STATERA
BALANCING THE GRID

EAST CLAYDON STORAGE LIMITED

PLANNING DESIGN AND ACCESS STATEMENT

November 2023

Contents

Introduction

1.1 This report has been prepared by Statera Energy Limited for a proposed battery energy storage system ("BESS") facility at Rookery Farm, Granborough, Buckinghamshire, MK18 3NU.

1.2 The purpose of this Planning Statement is to provide an assessment of the proposed development in relation to development plan policy and other relevant material considerations, as well as providing a Design and Access Statement. It also considers the policy of the UK Government towards the importance of lower carbon energy, reliable energy supplies and the benefits that will arise from the construction and operation of the Proposed Development.

The Applicant

1.3 Since 2015 Statera Energy has been developing and operating flexible energy generation and battery storage schemes, with operational sites in Hertfordshire, Essex, Yorkshire, Teesside and Wiltshire. Statera has 1,020MW of assets operational or under construction, with a further 13 gigawatts (GW) in development, comprising a mix of pumped storage, battery storage, flexible generation and hydrogen production.

1.4 All projects are developed in-house, managed through their construction and on to operation, where they are overseen by a dedicated asset management team which includes its own industry leading technical expertise.

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2.1

The Application

2.2 The Application is a full planning application to construct a battery energy storage system (BESS) connected directly to National Grid.

2.3 The Applicant is seeking a 5-year commencement for the development to allow for the current connection date of 2027 at East Claydon Grid Supply Point (GSP) substation. Further information on the development timeframe can be seen in section 6.

The Site Location

2.4 The Proposed Development is located to the southeast of the existing East Claydon National Grid substation. Nearby 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.

2.5 The entirety of the Proposed Development will be located within the administrative area of Buckinghamshire County Council.

2.6 The site is accessed from the south by an access onto Hogshaw Road, with an alternate temporary construction haul route to the north on to the East Claydon 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.

2.7 The site comprises a collection of agricultural fields, predominantly in use for arable farming. The site is not an allocated site. It is a greenfield, countryside site.

2.8 The Vale of Aylesbury Local Plan (September 2021) indicates that the whole of the site lies within the Granborough Neighbourhood Plan area (made 2022).

The Proposed Development

Purpose

3.1 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.

3.2 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.

3.3 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.

3.4 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.

3.5 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.

3.6 As has been recognised by NG's 2016 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. Indeed, BEIS' review of electricity market arrangements (REMA) in 2022 found that "frequency response markets have helped to deploy new batteries".

3.7 The Proposed Development has come forward following the Government's reform of the Nationally Significant Infrastructure Project ("NSIP") process through the Infrastructure Planning (Electricity Storage Facilities) Order 2020 (the "Storage Order") aimed at reducing barriers to investment and delivery of large BESS over a 50MW capacity.

3.8 The Government considers that larger capacity BESS developments are crucial to meeting the countries overall net zero 2050 target, as well as its target to decarbonise the power system by 2035, which will require a substantial growth in renewable energy generation, along with electricity storage to balance the intermittent generation from renewables, and stability services to keep the national grid stable.

3.9 National Grid's Future Energy Scenarios document (July 2022) states "we expect battery storage to make up the largest share of storage power capacity in all scenarios by 2050 to help with shifting demand within the day and managing network constraints as battery costs fall". This meant that the FES foresees battery use rising "from 1.6GW in 2021 to as much as 20GW by 2030 and 35GW by 2050".

3.10 To be most effective in contributing to the country's targets, the proposals need to be of a large capacity (i.e., over 50MW) and located in an area where there is a significant need for new capacity to support renewable energy generation like the South West.

3.11 These factors have driven the site selection process and the scale and types of technology proposed.

Buildings and structures

3.12 The Proposed Development involves construction of the following elements:

- Stripping the topsoil within the BESS compound areas with minor grading to create flat platforms.
- Laying permeable geotextile and build up with permeable stone layers.
- Erection of 2.4m high weldmesh fencing around the compounds (steel palisade around the customer substation).
- Installation of 888 battery containers, 37 inverter houses, 7 control rooms, 3 shipping containers for storage and one as a welfare unit and four fire water storage tanks.
- A large customer substation with elements up to 10m in height.
- Extensive landscaping in the form of hedge, tree planting, wetland and bio-diverse grassland.

The Need for Development

4.1 As we continue the transition towards a low carbon economy, renewable energy is ever more prominent as the lowest cost form of electricity generation for consumers. At the same time renewable energy is helping to ensure security of electricity supply for the United Kingdom while providing a cleaner, greener outlook for future generations.

4.2 With a higher proportion of our energy sourced from renewables, it is becoming increasingly challenging to balance the UK electricity system because of the intermittency of wind and solar output. For example, in summer months on bright, windy days it is not uncommon for too much electricity to be generated, whereas on cloudy wind-less days in winter months there may be a shortfall. In each case, National Grid, acting as the System Operator, will need to take balancing actions to ensure that supply meets demand.

4.3 Battery storage facilities can support this constant need for balancing. Statera's battery systems are developed using proprietary control logic, and designed to deliver the most efficient, reliable service that can adapt to the various market conditions to help provide a secure supply of electricity to the end consumer at the lowest cost.

4.4 Services that can be provided:

- **Frequency response –** The balance between supply and demand of electricity is reflected in the grid frequency (50Hz in the UK), and it is National Grid's role as system operator to keep the system in balance. If supply exceeds demand, the frequency rises above 50Hz, if demand exceeds supply, frequency falls below 50Hz. Most electrical devices require frequency to be in a certain range – if frequency goes outside of this range for a prolonged period of time the UK can encounter black-outs or electrical devices, such as televisions or computers, will turn off to protect themselves. Our batteries can respond in sub second times to dynamically balance supply and demand on a second-by-second basis, providing a valuable tool to National Grid in helping to "keep the lights on".

- **Renewables integration –** Due to their nature, batteries can both supply energy when demand outstrips supply, but also absorb energy when supply exceeds demand (such as excess wind or solar), meaning this energy is not wasted, but stored to release when required.

- **Capacity Market –** If a major power plant, such as a large nuclear reactor or large gas generator, fails during the depths of winter, this could potentially lead to blackouts across the country unless other generation can be brought on line to replace the power lost by the failed plant. Capacity Market participants provide these back-up services. All of Statera's assets are designed to deliver this reserve service to National Grid.

4.5 The combination of fast responding electricity storage and generation will help manage the system and provide power at times of peak demand to help provide stability, resilience and energy security to the UK's electricity system.

4.6 Statera's flexible assets open the door for more solar and wind power to be added to the grid while maintaining grid stability, enabling a green low carbon future.

4.7 A report commissioned by Energy UK in February 2016 to support the use of Electricity Storage in the Energy Sector states.

Electricity storage is widely regarded to be the single most important technological breakthrough likely to happen over the period to 2030 and a complete 'game changer'.

4.8 National Grid's FES indicates that up to 20GW of battery storage might be needed by 2030.

4.9 Statera has identified that the Proposed Development Site is located within an area that requires additional backup capabilities to meet peak demand and can provide critical ancillary services at a strategic substation and important area of the grid network. Through discussions with the National Grid a TEC offer has been received for this facility, which critically enables export and import for a battery system.

4.10 The location next to East Claydon substation presents the opportunity to secure precisely the right sort of grid connection offer allowing import and export for the battery system. The need for this type of facility is a direct consequence of the amount of renewable and intermittent generation that is now installed in the UK. The proposal supports renewable planning policy in the National Planning Policy Framework and would help meet National Grid's requirement for ancillary services.

Environmental Impact Assessment Screening

5.1 The Town and Country Planning (Environmental Impact Assessment) Regulations 2011 (the EIA Regulations) set out in Schedule 1 those developments for which an Environmental Impact Assessment (EIA) is mandatory and, in Schedule 2, those where an EIA may be required.

Schedule 1

5.2 The Proposed Development does not fall under any of the project descriptions within Schedule 1, such as crude-oil refiners, thermal and nuclear power stations, and therefore it is not 'Schedule 1 Development' that would automatically require an EIA.

Schedule 2

5.3 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. However, for this type of development to be 'Schedule 2 Development', consideration must be given to whether the site is either:

a) located in a 'sensitive area' (as defined under Regulation 22), or

b) one where the relevant screening thresholds and criteria for paragraph 3(a) categories of development are met or exceeded, which in this case are that the area of the development exceeds 0.5 hectares.

5.4 Only if the criteria for at least one of (a) or (b) above are met or exceeded does consideration need to be given to whether significant environmental effects are likely, and whether an EIA is required.

5.5 Given that the site area of the Proposed Development is approximately 33.2ha, the Proposed Development, therefore, exceeds the applicable threshold and criteria of Schedule 2 paragraph 3(a).

5.6 Consideration is therefore given to Schedule 3 of the EIA Regulations, which sets out the criteria for screening Schedule 2 development. Schedule 3 includes the characteristics and location of the development and the types and characteristics of the potential impact.

Significant Environmental Effects

5.7 In determining whether EIA is necessary for an individual project, Schedule 3 of the EIA Regulations set out the criteria to assess the significance of effects. In summary, the criteria fall under three broad headings:

- Characteristics of development – taking into account aspects such as size, raw material usage, emissions and risk of accidents;
- Location of development – the environmental sensitivity of the areas likely to be affected including existing land uses and the capacity of the existing environment to 'absorb' the new development;
- Characteristics of the potential impact – in particular with regard to its extent, complexity, probability, duration and frequency, in relation to the characteristics and location of the development.

5.8 The EIA Scoping Report considered that the Proposed Development could give rise to likely significant effects with regards to archaeology, built heritage, landscape and visual impact, ecology and biodiversity, noise and vibration, traffic and transport, land use, ground conditions and operational climate change effects. The Proposed Development is therefore 'Schedule 2 Development' and constitutes 'EIA development' as per the EIA Regulations.

5.9 Buckinghamshire Council confirmed on the 18/09/2023 that an EIA would be required 23/02205/SO.

Statement of Community Engagement

6.1 The National Planning Policy Framework identifies at Paragraph 188 that *'Early engagement has significant potential to improve the efficiency and effectiveness of the planning application system for all parties. Good quality pre-application discussion enables better coordination between public and private resources and improved outcomes for the community'.*

6.2 Statera has held four public exhibition events promoting the battery project across June and November 2023. The events were well attended by residents, with approximately 150+ residents in attendance over the 4 events.

6.3 The locations and timings of the events are listed below;

- Granborough Village Hall – Wednesday 21st June, 4pm – 7.30pm
- East and Botolph Claydon Village Hall – Thursday 20th July, 3pm - 7pm
- Granborough Village Hall – Saturday 11th November, 4pm - 7pm
- East and Botolph Claydon Village Hall – Tuesday 28th November 4pm -7pm

6.4 The aim of these events was to make the residents aware of the Proposed Development allow them to give their view.

6.5 A website has been made available which contains all the same information which was shown at the public exhibition events (www.eastclaydonstorage.co.uk).

6.6 Statera also undertook an online survey between June and August 2023 to align with the initial public exhibition events and other stakeholder engagement activities. Advertising of the survey reached around 27,000 people and the survey was competed by over 700 of these. The survey results show that 48% of respondents either support or are neutral regarding the Proposed Development. The landscape was established as is the most important issue to respondents, with 70% identifying it as one of their favourite aspects of the local area, and 81% identifying landscape and biodiversity as important design considerations for the Proposed Development. It was also established that 78% would like to see environmental improvements as part of the investment in the local community. The survey results also show support for the principles of the Proposed Development: the average strength of feeling towards the principle of Buckinghamshire being at the forefront of reliable, clean energy supply was 61% (positive). For more information, the detailed survey results are provided within Appendix 1 of the Planning Design and Access Statement submitted alongside the planning application.

Engagement with the Parish Council

6.7 Statera first met the Chairman and Vice Chair of Granborough Parish Council on Thursday 16 March 2023. Since then, there has been ongoing dialog with the Parish Council which has included a site visit to an existing Statera Battery facility in Wiltshire, two public exhibitions held in Granborough Village Hall and a site walkover of the

proposed site area. Various telephone calls and emails have taken place over this period keeping the Parish Council updated with our plans. Two public exhibition events have also been held in Botolph Claydon Village Hall and the applicant has been in dialog with the Chair of Botolph Claydon Parish Council with various telephone calls over summer and Autumn 2023.

Design and Access

Introduction

7.1 This section comprises the Design and Access Statement (DAS) and has been written to meet the requirements of Section 42 of the Planning and Compulsory Purchase Act 2004, Government's National Planning Practice Guidance.

7.2 This section describes the physical characteristics of the scheme and the assessment process that has led to the design of the layout. This document also contains an access statement which considers the suitability of the proposed access for its users, both vehicular and pedestrian.

Planning Application Documentation

7.3 This DAS should be read in conjunction with the details contained within this Planning Statement and the associated submitted material to gain a full understanding of the proposed development. Together these documents provide a comprehensive assessment of the proposed development and its impact on the local environment.

7.4 In March 2014 the Government published online National Planning Practice Guidance (PPG) which, amongst other things, provides guidance on the content of Design and Access Statements. The PPG explains that a DAS must:

- Explain the design principles and concepts that have been applied to the proposed development; and,
- Demonstrate the steps taken to appraise the context of the proposed development, and how the design of the development takes context into account (Paragraph: 031 Reference ID: 14-031-20140306).

7.5 In order to assess the design principles and concepts of the proposed development, the following criteria have been used:

- Development Timeframe
- Use and Function.
- Amount.
- Layout.
- Security
- Access.
- Landscaping; and,
- Appearance.

Development Timeframe

7.6 The applicant holds an agreement with National Grid Electricity Transmission (NGET) to connect its BESS to East Claydon GPS substation. This agreement states a connection date in Q3 2026.

7.7 There are various obligations on both NGET and the applicant to develop and progress the project to keep the proposed connection date. i.e., the applicant is required to prove it is developing the project which includes obtaining a planning permission.

7.8 Should the Council be minded to approve the application, the applicant is requesting a 5-year implementation condition instead of 3 years. If a consent was granted in 2023, 3 years would expire in 2026 presenting a very tight construction programme based on a grid connection in Q3 2026. Notwithstanding this, there is always the risk that NGET (outside of the applicants' control) delays the connection date. If this were to happen there is an even greater disconnect between the implementation date and the grid connection date.

7.9 The National Planning Practice Guidance indicates that a "longer time period may be justified for very complex projects where there is evidence that 3 years is not long enough to allow all the necessary preparations to be completed before development can start". This applies to the proposed development given a delay at National Grid's end could render it impossible for the developer to make sufficient preparations (e.g., large equipment orders; contractor appointments) to construct development within 3 years of being granted consent.

Use and Function

7.10 In order to progress a development's design, it is important to understand its use and function i.e., the purpose of the development.

7.11 As discussed in detail within Section 2 of this Planning Statement the development comprises the provision of services using batteries to store electricity which can be used to benefit the wider Grid network.

7.12 The service is designed to provide ancillary services and flexible back-up power at very short notice. Unlike a traditional power station, the ancillary services required by National Grid demands that the BESS respond very rapidly to calls of frequency voltage and reactive power support and peaks in energy demand.

Amount of Development

7.13 The Proposed Development covers a total site area of approximately 33.2 hectares.

7.14 The Proposed Development would comprise up to 888 shipping containers modified to accommodate batteries, 37 inverter houses, 7 control rooms, 3 shipping containers for storage and one as a welfare unit and four fire water storage tanks. The compound is protected with a 2.5 m high steel mesh fence.

7.15 An extensive landscape scheme is proposed to screen the Proposed Development and enhance the biodiversity of the local area which includes a community orchard, new tree belt screen and improved grass seed mixes.

Layout

7.16 As illustrated on planning drawing SL261_L_X_GA_P_1_East Claydon_Masterplan 28.11.23 the containers would be arranged in parallel blocks to fit the shape of the Site, considering the presence of the existing hedgerows and overhead power lines crossing the Site.

7.17 The fields which comprise the Site are almost level which makes them suitable for the construction of level compounds to house the equipment. While there is land closer to the substation, it is gently sloping and more visible and so less suitable. The compounds have been located outside the flood zone along the brook.

7.18 The layout of the proposed facility has been led primarily by functional requirements and contractor specifications. This principle is to locate the batteries within as small a footprint as possible, subject to cooling and enabling the safe access and movement between the battery units.

Landscape

7.19 The existing hedges around the fields which comprise the Site are substantial and will significantly reduce the visibility of the Proposed Development from viewpoints which are at a similar level to the Site. The compounds have been offset from these hedges to ensure their protection, with substantial buffers to allow additional mitigation. The existing tree cover along the brook is substantial and provides a level of screening to views from the more elevated ground to the north, but it is proposed to augment this with additional tree planting. Substantial tree planting is proposed to the southeast to screen the proposed facility from high ground around Granborough. Substantial tree planting to the northeast will screen the proposed facility to long distance views from the edge of Winslow and, on the northwest side, the high ground around Botolph Claydon and Quainton Hill.

7.20 Even in the long-distance elevated views the existing hedgerows will substantially screen the majority of the equipment without requiring new hedge planting to be effective. The inverter houses have been designed with green roofs to minimise their visibility within the long oblique views from the distant high ground.

Crime

7.21 The facility will be enclosed by new 2.5m high fencing to offer site security and ensure that the equipment is protected from vandalism.

7.22 Day and Night Infrared Cameras with Target areas built in that as soon as a person or vehicle moves into the space it triggers a recorded event on top of the 24/7 recording of the site.

7.23 On site Speaker system to alert any intruder that they are being recorded.

7.24 24/7 Monitored CCTV that have mobile security staff that can attend if we can't get to site quick enough and a facility to call the local police Station if needed.

7.25 High grade security locks on all access gates.

7.26 All equipment on site has a coded lock so that if anyone did get into site there is still the security of the HV rooms, LV Rooms and also the battery Energy Storage Systems (BESS) and inverters.

Appearance

7.27 Containers are being proposed because they have the minimal impact in terms of scale and visibility. The colour can be agreed with the Council but we are proposing a dark green colour.

Access

Construction Phase

7.28 The construction period is anticipated to last up to 18 months, approx. 8 to 10 months for civil and 8 months for commissioning. The basic construction programme can be broken down in to the following phases.

- Enabling Works
- Ground Civil Works
- Main Civil Works
- Electrical Connection Works
- Commissioning

7.29 A temporary construction compound will be created on site, this will be used for lorry turning and as a set down area during construction. This area will be reinstated post project completion.

7.30 All shuttle vehicles will be able to enter the site and unload within the compound area. There will be no queuing, parking or unloading on the public highway.

7.31 The cabins and containers are manufactured off site, delivered by HGV in modules and are rapidly craned into position onto pile foundations, resulting in an efficient build period.

7.32 The maximum number of traffic movements of construction vehicles in any one day will be circa 30 Heavy Goods Vehicles (HGVs) however this is the peak and will be confined to the early earthworks / civils phase of the project.

7.33 The deliveries (and staff) will be directed to the construction compound. Equipment will be stored in the construction laydown area until it is required within the construction site, however much of the equipment will arrive pre-assembled and be installed directly on arrival.

7.34 Primary construction access will be taken from East Claydon Road via a temporary haul road that will be removed once construction is complete. East Claydon Road leads away from Granborough Road just south of Winslow meaning for the most part construction vehicles will not be required to pass through Granborough village. However, the temporary haul road could be susceptible to occasional flooding with the Hogshaw Road access potentially being used as a secondary, alternative construction access until the flooding has cleared. The temporary bridges required on the haul road from East Claydon Road will also not have sufficient strength to accommodate the four AIL deliveries required with these therefore using Hogshaw Road to access the site.

7.35 Once south of the Granborough Road / East Claydon Road the secondary construction access route crosses the Claydon Brook via a single carriageway bridge before becoming Winslow Road where it enters Granborough village. In the village centre the route will turn right onto Hogshaw Road and continue southwest to the site access.

Operational Phase

7.36 Due to the nature of the facility, once installed, there is minimal on-site activity required during the plant life cycle. The facility will be remotely controlled / monitored, and operatives will visit the site on an ad hoc basis.

7.37 Parking during the operational phase of the development has been accommodated within the Application Site.

7.38 During the lifetime of this development access to the facility will be via Hogshaw Road.

7.39 Provision has been made for both pedestrian and vehicular access when required.

Decommissioning Phase

7.40 The Proposed Development would be operational for up to 40 years. After the 40 year generation period the development would be decommissioned and the land restored back to agricultural use.

7.41 When the Proposed Development is decommissioned, the lithium-ion batteries housed in their containers and other infrastructure will be removed. Currently a significant proportion of the material can be recycled and research is ongoing within the industry to increase this amount. Due to the limited quantity of foundations, hard surfacing and heavy infrastructure, combined with the fact that the majority of the site will be retained

as grassland, the land will be easier to restore than more intrusive development with more significant foundations.

Planning Policy Context

8.10 The land for the Proposed Development is not allocated for development. The parcel of land is located within the countryside outside a main settlement and village.

8.11 Section 38 (6) of The Planning and Compulsory Purchase Act 2004 states that planning decisions should be made in accordance with the development plan unless material considerations indicate otherwise.

Local

8.12 The site is located within the jurisdiction of Buckinghamshire County Council (BCC) as the Local Planning Authority and determining authority for this application. The Local Development Plan for the purposes of determining the application for the proposed development on this site is therefore;

- Vale of Aylesbury Local Plan (VALP) 2013-2033

8.13 In accordance with Paragraph 48(a) of the NPPF local planning authorities may give weight to the relevant policies in emerging plans according to the stage of preparation of the emerging plan (the more advanced its preparation, the greater the weight that may be given). Policies relating to Emerging Local Plan (working draft dated January 2022) are still in the very early stages of development.

Local Plan 2013-2033

8.14 The Local Plan sets out the strategic policy for development across the Vale of Aylesbury, the most notable policies which are relevant to the Proposed Development are summarised below.

S1 Sustainable development of Aylesbury Vale - outlines the objective of ensuring sustainable development is central to BC's thinking. BC interpret sustainable development in Aylesbury Vale to mean that the following issues and their interrelationships are taken fully into account when considering development:

> Contribute positively to meeting the vision and strategic objectives for Aylesbury Vale set out above, and fit with the intentions and policies of the VALP (and policies within neighbourhood plans where relevant). Proposals that are in accordance with the development plan will be approved without delay, unless material considerations indicate otherwise. The council will work proactively with applicants to find solutions so that proposals can be approved wherever possible, and to secure development that improves the economic, social and environmental conditions in the area.
>
> a) Where there are no policies relevant to the application then the council will grant permission unless material considerations indicate otherwise – taking into account whether:

i. any adverse impacts of granting permission would significantly and demonstrably outweigh the benefits, when assessed against the policies in the National Planning Policy Framework (2012) taken as a whole,

ii. or specific policies in the NPPF (2012) indicate that development should be restricted.

In assessing development proposals, consideration will be given to:

b) providing a mix of uses, especially employment, to facilitate flexible working practices so minimising the need to travel.

c) delivering strategic infrastructure and other community needs to both new and existing communities.

d) giving priority to the reuse of vacant or underused brownfield land.

e) minimising impacts on local communities.

f) building integrated communities with existing populations.

g) minimising impacts on heritage assets, landscapes and biodiversity.

h) providing high-quality accessibility through the implementation of sustainable modes of travel including public transport, walking and cycling.

i) providing access to facilities including healthcare, education, employment, retail and community facilities.

j) meeting the effects of climate change and flooding.

T4 Capacity of the transport network to deliver development.

8.15 New development will be permitted where there is evidence that there is sufficient capacity in the transport network to accommodate the increase in travel demand as a result of the development. The guidelines set out below which are taken from Buckinghamshire Council's guidelines for Transport Assessment thresholds for development should be used to in considering whether a transport impact assessment and travel plan will be required to assess the transport impacts of a development.

Land Use	**Smaller Developments Require a Transport Statement**	**Major Development Require a Transport Assessment and Travel Plan**	
B2 General industrial	2500-4000 sqm	>4000 sqm	
B8 Storage of distribution	3000-5000 sqm	>5000 sqm	
C1 Hotels	75-100 bedrooms	>100 bedrooms	
C2 Residential institutions – hospitals, nursing homes	30-50 beds	>50 beds	

C2 Residential institutions – residential education	50-150 students	>150 students	
C2 Residential institutions – hostels	250-400 residents	>400 residents	
C3 Dwelling houses	50-80 units	>80 units	
E(a) Display or retail sale of goods, other than hot food	250-800 sqm	>1500 sqm	
E(b) Sale of food and drink for consumption (mostly) on the premises	300-1500 sqm	>1500 sqm	
E (c)(i) Financial services,	1000-2500 sqm	>2500 sqm	
E (c)(ii) Professional services (other than health or medical services)	1000-2500 sqm	>2500 sqm	

T5 Delivery transport in new development

8.16 Transport and new development will only be permitted if the necessary mitigation is provided against any unacceptable transport impacts which arise directly from that development. This will be achieved, as appropriate, through:

a) The submission of a transport statement or assessment and the implementation of measures arising from it

b) Ensuring that the scale of traffic generated by the proposal is appropriate for the function and standard of the roads serving the area

c) The implementation of necessary works to the highway

d) Contributions towards local public transport services and support for community transport initiatives

e) The provision of new, and the improvement of existing, pedestrian and cycle routes

f) The provision of a travel plan to promote sustainable travel patterns for work and education related trips.

T6 Vehicle parking

8.17 All development must provide an appropriate level of car parking, in accordance with the standards set out in Appendix B of the VALP 2013-2033. If a particular type of development is not covered by the standards set out in Appendix B then the following criteria will be taken into account in determining the appropriate level of parking:

a) The accessibility of the site, including the availability of public transport, and

b) The type, mix and use of development,

c) Local car ownership levels,

d) Security and public realm,

e) Provision for both on street and off street parking where appropriate

8.18 Rear parking courts will only be provided in exceptional circumstances where no alternative parking can be provided and where the rear parking court is well located in terms of the development it serves, is overlooked, enclosed and secure. The provision of garages and/or car ports will not be counted as a parking space for a development unless they are of at least the size set out in Appendix B of the VALP 2013-2033.

T7 Footpaths and cycle routes

8.19 For development which will have implications for the footpath and cycle route networks all the following criteria will apply:

a) The delivery of a strategic cycle network and improvements to the footpaths will be supported in accordance with schemes identified in Policy T3 Supporting Local Transport Schemes and in the IDP Appendix

b) In dealing with planning applications the council will seek new or improved cycle access and facilities where necessary, including cycle storage, and will use planning conditions or legal agreements to secure such arrangement.

c) Development proposals must provide for direct, convenient and safe pedestrian movement and routes, connected where appropriate to the existing pedestrian network and alongside strategic routes. In deciding planning applications the council will use planning conditions or legal agreements to secure the provision of new footpaths and the improvement of existing routes.

d) The council will ensure that networks of pedestrian and cycle routes are provided to give easy access into and through new developments and to adjacent areas, and also to public transport services.

BE1 Heritage assets

8.20 The historic environment, unique in its character, quality and diversity across the Vale is important and will be preserved or enhanced. All development, including new buildings, alterations, extensions, changes of use and demolitions, should seek to conserve heritage assets in a manner appropriate to their significance, including their setting, and seek enhancement wherever possible.

8.21 Proposals for development shall contribute to heritage values and local distinctiveness. Where a development proposal is likely to affect a designated heritage asset and/or its setting negatively, the significance of the heritage asset must be fully assessed and supported in the submission of an application. The impact of the proposal must be assessed in proportion to the significance of the heritage asset and supported in the submission of an application. Heritage statements and/or archaeological evaluations will be required for any proposals related to or impacting on a heritage asset and/or possible archaeological site.

8.22 Proposals which affect the significance of a non-designated heritage asset should be properly considered, weighing the direct and indirect impacts upon the asset and its setting. There will be a presumption in favour of retaining heritage assets wherever practical, including archaeological remains in situ, unless it can be demonstrated that the harm will be outweighed by the benefits of the development. Heritage statements and/or archaeological evaluations may be required to assess the significance of any heritage assets and the impact on these by the development proposal.

8.23 The council will:

a) Support development proposals that do not cause harm to, or which better reveal the significance of heritage assets

b) Require development proposals that would cause substantial harm to, or loss of a designated heritage asset and its significance, including its setting, to provide a thorough heritage assessment setting out a clear and convincing justification as to why that harm is considered acceptable on the basis of public benefits that outweigh that harm or the four circumstances in paragraph 133 of the NPPF all apply. Where that justification cannot be demonstrated proposals will not be supported, and

c) Require development proposals that cause less than substantial harm to a designated heritage asset to weigh the level of harm against the public benefits that may be gained by the proposal, including securing its optimum viable use.

8.24 Development affecting a heritage asset should achieve a high quality design in accordance with the Aylesbury Vale Design SPD and the council will encourage modern, innovative design which respects and complements the heritage context in terms of scale, massing, design, detailing and use.

BE2 Design of new development

8.25 All new development proposals shall respect and complement the following criteria:

a) The physical characteristics of the site and its surroundings including the scale and context of the site and its setting

b) The local distinctiveness and vernacular character of the locality, in terms of ordering, form, proportions, architectural detailing and materials

c) The natural qualities and features of the area, and

d) The effect on important public views and skylines.

8.26 More guidance on the detail for the application and implementation of this policy will be provided in the Aylesbury Vale Design SPD.

BE3 Protection of the amenity of residents

8.27 Planning permission will not be granted where the proposed development would unreasonably harm any aspect of the amenity of existing residents and would not achieve a satisfactory level of amenity for future residents. Where planning permission is granted, the council will use conditions or planning obligations to ensure that any potential adverse impacts on neighbours are eliminated or appropriately controlled.

NE1 Biodiversity and Geodiversity

Protected Sites

8.28 Internationally or nationally important Protected Sites (SACs and SSSIs) and species will be protected. Avoidance of likely significant adverse effects should be the first option. Development likely to affect the Chiltern Beechwoods SAC will be subject to assessment under the Habitat Regulations and will not be permitted unless any significant adverse effects can be fully mitigated.

8.29 Development proposals that would lead to an individual or cumulative adverse impact on an interntionally or nationally important Protected Site or species, such as SSSIs or irreplaceable habitats such as ancient woodland or ancient trees, will be refused unless exceptional circumstances can be demonstrated as follows:

a) the benefits of the development at this site significantly and demonstrably outweigh both the impacts that it is likely to have on the features of the site that make it internationally or nationally important and any broader impacts on the national network – for example of Sites of Special Scientific Interest, and

b) the loss can be mitigated and compensation can be provided to achieve a net gain in biodiversity/geodiversity

8.30 Sufficient information must be provided for the council to assess the significance of the impact against the importance of the Protected Site and its component habitats and the species which depend upon it. This will include the area around the Protected Site and the ecosystem services it provides and evidence that the development has followed the mitigation hierarchy set out in (d) below

Protection and enhancement of Biodiversity and Geodiversity

8.31 Protection and enhancement of biodiversity and geodiversity will be achieved by the following:

c) A net gain in biodiversity on minor and major developments will be sought by protecting, managing, enhancing and extending existing biodiversity resources, and by creating new biodiversity resources. These gains must be measurable using best practice in biodiversity and green infrastructure accounting and in accordance with any methodology (including a Biodiversity Impact Assessment) to be set out in the Buckinghamshire Biodiversity Accounting SPD.

d) If significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or as a last resort, compensated for, then development will not be permitted. If a net loss in biodiversity is calculated, using a suitable Biodiversity Impact Assessment (see c) then avoidance, mitigation and compensation, on site first, then offsite must be sought so the development results in a net gain (percentage of net gain to meet any nationally-set minimum standard and or as detailed in an SPD) in order for development to be permitted. Mitigation, compensation and enhancement measures must be secured and should be maintained in perpetuity. These assessments must be undertaken in accordance with nationally-accepted standards and guidance (BS 8683 Biodiversity net gain in project design and construction; and CIRIA Biodiversity Net Gain Good practice principles for development).

e) Development which would result in damage to or loss of a site of biodiversity or geological value of regional or local importance (such as Local Wildlife Sites or Local Geological Sites) including habitats of principal importance (known as Priority Habitats) or the habitats of species of principal importance (Priority Species) or their habitats will not be permitted except in exceptional circumstances where the need for, and benefits of the development significantly and demonstrably outweigh the harm it would cause to the site, and the loss can be mitigated and compensation provided to achieve a net gain.

f) The Council will, where appropriate, expect ecological surveys for planning applications. These must be undertaken by a suitably qualified person and consistent with nationally accepted standards and guidance (BS 42020: Biodiversity – Code of Practice for planning and development; and CIEEM Ecological Report Writing guidance) as replaced

g) Where development proposals affect a Priority Habitat (As defined in the Buckinghamshire Biodiversity Action Plan or UK Biodiversity Action Plan and as listed in accordance with s41 of the NERC Act 2006) then mitigation should not be off-site. Where no Priority Habitat is involved then mitigation is expected to follow the mitigation hierarchy, where options for avoidance, mitigation and compensation on- site, and then offsite compensation, should be followed in that order as outlined in d. When there is a reasonable likelihood of the presence of protected or priority species or their habitats, development will not be permitted

until it has been demonstrated that the proposed development will not result in adverse impacts on these species or their habitats. The only exception will be where the advantages of development to the protected site and the local community clearly outweigh the adverse impacts. In such a case, the council will consider the wider implications of any adverse impact to a protected site, such as its role in providing a vital wildlife corridor, mitigating flood risk or ensuring good water quality in a catchment.

h) Development proposals will be expected to promote site permeability for wildlife and avoid the fragmentation of wildlife corridors, incorporating features to encourage biodiversity, and retain and where possible enhance existing features of nature conservation value on site. Existing ecological networks should be identified and maintained to avoid habitat fragmentation, and ecological corridors including water courses should form an essential component of green infrastructure provision in association with new development to ensure habitat connectivity.

i) Planning conditions/obligations will be used to ensure net gains in biodiversity by helping to deliver the Buckinghamshire and Milton Keynes Biodiversity Action Plan targets in the biodiversity opportunity areas and other areas of local biodiversity priority. Where development is proposed within, or adjacent to, a biodiversity opportunity area, biodiversity surveys and a report will be required to identify constraints and opportunities for biodiversity enhancement. Development which would prevent the aims of a Biodiversity Opportunity Area from being achieved will not be permitted. Where there is potential for development, the design and layout of the development should secure biodiversity enhancement and the council will use planning conditions and obligations as needed to help achieve the aims of the biodiversity opportunity area. A monitoring and management plan will be required for biodiversity features on site to ensure their long-term suitable management (secured through planning condition or Section 106 agreement).

j) Development proposals adversely affecting a Local Nature Reserve will be considered on a case-by-case basis, according to the amount of information available about the site and its significance, relative to the type, scale and benefits of the development being proposed and any mitigation. Any mitigation strategy will need to include co-operation with the nature reserve managers.

NE2 River and stream corridors

8.32 Development proposals must not have an adverse impact on the functions and setting of any watercourse and its associated corridor. They should conserve and enhance the biodiversity, landscape and consider the recreational value of the watercourse and its corridor through good design. Opportunities for de-culverting of watercourses should be actively pursued. Planning permission will only be granted for proposals which do not involve the culverting of watercourses and which do not prejudice future opportunities

for de-culverting. Development proposals adjacent to or containing a watercourse shall provide or retain a 10m ecological buffer (unless existing physical constraints prevent) from the top of the watercourse bank and the development, and include a long-term landscape and ecological management plan for this buffer.

NE4 Landscape character and locally important landscape

8.33 Development must recognise the individual character and distinctiveness of particular landscape character areas set out in the Landscape Character Assessment (LCA), their sensitivity to change and contribution to a sense of place. Development should consider the characteristics of the landscape character area by meeting all of the following criteria:

a) minimise impact on visual amenity

b) be located to avoid the loss of important on-site views and off-site views towards important landscape features

c) respect local character and distinctiveness in terms of settlement form and field pattern, topography and ecological value

d) Carefully consider spacing, height, scale, plot shape and size, elevations, roofline and pitch, overall colour palette, texture and boundary treatment (walls, hedges, fences and gates)

e) minimise the impact of lighting to avoid blurring the distinction between urban and rural areas, and in areas which are intrinsically dark and to avoid light pollution to the night sky

f) ensure that the development is not visually prominent in the landscape, and

g) not generate an unacceptable level and/or frequency of noise in areas relatively undisturbed by noise and valued for their recreational or amenity value

8.34 The first stage in mitigating impact is to avoid any identified significant adverse impact. Where it is accepted there will be harm to the landscape character, specific on-site mitigation will be required to minimise that harm and, as a last resort, compensation may be required as part of a planning application. This reflects the mitigation hierarchy set out in paragraph 152 of the NPPF (2012). Applicants must consider the enhancement opportunities identified in the LCA and how they apply to a specific site.

8.35 The Policies Map defines areas of attractive landscape (AALs) and local landscape areas (LLAs) which have particular landscape features and qualities considered appropriate for particular conservation and enhancement opportunities. Of the two categories, the AALs have the greater significance. Development in AALs and LLAs should have particular regard to the character identified in the report ‘Defining the special

qualities of local landscape designations in Aylesbury Vale District' (Final Report, 2016) and the LCA (2008).

8.36 Development will be supported where appropriate mitigation to overcome any adverse impact to the character of the receiving landscape has been agreed.

8.37 Where permission is granted, the council will require conditions to best ensure the mitigation of any harm caused to the landscape.

NE 5 Pollution, air quality and contaminated land

Noise pollution

8.38 Significant noise-generating development will be required to minimise the impact of noise on the occupiers of proposed buildings, neighbouring properties and the surrounding environment. Applicants may be required to submit a noise impact study or to assess the effect of an existing noise source upon the proposed development, prior to the determination of a planning application.

8.39 Developments likely to generate more significant levels of noise will be permitted only where appropriate noise attenuation measures are incorporated which would reduce the impact on the surrounding land uses, existing or proposed and sensitive human and animal receptors, to acceptable levels in accordance with Government guidance.

8.40 Where necessary, planning conditions will be imposed and / or a planning obligation sought in order to specify and secure acceptable noise limits, hours of operation and attenuation measures. Planning permission for noise-sensitive development, such as housing, schools and hospitals, will not be granted if its users would be affected adversely by noise from existing uses (or programmed development) that generate significant levels of noise.

Light pollution

8.41 In developments where external lighting is required, planning permission will only be granted where all of the following criteria are met:

a) The lighting scheme proposed is the minimum required for the security and to achieve working activities which are safe

b) Light spill and potential glare and the impact on the night sky is minimised through the control of light direction and levels, particularly in residential and commercial areas, areas of wildlife interest or the visual character of historic buildings and rural landscape character

c) The choice and positioning of the light fittings, columns and cables minimise their daytime appearance and impact on the streetscape, and

d) In considering development involving potentially adverse lighting impacts to wildlife, the council will expect surveys to identify wildlife corridors and ensure that these corridors are protected,and enhanced where possible.

Air Quality

8.42 Developments requiring planning permission that may have an adverse impact on air quality will be required to prove through a submitted air quality impact assessment that:

e) The effect of the proposal would not exceed the National Air Quality Strategy Standards (as replaced) or

f) The surrounding area would not be materially affected by existing and continuous poor air quality.

8.43 Potentially polluting developments will be required to assess their air quality impact with detailed air dispersion modelling and appropriate monitoring. Air quality impact assessments are also required for development proposals that would generate an increase in air pollution and are likely to have a significantly adverse impact on biodiversity. Required mitigation will be secured through a planning condition or Section 106 agreement.

Contaminated Land

8.44 Development on or near land that is or may be affected by contamination will only be permitted where:

g) an appropriate contaminated Land Assessment has been carried out as part of the application to identify any risks to human health, the natural environment or water quality

h) where contamination is found which would pose an unacceptable risk to people's health, the natural environment or water quality, the council will impose a condition, if appropriate, to ensure the applicant undertakes a desktop study, and if required, an intrusive site investigation, remedial measures and a validation report to ensure that the site is suitable for the proposed use and that the development can safely proceed.

8.45 Remediation works will usually be carried out prior to first occupation or use of any part of the development. Required remediation methods will be secured through a planning condition.

NE7 Best and most versatile agricultural land

8.46 Where land is identified as local green space on the policies map of a made neighbourhood plan, national policy will be applied. This means that new development will not be permitted other than in very special circumstances.

8.47 Within local green spaces, small-scale development within the following categories will only be supported providing that its provision does not conflict with the demonstrably special significance of the local green space and preserves the purpose of its designation. Such development should be:

a) For the purposes of agriculture or forestry, the enjoyment of tranquillity and richness of wildlife, appropriate facilities for outdoor sport and recreational facilities or cemeteries

b) The replacement of existing buildings in the local green space by new buildings that are not significantly larger in volume, normally by no more than 25-30%.

8.48 Measures to improve public access to local green spaces will be encouraged.

NE7 Best and most versatile agricultural land

8.49 Subject to the development allocations set out in the VALP, the council will seek to protect the best and most versatile farmland for the longer term. Proposals involving development of agricultural land shall be accompanied by an assessment identifying the Grades (1 to 5) Agricultural Land Classification. Where development involving best and more versatile agricultural land (Grades 1, 2 and 3a) is proposed, those areas on site should be preferentially used as green open space and built structures avoided. Where significant development would result in the loss of best and more versatile agricultural land, planning consent will not be granted unless:

a) There are no otherwise suitable sites of poorer agricultural quality that can accommodate the development, and

b) The benefits of the proposed development outweighs the harm resulting from the significant loss of agricultural land.

8.50 **NE8 Trees, hedgerows and woodland**

8.51 Development should seek to enhance and expand Aylesbury Vale's tree and woodland resource, including native black poplars.

8.52 Where trees within or adjacent to a site could be affected by development, a full tree survey and arboricultural impact assessment to BS 5837 (as replaced) will be required as part of the planning application. The implementation of any protective measures it identifies will be secured by the use of planning conditions.

8.53 Development that would lead to an individual or cumulative significant adverse impact on ancient woodland or ancient trees will be refused unless exceptional circumstances can be demonstrated that the impacts to the site are clearly outweighed by the benefits of the development.

8.54 Development that would result in the unacceptable loss of, or damage to, or threaten the continued well-being of any trees, hedgerows, community orchards, veteran trees or woodland which make an important contribution to the character and amenities of the area will be resisted. Where the loss of trees is considered acceptable, adequate replacement provision will be required that use species that are in sympathy with the character of the existing tree species in the locality and the site.

8.55 Where species-rich native hedgerow (as commonly found on agricultural land) loss is unavoidable the developer must compensate for this by planting native species-rich hedgerow, which should result in a net gain of native hedgerow on the development site.

8.56 Developers should aspire to retain a 10m (with a minimum of 5m) natural buffer around retained and planted native hedgerows (100m with a minimum 25 m natural buffer around woodlands) for the benefit of wildlife, incorporating a dark corridor with no lighting.

8.57 Development must provide buffers to Ancient Woodland and should provide additional planting to join up fragmented areas of woodland as part of the development's GI. Buffers should allow the maximum space proportionate to the development, and would generally be expected to be a minimum of 50m between the ancient woodland and any built development or grey infrastructure. Within the buffer, native trees may be planted along with other ecology features to secure net gains in biodiversity and/or landscape mitigation unless the achievement of this would be contrary to other policies in the plan.

C3 Renewable Energy

8.58 All development schemes should look to achieve greater efficiency in the use of natural resources.

8.59 Planning applications involving renewable energy development will be encouraged provided that there is no unacceptable adverse impact, including cumulative impact, on the following issues:

a) landscape and biodiversity including designations, protected habitats and species

b) visual impacts on local landscapes

c) the historic environment including designated and non designated assets and their settings

d) the Green Belt, particularly visual impacts on openness

e) aviation activities

f) highways and access issues, and

g) residential amenity.

8.60 The council will seek to ensure that all development schemes achieve greater efficiency in the use of natural resources, including measures minimise energy use, improve water efficiency and promote waste minimisation and recycling. Developments should also minimise, reuse and recycle construction waste wherever possible.

8.61 In seeking to achieve carbon emissions reductions, the council will assess developments using an 'energy hierarchy'. An energy hierarchy identifies the order in which energy issues should be addressed and is illustrated as follows:

h) reducing energy use, in particular by the use of sustainable design and construction measures

i) supplying energy efficiently and giving priority to decentralised energy supply

j) making use of renewable energy

k) making use of allowable solutions, and

l) an energy statement will be required for proposals for major residential developments (over 10 dwellings), and all non-residential development, to demonstrate how the energy hierarchy has been applied.

8.62 With continually improving standards through building regulations, new buildings carry reduced need for heating and loads are based on winter heat and all year-round hot water demands. A feasibility assessment for district heating (DH) and cooling utilising technologies such as combined heat and power (CHP), including biomass CHP or other low carbon technology, will be required for:

m) all residential developments of 100 dwellings or more

n) all residential developments in off-gas areas for 50 dwellings or more, and

o) all applications for non-domestic developments above 1000sqm floorspace.

8.63 Where feasibility assessments demonstrate that decentralised energy systems are deliverable and viable and can secure at least 10% of their energy from decentralised and renewable or low carbon sources, such systems will be encouraged as part of the development.

8.64 Planning permission will normally be granted for off-site renewable energy (for example, but not confined, to wind, solar, biomass and energy crops, anaerobic digestion and landfill gas), where it has been demonstrated that all the following criteria have been met:

p) There is no significant adverse effect on landscape or townscape character, ecology and wildlife, heritage assets whether designated or not, areas or features of historical significance or amenity value

q) there is no significant adverse impact on local amenity, health and quality of life as a result of noise, emissions to atmosphere, electronic interference or outlook through unacceptable visual intrusion, and

r) there is no adverse impact on highway safety. Where development is granted, mitigation measures will be required as appropriate to minimise any environmental impacts. When considering the social and economic benefits, the council will encourage community participation/ownership of a renewable energy scheme.

8.65 Aylesbury Vale is located within an area of water stress and as such the council will seek a higher level of water efficiency than required in the Building Regulations, with developments achieving a limit of 110 litres/person/day.

8.66 Applications for the adaption of older buildings should include improved energy and water efficiency and retrofitted renewable energy systems where possible.

C4 Protection of public rights of way

8.67 The council will enhance and protect public rights of way to ensure the integrity and connectivity of this resource is maintained.

8.68 The protection and conservation of public rights of way needs to be reconciled with the benefits of new development, to maximise the opportunity to form links from the development to the wider public rights of way network, public transport, recreational facilities and green infrastructure. Development proposals will be required to retain and enhance existing green corridors, and maximise the opportunity to form new links between existing open spaces. Planning permission will not normally be granted where the proposed development would cause unacceptable harm to the safe and efficient operation of public rights of way.

I1 Green Infrastructure

8.69 Green Infrastructure should provide a range of functions and provide multiple benefits for wildlife, improving quality of life and water quality and flood risk, health and wellbeing, recreation, access to nature and adaptation to climate change. The council will support proposals for green infrastructure where there is no significant adverse impact on:

a) Wider green infrastructure networks including public rights of way and green infrastructure opportunity zones identified by the Buckinghamshire and Milton Keynes Natural Environment Partnership

b) Potential to contribute to biodiversity net gains

c) Management of flood risk and provision of sustainable drainage systems

d) Provision of a range of types of green infrastructure

e) Provision of sports, recreation facilities or public realm improvements

f) Potential for local food cultivation by communities

g) Achieving a satisfactory landscaping scheme including the transition between the development and adjacent open land

8.70 New housing developments of more than 10 units or which have a combined gross floorspace of more than 1,000 square metres (gross internal area) will be required to meet the ANGSt (accessible natural green space standards) in Appendix C to meet the additional demand arising from new residential development. Amenity green space will need to be provided on site. Sports and recreation facilities can be provided as required (Policy I2) on the same site where these are compatible with publicly accessible green infrastructure.

8.71 The Accessibility Standards in Appendix C will need to be met by providing accessible natural green space on or off site for developments of more than 10 homes and which have maximum combined gross floorspace of more than 1,000 square metres (gross internal area) unless it has been demonstrated in an assessment for a planning application that accessible natural green space provision has already been met, when including the increased population of the new development and any other committed development.

8.72 Conditions will be imposed on permissions or planning obligations sought in order to secure green infrastructure reasonably related to the scale and kind of housing proposed. The benefits to be obtained or provided by the council by virtue of the obligation will be directly relevant to the development permitted and the needs of its occupiers and fairly and reasonably related to its scale and kind.

8.73 To count towards any ANGSt quantitative/accessibility requirement, such green space must meet the definitions of ‘accessible’ and ‘natural’ in paragraph 11.8

8.74 The council will only accept the loss of ANGSt including the incorporation of such areas into private garden land if:

h) The ANGSt has been subject to an assessment which shows it to be surplus to requirements

i) The land does not fulfil a useful purpose in terms of its appearance, landscaping, recreational use or wildlife value

j) The land does not host an element of semi-natural habitat or any other feature of value to wildlife to a greater extent than would be the case if it were planted as a garden The loss of publicly accessible green infrastructure would not set a precedent for other similar proposals which could cumulatively have an adverse effect on the locality or the environment

k) The continued maintenance of the land for publicly accessible green infrastructure would be impractical or unduly onerous

l) Publicly accessible green infrastructure lost will need to be replaced by equivalent or better following an assessment justifying this need based on applying the standards in Appendix C

8.75 Formal outdoor sports areas, play areas, and allotments all serve a specific purpose and may be located within or outside ANGSt. Either way such facilities should be located on land that is additional to the ANGSt provided by a developer and be complimentary to it.

8.76 Green infrastructure being provided must have a long term management and maintenance strategy to be agreed by the council with assets managed for at least 30 years after completion and during this time secure a mechanism to manage sites into perpetuity. The management and maintenance strategy shall set out details of the owner, the responsible body and how the strategy can be implemented by contractors.

I4 Flooding

Management of flood risk

8.77 In order to minimise the impacts of and from all forms of flood risk the following is required:

a) Site-specific flood risk assessments (FRAs), informed by the latest version of the SFRA, where the development proposal is over 1ha in size and is in Flood Zone 1, or the development proposal includes land in Flood Zones 2 and 3 (as defined by the latest Environment Agency mapping). A site-specific FRA will also be required where a development proposal affects land in Flood Zone 1 where evidence, in particular the SFRA, indicates there are records of historic flooding or other sources of flooding, e.g. due to critical drainage problems, including from ordinary watercourses and for development sites located within 9m of any water courses (8m in the Environment Agency's Anglian Region50)

b) All development proposals must clearly demonstrate that the flood risk sequential test , as set out in the latest version of the SFRA, has been passed and be designed using a sequential approach, and

c) If the sequential test has been satisfied, development proposals, other than those allocated in this Plan, must also satisfy the exception test in all applicable situations as set out in the latest version of the SFRA.

Flood risk assessment

8.78 All development proposals requiring a Flood Risk Assessment in (a) above will assess all sources and forms of flooding, must adhere to the advice in the latest version of the SFRA and will:

d) provide level-for-level floodplain compensation, up to the 1% annual probability (1 in 100) flood extent with an appropriate allowance for climate change, and volume-

for-volume compensation unless a justified reason has been submitted and agreed which may justify other forms of compensation

e) ensure no increase in flood risk on site or elsewhere, such as downstream or upstream receptors, existing development and/or adjacent land, and ensure there will be no increase in fluvial and surface water discharge rates or volumes during storm events up to and including the 1 in 100 year storm event, with an allowance for climate change (the design storm event)

f) not flood from surface water up to and including the design storm event, or any surface water flooding beyond the 1 in 30 year storm event, up to and including the design storm event will be safely contained on site

g) explore opportunities to reduce flood risk overall, including financial contributions from the developer where appropriate

h) ensure development is safe from flooding for its lifetime (and remain operational where necessary) including an assessment of climate change impacts

i) ensure development is appropriately flood resistant, resilient and safe and does not damage flood defences but does allow for the maintenance and management of flood defences

j) take into account all sources and forms of flooding

k) ensure safe access and exits are available for development in accordance with Department for Environment, Food and Rural Affairs (DEFRA) guidance51. Access to “safe refuges” or “dry islands” are unlikely to be considered safe as this will further burden the Emergency Service in times of flood

l) include detailed modelling of any ordinary watercourses within or adjacent to the site, where appropriate, to define in detail the area at risk of flooding and model the effect of climate change

m) provide an assessment of residual flood risk

n) provide satisfactory Evacuation Management Plans, where necessary, including consultation with the Emergency Services and Emergency Planners

Sustainable drainage systems (SuDS)

8.79 All development proposals must adhere to the advice in the latest version of the SFRA and will:

o) Ensure development layouts are informed by drainage strategies incorporating SuDS and complete site specific ground investigations to gain a more local understanding of groundwater flood risk and inform the design of sustainable drainage components

p) All development will be required to design and use sustainable drainage systems (SuDS) for the effective management of surface water run-off on site, as part of the submitted planning application and not increase flood risk elsewhere, including sewer flooding. All development should adopt exemplar source control SuDS techniques to reduce the risk of flooding due to post-development runoff. SuDS design should follow current best practice (CIRIA Manual 2015 or as replaced) and Buckinghamshire Council guidance on runoff rates and volumes to deliver wider environmental benefits. Where the final discharge point is the public sewerage network the runoff rate should be agreed with the sewerage undertaker.

q) Where site-specific FRAs are required in association with development proposals, they should be used to determine how SuDS can be used on particular sites and to design appropriate systems

r) In considering SuDS solutions, the need to protect groundwater quality must be taken into account, especially where infiltration techniques are proposed in considering a response to the presence of any contaminated land. The Environment Agency need to be consulted where infiltration is proposed in contaminated land. SuDS should seek to reduce flood risk, reduce pollution and provide landscape and wildlife benefits. Opportunities will be sought to enhance natural river flows and floodplains, increasing their amenity and biodiversity value and a watercourse advice note is being prepared for further guidance

s) Applicants will be required to provide a management plan to maintain SuDS in new developments, and a contribution will be required for maintenance of the scheme/SuDS

t) Onsite attenuation options should be tested to ensure that changing the timing of peak flows does not exacerbate flooding downstream, and

u) Only in exceptional circumstances will surface water connections to the combined or surface water system be permitted. Applicants will need to demonstrate in consultation with the sewerage undertaker that there be no detriment to existing users.

8.80 Applicants will be required to liaise with the lead local flood authority, Internal Drainage Boards, and the Environment Agency on any known flood issues, and identify issues from the outset via discussions with statutory bodies.

Climate Change

v) Climate change modelling should be undertaken using the relevant allowances (February v.2016) for the type of development and level of risk

w) Safe access and egress should be demonstrated in the 1 in 100 plus climate change event, and

x) Compensation flood storage would need to be provided for the built footprint as well as any land-raising within the 1 in 100 plus appropriate climate change flood event. This compensation would need to be demonstrated within a Flood Risk Assessment (FRA).

National

Overarching National Policy Statement for Energy (EN-1)

8.81 National Policy Statements (NPSs) form part of the overall framework of national planning policy, and may be a material consideration in preparing plans and making decisions on planning applications under the 1990 Town and Country Planning Act. EN-1 forms the overarching policy statement for energy and establishes the need for energy related development. The Proposed Development will help meet this need and, moreover, with battery storage it will address intermittency and help to relegate the role of fossil fuels as a back-up source of energy.

8.82 The Government's policy on energy infrastructure development in Part 2 of EN-1 is critical to understanding the policies on need. Paragraph 2.1.2 makes it clear that producing the energy the UK requires and getting it to where it is needed necessitates a significant amount of infrastructure, both large and small scale.

8.83 On meeting binding targets to cut greenhouse gas emissions, EN-1 paragraph 2.2.1 confirms UK Government commitments to reduce such gas emissions by “at least 80% by 2050, compared to 1990 levels”. EN-1 confirms that meeting this target is challenging and requires major investment in new technologies.

8.84 On support toward a low carbon economy, EN-1 paragraph 2.2.11 confirms the “need for low carbon energy infrastructure to contribute to climate change mitigation”. On the transition to a low carbon future, EN-1 paragraph 2.2.6 confirms that the UK needs move away from a high carbon energy mix, to reduce greenhouse gas emissions, and to improve the security, availability and affordability of energy through diversification. Noting in particular that under some of the "illustrative" 2050 pathways electricity generation would need to become virtually emission free.

8.85 On security of energy supplies, paragraph 2.2.23 of EN-1 states that the UK must reduce over time its dependence on fossil fuels. The Government plans to do this by (inter alia) improving energy efficiency and pursuing its objectives for renewables.

8.86 EN-1 paragraph 3.3.10 confirms that, as part of the UK’s need to diversify and decarbonise electricity generation, the Government is committed to increasing dramatically the amount of renewable generation capacity. With paragraph 3.3.11 going onto state that an increase in renewable electricity sources (such as wind, solar and tidal) are intermittent and cannot be adjusted to meet demand. As a result EN-1 confirms that “the more renewable generating capacity we have the more generation capacity we will require overall, to provide back-up at times when the availability of intermittent renewable sources is low”.

8.87 EN-1 paragraph 3.3.12 confirms that there are a number of other technologies which can be used to compensate for the intermittency of renewable generation, such as electricity storage. EN-1 states that, whilst these technologies will play important roles in a low carbon electricity system, the development and deployment of these technologies at the necessary scale has yet to be achieved. Paragraph 3.3.12 also confirms that it is likely that increasing reliance on renewables will mean that we need more total electricity capacity than we have now, with a larger proportion being built to perform 'back-up functions'.

8.88 In March 2023, the UK Government published a suite of revised energy NPSs for consultation. The content of the revised EN-1 document broadly follows the extant EN-1 support for renewable energy generation, transition to a low carbon future and security of supply. Notable revisions however are references to net zero targets by 2050 (section 2.2) and meeting these targets (section 2.3), with paragraph 2.3.4 confirming that "meeting these objectives necessitates a significant amount of energy infrastructure", and that, "this includes the infrastructure needed to convert primary sources of energy (e.g. wind) into energy carriers (e.g. electricity or hydrogen) and to store and transport these energy carriers into and around the country".

8.89 Energy storage is identified at paragraph 3.3.25 as having a key role to play in achieving net zero and providing flexibility to the energy system. Paragraph 3.3.26 confirms that storage is needed to reduce the costs of the electricity system and increase reliability by storing surplus electricity in times of low demand to provide electricity when demand is higher. Paragraph 3.3.27 states that storage can maximise the usable output from intermittent low carbon generation (e.g. solar and wind), whilst providing balancing services to the electricity grid.

National Planning Policy Framework

8.90 The National Planning Policy Framework (July 2021) (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).

8.91 Paragraph 8 of the NPPF explains that achieving sustainable development means the planning system has three overarching and interdependent objectives:

- "an economic objective - to help build a strong, responsive and competitive economy, by ensuring that sufficient land of the right types is available in the right places and at the right time to support growth, innovation and improved productivity; and by identifying and coordinating the provision of infrastructure;

- a social objective - to support strong, vibrant and healthy communities, by ensuring that a sufficient number and range of homes can be provided to

meet the needs of present and future generations; and by fostering well-designed, beautiful and safe places, with accessible services and open spaces that reflect current and future needs and support communities' health, social and cultural well-being; and

- an environmental objective - to protect and enhance our natural, built and historic environment; including making effective use of land, improving biodiversity, using natural resources prudently, minimising waste and pollution, and mitigating and adapting to climate change, including moving to a low carbon economy."

8.92 Paragraph 11 of the NPPF confirms that when determining planning applications a 'presumption in favour of sustainable development' should be applied and that for decision taking this means :

1. approving development proposals that accord with an up-to-date development plan without delay; or

2. where there are no relevant development plan policies, or the policies which are most important for determining the application are out-of-date, granting permission unless:

    a. the application of policies in this Framework that protect areas or assets of particular importance provides a clear reason for refusing the development proposed; or

    b. any adverse impacts of doing so would significantly and demonstrably outweigh the benefits, when assessed against the policies in this Framework taken as a whole."

8.93 Paragraph 12 underlines that the presumption in favour of sustainable development does not change the statutory status of the development plan as the starting point for decision making. Paragraph 12 states that local planning authorities may take decisions that depart from an up-to-date development plan, but only if material considerations in a particular case indicate that the plan should not be followed.

8.94 Paragraph 100 states that planning policies and decisions should protect and enhance public rights of way and access, including taking opportunities to provide better facilities for users, for example by adding links to existing rights of way networks including National Trails.

8.95 Paragraph 111 directs that development should only be prevented or refused on highway grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network would be severe.

8.96 Paragraph 120 (a) states that planning policies and decisions should "encourage multiple benefits from both urban and rural land, including through mixed use schemes and taking opportunities to achieve net environmental gains – such as developments that would enable new habitat creation or improve public access to the countryside."

8.97 NPPF Paragraph 130 states that planning decisions should ensure that developments: will function well and add to the overall quality of the area, not just for the short term but over the lifetime of the development; are visually attractive through good architecture, layout and landscaping; sympathetic to local character and landscape setting; establish a strong sense of place; optimise the potential of the site to accommodate and sustain an appropriate amount and mix of development, and; create places that are safe, inclusive and accessible.

8.98 Paragraph 152 sets out that the planning system should support the transition to a low carbon future in a changing climate and it should help minimise vulnerability and improved resilience. It states that it should shape places in ways that contribute to radical reductions in greenhouse gas emissions, minimise vulnerability and improve resilience, and support renewable and low carbon energy and associated infrastructure.

8.99 Paragraph 157 states that local planning authorities should expect new development to take account of landform, layout, building orientation, massing and landscaping.

8.100 Paragraph 158 sets out that when determining planning applications for renewable and low carbon development, local planning authorities should not require applicants to demonstrate the overall need for renewable or low carbon energy and recognise that even small-scale projects provide a valuable contribution to cutting greenhouse gas emissions; and approve the application if its impacts are (or can be made) acceptable.

8.101 Paragraph 159 sets out that Inappropriate development in areas at risk of flooding should be avoided by directing development away from areas at highest risk. Where development is necessary in such areas, the development should be made safe for its lifetime without increasing flood risk elsewhere.

8.102 Paragraph 167 directs that when determining any planning applications, local planning authorities should ensure that flood risk is not increased elsewhere. Where appropriate, applications should be supported by a site-specific flood-risk assessment. Development should only be allowed in areas at risk of flooding where, in the light of this assessment (and the sequential and exception tests, as applicable) it can be demonstrated that:

1. within the site, the most vulnerable development is located in areas of lowest flood risk, unless there are overriding reasons to prefer a different location;

2. the development is appropriately flood resistant and resilient such that, in the event of a flood, it could be quickly brought back into use without significant refurbishment;

3. it incorporates sustainable drainage systems, unless there is clear evidence that this would be inappropriate;

4. any residual risk can be safely managed; and

5. safe access and escape routes are included where appropriate, as part of an agreed emergency plan.

8.103 Paragraph 174 states that planning policies and decisions should contribute to and enhance the natural and local environment by: protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils; recognising intrinsic character and beauty of the countryside and wider benefits of natural capital (such as benefits from best and most versatile agricultural land); minimising impacts on biodiversity, and; preventing new development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of pollution.

8.104 Paragraph 180 sets out the principles that local planning authorities should apply with regard to habitats and biodiversity when determining planning applications including refusing applications where significant harm to biodiversity cannot be mitigated/compensated for; protecting SSSIs; refusing developments that result in the loss or deterioration of irreplaceable habitats unless there are wholly exceptional; and opportunities to improve biodiversity in and around developments should be integrated as part of their design, especially where this can secure measurable net gains for biodiversity or enhance public access to nature where this is appropriate.

8.105 Paragraph 185 states that planning policies and decisions should also ensure that new development is appropriate for its location taking into account the likely effects (including cumulative effects) of pollution on health, living conditions and the natural environment, as well as the potential sensitivity of the site or the wider area to impacts that could arise from the development.

8.106 Paragraph 194 states that in determining applications, local planning authorities should require an applicant to describe the significance of any heritage assets affected, including any contribution made by their setting. The level of detail should be proportionate to the assets' importance and no more than is sufficient to understand the potential impact of the proposal on their significance. As a minimum the relevant historic environment record should have been consulted and the heritage assets assessed using appropriate expertise where necessary. Where a site on which development is proposed includes, or has the potential to include, heritage assets with archaeological interest, local planning authorities should require developers to submit an appropriate desk-based assessment and, where necessary, a field evaluation.

8.107 Paragraph 202 outlines that where a proposal will lead to less than substantial harm to the significance of a designated heritage asset, this harm should be weighed against the public benefits of the proposal including, where appropriate, securing its optimum viable use.

8.108 The Glossary of the NPPF defines renewable and low carbon energy, including energy for heating and cooling as well as generating electricity. Renewable energy covers those energy flows that occur naturally and repeatedly in the environment including from the sun. Low carbon technologies are those that can help reduce emissions (compared to conventional use of fossil fuels).

Planning Practice Guidance

8.109 The key aim of the Planning Practice Guidance is to provide easily accessible and understandable guidance on the implementation of the policies within the NPPF. It contains specific guidance on planning policies for renewables energy developments and on how planning applications should be determined with regards to their impact on the natural and historic environment. Consideration of the fundamental aspects of this guidance in relation to the application are detailed below.

Renewable and Low Carbon Energy 2015

8.110 The guidance provides further advice on renewable and low carbon energy projects to facilitate the delivery of the low carbon future. It states that the government remains committed to increasing the amount of energy from renewable and low carbon technologies to ensure that the UK has a secure energy supply, to slow down climate change and to stimulate new jobs and businesses.

Climate Change 2019

8.111 Addressing climate change is stated as being one of the core land use planning principles which the NPPF expects to underpin decision-taking on planning applications. The guidance seeks to ensure that the planning system helps to implement the objectives of the Climate Change Act 2008 by radically reducing greenhouse gas emissions and adapting to the forecast impacts of climate change. The guidance makes it clear that Councils need to take account of global climate change including, for example, providing opportunities for renewable and low carbon energy technologies.

Natural Environment 2019

8.112 The guidance was updated in July 2019 to address how planning can take account of the quality of agricultural land and that an agricultural land classification assessing the quality of farmland can enable informed choices to be made about its future use within the planning system. Planning decisions should take account of the economic and other benefits of the best and most versatile agricultural land. There are five grades of agricultural land, with Grade 3 subdivided in 3a and 3b. The best and most versatile land is defined as Grades 1, 2 and 3a.

Determining issues and assessment

Introduction

8.1 This section outlines the determining issues identified from the planning policies in the preceding section and assesses the proposed development against these issues in order to determine whether it complies with the Development Plan and other relevant policy guidance.

8.2 The acceptability of the principle of development is assessed as well as a detailed assessment of the main policy considerations pertinent to the proposal. These specifically cover design, landscape and visual, hazards and human health impacts, highways, water management, heritage, ecology, noise and air quality. Detailed considerations of these elements are also provided in the assessments supporting this Application.

Sustainable Development

8.3 Among the key changes introduced by The National Planning Policy Framework (NPPF) was a new policy presumption in favour of development that contributes to sustainable development. This is reflected within Aylesbury Vale Local Plan 2013-2033. As the Proposed Development is to support the consistent delivery of renewable energy it is considered by its very nature to be a sustainable development. Notwithstanding this, this section demonstrates the compliance with the three strands of sustainable development set out within the NPPF which comprise of social, economic and environmental benefits.

Benefits of the Proposed Development

8.4 The proposed development will provide the following benefits:

- **Supporting the transition to a lower carbon economy**

  The Policies within the Development Plan, NPPF and EN-1 support the shift towards the delivery of low carbon energy generation. The proposed development will help to achieve this by providing a critical supporting role to renewable energy generation at times either when it is not operating and/or unable to generate sufficient energy to meet demand or when the frequency of the grid is imbalanced.

- **Maintaining energy security**

  The need for flexible and decentralised energy generating facilities is well established within the national planning policy context. The NPPF sets out at paragraph 155 the importance if the planning system in minimising vulnerability

and providing resilience in energy generation and supply. The Proposed Development is therefore required to compliment the mix of electricity generation and to meet the Government's objective of maintaining a reliable electricity supply. The ancillary services are able to balance supply and demand and are able to respond rapidly to the short-term variations in local demand and fluctuations in the output from renewable energy sources in line with NPPF paragraph 152 and EN-1 paragraphs 3.3.11 – 3.3.12.

- **Employment Benefits**

  The construction of the Proposed Development will directly support approximately 60 workers for 18 months. Indirectly, the construction of the facility could potentially also generate employment opportunities within the local supply chain for those companies providing services to the Proposed Development, for example engineering and maintenance services, plant and equipment supply and haulage. Once operational the Proposed Development, in conjunction with other similar developments, will provide two part-time jobs for operation and maintenance of the facility.

- **Local Amenity**

  The site will allow for public access via permissive paths and the creation of a Community Orchard improving accessibility for locals in an area which is otherwise inaccessible, such improvements are consistent with NPPF paragraphs 120 and 130.

Landscape and Visual

8.5 A Landscape and Visual Impact Assessment has been undertaken in winter, a time of greatest visibility across the landscape, and has been used to inform the evolution of the design.

8.6 The BESS facility and landscape areas will be located within four fields south of Claydon Brook, which are currently in an arable crop rotation. An underground cable will pass through fields north of Claydon Brook to connect the BESS to the East Claydon Substation (these fields will be returned to agriculture once the cable has been laid). The fields are bounded by substantial trimmed hedges, some of which support mature trees.

8.7 The northwest boundaries of the Site border the Claydon Brook and although there are no hedges on the southeast side of the brook, the far bank supports a line of mature trees. The fields are featureless apart from an overhead high voltage electricity line which passes over the Site.

8.8 The Proposed Development will substantially alter the character of the fields in which it is situated, replacing the rural character with one of a mix of an engineered landscape containing low level electrical infrastructure and areas of enhanced landscape and biodiversity. Apart from the Customer Substation, the electrical infrastructure will be under 4m high and the scheme has been designed to fit within the existing fields with only short sections of hedge being lost to allow access. The fields are fairly level, making them suitable for the creation of level compounds. The sensitivity of the Site is Medium and the magnitude of change in and around the BESS compounds will be High, resulting in a Moderate – Major adverse effect. The Proposed Development will, however, result in a more varied and enriched landscape along the riparian buffer and within Field 4, resulting in a Moderate benefit. Thus overall, the effect of the Proposed Development on the landscape character of the whole Site will be Moderate adverse.

8.9 The change in character to the Site will not be completely out of character with that of the immediate locality, where electrical infrastructure is a notable feature in the form of overhead lines and the existing substation. The electrical infrastructure is, however, perceived as a negative aspect of landscape character and the Proposed Development will reinforce that, resulting in a cumulative effect.

8.10 It is concluded that the Proposed Development will have some significant adverse landscape and visual effects during construction and initially when complete, but these will decline to acceptable levels within ten years, once the mitigation has become effective. On decommissioning the woodland planting and habitat creation will deliver a legacy of landscape and visual benefits.

8.11 It is therefore considered the development is compliant with the requirements of the NPPF, PPG and VALP

Ecology

8.12 Statera instructed MKA Ecology to conduct an Ecological Impact Assessment (EcIA) and Biodiversity Net Gain Assessment (BNG), along with further targeted protected species surveys.

8.13 During construction, the principal impacts are loss of habitats. These losses are largely restricted to habitats which are of lower ecological value, such as arable farmland and modified grassland. Habitats of higher value, including hedgerows and the adjacent stream will be protected from accidental damage through the installation of fencing and by following regulatory guidance on preventing pollution. The proposed development incorporates a range of new habitats which will offset any habitat losses. These new habitats include hedgerows, woodland, ponds, scrub and species-rich grassland.

8.14 Mitigation measures will be required to avoid minor adverse impact on protected species and will be detailed within a Construction Ecology Management Plan (CEMP).

8.15 Overall, with the provision of the new habitats proposed, the impact assessment concludes the proposed development will result in minor beneficial impacts for habitats, breeding birds, bats, reptiles, badger and otter.

8.16 Natural England's (2023) Biodiversity Metric version 4.0 was used to determine the habitat and hedgerow units on site and ascertain net gain

8.17 This demonstrates a 24.36 increase in biodiversity habitat units (25.53%), a 10.71 increase in hedgerow units (35.31%) and 1.16 increase in watercourse units (5.85%).

8.18 A Landscape and Ecological Management Plan (LEMP) has been prepared for the Proposed Development and will sit alongside The Application.

8.19 It is therefore considered the development is compliant with the requirements of the NPPF, PPG and VALP.

Cultural Heritage and Archaeology

8.20 Statera instructed MOLA to undertake the geophysical survey of the site along with a Heritage Impact Assessment.

8.21 The site forms a group of nine fields lying between the villages of East Claydon and Granborough, on the east side of the Claydon Brook in the County of Buckinghamshire. Throughout the site's history it has been undeveloped land in agricultural use lying some distance from any areas of settlement.

8.22 The site does not contain any nationally designated heritage assets. However, there are two Grade II Listed buildings within 1km of the site and several other designated heritage assets are located within the wider area. The site does not lie within a conservation area.

8.23 One Grade II Listed building, Rookery Farmhouse, may be affected by the proposed development. The remainder of the designated heritage assets are not afforded further assessment due to the distance between them and the site and intervening landscape topography.

8.24 Rookery Farm is of high significance but the development will have a negligible impact upon the building and the effect upon it will not be significant.

8.25 No shared built heritage assets have been identified with the site from nearby cumulative schemes and there will be no cumulative effects.

8.26 The geophysical survey identified remains of probable Iron Age and Roman date within the northern area of easement and along the western boundary of the northern field, which includes a possible pit alignment. An enclosure of possible prehistoric date was also identified at the western end of the proposed access route.

8.27 This assessment has identified the potential for remains dating to prehistoric, Roman, medieval and post-medieval periods. The significance of those remains dated to the prehistoric and Roman periods is medium or high, depending on their nature, extent and condition. The significance of remains dating to the medieval and post-medieval periods is low.

8.28 The proposed development will have a moderate adverse effect upon the significant prehistoric remains and associated cut features relating to settlement and the agricultural management of the landscape. The proposals will also have a moderate adverse effect upon the significant Roman remains, cut features and finds of the period.

8.29 The proposals will have a minor adverse effect on those remains of medium significance, including prehistoric remains and cut features relating to settlement and agricultural use of the landscape, and Roman cut features and finds.

8.30 The proposals will have a negligible adverse effect on later medieval and post-medieval cultivation remains.

8.31 Although the effects on the buried heritage may be offset through a programme of recording, sampling and dissemination of the results, no mitigation will reduce those effects.

8.32 It is therefore considered the development is compliant with the requirements of the NPPF and VALP.

Traffic and Highway Safety

8.33 Statera instructed Miles White Transport to consider the highway and access issues associated with The Proposed Development. An Access Note and Construction Traffic Management Plan (CTMP) have been produced, as well as an Abnormal Indivisible Load Report (AIL).

8.34 The assessments have been carried out in accordance with “Guidelines for the Environmental Assessment of Road Traffic”1 published by the Institute of Environmental Management and Assessment (IEMA) hereafter referred to as “the IEMA Guidelines”, and the Design Manual for Roads and Bridges (DMRB), National Highways.

8.35 Temporary construction access to the Proposed Development will be taken from East Claydon Road with long term operational access taken from Hogshaw Lane, Granborough. Both access junctions will be designed such that they can accommodate the

turning requirements of the largest vehicles required to access the site during the construction period and to provide visibility splays that accord with the recorded traffic speeds.

8.36 During construction of the Proposed Development, the temporary effects on receptors will be minor adverse in respect of 'severance', 'driver delay' and 'pedestrian delay and amenity', and, neutral in respect of 'fear and intimidation', 'accidents and safety' and 'hazardous loads'.

8.37 The CTMP serves to control the routing, timing and number of construction vehicle movements accessing the Proposed Development and therefore assists in minimising the effects of the construction related traffic.

8.38 Cumulative effects with other local developments during both the construction and operational phases are negligible and do not alter the above assessment of the Proposed Development in isolation.

8.39 During operation of the Proposed Development, the long-term effects will be neutral for all receptors and for all environmental effects. This is due to the development being an unmanned, remotely controlled facility and therefore requiring minimal car or van trips by operatives.

8.40 It is therefore considered the development is compliant with the requirements of the NPPF, National Planning Practice Guidance (PPG), VALP and Buckinghamshire Local Transport Plan.

Noise and vibration

8.41 Statera instructed RPS to undertake a noise impact assessment for the Proposed Development of a Battery Energy Storage System (BESS), connected directly to the National Grid, comprising a Battery Storage with associated infrastructure, including access, drainage, and landscaping.

8.42 The layout of the Proposed Development comprises the following plant: battery containers, inverters, inverter transformers and substation.

8.43 An environmental sound survey was undertaken between the 9th and 16th November 2022 to establish the baseline sound levels at the nearby noise sensitive receptors (NVSRs).

8.44 A 3D noise model was built based on the proposed site layout to predict the specific sound levels from the construction and operation phase of the proposed development at the NVSRs. The 3D noise model included noise source data provided by the client and manufacturer's data.

8.45 A BS5228-1:2009+A1:2014 – Noise assessment has been undertaken to identify the potential noise impact on the noise sensitive receptors. Information regarding the likely equipment used throughout the construction process, including noise levels generated by the plant and its location have been provided by the client.

8.46 Construction noise has been assessed in three phases.

- Phase 1: Site preparation and construction of haul roads.
- Phase 2: Earth works and piling.
- Phase 3: Building erection and installation of plant.

8.47 Thresholds for the significant adverse criteria have been set out based on the results of the baseline noise survey. The results of which are summarised at Table 4.2 of this report.

8.48 The construction noise assessment established that no significant adverse effects are predicted at the existing sensitive receptor locations, with the assumption that the proposed haul road will not be built during the night-time period. However, best practice measure shall be implemented throughout the construction phase to avoid adverse noise effects being generated by lack of care and ineffective control measures.

8.49 A BS4142:2014+A1:2019 assessment was undertaken the derive an initial estimate of impact from the assessment of the operational noise from the Proposed Development.

8.50 The outcome of this initial BS4142:2014+A1:2019 assessment showed that there is a negligible to low risk of impacts at the existing sensitive receptor locations during both the daytime and night-time periods, depending on the context.

8.51 With regards to national and local planning policy it is considered that the results of the operational assessment demonstrate that Proposed Development will not result in an adverse impact to amenity of the nearby receptors.

8.52 It is therefore considered the development is compliant with the requirements of the Noise Policy Statement for England (NPSE), the NPPF and Planning Practice Guidance on Noise (PPG-N), and VALP.

Fire Liaison Strategy

8.53 Statera instructed Greston Associates to produces a Fire Liaison Framework. DNV Limited carried out plume modelling.

8.54 Statera has been operating Battery Energy Storage System (BESS) sites since 2015, with sites now across Hertfordshire, Essex, Yorkshire, and Wiltshire. No fire events have been recorded at any of our sites.

8.55 All of Statera's operational BESS sites comply with all applicable UK Health, Safety & Environmental legislation.

8.56 The spacing of containers will be based on National Fire Protection Association standard NFPA855 for the installation of stationary energy storage systems.

8.57 The batteries are exceptionally high quality and have been tested to Underwriter Laboratories UL9540A standard.

8.58 Statera work with Fire Industry Association and wider industry to ensure the latest technology is built into the design.

8.59 Lithium Iron Phosphate chemistry does not exhibit thermal runaway until temperatures are in the region 150-200 degrees C. These temperatures have never been reached in any of our site.

8.60 The batteries themselves also have overtemperature protection and fire suppression initiation, which operates as follows, again well below thermal runaway temperatures:

- Level 1@54℃: reporting the warning message
- Level 2@57℃: reporting the warning message will request to reduce the charge/discharge power by 50%
- Level 3@60℃: force open the relay and power shut down

8.61 Statera has consulted with Buckinghamshire Fire and Rescue Services and has agreed a Fire Liaison Frame. This framework covers;

- Pre-planning
- Site Commissioning (post planning approval)
- Operational delivery

8.62 It is therefore considered the development is compliant with the requirements of the National Fire Protection Association standard NFPA855, the NPPF and Planning Practice Guidance and VALP.

Hydrology and Flood Risk

8.63 Statera instructed RPS Group to carry out a Flood Risk Assessment (FRA) and Conceptual Drainage Strategy in accordance with the NPPF, PPG ID7 and Vale of Aylesbury Local Plan.

8.64 During the construction phase, the best practice measures are considered to control any risks associated with the accidental release of materials and contaminated runoff, which would be one of the bigger risks associated with a storage battery site. With the temporary drainage system ensuring that that there would be no increase in flood risk during the construction phase. Water usage during construction would be minimised

through water efficiency measures and given the temporary nature of associated impacts the effect is not considered to be significant.

8.65 The FRA identifies that the vast majority of the site is located within Flood Zone 1. A small section is shown to be assessed as Flood Zone 2 and 3. The development layout shows that the built development has been steered to Flood Zone 1. The site is indicated to be at risk from surface water flooding. Typically, the areas at risk from surface water flooding will be as a result of the local topography, however the redevelopment of the site should include the installation of a surface water drainage scheme consisting of attenuation ponds and permeable gravel, this will help alleviate the risk. Based upon the layouts, access/egress at the site would not be impacted during a flood event. Overall, the risks during the construction phase are considered to be low.

8.66 During the operational phase, the proposed sustainable drainage system (SuDS) would restrict surface water runoff to greenfield rates through the provision of on-site storage such as loose permeable gravel, attenuation ponds and new wildflower planting. These strategies would mitigate the surface water flood risk at the site and ensure that there would be no increase in flood risk elsewhere as a result of the proposed development. It would also provide treatment prior to discharge to the watercourse.

8.67 During the maintenance phase, the routine maintenance operations have the ability to potentially affect ordinary water courses through spiling or leakages of oils and chemicals, which can impact the water quality. However, the suggested mitigation measures should ensure that the overall risk is considered to be negligible.

8.68 It is therefore considered the development is compliant with the requirements of the NPPF, PPG ID7 and VALP.

Agricultural Land Classification

8.69 Statera instructed SOYL Precision Farming to carry out an Agricultural Land Classification survey.

8.70 The agricultural land at the site has been classified as Grade 3b.

8.71 The site comprises areas of open fields (currently used for arable farming). The soils on site are described as comprising a mixture of heavy silty clay loam topsoil over slow permeable clay; calcareous silty clay topsoil over slowly permeable clay and non-calcareous silty clay topsoil over slowly permeable clay. The soil wetness is the main factor at the site which dictates ALC grades.

8.72 The layout of the proposed facility has been led primarily by functional requirements and contractor specifications. This principle is to locate the batteries within as small a footprint as possible, subject to cooling and enabling the safe access and movement between the battery units.

8.73 It is therefore considered the development is compliant with the requirements of the NPPF and VALP.

Conclusion

9.1 The Proposed Development seeks planning permission for the construction of a Battery Storage System to provide ancillary services and cover peak supply demands on the local distributed power network.

9.2 The Proposed Development accords with the Government's national planning policy including the NPPF and EN-1 with respect to providing reliable electricity generation capacity to support the shift towards a low carbon, reliable electricity supply and the relevant saved policies of the Aylesbury Vale Local Plan. The Project will provide for the need for efficient and flexible supply to meet peak energy demands within the local power network. This should be afforded significant weight in the assessment and determination of this Application.

9.3 For the reasons demonstrated in Section 8 of this report and the supporting statements, there are no significant adverse impacts associated with the Proposed Development.

9.4 In the balance of considerations, therefore, the presumption in favour of sustainable development is confirmed, as the benefits identified significantly and demonstrably outweigh any potential adverse impacts.

9.5 There are no other material considerations that indicate that planning approval should not be granted. Instead it is concluded that the proposed facility draws considerable support from these material considerations.