



STATERA
BALANCING THE GRID

East Claydon Battery Energy Storage System (BESS)

Environmental Statement

Volume 1, Chapter 4

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1 EIA SCOPING AND METHODOLOGY

1.1 Introduction

- 1.1.1 This chapter of the ES sets out the overall approach to, and methodology for, undertaking the EIA. It details the process for identifying environmental issues / topics to be included within the EIA and the method of addressing likely significant environmental effects that have the potential to arise as a result of the Proposed Development, during construction, operation and demolition.
- 1.1.2 Further detail on how the assessment methodology is applied to each topic is presented within the respective technical chapters of the ES.

1.2 EIA Guidance

- 1.2.1 The EIA has been prepared in accordance with applicable legislation, guidance and case law for the preparation of such documents. This includes reference and due consideration of the following:
- UK Government Department for Levelling Up, Housing and Communities (DLUHC) Overarching Planning Practice Guidance
 - National Highways Design Manual for Roads and Bridges 'Sustainability and Environment' (where applicable)
 - Publications made by the Institute of Environmental Management and Assessment (IEMA), including:
 - Guidelines for EIA (2004)
 - EIA Climate Change Resilience and Adaption (2015)
 - EIA Guide to Delivering Quality Development (2016)
 - Outlook Journal Volume 15: Public Participation, Stakeholder Engagement and Impact Assessment' (2023)

1.3 Planning Policy

- 1.3.1 The EIA has considered relevant national, regional and local planning policy and guidance, as summarised below.

National Planning Policy Framework

- 1.3.2 The EIA has been undertaken and ES prepared in accordance with the National Planning Policy Framework (NPPF). The NPPF sets out the Government's planning policies for England and how these should be applied. At its core the NPPF confirms that there is a need for the planning system to contribute to the achievement of sustainable development, essentially this is defined as "*meeting the needs of the present without compromising the ability of future generations to meet their own needs*" (NPPF, paragraph 7).

National Planning Practice Guidance (PPG)

- 1.3.3 DLUHC have produced a series of National Planning Practice Guidance (PPG) which is an online resource targeted to making planning guidance more accessible and up to date.

Local Planning Policy

1.3.4 At a local level planning policy consists of both adopted and emerging documents, both of which have been given regard within this ES. Key local planning policy documents that have been considered by the ES include:

- **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.
 - **Local Plan Proposals Map:** The location is shown as being outside of any allocation or settlement boundary, being unallocated and within the countryside.
 - **Local Plan Policies:** Relevant policies of the Aylesbury Vale Local Plan include:
 - S1: Sustainable Development for Aylesbury Vale
 - S5: Infrastructure
 - T4: Capacity of the transport network to deliver development
 - T5: Delivering transport in new development
 - T7: Footpaths and cycle routes
 - BE2: Design of new development
 - BE3: Protection of the amenity of residents
 - NE4: Landscape character and locally important landscape
 - NE8: Trees, hedgerow and woodlands
 - C3: Renewable Energy
 - C4: Protection of Public Rights of Way
 - I1: Green infrastructure
 - I4: Flooding
- **Emerging Local Plan for Buckinghamshire:** The emerging local plan 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 (July 2019):** 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 and is a material consideration for other forms of development.
- **Granborough Neighbourhood Plan (2022):** The Granborough Neighbourhood Plan (GNP) is part of the emerging development plan for Granborough up to 2035 and contains a series of policies which look to shape development in the area.

- 1.3.5 Other additional planning policy and guidance documents which may be considered relevant to the technical assessments of the EIA are also included within the technical chapters of this ES (volumes 2-11).

1.4 EIA Screening

- 1.4.1 An EIA Screening Request was issued to BC in July 2023. BC provided a Screening Opinion (Reference: 23/01438/SO) on 8th June 2023 which, following consideration of the criteria for screening Schedule 2 development, 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. On this basis, and as noted above, the Applicant has undertaken an EIA and prepared an ES (this document). A copy of the BC Screening Opinion is provided at Appendix 2.3.

1.5 Planning History

- 1.5.1 No planning history records have been identified for the Proposed Development site.

1.6 EIA Scoping and Consultation

- 1.6.1 Consulting with stakeholders is an important and ongoing part of the impact assessment process as it allows any concerns or issues which stakeholders may have, to be communicated and addressed. The process of consultation will continue throughout the project with the views of both key statutory and non-statutory consultees being considered throughout, including once the application for planning has been submitted.
- 1.6.2 Scoping forms one of the first stages of the EIA process and it is through scoping that BC as the local planning authority and other key statutory and non-statutory consultees are consulted on those environmental topics that should be included within the scope of the EIA. Regulation 18(4) of the EIA Regulations require the ES to be based on the most recent EIA Scoping Opinion.
- 1.6.3 The process of EIA scoping is important to the development of a comprehensive and balanced ES. Views of BC and consultees have helped to identify specific issues that require further investigation as part of the EIA process.
- 1.6.4 An EIA Scoping Report was submitted on 7th July 2023 to request a formal EIA Scoping Opinion from WBC and statutory consultees concerning the scope of the EIA. An EIA Scoping Opinion was received from BC on 18th September and this ES has been based on the EIA Scoping Opinion. The EIA Scoping Report is provided at Appendix 2.4 with the BC Scoping Opinion at Appendix 2.3 to this ES.
- 1.6.5 The EIA Scoping process identified the environmental technical topics which are considered likely to give rise to significant environmental effects (and have been 'scoped in' to our ES) and those unlikely to give rise to significant environmental effects and, therefore, do not need to be assessed further as part of the EIA ('scoped out'). Full justification for scoping technical topics into or out of the EIA can be found within the Scoping Report (ES Appendix 2.4), however a summary is provided below:

Scoped-In Topics

1.6.6 The potentially significant environmental issues that were identified during the EIA Scoping process and that have been addressed within this EIA are listed below:

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

Table 1.1

Scoped-in Topic	Rationale
Landscape and Visual	During the Scoping Process it was considered that the Proposed Development would be able to accommodate the Proposed Development from a landscape and visual perspective albeit localised impacts were possible and that these could be significant albeit viewed in the context of the nearby National Grid substation and an approved solar farm to the north. As such, consideration is given within this ES to the impact of the Proposed Development in landscape and visual terms.
Ecology and Biodiversity	Two SSSIs and three Local Wildlife Sites are located within 2.8km and it was considered that the project may have an impact on such sites, and on biodiversity, which may be significant during construction and potentially decommissioning and that such impacts could be significant in EIA terms. As such, consideration is given within this ES to the impact of the Proposed Development in Ecology and Biodiversity terms.
Archaeology	During the Scoping Process, based on recorded archaeological finds within the vicinity of the site, a significant impact on unknown buried archaeology is likely (if encountered). As such, consideration is given within this ES to the impact of the Proposed Development in archaeology terms.
Built Heritage	A number of built heritage assets were identified within the wider vicinity of the site. The impact on these assets would be primarily related to setting and related to scoped in topics of landscape and visual and noise and vibration. For these reasons, built heritage was scoped in as a topic and consideration is therefore given within this ES to the proposed development on this.
Noise and Vibration	It was considered during the Scoping process that there may be potential for a significant impact in terms of noise during construction. As such,

	consideration is given within this ES to the impact of the Proposed Development in noise and vibration terms.
Hydrology and Floodrisk	The developed area of the sit sites within Flood Zone 1 (low risk of flooding), however and due to the proximity of Flood Zones 2 and 3 to the Proposed Development, during the Scoping process it was considered that a potential for a significant impact on hydrology and floodrisk may exist. As such, consideration is given within this ES to the impact of the Proposed Development in hydrology and floodrisk terms.
Climate Change and Carbon / Greenhouse Gas Emissions	Schedule 4, paragraph 5, of the EIA Regulations requires EIA to consider “the impact of the project on climate”. During scoping no significant construction stage greenhouse gas (GHG) emission or climate risk effects were considered likely. However, the beneficial operational GHG emissions impact from the BESS was considered likely to be significant in EIA terms. As such, consideration is given within this ES to the impact of the project on greenhouse gasses and climate change.
Traffic and Transport	During the Scoping Process, it was considered that there may be localised impacts in traffic and transport terms and that this may be significant in context of EIA. As such this ES includes consideration of the impact of the project in traffic and transport terms.

Scoped-Out Topics

- 1.6.7 The EIA Scoping Report (Appendix 2.4) identifies the technical topics that have been scoped out of this ES, as part of the Scoping Exercise. No likely significant residual environmental impacts are envisaged in relation to these topics and they are scoped out and not reported within this ES, as below:

Table 1.2

Scoped-out Topic	Rationale
Land Use	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. A significant impact, for the purposes of EIA, was not considered likely and this topic is not included within the scope of this ES.
Air Quality	Dust from construction works were not considered 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. A significant impact, for the purposes of EIA, was therefore not considered likely and this topic is not included within the scope of this ES.

Population and Health	No likely significant effects on population and health were anticipated through the Scoping process. As such this topic has been scoped out and is not reported within this ES.
Geology, Hydrogeology and Ground Conditions	No likely significant effects on geology, hydrogeology and ground conditions were identified during the Scoping process. This topic is therefore not included within the scope of this ES.
Materials and Waste	During construction and / or demolition of the Proposed Development waste generated would be reused and recycled where possible. Furthermore, measures will be implemented to reduce the quantity of materials used during the construction of the Proposed Development. No significant impact was identified during the scoping process and as such this topic is not included within the scope of the EIA and is not reported on within this ES.
Project Vulnerability	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 was not identified during the Scoping process. As such, this topic is therefore not included within the scope of this ES.

- 1.6.8 EIA scoping is a consultative and iterative process. Where clarifications required additions or variations to the assessment scope set out within the Scoping Report, these have been addressed where relevant as part of the ES. The introduction of each of the technical Volumes included within this ES provides an overview of relevant consultation correspondence undertaken as part of the EIA, as well as context (if needed) for points raised during the EIA scoping process.

Response to EIA Scoping Opinion

- 1.6.9 The EIA Scoping Opinion requested the additional consideration of land use and ground conditions which were included within our EIA and have been considered within Volumes 10 and 11 of this ES.

1.7 EIA Methodology

- 1.7.1 Detailed methodologies for the assessment of each of the environmental topic areas scoped into the EIA are provided within each technical assessment presented in ES Volumes 2 to 9, however, in general terms the assessments have been based upon:
- Desk top assessments and studies
 - Survey onsite

- Relevant legislative requirements
- Relevant planning policy considerations
- Potentially sensitive receptors which may be affected by the Proposed Development
- Identification of likely environmental impacts, including consideration of magnitude of effect and resultant effects in terms of nature, scale, geographic extent, duration and whether these impacts are direct, indirect or transboundary.

1.7.2 How the Proposed Development might affect the environment relies on predictions about what impact a certain action will have. Some predictions can be made using mathematical calculations (i.e. quantitative assessment). Other impacts are less easy to predict in quantitative terms and in such cases, the EIA attempts to quantify the anticipated scale of impact using professional judgement (i.e. qualitative assessment).

1.7.3 As part of the EIA, an iterative approach has been adopted where significant environmental effects have been identified and avoided where possible in the first instance through consideration of alternative development parameters, as reported upon within ES Volume 1 Chapter 3. Where able, opportunities to reduce or control impacts and effects have been identified and incorporated into the Proposed Development (i.e. primary mitigation¹).

1.7.4 In accordance with the EIA Regulations, the method behind the EIA process is to consider the existing conditions of the area into which the development will be introduced, this is the baseline. From which reasonable predictions of the likely change (the impact) which may occur during construction, operation and following decommissioning. The predicted impact is considered in terms of magnitude that may occur and is considered in terms of key environmental aspects (receptors) found within the surrounding area and based on their sensitivity to change. The scale of the resulting change experienced by the receptor / resource (the Effect) is then determined along with a statement on whether the effect is significant or not.

1.7.5 Mitigation is the approach taken to avoid where possible and, if unable to avoid, minimise controlling or offsetting potential significant impacts of a development. Mitigation measures can apply during design, during construction or associated with the operation of the Proposed Development.

1.7.6 Following the initial impact assessment, any mitigation measures required to reduce or eliminate adverse impacts are then considered and assessed with the resulting residual impact scale being determined as significant or not. Assessment of the project alongside surrounding projects is also assessed in cumulative terms. The impacts of the development are reported within this ES and the non-technical summary and the likely significant effects are specifically highlighted. How the assessment methodology is applied to each topic is presented within the respective technical assessments presented in ES Volumes 2-11.

Potentially Sensitive Receptors

1.7.7 Through completing an EIA, it is important to identify potential sensitive receptors who may be impacted by the Proposed Development and may need to be considered within the assessments undertaken.

1.7.8 Each technical assessment chapter of the ES (ES Volumes 2-11), sensitive receptors have been identified which are considered to be potentially affected by the Proposed Development.

¹ IEMA, Environmental Impact Assessment Guide to: Delivering Quality Development; Annex A, Classifying the three types of Environmental Impact Assessment Mitigation

- 1.7.9 These sensitive receptors have been identified from a review of available information collected during the collection of surrounding environmental information setting the context for each technical assessment, including from historic and currently available information relating to the site itself, through EIA Scoping consultation and the consideration of the scope of the proposed development and its extent.

Baseline Conditions

- 1.7.10 The EIA purpose is to predict how environmental conditions may change as a result of the Proposed Development. As such an understanding of the current environmental situation is necessary to ascertain what the change (and magnitude of that change) may be. The assessment of the nature and scale of a predicted change is therefore undertaken against a reference condition, known as the baseline.
- 1.7.11 Baseline assessments draw on existing and available information, including any new information collected through baseline surveys carried out during through the EIA process and additional information provided as part of the EIA Scoping and consultation process. This baseline assessment information is presented within the individual technical assessment chapters of this ES (Volumes 2-11) which form an up-to-date description of the current baseline conditions of the site and surroundings.

Evolved Baseline

- 1.7.12 In accordance with the requirements of the EIA Regulations, consideration as to how the existing baseline conditions may evolve in the future in the absence of the Proposed Development. The EIA Regulations state (Schedule 4(3)):

“A description of the relevant aspects of the current state of the environment (baseline scenario) and an outline of the likely evolution thereof without implementation of the development as far as natural changes from the baseline scenario can be assessed with reasonable effort on the basis of the availability of the environmental information and scientific knowledge.”

- 1.7.13 This requirement is presented where relevant within each of the individual technical chapters of this ES (Volumes 2-11). The evolved baseline is a baseline situation at a not set point in the future and under a scenario which assumes cumulative schemes are built in the surrounding environment and that the surrounding environment, including the site, has naturally evolved in the absence of the Proposed Development being in place. Professional judgement will in practice typically inform the evolved baseline but some instances may be quantitative.
- 1.7.14 The approach taken to the baseline and evolution of the baseline is described where relevant within the technical assessment chapters of this ES (Volumes 2-11).

1.8 Identification of Impacts, Effects and Effect Significance

Impact and Effect

- 1.8.1 The terms impact and effect are distinctly different, in EIA terms this difference is where, having gained an understanding of the likely impact, then it is important to know whether

the change in environmental conditions results in a significant environmental effect. The impacts of the Proposed Development may or may not result in significant effects on the environment, depending on the sensitivity of the resource or receptor alongside other factors such as duration.

- 1.8.2 The assessment of the likely significant effects of the development is a requirement under Schedule 4 of the EIA Regulations.

Receptor Sensitivity and Magnitude of Impact

- 1.8.3 A consistent approach has been sought within the topic specific chapters of this ES (Volumes 2-11) in how the sensitivity of receptors has been broadly defined, including the magnitude of impact or change from the baseline in order to derive resultant effect (and the significance of this effect). Broadly speaking, terminology to describe the sensitivity of receptors and magnitude of impact or change from the baseline is as follows:
- High;
 - Medium;
 - Low; and
 - Negligible.
- 1.8.4 Where there is no impact / change, no assessment will be required due to there being no potential for significant effects.
- 1.8.5 Each of the technical assessment chapters of the ES (Volume 2-11) provide further detail on the definition of each of the above terms specific to the topic in question and also provide the criteria, including sources and justifications, for quantifying the different levels of receptor sensitivity and 'impact magnitude'. Where possible, this is based upon quantitative and accepted criteria, together with the use of value judgement and expert interpretation.
- 1.8.6 The topic specific experts have used their own approach, or amended the approach stated below, on the basis of what is appropriate for their assessments and present the approach followed within each technical assessment chapter of this ES (Volumes 2-11). In addition, some technical assessments may differ in the terminology used to describe the magnitude of impact or change from the baseline conditions. Where this occurs, the alternative terminology will be set out within the individual ES volume.

Identification of a Resultant Effect

- 1.8.7 The basis for determining the resultant effect generally takes into account the sensitivity of the receptor and magnitude of impact or change from the baseline conditions. A generic matrix that combines the sensitivity of the receptor and the magnitude of impact to identify the result effect is provided within Table 1.2 below. Where any of the ES chapters differ from this matrix, this has been clearly stated within the topic assessment methodology of the relevant technical assessment chapters of this ES (Volumes 2-11).

Table 1.2

Receptor Sensitivity	Magnitude of Impact
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	High	Medium	Low	Negligible
High	Major	Major	Moderate	Minor
Medium	Major	Moderate	Minor	Negligible
Low	Moderate	Minor	Minor/Negligible*	Negligible
Negligible	Minor	Negligible	Negligible	Negligible
*To be determined using professional judgement				

Identification of Scale of Effect

1.8.8 The scale of the predicted effect has then been classified according to the following scale. The definitions of the scale used follow either that set out below, or, as specified within the individual technical volumes of this ES to suit the technical topic in question:

- **Negligible** – effects which are beneath levels of perception, within normal bounds of variation or within the margin of forecasting error, these effects are unlikely to influence decision-making, irrespective of other effects.
- **Minor** – These effects may be raised as local issues and may be of relevance in detailed design of the project, but are unlikely to be critical in the decision-making process;
- **Moderate** – These effects, if adverse, are likely to be important at a local scale and on their own could have a material influence on decision-making; and
- **Major** – These effects may represent key factors in the decision-making process. Potentially associated with sites and features of national importance or likely to be important considerations at a regional or district scale. Major effects may relate to resources or features which are unique and which, if lost, cannot be replaced or relocated.

Nature of Effect

1.8.9 Negligible effects are defined as imperceptible, the nature of these effects are therefore not relevant in the context of this EIA. The definition of the nature of resultant minor, moderate or major effect, in terms of being adverse, beneficial or neutral are used throughout the ES, as below:

- **Adverse** – Detrimental or negative effects to an environmental resource or receptor. The quality of the environment is diminished or harmed;
- **Beneficial** – Advantageous or positive effect to an environmental resource or receptor. The quality of the environment is enhanced; and
- **Neutral** – Where the quality of the environment is preserved or sustained or where there is an equal balance or benefit and harm.

Geographic Extent of Effect

- 1.8.10 Each of the topic specific chapters of this ES (Volumes 2-11) includes detail on the the geographic extent of identified effects. Broadly speaking, and at a spatial level, 'site' or 'local' effects are those affective the site and neighbouring receptors, while effects upon receptors beyond the vicinity are at a 'district' level. Effects beyond Buckinghamshire are considered to be at a 'regional' level, whilst effects a affecting different regions (or nationally) are considered to be at a 'national' level.

Effect Duration

- 1.8.11 In terms of this ES, effects that are generated during enabling and construction will be classed as 'temporary' effects, these can be further classified as being 'short term' or 'medium term' or 'long term' as applicable to each technical assessment, and reliant on the nature of the effect being identified.
- 1.8.12 Effects that result from the completed and operation Proposed Development will be classed as 'temporary' effects given that the Proposed Development will not be in place permanently. As set out at ES Volume 1, Chapter 3: Site Selection and Alternatives, the development will be decommissioned after 40 years of operation. Effects that result from the decommissioning of the Proposed Development will be classed as 'permanent' effects.

Direct and Indirect Effects

- 1.8.13 'Direct' effects (i.e. resulting without any intervening factors) or 'indirect' or 'secondary' (i.e. not directly caused or resulting from something else) are identified throughout the topic specific chapters of this ES (Volumes 2-11).

Effect Significance

- 1.8.14 On identification of an effect, the effect scale, nature, geographic extent and duration and whether the effects are direct or indirect will be considered. Following this a statement is made within the ES topic specific chapters (Volumes 2-11) on whether the effect is significant or not significant. Each technical assessment determines at what scale and effect is deemed to be significant, this will vary depending on the topic.
- 1.8.15 In broad terms, the following applies throughout the ES:
- 'Moderate' or 'major' effects could be deemed to be 'significant';
 - 'Minor' effects are 'not significant', although they may be a matter of local concern; and
 - 'Negligible' effects are 'not significant' and not a matter of local concern.
- 1.8.16 Where this differs for a particular technical assessment, an explanation is provided within the methodology section of the relevant technical ES Volume (i.e. 'neutral effects' for the landscape and visual impact assessment).
- 1.8.17 Where mitigation measures are identified to either eliminate or reduce likely significant adverse effects, these have been incorporated into the ES, for example either through the design or as commitments to be adhered to during construction, or operational /

management procedures or standards. It should be noted that mitigation is not required for effects that are deemed to be negligible.

- 1.8.18 The ES then highlights the 'residual' effects (those effects which remain following the implementation of suitable mitigation measures) and classifies these in accordance with the terminology defined above.

1.9 Impact Assessment – General Methodology

- 1.9.1 Impact assessments are undertaken for the following stages of the Proposed Development:
- During enabling and construction works;
 - Once the Proposed Development is complete and operational; and
 - Following the decommissioning of the Proposed Development.

Enabling and Construction Effects

- 1.9.2 ES Volume 1, Chapter 2 The Project, provides an outline of the anticipated enabling works and construction activities.
- 1.9.3 This information informs the enabling works and construction impact assessments for each of the technical volumes of the ES (Volumes 2-11). Through this, assumptions have been made for the standard environmental controls required under other legislation will be suitably applied to the Proposed Development. The technical volumes of the ES (Volumes 2-11) also assume that best practice guidance will be followed.
- 1.9.4 The assessment of the potential likely significant effects arising during the enabling and construction works is assessed within each of the individual technical assessment Volumes of the ES and these identify the need for any additional or bespoke environmental management or mitigation measures in order to avoid, prevent, reduce or offset any significant adverse effects identified.
- 1.9.5 Where relevant and required, a description of any proposed monitoring arrangements has also been presented and defines (where appropriate) the procedures regarding the monitoring of the relevant significant adverse effects; the types of parameters to be monitored and the monitoring duration.
- 1.9.6 The required enabling and construction related environmental management / mitigation and monitoring measures identified within the ES would be secured controlled through an appropriate Construction and Environmental Management Plan (CEMP) (or equivalent) and it is proposed that the requirement for this document be secured by means of a suitably worded planning condition to be attached to any future grant of planning consent.

Completed and Operational Effects

- 1.9.7 The ES presents a description of the Proposed Development in ES Volume 1, Chapter 2: The Project in order to provide a suitable context to enable the assessment of potential and likely significant effects. Enough information on the Proposed Development, in terms of the key operational and physical aspects, has been presented to allow an understanding of the development being propose, to enable the assessment of potential and likely significant environmental effects of the completed and operational development in each of the technical ES Volumes.

Decommissioning Effects

- 1.9.8 The assessment of potential and likely significant effects following the decisioning of the proposed development assumes an operational life of the development of 40 years. Following the operational period the development would be dismantled and the site returned to its original state for agricultural purposes. The decommissioning phase assessment is presented as relevant in each of the technical ES Volumes, with any assumptions made clearly presented in the narrative.

1.10 Cumulative Effects and Effect Interactions

- 1.10.1 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, 5(e)). There are no legislative or policy requirements which set out how a cumulative impact assessment should be undertaken, however consideration has been given to Planning Advice Note 17 Cumulative Effects Assessment².
- 1.10.2 Cumulative effects can occur as interactions between the effects associated with a number of projects in an area which may, on an individual basis be insignificant, but together (i.e., cumulatively), result in a significant effect. Cumulative effects arising from the Proposed Development in combination with other development schemes ('cumulative schemes') has been considered throughout the ES. The potential for cumulative effects arising during the enabling and construction works, once the Proposed Development is complete and operational, and following decommissioning is considered as relevant.
- 1.10.3 Each individual technical ES Volume presents an assessment of the cumulative effects of the Proposed Development coming forward alongside other surrounding cumulative schemes as relevant.

Cumulative Effects with Other Developments

- 1.10.4 Generally, the cumulative schemes that are included within the cumulative effects assessment fall under one (or more) of the following criteria:
- Schemes that provide uplift of more than 10,000m² gross external area of mixed use floorspace or provide 150 residential units where:
 - Planning permission or resolution to grant permission is provided OR
 - Have been submitted but not yet permitted (where appropriate)

² The Planning Inspectorate: Planning Advice Note 17 'Cumulative Effects Assessment'(August 2019)

- Development / change of use adjacent to the site

- 1.10.5 These parameters have been set to allow all the schemes coming forward within the surrounding area of the site to be subject to an initial screening exercise to determine the schemes that, based on the scale of redevelopment (amount and mix of uses), could 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 becomes more focused on the larger schemes (i.e., those with the potential to interact in a cumulative manner). Where there are schemes of a smaller scale located within proximity of the site, these are considered where deemed necessary.
- 1.10.6 Generally, cumulative schemes considered within the cumulative effects assessment are located within 1km of the site as this represents an appropriate area for the majority of technical topics / disciplines where significant in-combination effects could occur.
- 1.10.7 The cumulative schemes were subject to an initial screening exercise (as part of the EIA Scoping process), and subsequently those for consideration were agreed via the EIA Scoping Opinion (ES Volume 1, Appendix 2.3)
- 1.10.8 The cumulative schemes considered (where relevant) within the ES are presented in Table 1.3 below:

Table 1.3

Ref	Project
1	Tuckey Solar Farm (consented under ref: 19/00983/APP)
2	Planned expansion by National Grid of the East Claydon Substation
3	HS2 Rail
4	East-West Rail

- 1.10.9 Furthermore, since the receipt of the EIA Scoping Opinion two projects have come forward, being the Rosefield Farm Solar DCO and Wings Solar Farm. Both of these projects are at an early stage of development but are considered within each of the technical volumes of this ES on a cumulative basis.

Effect Interactions

- 1.10.10 Effect interactions comprise a secondary aspect to cumulative assessment and pertain to interactions between effects associated with just one project, i.e., the combination of individual effects arising as a result of the Proposed Development on a single receptor.
- 1.10.11 This ES reports on the potential (before mitigation) and residual (after mitigation) environmental effects of the Proposed Development during enabling and construction works, on subsequent completion and operation, and following the decommissioning phase. The ES also concludes with a summary of the likely significant beneficial and adverse environmental effects of the Proposed Development (ES Volume 1, Chapter 5: Conclusions), drawing upon the conclusions of all the technical Volumes of this ES.
- 1.10.12 Each of the environmental topics considered in the EIA have been assigned a separate Volume within this ES. Within each of Volume, the assessment is generally presented and reported in the format listed below. Albeit, given relevant guidance and best practice, where necessary the structure is amended to suit the specific assessment.
- Assessment Methodology – an explanation of the approach to defining the baseline conditions and assessment scenarios and evolved baseline conditions, undertaking the impact assessment (construction operation, and decommissioning and any key

assumptions and limitations made) and the definitions of the nature and scale of effect and what effects are deemed to be significant;

- Baseline and Future Baseline Conditions – a description of the baseline and any future baseline conditions of the site and surrounding area (as relevant to the technical topic in question);
- Receptors and Receptor Sensitivity – identification of the existing receptors on the site and in the surrounding area that may be affected by the Proposed Development and identification of their sensitivity;
- Embedded (Primary) Mitigation – a description of embedded mitigation measures (also known as ‘primary’ mitigation measures) that are already embedded within the Proposed Development prior to design freeze and are a fundamental part of the design the planning application is seeking consent for and which have been accounted for in the assessment of potential environmental effects.
- Potential Effects – an assessment of the likely significant effects of the Proposed Development during enabling and construction works, upon completion and operation, and following decommissioning, and an evaluation of their significance against defined criteria without the implementation of mitigation;
- Mitigation Measures, Monitoring and Residual Effects - a description of the mitigation measures that are being committed to (‘secondary’ mitigation measures) and a summary of the residual effects and likely significant effects of the Proposed Development;
- Cumulative Effects – an assessment of any cumulative effects of the Proposed Development coming forward in conjunction with other cumulative schemes, as relevant; and
- Likely Significant Effects – confirmation of which (if any) residual and cumulative effects are considered to be significant.

1.11 Assumptions and limitations

1.11.1 The principal assumptions that have been made, and any limitations that have been identified, in undertaking the EIA are set out below. Assumptions specifically relevant to each technical topic have been set out in each technical Volume of the ES.

- Baseline conditions have been established from a variety of sources, including historical data and are accurate at the time of writing;
- It is assumed that information received from third parties is accurate, complete and up to date;
- The assessments contained within each of the technical ES Volumes are based on the assumption that embedded mitigation measures are implemented – be it as set out in application drawings, through regulatory regimes or via the management controls described;
- Enabling and construction works across the site would take place substantially in accordance with the programme of works described in ES Volume 1, Chapter 2: The Project;
- Following the decommissioning of the Proposed Development, the site will be returned to agricultural use, whereby the site use and condition is assumed to be as existing;

- Where quantitative impact assessment is not possible, the limitations and justification are identified within the relevant technical ES Volumes and as appropriate, qualitative assessment is presented;
- Where detailed information has not been available, reasonable assumptions have been made, and have been clearly set out, based on professional experience of the author of the ES Volumes and this may be based on other developments of similar type and scale for example, to enable an assessment of likely significant effects;
- The aim of the EIA is not to assess the Proposed Development's compliance / performance against planning policy, as this is considered within the Planning Design and Access Statement that accompanies the planning application. Instead, reference is made to relevant national, regional and local policy and guidance to inform the scope of the assessment, the assessment methodologies applied, and the existence of any sensitive receptors to be considered.

1.12 Competent Expert and Relevant Expertise

- 1.12.1 The EIA Regulations require that to ensure the completeness and quality of the ES, '(a) the developer must ensure that the environmental statement is prepared by competent experts;' and '(b) the environmental statement must be accompanied by a statement from the developer outlining the relevant expertise or qualifications of such experts.'
- 1.12.2 Staterra as an organisation has detailed experience in managing EIA projects and understanding the expectations of Local Planning Authorities (LPAs), including for grid scale battery storage schemes. Further detail on the expertise and experience of those preparing the ES is provided in ES Volume 1, Appendix 2.5

1.13 ES Availability and Comments

- 1.13.1 Electronic Copies of the ES and NTS are available free of charge and can be provided via a downloadable file provided by email. Printed copies of the ES and NTS would incur a printing and postage charge. For further details please contact contact@stateraenergy.co.uk with reference in email header of "Environmental Statement Request – East Claydon Storage" or Tel: +44 (0) 20 7186 0580 and ask for a member of the Development Team.