will also issue the Scoping Report to non-statutory and key local stakeholders and interest groups who are deemed to similarly have an interest in the EIA of the proposed Development.

4.4.4 The process of consultation is a key requirement of the EIA process, and the views of statutory consultees and other stakeholders help to identify specific issues, as well as identifying additional information in their possession, or of which they have knowledge, which may be of assistance in progressing the EIA.

4.4.5 The ES will append the EIA Scoping Opinion Request (this document) and BC's Scoping Opinion and include a summary of any other consultation undertaken as part of the EIA process.

4.5 EIA Methodology

4.5.1 The method behind the EIA process generally takes into account the existing conditions of the area into which the Proposed Development is being introduced (the ***baseline***) and makes reasonable predictions of the likely change (the ***impact*** – in terms of magnitude) that may occur, during its construction, when the Proposed Development is completed and operating as proposed, and following its decommissioning.

4.5.2 The predicted impact will be considered in terms of key environmental and social aspects (***receptor / resource***) found within the surrounding area and will be based on their sensitivity to change, and based on their sensitivity to change, the resulting ***effect*** is then determined. Any mitigation measures required to reduce or eliminate adverse effects are then considered and assessed, with the residual effect being determined as significant or not. The likely significant effects are then reported (within an ***environmental statement***) for consideration by BC when considering whether to grant planning permission for a development.

4.5.3 The evolved baseline (i.e., consideration of the site conditions in the future if the Proposed Development were to not come forward), effect interactions (i.e., where one or more identified residual effects may combine to result in a significant effect), cumulative effects (i.e., where the Proposed Development residual effects may combine with potential effects arising from other local schemes) and alternatives and design evolution (i.e., setting out how the design has evolved in response to constraints and opportunities) will be considered as relevant within the ES.

4.5.4 An ES Non-Technical Summary (NTS) will be provided, this is a separate document providing a concise description of the Proposed Development, the alternatives considered, any identified mitigation measures and the residual likely significant environmental effects.

4.5.5 The proposal will not result in any transboundary impacts for the purposes of the EIA regulations.

4.5.6 Relevant interaction and inter-relationships between topics will be reported within the 'scoped in' topics of the ES, such as inter-relationships between traffic generation and noise emissions; flood risk and climate change; heritage and visual effects; and environmental pathway and population/human health effects.

4.6 Planning Policy / EIA Guidance

4.6.1 The ES will have regard to the National Planning Policy Framework (NPPF). The ES will also have due regard to the following key regional and local planning documents. Any additional regional and local planning policy and guidance documents considered relevant to the technical assessments which are covered by the EIA will also be considered:

Aylesbury Vale Local Plan (2018)

Planning document that sets out the Council's policies and proposals for the future development of the Aylesbury Vale area. The Local Plan provides a framework for making decisions on planning applications, as well as guiding the future use of land and the allocation of resources in the area. The Local Plan covers a wide range of planning issues, including housing, employment, transport, community facilities, and the natural environment. It sets out the Council's vision for the future of the area and identifies specific areas for development or protection.

Emerging Local Plan for Buckinghamshire

Will allocate sites for development in the period up to 2040 to meet the housing and economic development needs of Buckinghamshire. The emerging local plan has recently (September 2022) completed a 'call for sites' as candidate sites for allocation within the plan. There is currently a further call for sites across Buckinghamshire which is due to end on 29th December 2023.

The emerging local plan is programmed for adoption by April 2025. It is noted that, being at an early stage of preparation, the emerging Local Plan will be accorded limited weight in decision making.

Buckinghamshire Minerals and Waste Local Plan 2016-2036

The Buckinghamshire Minerals and Waste Local Plan (MWLP) forms the land use planning strategy for minerals and waste development within the administrative area of Buckinghamshire County through to 2036. Whilst specifically relating to minerals and waste matters, the MWLP forms a material consideration for other forms of development within the Buckinghamshire area.

4.6.2 In addition, where relevant to the assessment, the technical reports of the ES will also present a summary of any pertinent recognised industry guidance documents.

5 TOPICS WHERE THERE IS THE POTENTIAL FOR LIKELY SIGNIFICANT EFFECTS

5.1.1 Based on the understanding of the emerging Proposed Development it is currently envisaged that the EIA will include assessments for the following technical aspects on the basis that there is the potential for likely significant effects:

5.2 Landscape and Visual

5.2.1 The BESS facility would be located on agricultural land to the south of the existing National Grid East Claydon substation. Agricultural fields surround the site, with certain isolated farm buildings and residences. To the east is the village of East Claydon and to the west the village of Granborough.

5.2.2 A preliminary landscape and visual appraisal has been undertaken in winter, a time of greatest visibility across the landscape, and has been used to inform the evolution of the design. The Site does not lie within a nationally designated landscape area. The local area is currently adversely affected by electrical infrastructure associated with the substation. The quality of the landscape and the sensitivity to a development of this type is considered to be below average.

5.2.3 The site area is predominantly flat, with no major landforms, existing tree and hedgerows provide good screening towards the site. However, it is proposed to use the excess spoil to create a naturalistic landform which will further screen the majority of the infrastructure immediately on completion of the works without having to rely on tree and hedge planting to be effective. Extensive woodland planting will be undertaken to ensure that the whole scheme is integrated into the surrounding landscape and meet biodiversity enhancement targets (in association with the creation of other habitats such as scrub, wetland and wildflower meadow).

5.2.4 The battery units will be a similar size to a shipping container and so the scheme will to a certain extent be similar in layout and scale to a caravan park. The inverters will be housed in buildings, these would be designed to have the characteristics of small agricultural buildings and would typically be less than 5m to ridge, appearing similar to small commercial chicken houses rather than tall storage barns. Both can be supplied in muted green colours so that they blend in with the rural landscape and proposed setting.

5.2.5 Two public rights of way (PRoW) line the site (GRA/2/1 and GRA 2/2) screening has been proposed in the form of tree and hedgerow planting to provide a screen between the BESS site and the PRoW. The site will the therefore be able to comfortably accommodate the proposed scale of development.

5.2.6 The preliminary landscape and visual appraisal concludes that the Proposed Development strikes an equitable balance by accommodating the electrical infrastructure with a substantial landscape framework which meets the aspirations for the Locally Valued Landscape. Within the BC Screening Opinion, the council conclude that the proposal may have a significant albeit localised, impact on the appearance and character of the local landscape, particularly when assessed cumulatively with the existing National Grid Substation and an approved solar farm to the north (application ref: 19/00983/APP). As such, the Proposed Development has potential for a likely significant landscape and visual impact and this topic will be ‘scoped in’ to the EIA, with a Landscape and Visual Impact Assessment (LVIA) presented as part of the ES.

5.3 Ecology and Biodiversity

5.3.1 There are no sites of ecological importance within the boundary of the main site though it does lie within the Natural England SSSI Impact Risk Zones of Sheephouse Wood SSSI and Finemere Wood SSSI (see Figure 7). Any planning application would be supported by ecological surveys and reports to assess what if any mitigation measures are required for species that might exist on site.

5.3.2 Data provided by Buckinghamshire and Milton Keynes Environmental Record Centre identified a moderate amount of UK and European protected species, species and habitats of principal importance, and species of conservation concern withing 2km of the proposed site. Measures to ensure no harm to protected species would be implemented and appropriate licences (if any) obtained from Natural England.

5.3.3 There are a number of local wildlife designations within the vicinity of the site but the site is approximately 2.28km away from the nearest or Special Protected Area of Aylesbury Vale, located to the south and south east of the site. Operation of the BESS site will cause no pollutant emissions to air or water. The applicant intends to mitigate any noise impact for local wildlife sites and at 5km, the SSSI and European sites would not be impacted. There is therefore considered to be no potential for direct or indirect (e.g. increased recreational pressures) adverse impacts on these sites.

5.3.4 The applicant will include land for habitat creation in the planning application with the intention of delivering a biodiversity net gain. The indicative layout at Figure 3 includes space which could be utilised for a BNG area with the intention of securing a level of biodiversity net gain of 10% or more.

5.3.5 A Phase 1 habitat survey, protected species surveys where applicable and proposals for habitat creation would be submitted with the planning application.

5.3.6 The BC Screening Opinion state that the application is located within the impact zone of two SSSIs and three Local Wildlife Sites and that all of these sites are located within 2.8km. BC also state that Finemere Wood SSSI “is a large ancient woodland supporting a vast array of wildlife, including the nationally rare white and black hairstreak butterflies”. BC consider that the proposal has potential for effects on these sites during the construction phase (both individually and cumulatively) and potentially decommissioning and that such impacts may be potentially significant in EIA terms. Furthermore BC consider that there is a potential impact on biodiversity which could be significant in EIA terms. There is therefore potential for a likely significant biodiversity and ecology impact in EIA terms, this topic is therefore proposed to be ‘scoped in’ to our EIA and will be reported within an ES.

5.3.7 On Habitats Regulations Assessment, potential impacts on Natura 2000 and Ramsar sites protected under the Conservation of Habitats and Species Regulations 2017 as amended (known as the Habitats Regulations) is a separate process to EIA scoping. Nevertheless, it is discussed here as being of relevance to the potential for significant ecological impacts. Given that the closest SPA is approximately 2.28km away, construction or operation of the BESS site will cause no pollutant emissions to air or water and, at this distance, no noise impact. It is therefore anticipated that there is no likely significant impact on sites protected under the Habitats Regulations.

5.4 Archaeology (Buried Heritage)

5.4.1 The site does not contain any designated heritage assets (World Heritage sites, Scheduled Monuments, Registered Parks and Gardens, Registered Historic Battlefields or Historic Wreck sites) or any Listed Buildings. It is also not located within a Conservation Area.

5.4.2 The Proposed Development has a large footprint with presumed extensive ground works. If archaeological deposits are present within the site, they are likely to be adversely impacted. If significant buried archaeological features are encountered, it is possible they will need to be preserved in situ, which may result in the need to redesign either the layout of the development or the construction methodology.

5.4.3 Based on recorded archaeological finds within the vicinity of the site, a significant impact on unknown buried archaeological is likely (if encountered). For this reason it is proposed to include archaeology matters within the scope of our EIA.

5.5 Built Heritage

5.5.1 The proposed BESS site does not contain any designated heritage assets (World Heritage sites, Scheduled Monuments, Registered Parks and Gardens, Registered Historic Battlefields or Historic Wreck sites) or any Listed Buildings (see Figure 8). It is not within a Conservation Area. There would therefore be no direct physical impact or effect on any designated heritage assets.

5.5.2 There are various Grade II listed buildings within the wider vicinity of the site, as well as a small number of Grade II* and no Grade I listed buildings. These are primarily located throughout the villages of Granborough (approximately 650m east from the site) and East Claydon (approximately 1,300m west of the site). There are also a number of Grade II listed buildings located in Boltoph Claydon (approximately 2,100m west from the site).

5.5.3 As described in the landscape and visual section above, the BESS facility would be seen in the context of the existing National Grid infrastructure. Given this and the distance of the heritage assets and the limited visibility of the site from the vast majority of these, it is not considered likely that there will be significant adverse effects to cultural heritage as a result of the development, however the potential for significant impact remains possible.

5.5.4 With respect to noise impacts on heritage assets' settings, the closest receptors is the Grade II listed Rookery Farmhouse (700m away). This is located at the residential noise-sensitive receptors discussed in the noise and vibration section above. Taking into account the proposed control of noise levels to avoid significant adverse effects on residential amenity, it is considered that significant effects on the heritage assets' settings due to noise are also unlikely. BC confirm, in the Screening Opinoin, that it is not expected that the visual impact of the proposal will result in a likely significant effect on designated built heritage assets for the purposes of EIA, however the potential for significant impact remains possible.

5.5.5 The potential for significant impact exists, it is therefore proposed that built heritage matters are included within the scope of our EIA and will be reported within the ES. This will include an assessment as to the historic development of the site and the potential contribution which it makes to overall heritage significance of designated and non-designated assets within the surrounding area through setting.

5.6 Noise and Vibration

5.6.1 During construction, noise will be generated by construction plant and traffic within the site and its construction access route. The applicant proposes that the construction works for the BESS facility will be subject to working hours, good practice environmental management secured through a Code of Construction Practice (CoCP) and Construction Environmental Management Plan (CEMP) and construction noise limits to be approved by the Council. With these measures in place, no significant adverse effects from construction noise are considered likely.

5.6.2 In operation, the main noise sources on the site would be the battery containers, inverters and the grid transformer.

5.6.3 Without attenuation of noise there could be the potential for significant adverse effects to sensitive receptors. However, the Applicant has experience in a wide range of noise mitigation measures for BESS facilities. To mitigate from any adverse effect the inverters will be housed in sound insulated buildings. The scheme will be designed so that the increase in background noise levels in night-time conditions shall be no more than 4dB.

5.6.4 With noise attenuation measures for the BESS facility in place, no significant adverse effects are considered likely during operation or construction. Further detail of the noise levels, proposed mitigation and attenuation to be achieved would be provided with the planning application. The BC Screening Opinion concludes that a significant noise impact is considered likely stating that there is insufficient information available at this stage to rule out a likely significant effect as a result of noise. It is proposed to include noise and vibration as a topic within the scope of our EIA.

5.7 Hydrology and Floodrisk

5.7.1 No river or groundwater abstraction point is required for a BESS site and there is therefore no potential environmental effect from this. There will also be no process water discharge to surface or ground waters.

5.7.2 During construction, good practice measures to manage runoff and avoid spillages would be implemented through a CoCP and CEMP to be approved by the Council.

5.7.3 The site is located mainly within Flood Zone 1, with the rear of the site backing onto Flood Zone 2. This has been taken into consideration while creating the plans for the site and the BESS would only be constructed within the Flood Zone 1 area.

5.7.4 With respect to clean surface water discharge and flood risk, the plant's drainage and runoff attenuation will be designed to incorporate to safely manage runoff from the BESS plant at a suitable rate to be agreed with the Council. Runoff from the proposed BESS site can therefore be managed sustainably without increasing flood risk.

5.7.5 Due to proximity of Flood Zone 2, the potential for likely significant impact exists. Hydrology and floodrisk will therefore be 'scoped in' to the EIA, with a Flood Risk Assessment with surface water drainage strategy presented as part of the ES.

5.8 Climate Change and Carbon / Greenhouse Gas Emissions

5.8.1 The purpose of the Proposed Development is to provide short term storage for the national electricity network and in doing so assist in the transition to Net Zero. The consequent

reduction in fossil burning technologies due to added capability to store primarily renewable energy that the BESS site would provide is a beneficial indirect operational effect of the Proposed Development that is considered likely to be significant.

5.8.2 In construction, green house gas (GHG) emissions will be caused by construction traffic and plant and embodied in the materials and products consumed. However, on a lifecycle basis these are expected to be minor relative to the GHG reduction benefits of a BESS facility and construction stage effects are not considered likely to be significant.

5.8.3 In summary, no significant construction stage GHG emission or climate risk effects are considered likely. However, the beneficial operational GHG emissions impact from the BESS is likely to be significant in EIA terms, Climate Change and Carbon / Greenhouse Gas Emissions will therefore be 'scoped in' to the EIA and reported as a chapter within the ES.

5.9 Traffic and Transport

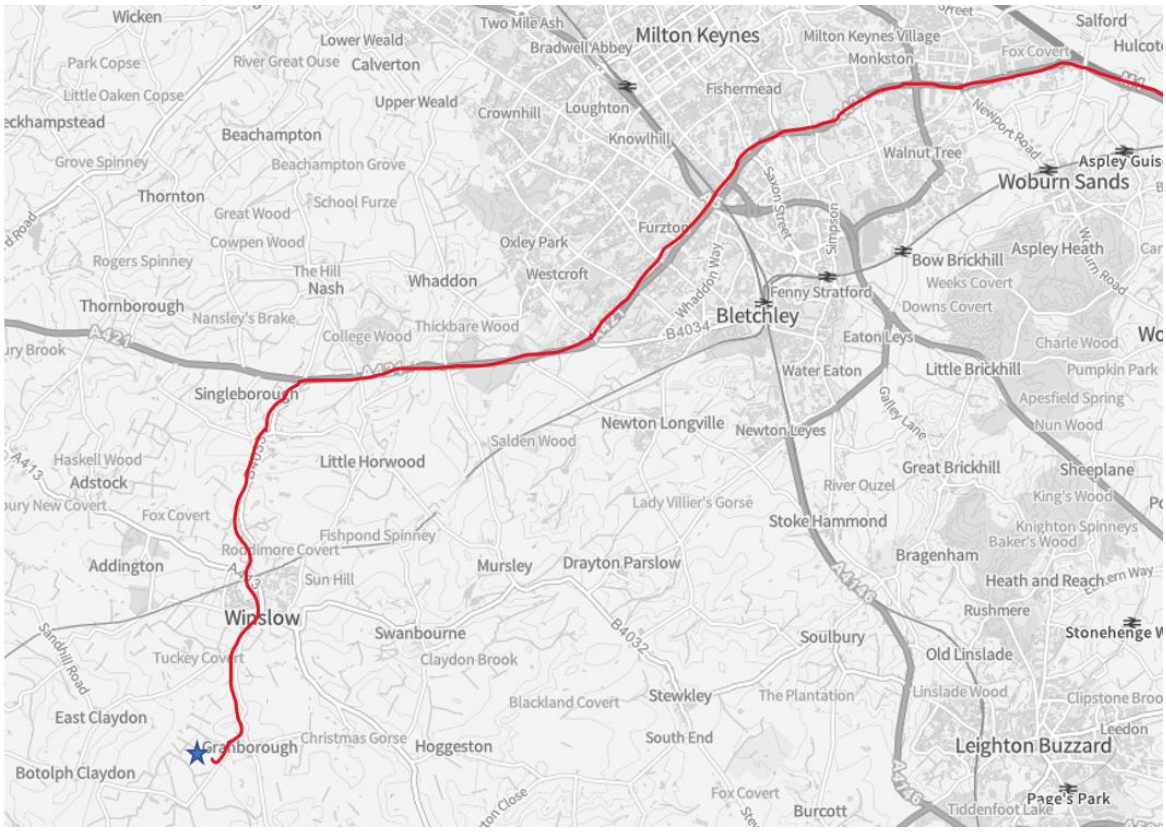
5.9.1 The operational site will be accessed via a private track to be constructed off Hogshaw Road.

5.9.2 During construction/installation of the BESS there would be trips associated with delivery of the battery, inverter and general civil and electrical engineering materials to site. The vast majority of these deliveries will consist of medium/large sized HGVs using the local highway during the construction period, again taking access from Hogshaw Road. If the development is built through a continuous phase, it is anticipated that construction will last approximately 12-18 months.

There are likely to be a small number of abnormal indivisible loads (AILs) that need to be delivered to site in order to construct the proposed grid transformer. All HGVs and AILs will be routed from the M1 at junction 13 onto the A421 and will continue heading westwards along this road until the B4033. They will stay travelling south along this road through Great Horwood and Winslow before reaching Granborough. Here they will turn onto Hogshaw Road before turning right into the site. Construction vehicles will depart the same way.

5.9.3 The proposed route is shown in red on Figure 6 below.

Figure 6: Proposed Transport Route



5.9.4 Any future planning application will be accompanied by a Construction Traffic Management Plan (CTMP) which will be developed with the County Council's Highway Team to minimise construction phase impacts associated with transport and traffic.

5.9.5 The operational site will be unmanned and only occasional visits for inspection or maintenance will be required. During operation therefore, the Proposed Development will not generate significant vehicle movements.

5.9.6 The BC Screening Opinion considers that the construction traffic impacts could be adequately assessed via a CTMP and would not warrant any capacity assessments of the local highway network. The Highway Authority does have concerns over the width of the carriageway at points along the route to and from the site owing to narrow sections of carriageway. Significant localised impacts are anticipated by BC, with cumulative effects with HS2 and East West rail constructions needing to be considered. Traffic and Transport will therefore be 'scoped in' to (i.e., included within) the EIA in order to consider the potential for likely significant effects during the construction of the Proposed Development.

6 TOPICS WHERE LIKELY SIGNIFICANT EFFECTS ARE NOT ANTICIPATED

6.1.1 The EIA Regulations promote early assessment work and the ability to rely on standard mitigation controls / environmental management measures that can be secured through the planning process as a way of streamlining EIAs. Based on a preliminary consideration of the potential for environmental effects as a result of the Proposed Development, no likely significant residual (i.e., post mitigation / management) environmental effects are envisaged in relation to the following technical aspects:

6.1 Land Use

6.1.1 An Agricultural Land Classification on behalf of the Applicant in November 2022 identifies all soils located at the proposal site to be "3b" (i.e. moderate quality land). None of the site is classed as "Very Good" or "Excellent" agricultural land.

6.1.2 It is therefore highly unlikely that the proposed BESS site would impact best and most versatile agricultural land and loss of agricultural land would therefore not be significant.

6.1.3 None of the land is designated common land or village green. Two public rights of way (PRoW) sit adjacent to the site (GRA/2/1 and GRA 2/2), one bounding the site to the north and the other running to the east of the proposal site boundary, these two PRoW routes intersect adjacent to the northeastern corner of the proposal site and screening is proposed in the form of tree and hedgerow planting by the Applicant to provide a screen between the BESS site and the PRoW.

6.1.4 A significant impact, for the purposes of EIA, is not considered likely and it is proposed that land use matters are not included within the scope of our EIA. The Applicant will include the Agricultural Land Classification as an additional document as part of our future planning application.

6.2 Air quality

6.2.1 Dust from construction works are not anticipated to cause any significant effects and will be managed via the Code of Construction Practice and a Construction Environmental Management Plan to be approved by the Council. There are no air pollution effects associated with the operational phase of the BESS. The application site is not located within an Air Quality Management Area (AQMA).

6.2.2 For the above reason, and in the context of EIA scoping, no significant effects on air quality during construction or operation are considered likely and it is proposed that such matters are not included within the scope of our EIA.

6.3 Population and Health

6.3.1 During construction, the temporary employment opportunities and local supply chain spending can have a beneficial effect on socio-economic health pathways, but this is

considered to be minor and not significant in EIA terms; and similarly, the small number of long-term specialist operator and maintenance jobs created in operation are not likely to have significant population or health impacts.

6.3.2 Within the BC response to our EIA screening request, Electro-Magnetic Fields (EMFs) and the potential for health impact are specifically mentioned. On this, EMFs are produced by any electrical circuit and are split into two types, either Magnetic Fields or Electric Fields. The UK Government sets guidelines for exposure to EMFs in the UK on advice from Public Health England (PHE). In March 2004 the UK decided to adopt the 1998 guidelines published by the International Commission on NonIonizing Radiation Protection (ICNIRP) and this policy was reaffirmed by a Written Ministerial Statement in October 2009.

6.3.3 The established effects of EMFs include:

- *Induced currents in the body*
- *Microshocks*
- *Effects on equipment, such as Visual Display Units*
- *Effects on pacemakers and on some other implanted medical devices*

These effects are well understood and there are exposure guidelines in place to protect against these effects. [2]

6.3.4 In addition to the above, it is worth noting the following:

- Neither the Medicines and Healthcare products Regulatory Agency (MHRA) nor National Grid are aware of any instance of a power line interfering with a correctly fitted modern electronic implantable device such as a pacemaker.[3]
- The necessary magnetic field strength to cause an issue on equipment (such as visual display units) is significantly higher than that of ICNIRP guideline limits. Given that the project will adhere to ICNIRP guidelines there will be no impact on equipment from project generated EMFs.
- The further the distance from the source of the magnetic field the lower the strength of this magnetic field will be. Magnetic fields drop rapidly with distance, this is particularly true with underground cables.

6.3.5 **Battery Units and Inverters:** The battery units will be enclosed within an earthed enclosure, this means that there is no risk of electrical fields and therein no risk of microshocks. The batteries also operate at DC and at a voltage which means that the magnetic field generated will be minor and static. Magnetic fields produced at inverters onsite are further from the site boundary and, given distance, no impact from EMF is likely. Batteries that are not directly on the site boundary would similarly have no EMF impact beyond the site boundary. There is a 2m separation from nearest battery containers to the fence line, this will reduce the magnitude of any magnetic field generated by the nearest battery units beyond the site boundary. The batteries DC system only produces a static magnetic field which does not induce a current nearby. Being a static magnetic field from a DC current there is no likely significant impact on medical devices and equipment which are impacted from induced signals, these are not generated by the batteries. In summary, no significant impact is likely from EMFs generated by the batteries or inverters.

[2] Source: https://www.emfs.info/effects/

[3] https://www.emfs.info/effects/medical-devices/real-life-experience-interference-implanted-heart-devices/

6.3.6 **Substation:** Substations do not produce very large fields themselves. Although EMF's are generated, the fields close by are mainly produced by the power lines and cables entering the substations. The proposed substation designs are also based on National Grid standards which are designed to ensure compliance with relevant EMF requirements. No significant impact from substation generated EMFs is likely.

6.3.7 **Underground Cables:** Underground cables do not produce any external electric fields due to their being surrounded by metallic sheath. The magnetic field generated is dependent on the installation depth, separation of cables and current. East Claydon will be operating cabling at 500MW which is 720A, this is a normal current for 400kV cables. The highest strength of EMFs will be directly above the underground cable given intervening distance. Based on figures from a typical cable configuration, EMF of 24 microT (µT) at 0m from the buried cable can be anticipated (96 µT maximum). The ICNIRP guideline public exposure limit is 360 µT, meaning that even directly above the cable the anticipated 24 µT is well below the ICNIRP guideline limit of 360 µT. Furthermore, the ICNIRP guidelines are for situations where the duration of exposure is 'significant' and there are no such exposure situations in the vicinity of our proposal. In addition to this, the further the distance from the source of the magnetic field the lower the strength of this magnetic field will be, this is particularly true with underground cables. Given the distance between the underground cables and the nearest receptors, a significant impact is not likely. This change in strength of the field, over distance from source (centreline), is illustrated below[4]:

				magnetic field in microtesla at distance from centreline			
				0 m	5 m	10 m	20 m
400 kV	trough	0.13 m spacing 0.3 m depth	maximum	83.30	7.01	1.82	0.46
			typical	20.83	1.75	0.46	0.12
	direct buried	0.5 m spacing 0.9 m depth	maximum	96.17	13.05	3.58	0.92
			typical	24.06	3.26	0.90	0.23

6.3.8 The project will operate within the ICNIRP guidelines on EMFs. No significant impact is likely from EMF on population and health.

6.3.9 In summary, there are no likely significant effects on population and health which have been identified through our initial appraisals, either through environmental or socio-economic health pathways, during construction or operation. For the above reasons, and

[4] Source: https://www.emfs.info/sources/overhead/specific/400-kv/

in the context of EIA scoping, no significant impact on population or health matters during construction or operation is likely and this topic is therefore not proposed to be included within the scope of our EIA.

6.4 Geology, hydrogeology and ground conditions

6.4.1 As the site is undeveloped agricultural land, the potential for any existing ground contamination that could be mobilised during construction is low. During construction, good practice measures for runoff management and materials storage to avoid spillages would be implemented through a CoCP and CEMP and significant effects on or due to ground contamination during construction are not considered likely.

6.4.2 In operation, the BESS facility would not have any process discharges to land, surface or groundwater other than clean rainwater runoff. There is no potential for significant effects on hydrogeology or ground contamination in operation.

6.4.3 There are no extant mineral operations, areas safeguarded for minerals or areas designated for geological interest on site or area around it. There is no potential for significant effects on geological resources.

6.4.4 In summary, no significant impact on geology, hydrogeology or ground conditions during construction or operation are considered likely and it is proposed that this topic will not be included within the scope of our EIA.

6.5 Materials and Waste

6.5.1 Waste generated during the construction and/or demolition of the Proposed Development will be reused and recycled where possible. The overall objective would be to reduce the amount of waste generated during these times and to sustainably manage any waste that is generated using waste management facilities in closest proximity to the site where possible. Furthermore, measures will be implemented to reduce the quantity of materials used during the construction of the Proposed Development. In operation, the Proposed Development would not generate any waste. For the above reasons, it is proposed that waste and materials are not included within the scope of our EIA.

6.6 Project Vulnerability

6.6.1 In line with the EIA Regulations, likely significant effects on the environment or the Project arising from the vulnerability of the Proposed Development to major accidents or disasters needs to be considered.

6.6.2 Fire risk is the only potentially relevant accident or disaster for the Proposed Development.

6.6.3 The main causes of fire incidents for BESS installations are:

- BESS and thermal runaway: Often caused by lithium-ion battery defects or damage, where excess heat in the BESS keeps creating more heat – eventually leading to fire or explosion;

- Failure of BESS control systems: If one or more control component fails, for instance a battery management system, it can lead to overheating and fire[5]; and
- BESS and hydrogen evolution: In lead-acid batteries, excess hydrogen can create a risk of explosion unless proper ventilation methods are in place[6].

6.6.4 As a result, fire risk mitigation is an important element of the Proposed Development design. Efforts to minimise and mitigate fire risk can be broken down across four main areas:

- BESS planning & design: this includes the overall design of the site and specifically the separation of battery containers and other major equipment, i.e., transformers, inverters and sub stations. The spacing of containers will be based on National Fire Protection Association standard NFPA855 (standard for the installation of stationary energy storage systems) which requires a 3m separation between containers. NFPA855 is a commonly applied and well-respected standard for batteries in the UK. The likely battery technologies have also been tested to UL9540A to rack level and the Lithium Iron Phosphate chemistry does not exhibit thermal runaway until temperatures are in the region of 150-200 degrees C, which is well above all thermal cut outs, and almost certainly never to be seen in operation. The batteries themselves also have overtemperature protection and fire suppression initiation.
- BESS construction: the Engineering, Procurement, and Construction (EPC) contractor will have experience and familiarity with BESS technology, whereby causes for BESS fires can result from poor workmanship and the EPC contractor's lack of experience in the sector[7]. Other important construction factors include the use of non-combustible materials within the insulation of the battery containers and the chosen ventilation and suppression systems for the site.
- BESS fire protection systems: the BESS operator will ensure an adequate water supply is available for firefighters and that the local fire brigade have visited the site to familiarise themselves with the site. The fire brigade will have a plan devised to prevent any reignition scenarios and thermal runaway, and will be aware of Site Specific Risk Information, including ensuring that the manufacturers' operational risk information is available for responding crews and the hazards associated with BESS are fully understood. Remote and continuous online monitoring, early detection sensors, appropriate venting to avoid the build-up of gas and automatic fire suppression systems to NFPA 855 standard will also be in place. The BESS will be built according to established fire standards such as NFPA855 and/or IFC 2018/20, which address issues such as fire protection, spacing and ventilation; using battery technology tested to UL9540a (Large Scale Fire testing).
- BESS maintenance: the site will have a dedicated maintenance schedule including monthly preventive checks, and thermographic testing.

6.6.5 A Fire Mitigation Strategy will be prepared and submitted with the planning application. As part of the developed mitigation strategy, modelling will be undertaken in relation to the potential fugitive emissions in the instance of a fire in order to understand the potential scale and extent of emissions in this event.

[5] *https://www.aig.co.uk/content/dam/aig/emea/united-kingdom/documents/Insights/battery-storage-systems-energy.pdf*
[6] *https://www.greentechmedia.com/articles/read/arizona-battery-explosion-conventional-wisdom-safety*
[7] *https://liiontamer.com/south-korea-identifies-top-4-causes-that-led-to-ess-fires/*

6.6.6 Whilst the Fire and Rescue Service is not a statutory consultee in relation to BESS projects at the planning stage, in England, the primary legislation for which Fire and Rescue Services (FRS) have direct statutory responsibilities are as follows:

- The Fire and Rescue Services Act 2004 (sets out the responsibilities of Fire and Rescue Authorities (FRAs));
- The Building Safety Act 2022;
- Regulatory Reform (Fire Safety) Order 2005;
- Fire Safety Act 2021 and Fire Safety Regulations (England) 2022;
- Civil Contingencies Act 2004;
- Policing and Crime Act 2017; and
- Crime and Disorder Act 1998.

6.6.7 In England, the FRS is also a statutory consultee of the Local Authority Building Control and will generally consider the guidance contained within Approved Document Part B (Fire Safety) from The Building Regulations.

6.6.8 The Fire and Rescue Services Act 2004 gives the Government responsibility for producing the Fire and Rescue National Framework which outlines the Government's high-level priorities and objectives for Fire and Rescue Authorities in England. The National Framework's priorities for Fire and Rescue Authorities are to:

6.6.9 Identify and assess the full range of foreseeable fire and rescue related risks their areas face, make provision for prevention and protection activities and respond to incidents appropriately; and

6.6.10 The Applicant wishes to strengthen the strategic support in relation to liaising with third party organisations, particularly Local Fire and Rescue Services, to assist in achieving a safer, more standardised, effective, efficient approach to the planning, building, commissioning, and operational delivery associated with their BESS schemes. As such, a Fire Liaison Framework will be prepared (to be submitted in support of the planning application) with consultation to be undertaken with the local fire service and stakeholders.

6.6.11 Given that the design of the Proposed Development will be in line with relevant guidance regarding fire risk and safety, with the BESS adhering to the relevant industry standards and best practice, and when considering the implementation of a Fire Mitigation Strategy (with measures to be secured via condition as relevant by BC) and the preparation of a Fire Liaison Framework, a significant impact in EIA terms is unlikely. It is therefore proposed that this topic be scoped out of the EIA.

6.7 Other

6.7.1 Given the scale and nature of the Proposed Development, other environmental topics such as daylight, sunlight, overshadowing, and solar glare and wind microclimate are not considered to be relevant, and therefore are scoped out of the EIA. All other topics not referenced within this Scoping Report are similarly not considered to be relevant and are proposed to be scoped out of the EIA.

7 CUMULATIVE EFFECTS

7.1.1 The BESS facility is located to the south of a National Grid substation. None of the villages and parishes surrounding the site are making any plans to expand outwards, therefore there would be no impact to development in the area.

7.1.2 Cumulative effects, together with effects on natural resources, such as land, soil, water and biodiversity are considered as part of the relevant topics set out within this report.

7.1.3 The EIA Regulations require that, in assessing the effects of a particular development proposal, consideration should also be given to the likely significant effects arising from the *"cumulation with other existing and/or approved projects"* (Schedule 4, 5I).

7.1.4 Cumulative effects can occur as interactions between the effects associated with several projects in an area (referred to as 'cumulative schemes') which may, on an individual basis be insignificant, but together (i.e., cumulatively), result in a significant effect.

7.1.5 Generally, the cumulative schemes are based on the information available on the local authorities planning register, whereby those included within the cumulative effects assessment are nearby and:

- they have full planning permission, a resolution to grant permission; or
- have been submitted (but not yet permitted), where considered appropriate.

- These parameters have been set to allow all the schemes coming forward within the area of the site to be subject to an initial screening exercise to determine any that may potentially have a cumulative effect with the Proposed Development and should be considered further within the cumulative effects assessment of the EIA. By applying these parameters, the cumulative effects assessment of the EIA is able to be more focused on relevant schemes (i.e. those with the potential to interact in a cumulative manner).

7.1.6 Applying the above parameters to the site, the following relevant cumulative schemes have been identified, on which there is the potential for cumulative construction impacts with regards to highways, biodiversity, landscape, heritage and residential amenity consideration within the EIA:

- Tuckey Solar Farm (application ref: 19/00983/APP),
- Planned expansion by National Grid of the East Claydon National Grid Substation,
- HS2
- East-West rail.

7.1.7 It should be noted that for the topics scoped out of the EIA, as set out above, the potential for significant cumulative effects when considering the above identified projects has been taken into account. No scoped out technical topics anticipate any significant cumulative effects. The scoped-in topics (within section 5 above) will take into account cumulative impacts associated with the above identified projects.

8 FORMAL REQUEST FOR AN EIA SCOPING OPINION

8.1.1 This EIA Scoping Report requests a Scoping Opinion of BC pursuant to Regulation 15 of the EIA Regulations.

8.1.2 This EIA Scoping Report suggests a comprehensive scope of work based on the previous experience of the assembled team of specialists and knowledge of the site. BC and consultees are invited to consider the contents of this EIA Scoping Report and comment accordingly within the five-week period prescribed by the EIA Regulations.

9 CONCLUSION

9.1 EIA Regulations

9.1.1 In accordance with the Town and Country Planning (Environmental Impact Assessment) Regulations 2017 as amended (the EIA Regulations), this report has described the characteristics of the Proposed Development and identified available information regarding the likely impacts of its construction, operation and decommissioning.

9.1.2 Following a screening request, BC have confirmed that the development falls within Schedule 2 of the EIA Regulations and that completion of an ES is required.

9.1.3 The characteristics of the development, the sensitivity of its location and the likely effects of the Proposed Development have been considered in Sections 3, 5, 6 and 7 of this report.

9.2 Development Characteristics and Effects

9.2.1 The Proposed Development is a BESS facility comprising battery and inverter containers and substation infrastructure and a high voltage cable route to the National Grid substation, along with ancillary equipment, access roads, landscaping and habitat creation to provide biodiversity net gain.

9.2.2 The development will be unmanned when operational and generate minimal traffic from those visiting site on an ad hoc basis. Its construction traffic will likely use the M1, A421, B4033, A413, and local roads over the duration of a 12-18 month construction programme.

9.2.3 The development will have no air pollutant emissions nor emissions to ground or surface waters save clean surface water runoff.

9.2.4 The development site is not subject to any statutory environmental designations and is not considered to have high environmental sensitivity. The site is undeveloped and does not have ground contamination.

9.2.5 Potential environmental effect pathways have been considered, and this has demonstrated that significant effects are not likely, with consideration of mitigation measures where necessary.

9.2.6 The purpose of the development (providing flexibility to the electricity network and supporting the transition to Net Zero) is in line with UK government policy and is likely to lead to a beneficial effect on climate change that is significant.

9.2.7 In summary, those topics proposed to be included within our ES are noted within section 5 and those not proposed to be scoped into the ES are within section 6.

9.3 EIA Scoping Request

In accordance with Regulation 15 of the EIA Regulations, this EIA Scoping Report requests a Scoping Opinion of BC.

9.3.1 This EIA Scoping Report suggests a comprehensive scope of work based on the previous experience of the assembled team of specialists and knowledge of the site. BC and consultees are invited to consider the contents of this EIA Scoping Report and comment accordingly within the five-week period prescribed by the EIA Regulations.

APPENDIX A: BC SCREENING OPINION

BUCKINGHAMSHIRE COUNCIL

TOWN AND COUNTRY PLANNING ACT 1990

(**E**nvironmental **I**mpact **A**ssessment)
(ENGLAND AND WALES)
Regulations 2017, as amended

SCREENING OPINION

Relating to Application No:	23/01438/SO
Location:	Land Located Off Hogshaw Road Granborough MK18 3NL
Site area:	29.53 ha
Description of development:	Proposed battery energy storage system (BESS) facility comprising up to 1,204 shipping containers modified to accommodate batteries, 38 inverter houses and outdoor transformers, 7 switch and control units, and substation compound. An underground grid connection will be provided to East Claydon substation.
Documents submitted:	EIA Screening Request

Reason for screening opinion:

Is it Schedule 1 Development?	No
Is it Schedule 2 Development?	Yes
If Yes, What section:	Section 3(a) industrial installations for the production of electricity
In a 'Sensitive Area'[1]?	Yes. The site is located within the Impact zone of Finemere Wood and Sheephouse wood SSSIs. In addition, there are 3 Local Wildlife Sites (local designation) within the zone of influence of the site - Runts Wood, Balmore Wood and Home Wood.
Does it meet the relevant threshold/criteria	Yes. The site measures 29.53ha and

[1] Certain designated sites are defined in regulation 2(1) as sensitive areas: (a)land notified under section 28(1) (sites of special scientific interest) of the Wildlife and Countryside Act 1981; (b) a National Park within the meaning of the National Parks and Access to the Countryside Act 1949; (c) the Broads; (d) a property appearing on the World Heritage List kept under article 11(2) of the 1972 UNESCO Convention Concerning the Protection of the World Cultural and Natural Heritage; (e) a scheduled monument within the meaning of the Ancient Monuments and Archaeological Areas Act 1979; (f) an area of outstanding natural beauty designated as such by an order made by Natural England under section 82(1) (areas of outstanding natural beauty) of the Countryside and Rights of Way Act 2000 as confirmed by the Secretary of State; (g)a European site.

in Schedule 2, Column 2?	therefore exceeds the threshold of 0.5 hectares
CONSIDERATIONS:	The authority needs to consider whether this Schedule 2 development in a Sensitive Area is likely to have significant effects on the environment having regard to the characteristics of the development, the location of the development and characteristics of the potential impact.

Characteristics of the development

1. *The characteristics of development must be considered with particular regard to—*

(a) the size and design of the whole development; (b) cumulation with other existing development and/or approved development; (c) the use of natural resources, in particular land, soil, water and biodiversity;(d) the production of waste; (e) pollution and nuisances; (f) the risk of major accidents and/or disasters relevant to the development concerned, including those caused by climate change, in accordance with scientific knowledge; (g) the risks to human health (for example, due to water contamination or air pollution).

The site comprises agricultural land extending to 29.53 ha and the proposal includes:

- A battery energy storage system (BESS) with capacity of circa 500MW;
- Battery containers (up to 1,204) comprising shipping containers on concrete foundations measuring circa 2.4m (w) x 12m (L) x 2.9m (H). Colour not specified;
- Inverter buildings (a total of 38) designed to have the characteristics of a small agricultural building typically less than 5m in height;
- Switch and control units (a total of 7) measuring 5m (W) x 13m (L) x 3.9m (H), comprising a simple building with 2 double doors and 1 single door. Colour and materials not specified;
- Substation compound comprising transformers, busbars and other equipment covering an area of approximately 1.2 hectares and up to 9m in height;
- Transformers (a total of circa 76) with a height of almost 3m;
- 5.5m wide crushed stone access track to the development site from Hogshaw Road, extending across the development site up to the substation;
- Loose permeable gravel, upon which the structures are stationed, covering a total area of circa 10 hectares (equivalent to 50% of the application site);
- Crushed stone access tracks throughout the site, dissecting the areas of loose permeable gravel and providing access between rows of battery containers;
- Storage container providing spare sparts storage;
- Storage container providing welfare facilities;
- An attenuation pond;
- 2.5m high weld-mesh security palisade fencing and CCTV around the battery compounds. To be dark green in colour;

- 2.5m high galvanised steel palisade fence around the substation compound;
- New woodland planting and new hedgerow planting;
- Underground grid connection to East Claydon National Grid substation.

The development will see the introduction of manmade features on to a greenfield site, albeit, its impacts would last over the operational life of the BESS (40 years). Whilst, the site can be put back to agricultural use at the end of the operation of the BESS, given the extent of earthworks and foundations required to deliver the proposal, significant remediation would be required to restore the land to agricultural use.

This is a greenfield site, part of which is covered by a Minerals Safeguarding Area (MSA), as defined by the Buckinghamshire Minerals and Waste Local Plan 2016-2036. The Buckinghamshire Minerals and Waste Local Plan 2016-2036 designates MSAs to secure the long-term safeguarding of resources of local and national importance. The proposal would lead to the sterilisation of potential mineral resources for a period of 40 years (the expected lifespan of the project). A Mineral Assessment will be required to address the requirements of Policy 1 of the Buckinghamshire Minerals and Waste Local Plan

The topsoil will be removed to facilitate the proposal. Soil will also be removed to construct an attenuation basin. With the exception of bunds proposed as part of the landscape scheme, the applicant advises that the overall topography of the site will not change significantly from existing levels. Nevertheless, The BESS would result in a significant localised landscape character and visual impact and a physical impact upon the appearance of the countryside.

The soil is currently used for agricultural purposes but is not considered to be in short supply. The applicant advises that an assessment of agricultural land classification has been undertaken and that the site is grade 3b agricultural land (moderate quality) and does not therefore represent best and most versatile agricultural land (grade 1-3a). The findings of the agricultural land classification assessment would be required to be submitted in support of any future planning application.

Construction would require the use of natural resources as is standard with construction works, i.e. power/water/construction materials. It is understood that the cabins and containers are manufactured off site, delivered by HGV in modules and are craned into position onto pile foundations. No significant effects are anticipated in this regard.

The applicant advises that in operation there will be no waste generated. During construction, soil will be removed to facilitate construction. The applicant intends to store as much as possible on site within the landscaping scheme proposed. Construction waste would be re-used and recycled where possible. The applicant advises that they will seek to reduce the amount of waste generated during construction and to sustainably manage any waste that is generated using waste management facilities in closest proximity to the site where possible. The applicant advises that there will be no demolition waste. The LPA anticipates that recycling of some of the components of the batteries may be possible at the time of decommissioning.

On the basis of the information available the LPA does not expect waste production to be significant. Where waste is produced it can be managed without causing significant

effects on the environment.

The application site itself has no known history to indicate there would be any form of contaminations present, yet if found, any contamination could be controlled during construction through the imposition of appropriate planning conditions to ensure appropriate mitigation. As with any major project there is a risk of contaminants entering the ground or water sources during construction and decommissioning. The risk of contamination during construction and decommissioning is not however considered to be significant and could be managed by securing a Construction Environmental Management Plan.

Owing to the nature of the proposals (batteries are stored in containers) it is not considered that there is risk of significant contamination during the operational phase of the project, except in the event of a battery fire, which would represent a major accident. The application advises that mitigating measures, including the spacing of battery containers, built in fire suppression systems, a Fire Liaison Strategy and water on site (to be accessible to the fire rescue service in the event of a fire), reduce the risk of a battery fire. Nevertheless, in the event of a battery fire (a major accident) the LPA considers that there will be significant environmental effects, including potentially impacts to human health associated with smoke pollution. Without further information the LPA cannot conclude on the likelihood of such an event or the likely effects.

During construction and decommissioning there will be vehicle emissions, dust, noise and vibration which could result in environmental effects, including effects to human health. The construction period is expected to last up to 18 months and will result in a peak of 30 HGVs a day. The site is not located within an Air Quality Management Area (AQMA). Dust emissions could be assessed using the Institute of Air Quality Management's Guidance as part of a future planning application. Any impacts of construction, including any measures required to manage dust and emissions, could be managed by securing a construction and environmental management.

During operation there will be no vibration, release of gases, emissions or dust and no lighting is proposed. It is understood that heat is produced by the operational batteries however this is not significant.

In operation the proposal will generate noise associated with the battery containers and their cooling systems, inverters and grid transformers. Without attenuation of noise there could be the potential for significant adverse effects to sensitive receptors. The applicant advises that to mitigate from any adverse effect the inverters will be housed in sound insulated buildings and the scheme will be designed so that the increase in background noise levels in night-time conditions shall be no more than 4dB at the closest residential receptor. Given the scale of the proposed BESS (capacity for 500MW) the LPA understands that this is bigger than any existing or operating BESS facilities. Without further details as to how the noise impacts will/can be mitigated the LPA considers that the proposal has the potential to result in significant noise impact.

The applicant confirmed to the LPA that the batteries will be connected to the National Grid transmission network at the East Claydon substation, via an underground 400kV cable. Power lines produce electromagnetic fields which are proportional to the amount of electrical current passing through the power line. Without further details the LPA considers that the proposal has the potential to result in significant electromagnetic fields.

It is noted that the East Claydon National Grid substation already exists within the locality. The LPA is not aware of any areas within the location which are already subject to pollution or environmental damage.

During construction and decommissioning, normal construction site and transportation accidents are possible, but these are not considered to be major and would principally be a risk for construction workers which could be managed by safe working practices. As set out above, during operation, in the event of a battery fire this would represent a major accident with potentially significant environmental effects.

Location of development

2.—(1) The environmental sensitivity of geographical areas likely to be affected by development must be considered, with particular regard, to—

(a) the existing and approved land use; (b) the relative abundance, availability, quality and regenerative capacity of natural resources (including soil, land, water and biodiversity) in the area and its underground; (c) the absorption capacity of the natural environment, paying particular attention to the following areas—

(i) wetlands, riparian areas, river mouths; (ii) coastal zones and the marine environment; (iii) mountain and forest areas; (iv) nature reserves and parks; (v) European sites and other areas classified or protected under national legislation; (vi) areas in which there has already been a failure to meet the environmental quality standards, laid down in Union legislation and relevant to the project, or in which it is considered that there is such a failure; (vii) densely populated areas; (viii) landscapes and sites of historical, cultural or archaeological significance.

The site comprises agricultural land within the open countryside and is located within a Minerals Safeguarding Area. The agricultural use and potential minerals resource would be lost for the operational life of the BESS (40 years). Whilst the site can be put back to agricultural use at the end of the operation of the BESS, given the extent of earthworks and foundations required to deliver the proposal, significant remediation would be required to restore the land to agricultural use.

It is noted that East Claydon National Grid substation is located near to the proposed site and a solar farm has been consented to the north (application ref: 19/00983/APP). Owing to the rural location, the land uses around the location of the application site are limited largely to agricultural uses, isolated dwellings in the open countryside and low density residential areas within or on the edge of villages.

The nearest residential dwellings are located at Sion Hill Farm, Sion Hill, East Claydon (circa 0.3 miles west), Staplers Piece Hogshaw Road, Granborough (crica 0.45 miles south), Bracknall House, Hogshaw Road, Granborough (located opposite the proposed access from Hogshaw Road), 6 Hogshaw Road, Granborough (circa 0.3 miles east).

The village of Granborough is located approximately 0.4 miles east of the application site. The village of East Claydon is located approximately 0.9 miles to the north west and the village of Botolph Claydon approximately 1.1 miles to the south west.

There are public rights of way (PRoW) within the vicinity of the proposal, including 2

PRoW which run adjacent to the site. The site is clearly visible from these rights of way.

There is a watercourse adjacent to the application site. The proposal involves the creation of hardstanding which will increase surface water run off. Without adequate mitigation this could increase the volume of water reaching the water course and increase flood risk. There is also the potential for pollutants to enter the watercourse. It is noted that no development is proposed within the riparian areas adjacent to the watercourse.

The site is located within the Impact zone of Finemere Wood and Sheephouse wood SSSIs. In addition there are 3 Local Wildlife Sites (local designation) within the zone of influence of the site - Runts Wood, Balmore Wood and Home Wood.

Protected species are considered to be present in the footprint of the proposed development and in the surrounding area.

There are no designated or undesignated built heritage assets on the proposed site or immediately adjacent to it.

Listed buildings are located in Granborough to the east, East Claydon and Botolph Claydon to the west. The closest is Rookery Farm (Grade II) located circa 700m from the site.

Claydon Historic Park and Garden (GII) is located circa 1.7 miles west. Two Scheduled Ancient Monuments (deserted villages) are located circa 1.2 miles north.

Conservation Areas: Botolph Claydon (circa 1.2 miles south west); Winslow (circa 1.2 miles north east); Shipton (circa 1.5 miles north east); Middle Claydon (circa 1.8 miles west).

In addition there are likely to be undesignated heritage assets within the locality.

The site is located within a wider landscape that has undergone minimal archaeological investigation and as such there is a low understanding of the archaeological potential of the area. Despite this, the western part of the site includes part of a planning notification area for a concentration of Roman finds. A planning notification area for a Roman road between Akeman Street at Fleet Marston and Thornborough is recorded as running through this area. On this basis the LPA considers there is high potential for undesignated buried heritage assets of archaeological importance to be present on the site.

The LPA is not aware of any plans for future land uses which could be affected by the project. It is understood that upgrading of the existing National Grid infrastructure is planned, however this would support the proposed project.

Characteristics of the potential impact

3. The likely significant effects of the development on the environment must be considered in relation to criteria set out in paragraphs 1 and 2 above, with regard to the impact of the development on the factors specified in regulation 4(2), taking into account—
(a) the magnitude and spatial extent of the impact (for example geographical area and size of the population likely to be affected); (b) the nature of the impact; (c) the transboundary

nature of the impact; (d) the intensity and complexity of the impact; (e) the probability of the impact; (f) the expected onset, duration, frequency and reversibility of the impact; (g) the cumulation of the impact with the impact of other existing and/or approved development;(h) the possibility of effectively reducing the impact.

The proposal will not result in any transboundary impacts for the purposes of the EIA regulations.

Land Use

The applicant advises that an Agricultural Land Classification undertaken in November 2022 found all of the soil to be grade 3b (moderate quality). On this basis the proposal will not result in the loss of Best and Most Versatile (Grades 1-3a) agricultural land. A significant effect, for the purposes of EIA, is not therefore considered likely in this regard.

Landscape and Visual Impact

Although undesignated landscape, the application site has a high landscape value locally because of its strong landscape character arising from lack of settlement, strong field patterns and a good network of public rights of way. The site is considered to have a high sensitivity to change.

The proposal will be highly visible to the nearest dwellings, including dwellings within Granborough as well as potentially some houses on higher land in East Claydon and Granborough which have views over the valley. It will also be highly visible to users of the PRoW network, featuring in panoramic as well as sequential views.

It is considered that the proposal will result in a significant, albeit localised, impact on the appearance and character of the local landscape, particularly when assessed cumulatively with the existing National Grid Substation and the approved solar farm to the north (application ref: 19/00983/APP). Although this is considered to be a significant impact locally, given the absence of landscape designations and having regard to the number of directly affected receptors, in addition to possible mitigation, it is not considered to be significant in EIA terms.

Ecology Impact

The application is located within the impact zone of two SSSIs and three Local Wildlife Sites. All these sites are located within 2.8km of the site and Finemere Wood SSSI is a large ancient woodland supporting a vast array of wildlife, including the nationally rare white and black hairstreak butterflies. Based on the information available to date, it is considered that the proposal will likely result in significant effects on these sites during the construction phase (both individually and cumulatively) and potentially decommissioning phase. This impact has the potential to be significant in EIA terms given that it is a sensitive area containing a nationally rare species of butterfly.

The site includes a water course, hedgerows, scrub and trees. Most of the site appears to consist of grass pasture fields that may have some arable elements to them. It is considered the impact of the proposal on biodiversity will be significant.

Built Heritage impact

It is possible that there are views of the site from some of the identified designated heritage assets within the locality. The impact of the proposed BESS upon the setting of these designated assets, both in visual and noise terms, should be assessed. Cumulative impact associated with the nearby East Claydon National Grid Substation and the approved Tuckey Solar Farm (application ref: 19/00983/APP) should be assessed.

Given the intervening distance, existing National Grid infrastructure and mitigation proposed via on-site landscaping, it is not expected that the visual impact of the proposal will result in a likely significant effect on designated built heritage assets for the purposes of EIA.

Archaeology Impact

The proposed development has a large footprint with presumed extensive ground works. If archaeological deposits are present within the site, they are likely to be adversely impacted. If significant buried archaeological features are encountered, it is possible they will need to be preserved in situ, which may result in the need to redesign either the layout of the development or the construction methodology.

Based on recorded archaeological finds within the vicinity of the site, without further investigation significant effects on archaeological remains is considered likely. At this stage insufficient information is available to rule out a likely significant effect on buried remains of archaeological significance.

Impact on Air Quality

During construction and decommissioning there will be vehicle emissions and dust. During operation there will be no release of gases and vehicle movements associated with the BESS will be limited.

The construction and decommissioning phases are temporary and the application site is not located within an AQMA. Dust emissions could be assessed using the Institute of Air Quality Management's Guidance.

Any measures required to manage dust and emissions could be managed by securing a construction and environmental management plan. A significant effect, for the purposes of EIA, is not therefore considered likely in this regard.

Noise and Vibration Impacts

During construction and decommissioning noise and vibration will be generated by construction plant and traffic. The construction and decommissioning phases are temporary and any measures required to manage noise and vibration impacts could be managed by securing a construction and environmental management plan.

In operation the proposal will generate noise associated with the battery containers and their cooling systems, inverters and grid transformers. No vibration is generated by the operation of the BESS.

Without adequate noise assessment and mitigation a significant noise impact is considered likely. At this stage, insufficient information is available to rule out a likely significant effect as a result of noise.

Human health impacts

The proposed BESS will connect to East Claydon National Grid Substation via an underground 400kV cable. The LPA does not have sufficient information to assess the possible impacts of electromagnetic fields upon human health. Without further details the LPA considers that the proposal is likely to result in the production of significant electromagnetic fields, which could have effects upon human health. This is in addition to the potential for noise impact to adversely effect residential amenity.

Furthermore, in the event of a battery fire it is considered that significant levels of smoke pollution could be created.

At this stage, insufficient information is available to rule out a likely significant effect on human health as a result of electromagnetic field or a major accident.

Transport Impacts

During operation the proposed development will not generate significant vehicle movements. The most vehicle movements will be generated by the construction and decommissioning phase. Limited details of the construction phase have been provided however, it is noted that abnormal loads will be required.

In isolation, it is considered that the construction traffic impacts could be adequately assessed via a Construction Traffic Management Plan and would not warrant any capacity assessments of the local highway network. The Highway Authority does have concerns over the width of the carriageway at points along the route to and from the site owing to narrow sections of carriageway.

Based on the information available to date it is considered that the proposal will result in significant localised impacts on the local highway network but significant transport effects for the purposes of EIA are not anticipated. Cumulative impacts with HS2 and East West rail construction traffic will however need to be assessed.

Impacts on Water Resources

The application is located largely within Flood Zone 1. There are some small areas of Flood Zone 2 and 3 and areas of high and medium risk surface water flooding adjacent to the watercourse. A sequential approach to development would be expected, so as to avoid areas of high flood risk.

It is considered that flood risk and potential contamination of the adjacent watercourse could be adequately managed via a Flood Risk Assessment and Surface Water Drainage Strategy and will not result in likely significant effects in this regard.

Cumulative Impacts

The site is located in relatively close proximity to Tuckey Solar Farm (application ref: 19/00983/APP), planned expansion by National Grid of the East Claydon National Grid

Substation, HS2 and East-West rail.

Given the proximity of these existing/permitted/proposed major developments it is considered that there could be cumulative construction impacts with regards to highways, biodiversity, landscape, heritage and residential amenity.

Conclusion

The National Planning Policy Guidance (Paragraph: 018 Reference ID: 4-018-20170728) is clear that only a very small proportion of Schedule 2 developments will require an Environmental Impact Assessment and to aid local planning authorities a set of indicative thresholds and criteria have been produced. The indicative thresholds contained in the Planning Practice Guidance for industrial installations for the production of electricity advise that EIA is more likely to be required where there is a thermal output of more than 50MW. In this case, while the installation will not produce electricity per se, it will have a thermal output of 500MW.

However, the National Planning Policy Guidance also sets out that it should not be presumed that developments above the indicative thresholds should always be subject to assessment, or those falling below these thresholds could never give rise to significant effects, especially where the development is in an environmentally sensitive location. Each development will need to be considered on its merits.

Furthermore, the National Planning Policy Guidance (Paragraph: 032 Reference ID: 4-032-20170728) also details that the more environmentally sensitive the location, the more likely it is that the effects on the environment will be significant and will require an EIA. Certain designated sites are defined as sensitive areas and the thresholds and criteria in the second column of the table in Schedule 2 are not applied. All developments in, or partly in, such areas should be screened. These are:

- Sites of Special Scientific Interest and European sites;
- National Parks, the Broads and Areas of Outstanding Natural Beauty; and
- World Heritage Sites and scheduled monuments.

In addition, the National Planning Policy Guidance states that an Environmental Impact Assessment is more likely to be required if the project affects the features for which the sensitive area was designated and, in practice, the likely environmental effects of Schedule 2 development will often be such as to require an Environmental Impact Assessment if development is to be located in or close to sensitive sites.

Having taken into account the characteristics of the development, the location of the development, the characteristics of the potential impact and cumulation with other development, it is concluded that, based on the information available to date, the proposed Schedule 2 development is likely to have significant individual and cumulative environmental impacts.

The development therefore requires an Environmental Statement.

The determination of this application falls within the scope of Officer delegated powers **YES**

DATE: 31/05/2023 SIGNED: H.Renney

PROFESSIONAL CHECK:

AGREE RECOMMENDATION: DATE: 08.06.2023

OFFICER: S.Armstrong

FIGURE 7 – Environmental and ecological sensitivities

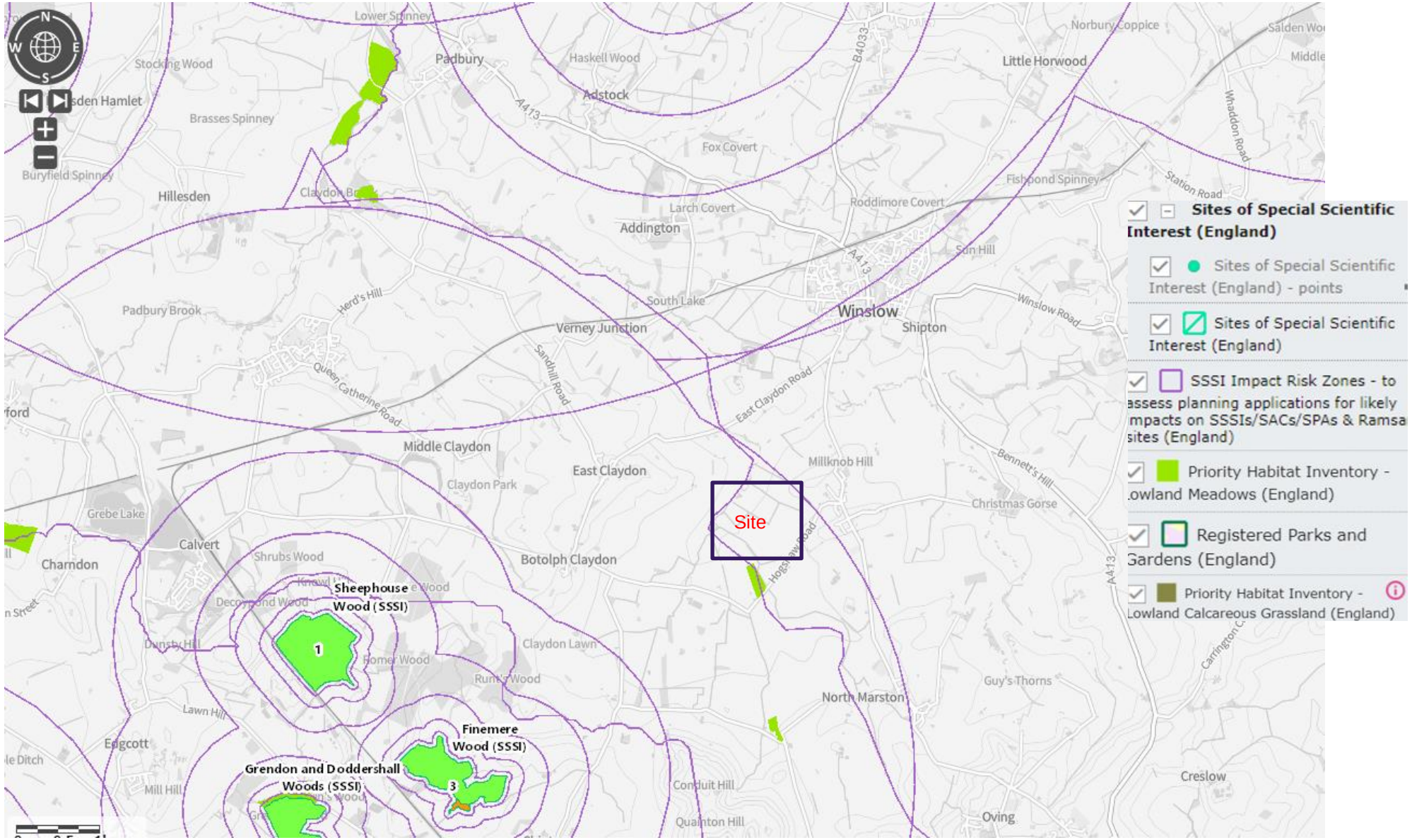


FIGURE 8 – Heritage Sensitivities