



Design and Access Statement

Stoneworthy BESS

29/05/2024



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INTRODUCTION

Background

- 1.1. This Design and Access Statement (“DAS”) has been prepared by Neo Environmental Limited, on behalf of RES Ltd (“the Applicant”) to accompany the Planning Application submitted to Torridge District Council (“the Council”) for a proposed BESS with associated infrastructure (the “Proposed Development”) on lands near Lower Hopworthy, Pyworthy, Torridge District, Devon, England, EX22 6LA (the “Application Site”).
- 1.2. Stoneworthy Energy Storage System is a proposed battery energy storage system (BESS) comprising approximately 32no. battery enclosures, 16no. PCS (power conversion systems), 16no. MV skids (PCS transformer and switchgear), a 33kV substation building with a high voltage area containing auxiliary transformer and grid compliance equipment, a 132kV grid transformer with associated equipment and a grid connection to a National Grid Electricity Distribution (NGED) overhead line.
- 1.3. Upon decommissioning, everything from ground level to 1.00m bgl will be removed, with the Application Site reinstated. This coupled with the measures that are proposed to enhance the landscape and increase biodiversity of the Application Site will ensure that upon decommissioning, the Application Site can not only be restored to its current agricultural use, but will also have resulted in net beneficial gains for ecology and the local landscape fabric.

Development Description

- 1.4. Stoneworthy Energy Storage System is a proposed battery energy storage system (BESS) comprising approximately 32no. battery enclosures, 16no. PCS (power conversion systems), 16no. MV skids (PCS transformer and switchgear), a 33kV substation building with a high voltage area containing auxiliary transformer and grid compliance equipment, a 132kV grid transformer with associated equipment and a grid connection to a National Grid Electricity Distribution (NGED) overhead line.

Role and Purpose of the Design and Access Statement

- 1.5. This DAS has been prepared in accordance with Article 9 of the Town and Country Planning Act (Development Management Procedure) (England) Order 2015¹ (“the DMPO”) which sets out the detailed requirements of the content of a DAS in relation to planning permission. A DAS is required in this case as the Development would constitute ‘major development’, with the site area exceeding 1 hectare.

¹ <https://www.legislation.gov.uk/uksi/2015/595/article/9/made>

- 1.6. The requirements under Article 9 of the DMPO cover both design and access, allowing Applicants to demonstrate an integrated approach that will deliver inclusive design, and address a full range of access requirements throughout the design process. The DAS forms part of the planning application submission, which also comprises a Planning Statement and supporting technical appendices, planning drawings, planning application form, and the requisite planning fee.
- 1.7. The role and purpose of the DAS, in accordance with Article 9 of the DMPO, is to:
- Explain the design principles and rationale that have been applied to the Development;
 - Demonstrate the steps taken to appraise the context of the Development, and how the design of the Development takes that context into account;
 - Explain the policy adopted as to access, and how policies relating to access in relevant local development documents have been taken into account;
 - State what, if any, consultation has been undertaken on issues relating to access to the Development and what account has been taken of the outcome of any such consultation; and
 - Explain how any specific issues which might affect access to the Development have been addressed.
- 1.8. The DAS has also been prepared in accordance with guidance in the National Planning Practice Guidance (“the NPPG”) section ‘*Making an application*’ paragraph 31 ‘*What should be included in a Design and Access Statement accompanying a planning application?*’².
- 1.9. The DAS is structured as follows:
- **Section 2** - Sets out the components of the Proposed Development;
 - **Section 3** - The Design Statement, which outlines the design principles and rationale, the context, and how the design has taken account of the context;
 - **Section 4** - The Access Statement which sets out how access policies have been assessed and complied with, relevant consultation, and how specific access issues have been addressed; and
 - **Section 5** – Summary and Conclusions.

² <https://www.gov.uk/government/collections/planning-practice-guidance>

DETAILED DEVELOPMENT DESCRIPTION

- 1.10. This Section provides a detailed breakdown and description of the design and layout details of the Proposed Development. Please note that the proposed design is based on informed assumptions of the most likely option for the battery infrastructure their positioning. However, as with all technology, battery storage infrastructure is continually advancing and becoming more efficient and whilst various infrastructure components are described in this application, it is proposed that the most efficient infrastructural specifications available at the time of construction will be used. These may vary slightly from the indicative details described in this report, resulting in different configurations, for example, but this is not expected to result in a significant departure from the details specified.
- 1.11. In devising the proposed design and layout, RES Limited has employed specialist consultants to review their operational requirements and advise on any environmental effects and/or necessary mitigation measures. As a result, the proposed design balances energy storage and all environmental and technical considerations.
- 1.12. The Development would consist of 32 battery storage units. These units are to be mounted on concrete pad foundations and comprise of an energy storage battery system and other ancillary equipment. Please see **Volume 2: Planning Application Drawings**.
- 1.13. Associated infrastructure, detailed on **Figures within Volume 2: Planning Application Drawings** includes the following, with approximate measurements:

Proposed BESS

- 32 x Battery Storage Enclosure (6.7m (L) x 2.7m(W)) – Total Area = 578.9m²
- 16 x PCS Units & Transformers (10.2m (L) x 5.0m (W)) – Total Area = 816.0m²
- 4 x Aggregation Panels with LV Pillar (2.3m (L) x 1.1m (W)) – Total Area = 10.2m²
- 1 x Spare Parts Container (12.2m (L) x 2.4m (W)) – Total Area = 29.3m²
- 1 x Harmonic Filter (6.3m (L) x 3.3m (W)) – Total Area = 20.8m²
- 1 x Harmonic Filter Resistor (2.7m (L) x 2.5m (W)) – Total Area = 6.8m²
- 1 x Pre-Insertion Resistor (3.3m (L) x 2.7m (W)) – Total Area = 9.0m²
- 1 x Capacitor Bank (6.4m (L) x 2.8m (W)) – Total Area = 18.0m²
- 1 x LV Distribution Equipment (2.3m (L) x 1.1m (W)) – Total Area = 2.6m²
- 1 x Auxiliary Transformer (2.5m (L) x 2.3m (W)) – Total Area = 5.8m²

- 1 x BESS Substation Building (10.0m (L) x 5.0m (W)) – Total Area = 50.0m²
- 1 x Substation Compound (60.0m (L) x 25.0m (W)) – Total Area = 1,500.0m²
- 1 x DNO Control Building (6.9m (L) x 5.6m (W)) – Total Area = 38.7m²
- Fence around substation compound is Palisade fencing with metal at 2.75m centres. Fence is up to 2.5m high with a 10cm gap for Mammal Movement. Total length is 170.0m with a total of 61 posts. Total Area = 9.8m²
- Perimeter Fence around half of the BESS Compound is Metal Mesh with steel posts. Fence is up to 2.5m high with mammal gates present spaced every 5-10m (130mm High & 130mm Wide). In total it is 142.0m long. 47 posts required. Total Area = 7.6m²
- Perimeter Fence around half of the BESS Compound is Acoustic Grade Fencing. Fence is up to 4.0m high. In total it is 147.0m long. 49 posts required. Total Area = 7.9m²
- CCTV Posts are 4.0m in height and we have 13. Total Area = 1.1m²
- Road is 5m wide and will involve an average of 300mm depth of soil removed. Local widening at turns for access reasons. Occasionally they will use a geosynthetic reinforcement or soil stability to reduce depth. Total length approximately 549.7m (2,748m² in total)
- 1 x Temporary Construction Compound – Abnormal Shape = 1,900.0m²

1.14. Overall, the proposed footprint constitutes a relatively small percentage of the total area of the Application Site (3.6ha):

- 7735.2m² for infrastructure (c. 21.49% of the Application Site area); and
- 25.3m² for piling (c. 0.07% of the Application Site area).

1.15. The total ground disturbance area resulting from the Proposed Development is therefore **7,760.5m² or c. 21.56%** of the Application Site area

THE DESIGN STATEMENT

1.16. This Section will provide a brief summary on the design principles and rationale, the site context, and how the design of the Proposed Development has taken account of the context.

Site Selection

- 1.17. The purpose of the Proposed Battery Energy Storage System is to provide a means of storing electricity at times of low demand / high generation and then be exporting it back into the grid at times of higher demand / system stress. However, the design of a development of this nature must also account for potential environmental impacts and effects.
- 1.18. The potential for installing the Proposed Development on the Application Site has been evaluated through both desk-based study and site surveys which assessed technical and environmental issues to inform and hence derive the most appropriate proposed scale, location, and infrastructure layout of the Proposed Development.
- 1.19. A range of technical, environmental, and economic factors are considered when assessing a site for a BESS development, particularly of this scale. Key considerations include:
- Proximity to an available grid connection;
 - Proximity to settlements and local population;
 - Topography;
 - Field size (site capacity);
 - Access to the site for construction;
 - Agricultural Land Classification (ALC);
 - Absence of landscape, archaeological and nature conservation designations;
 - Absence of flood risk; and
 - The potential for a commercial / land agreement with a landowner.
- 1.20. Following consideration of the above factors, as well as the largely benign nature of a BESS, limited disturbance to the existing environment is anticipated and the area in which the Proposed Development has been located was identified as having good potential for the development.

Design Principles and Evolution

- 1.21. The design of a BESS development is an iterative process, running in tandem with the identification of potential environmental effects. As environmental constraints and sensitivities have been identified, the layout of the Proposed Development has undergone a series of modifications to avoid and / or reduce potential environmental effects through careful design.

- 1.22. Following site surveys and identification of various environmental considerations, a constraints map was produced by Neo Environmental Ltd which was used to inform a series of design meetings.
- 1.23. Environmental factors considered in the final design of the Proposed Development are discussed further within the Technical Appendices that accompany the planning application (**Volume 3: Technical Appendices**). The final design and layout have been achieved through detailed assessments of the environmental effects and consideration of the identified spatial constraints, combined with consideration of the visual appearance of the Proposed Development from sensitive viewpoints and designated heritage assets.
- 1.24. Key design principles are discussed below.

Proximity to Available Grid Connection

- 1.25. The site is optimally located for the available grid connection on the 132kV National Grid Electricity Distribution (NGED) overhead line. The site has been located as close as possible to the pylon at which the project will connect, preventing long and disruptive cabling works through fields or highways. This specific site was chosen due to the combination of suitable land and the proximity to a suitable connection pylon.

Separation from Local Population and Topography

- 1.26. The local area is generally agricultural in nature, punctuated by individual properties and farmsteads, however the nearest residential areas are The nearest settlements include Pyworthy, located c. 1.3km northeast and Derril, located c. 1.3km northeast of the Application Site.
- 1.27. Recreational Routes include the Public Right of Way (PRoW) Pyworthy 7 located c.0.04km northwest and Pyworthy 3 located c.0.17km southeast of the Proposed Development.
- 1.28. The visibility of the BESS and associated structures will be largely contained by the mix of hedgerows and trees within the boundaries of the Application Site and surrounding farmland, along with screening by built elements and local topographical variations. Any such views of the Proposed Development will be limited to parts of the overall development. The potential changes to the existing views of these receptors have been determined and further discussed in the viewpoint assessment within the **Landscape and Visual Assessment (LVA): Technical Appendix 1 of Volume 3**. In addition to this, the Proposed Development includes a landscaping plan which involves mitigation screen planting to further restrict views into the Application Site, ensuring that views are localised and intermittent. See **Figure 1.10 of Technical Appendix 1: Volume 3**.
- 1.29. During the design iteration process, the Application Site boundary changed as a result of site visits conducted by consultants of Neo Environmental Ltd, including a landscape architect; hydrology consultant; archaeology consultant and ecologist. The latter changes are discussed later under '*Absence of Landscape, Archaeological and Nature Conservation Designations*'.

1.30. Details of the design iteration process are outlined below;

- Internal constraint layout produced from online sources to include environmental, habitat, flood zones and utilities.
- Proximity of utilities restricted lifting options and informs areas of possible development.
- NGED 132kV substation located adjacent to existing T-line tower within the site. POC issued by NGED so very little manoeuvrability.
- Topographical survey undertaken across entire area to inform suitable development site.
- ALC and archaeological surveys undertaken across entire area to inform suitable areas. Results focused proposed area to the northern most field.
- Based on findings from the neighbouring sites infiltration testing, it is considered that no infiltration drainage will be possible at this site. Attenuation pond in SW corner of site and discharge into existing watercourse along southern boundary.
- Standard security and acoustic fencing (where required) around BESS and substation compounds based on noise report. Stock proof fencing around earthworks for compounds at landowner's request.
- Secondary entrance (leading from the main site entrance) added to the south side of the BESS site to align with current fire guidance.
- Main site entrance and access track re-located following findings of the Flood Risk Report.
- Devon hedges located north of BESS and substation compounds, and west of BESS compound inline with the LVA. Offset from 33kV OHLs to maintain required Hedgerows and proposed coverage proposed separation.

Site Capacity

1.31. The Proposed Development is in an area with an existing industrial presence, therefore the Proposed Development boundary has evolved over time to not only take into account environmental and social constraints, such as proximity to residences, but also technical constraints such as pylon lines and other solar developments in the locality.

- 1.32. Buffer zones of 10m have been employed around Derril Water, as well as around overhead lines present within the Application Site. All hedgerows have been buffered by 5m to avoid any potential impacts on local wildlife.
- 1.33. Following the design iteration process, the final layout (**Figure 05197-RES-LAY-DR-PT-001 of Volume 2: Planning Application Drawings**) is of sufficient size to accommodate a viable BESS development, capable of storing sufficient electricity to meet the Applicant's requirements (49.9MW).

Access

- 1.34. The haulage route will likely be from the A386 to the east of the Application Site. A map showing the proposed local access route is presented in **Appendix A of the TS, Volume 3**.
- 1.35. It is proposed that most equipment and all construction material deliveries shall take the following route to site:
- Deliveries are expected to approach site from the A30, heading NW onto the A388 at Clawton.
 - Turn off the A388 onto Bodmin Street.
 - Turn off Bodmin Street onto Unnamed Road Passing Derriton
 - Turn off Unnamed Road Passing Broadshell Cottage/The Old Rectory leading to Site Entrance. In the event of any road closures on the proposed delivery route, all vehicles will follow the designated diversion route.
- 1.36. An Automatic Traffic Count (ATC) survey took place on the unnamed road that the site is accessed from at three different points. These were within the vicinity of each of the site entrances and the survey equipment was set up on the 18th April 2024 and was left in place for one week. The purpose was to collect real time data to determine the speed of road users at each point
- 1.37. The TS states;
- "The ATC surveys demonstrate that there is an 85th percentile speed of 40mph on this road near the site entrance, and therefore a junction visibility splay distance of 96m, as measured along the site frontage, is proposed to serve the site in accordance with DRMB CD 123. A set back of 2.4m from the carriageway, is proposed to serve the site entrance. This 96m visibility splay distance is greater than the recommended minimum 43m distance stated in the EIA Screening Opinion (0284-2024-SCRHID - Section 3c).*

The visibility at the site entrance has been verified to satisfy these criteria and is therefore suitable.

A Swept Path Analysis (SPA) has been carried out for potential delivery vehicles entering and exiting site. Any diversion of the existing private water supply pipe and protection of existing buried electrical cables will be agreed with the asset owners. The existing drainage ditch will be culverted, and the detailed design of the site entrance will progress in agreement with Torridge District Council. The SPA shows that standard minor enabling works on the verge will likely be required to form the site entrance.”

- 1.38. Initial swept path analysis was used in the design of the entrance point and therefore they will be constructed to allow for the largest construction vehicles to access the Application Site.
- 1.39. A map showing the proposed local access route is presented in the **Transport Statement: Volume 3**.

Agricultural Land Classification

- 1.40. An Agricultural Land Classification survey was conducted on 16.8 ha of land located c. 1.2km southwest of Pyworthy in February 2024. The initial area surveyed for ALC was significantly larger than the proposed redline boundary (c.3.6ha)
- 1.41. The ALC assessment confirms the larger 16.8ha area (Application Site is located to the northern section of this area) is predominantly grades, 3b and 4 (58%) which is not considered best and most versatile agricultural land and aligns with **Policy ST14**. The initial area surveyed for ALC was significantly larger than the proposed redline boundary. 15% of the land was classed as other land and 27% is classified as 3a, however due to the temporary and entirely reversible nature of the Proposed Development this is not considered to be a significant issue in the way of development. This will be discussed further in the Planning Assessment section of this Statement.

Absence of Landscape, Archaeological and Nature Conservation Designations

- 1.42. The Site is not subject to landscape, archaeological or nature conservation designations, however as environmental effects and sensitivities have been identified, the layout of the Proposed Development has undergone a series of modifications to avoid or reduce potential environmental effects through careful design.
- 1.43. No changes to the design of the BESS were required in order to avoid or reduce potential effects on any landscape or archaeological designations.
- 1.44. In terms of archaeology, as no designated or non-designated heritage assets were identified within the Application Site, no direct effects will occur on these resources as a result of the Proposed Development and as such, no mitigation measures are deemed to be necessary.
- 1.45. In terms of designated assets within the surrounding area, the **Cultural Heritage Impact Assessment (CHIA), Technical Appendix 3 of Volume 3** concludes:

*“Indirect effects upon the surrounding heritage assets have been assessed as overall ‘Minor Adverse’ in the worst case. Therefore, **no specific mitigation is considered to be required for the reduction of any visual impacts**, with tree-lined hedgebanks and the natural ridgeline of the local topography ensuring that visual impacts upon heritage assets will be kept minimal throughout the operational phase of the development. Residual indirect effects are therefore considered to be unchanged at Minor Adverse in the worst case.”*

1.46. Despite the above, various modifications were made to the original design of the Proposed BESS to account for ecological sensitivities. Examples of these include:

- NGED 132kV Overhead Line Buffer (15m)
- NGED 33kV Overhead Line Buffer (15m)
- NGED 33kV Buried Line (10m)
- Flood Zone (Avoided)
- Watercourse Buffer (10m)
- Hedgerow Buffer (5m)
- Woodland Buffer (10m)
- Tree Buffer (Dependant on Height & Crown) (Avoided)
- Root Protection Area Determined via Arboricultural Survey (Avoided)
- Trees with bat roost potential (Avoided)

1.47. Further information on integral design measures relating to ecology can be found in **Table 2-13 of the EcA (Technical Appendix 2: Volume 3)**.

Absence of flood risk

1.48. The EA Flood Map for Planning shows that The majority of the site is located within Flood Zone 1 which is at low risk from flooding. Importantly, all infrastructure has been kept away from a small area of flood zones 2 and 3 which follow the Derril Water watercourse to the west.

1.49. The Flood Risk Screening states:

“A flood risk assessment has been undertaken across the site. The site has been deemed at low risk of flooding.

An assessment of the drainage options has also been undertaken, and it has been concluded that drainage by infiltration is unlikely to be a viable option. As such, the current proposal is to drain the site via an attenuation basin, with a restricted discharge rate, discharging overland

to match its existing drainage condition. Infiltration testing will be undertaken on site prior to detail design, and should acceptable infiltration rates be found, an infiltration solution will be adopted during detail design. The location and condition of land drains will also be determined prior to detailed design to determine if an alternative discharge method can be adopted.

The required attenuation volume has been calculated as approximately 650m³. This should be considered a maximum volume, based on the assumption that all permanent infrastructure (other than the access track) has an asphalt surface and that drainage by infiltration methods is not possible.

A site investigation, 3D earthworks modelling, earthing design, and a further assessment of the proposed discharge will be undertaken to inform the detailed design of the site drainage.

The drainage strategy proposed will provide sufficient water quality treatment as demonstrated using the Simple Index Approach.”

- 1.50. For further information see **FRS/DMP of Volume 3**.

The Site Context

Site Description

- 1.51. The area of the proposed Development (the “Application Site”) lies at an elevation of approximately 98-110m AOD and covers a total area of c. 3.6 hectares. It is centred at approximate National Grid Reference (NGR) E 230354 N 101885 and is located c.1km southwest from the village of Pyworthy, c. 1.2km south from the village of Derril, and c. 3.8km south west from Holsworthy town.
- 1.52. Comprising of a single field of agricultural land, the site is currently being used for pastoral farming. The field itself is bound by a mixture of trees, hedgerows and post-and-wire fencing. The land slopes from east to west and there is an area of scrub present towards the north/northeast. Small pockets of woodland are adjacent to the Application Site’s boundaries to the northeast, south and southwest.
- 1.53. Access will be gained from an unnamed local road adjacent to the northern boundary of the Application Site. This road originates from the Derriton Road c. 1.2km east from the Application Site.
- 1.54. Recreational Routes include the Public Right of Way (PRoW) Pyworthy 7 located c.0.04km northwest and Pyworthy 3 located c.0.17km southeast of the Proposed Development.
- 1.55. Electrical infrastructure is present within the Application Site and a solar Farm development is directly adjacent to its southeastern boundary. Two other solar farms are within close proximity to the Application site with one c. 1.9km southwest and another c. 2.6km northeast from the Application site.
- 1.56. The area surround the Application Site is predominantly agricultural, punctuated by individual properties and farmsteads and renewable energy infrastructure.

Surrounding Land Use

- 1.57. Land surrounding the Application Site is generally agricultural in nature, punctuated by individual properties and farmsteads, with the nearest residential areas of Hopworthy and Pyworthy located c.0.8km north and northeast respectively. The village of Bridgerule is located c. 2.9km northwest of the Application Site.
- 1.58. Recreational Routes include the Public Right of Way (PRoW) Pyworthy 7 located c.0.04km northwest and Pyworthy 3 located c.0.17km southeast of the Proposed Development.
- 1.59. The Application Site is in an area with existing electricity infrastructure, with a solar farm present directly adjacent to the eastern boundary. Additionally, the electrical Pyworthy Substation is located c. 20m from the northern boundary of the Application site.
- 1.60. The nearest properties consist of isolated houses and farms, including:

- Crinacott Farm, c. 0.2km south from the Application Site
- Monks Farm, 0.4km east from the Application Site;
- Trelana Farm c. 0.5km west from the Application Site; and
- The Old Rectory, c. 0.7km north west from the Application Site.

1.61. A more detailed description of the site and its surroundings is included in the Landscape and Visual Appraisal in **Technical Appendix 1: Volume 3**.

How the Design Has Taken Account of the Context

Use / Rationale of the Proposed Development

Proposed BESS

- 1.62. National Grid has a statutory duty to ensure that the supply of electricity in the UK remains within certain limits in relation to demand. The balance of supply and demand within the grid is known as System Frequency. Frequency is continuously changing as levels of electricity generation and consumption fluctuate and at times, the generation from baseload power stations is insufficient to meet demand when there are spikes in consumption.
- 1.63. The UK electricity network is wholly interconnected and issues in one geographic location can have far reaching implications on the network. There are times when primary power sources are interrupted and baseload generation unexpectedly becomes unavailable, as seen in August 2019 when two large power stations, Hornsea, off the coast of Yorkshire and Little Bartford in Cambridgeshire shut down almost simultaneously, which caused a sudden drop in system frequency. This meant that automatic system protection protocols were triggered which involve rapid load-shedding to stabilise system frequency.
- 1.64. In order to avoid these issues, National Grid obtains a range of Balancing Services. These include demand response services; where large electricity consumers agree to reduce their consumption during low frequency events; and operating reserve; where distributed standby generators operate only when called on to do so.
- 1.65. Battery Energy Storage Systems can bridge the gap in production, thus avoiding potential blackouts. They offer additional capacity to deal with system stress and any variations in grid frequency at both a local and national level.
- 1.66. There is an increasing reliance on renewable forms of energy generation, such as wind and solar, to supply the UK's energy demands, however renewable energy sources are highly variable due to their weather dependency. As a result of the intermittent nature of renewables and the continuous requirement for National Grid to balance grid frequency, supporting energy balancing solutions need to be incorporated into the UK's energy strategy.
- 1.67. This proposal seeks planning permission for a BESS which will provide frequency response services for the National Grid, which will provide a means of allowing electricity from the grid to be imported and stored at times of low demand / high generation and then be exported back into the grid at times of higher demand / system stress.
- 1.68. The Proposed Development is designed to provide frequency response and flexible back-up power at very short notice. As a result, it would secure power supply to the local area, avoid potential risks of power interruptions as well as bring with it economic and environmental benefits by further encouraging the development of renewable energy.

- 1.69. Page 135 and 136 of the CCC's Sixth Carbon Budget stresses the importance of storage technology, stating that *"A more flexible electricity system will help balance out the variability in renewable generation"*. It goes on to state *"With an increasing share of variable renewables, storage can capture surplus energy when demand is low and provide backup generation when demand is particularly high"*.
- 1.70. Due to it being possible to entirely reinstate the Application Site, it is considered that the Proposed Development is only temporary, and reversible in nature.

Amount

- 1.71. Different levels of intrusion and disturbance are anticipated for different construction elements. All construction elements involving topsoil stripping or deeper excavations are considered to be ground disturbance derived from infrastructure during the construction phase, while impacts resulting from the perimeter fencing, are considered to be ground disturbance derived from piling effects.
- 1.72. Construction involving topsoil stripping, i.e., temporary construction compound and access tracks, have in general a lower potential for impacting upon sub-surface remains below the archaeological horizon, but retains a similar potential for encountering archaeological remains as construction involving deeper excavation work. Deeper excavation work, including that required for cable trenches, inverter/transformer stations, substations, etc, have the potential to cause direct impacts of a greater magnitude.
- 1.73. Overall, the proposed footprint of the Proposed Development is temporary with the highest ground disturbance occurring from the proposed access tracks, battery storage area, temporary construction compounds and cable trenches. A lower area of ground disturbance will occur from excavations required for infrastructure such as the ancillary buildings.
- 1.74. The minimal physical intrusion means that the storage units along with the ancillary buildings can be removed entirely at the end of their productive life and the land can be returned to its former use, if considered appropriate at that time. Due to the size of the site only being 3.6ha the development would not be taking away a large proportion of the existing agricultural field in which it is proposed.
- 1.75. Arable use of the land can be restored at the end of the BESS' lifespan if this is deemed appropriate at the time. This coupled with the measures that are proposed to enhance the landscape and increase biodiversity of the Application Site will ensure that upon decommissioning, there will be net beneficial gains for ecology and the local landscape fabric. The wider environmental benefits and sustainability credentials associated with the generation of renewable energy represents a significant case in favour of the Proposed Development.
- 1.76. Specific details and areas of the construction elements expected to have potential to impact upon archaeological sub-surface remains are detailed below:

- 32 x Battery Storage Enclosure (6.7m (L) x 2.7m(W)) – Total Area = 578.9m²
- 16 x PCS Units & Transformers (10.2m (L) x 5.0m (W)) – Total Area = 816.0m²
- 4 x Aggregation Panels with LV Pillar (2.3m (L) x 1.1m (W)) – Total Area = 10.2m²
- 1 x Spare Parts Container (12.2m (L) x 2.4m (W)) – Total Area = 29.3m²
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- 1 x BESS Substation Building (10.0m (L) x 5.0m (W)) – Total Area = 50.0m²
- 1 x Substation Compound (60.0m (L) x 25.0m (W)) – Total Area = 1,500.0m²
- 1 x DNO Control Building (6.9m (L) x 5.6m (W)) – Total Area = 38.7m²
- Fence around substation compound is Palisade fencing with metal at 2.75m centres. Fence is up to 2.5m high with a 10cm gap for Mammal Movement. Total length is 170.0m with a total of 61 posts. Total Area = 9.8m²
- Perimeter Fence around half of the BESS Compound is Metal Mesh with steel posts. Fence is up to 2.5m high with mammal gates present spaced every 5-10m (130mm High & 130mm Wide). In total it is 142.0m long. 47 posts required. Total Area = 7.6m²
- Perimeter Fence around half of the BESS Compound is Acoustic Grade Fencing. Fence is up to 4.0m high. In total it is 147.0m long. 49 posts required. Total Area = 7.9m²
- CCTV Posts are 4.0m in height and we have 13. Total Area = 1.1m²
- Road is up to 5m wide and will involve an average of 300mm depth of soil removed. Local widening at turns for access reasons. Occasionally they will use a geosynthetic reinforcement or soil stability to reduce depth. Total length approximately 549.7m (2,748m² in total)
- 1 x Temporary Construction Compound – Abnormal Shape = 1,900.0m²

- 1.77. Overall, the proposed footprint constitutes a relatively small percentage of the total area of the Application Site (3.6ha):
- 7,735.2m² for infrastructure (c. 21.49% of the Application Site area); and
 - 25.3m² for piling (c. 0.07% of the Application Site area).
- 1.78. The total ground disturbance area resulting from the Proposed Development is therefore **7,760.5m² or c. 21.56%** of the Application Site area.

Layout

- 1.79. The layout has been informed by a number of factors through the site selection and iterative design process. These include:
- Reducing potential impacts on the landscape character and fabric of the area and the visual amenity of local receptors by proposing a planting plan.
 - The avoidance of flood risk areas for any proposed electrical infrastructure (i.e. substations and inverters);
 - The avoidance of existing electrical infrastructure including the overhead lines within and in close proximity to the Application Site; and
 - Achievement of optimum equipment efficiency and energy outputs through effective orientation and positioning.

Scale

- 1.80. The scale of the Proposed Development is governed by the equipment necessary to store the intended capacity of 49.9MW using BESS technology at the Application Site.
- 1.81. Details of the design iteration process are outlined below;
- Internal constraint layout produced from online sources to include environmental, habitat, flood zones and utilities.
 - Proximity of utilities restricted lifting options and informs areas of possible development.
 - NGED 132kV substation located adjacent to existing T-line tower within the site. POC issued by NGED so very little manoeuvrability.

- Topographical survey undertaken across entire area to inform suitable development site.
 - ALC and archaeological surveys undertaken across entire area to inform suitable areas. Results focused proposed area to the northern most field.
 - Based on findings from the neighbouring sites infiltration testing, it is considered that no infiltration drainage will be possible at this site. Attenuation pond in SW corner of site and discharge into existing watercourse along southern boundary.
 - Standard security and acoustic fencing (where required) around BESS and substation compounds based on noise report. Stock proof fencing around earthworks for compounds at landowner's request.
 - Secondary entrance (leading from the main site entrance) added to the south side of the BESS site to align with current fire guidance.
 - Main site entrance and access track re-located following findings of the Flood Risk Report.
 - Devon hedges located north of BESS and substation compounds, and west of BESS compound inline with the LVA. Offset from 33kV OHLs to maintain required Hedgerows and proposed coverage proposed separation.
- 1.82. All plant / buildings located within the Application Site boundary will have a maximum height of 6.8m, ensuring that they are not overly disruptive to the landscape character and fabric of the area.
- 1.83. This combined with the existing hedgerows and proposed landscape enhancements means that views of the Proposed Development will be very localised and unobtrusive in the wider, landscape. Further information on this can be found in **Technical Appendix 1 of Volume 3**.

Landscaping

- 1.84. Landscape enhancement measures are proposed to provide screening and increase biodiversity at the site. These include native hedgerow and tree planting and the introduction of native grasses and wildflowers throughout the Application Site, providing additional habitat and food resources for the local wildlife as well as providing mitigation screening for the Proposed Development, reducing the potential for inward views from nearby receptors.
- 1.85. These measures are shown in **Figure 1.10 of Technical Appendix 1: Volume 3**.

Construction

- 1.86. The construction and installation of the Proposed Development will take approximately 12 months.
- 1.87. A typical running order of the proposed works is as follows:
- Erection of security fencing;
 - Construction of one. temporary site compounds (Customer and DNO) and hardstanding;
 - Delivery of components and materials;
 - Reinstatement works and demobilisation from Application Site.
 - Construction of the battery storage units, inverter substations, substation compound, underground cables etc;
 - Cable works and grid connection;
 - Testing and commissioning; and
 - Site restoration and landscaping.
- 1.88. Most of these operations would be carried out concurrently to minimise the overall length of the construction programme. Site restoration would be programmed and carried out to allow restoration of disturbed areas as early as possible.
- 1.89. Please refer to **Transport Statement** within **Volume 3** for more detail.

THE ACCESS STATEMENT

Planning Policy Context

National Planning Policy Framework (2023)³

- 1.90. The National Planning Policy Framework (NPPF) is the current National Planning document in England and was first published on 27th March 2012 and subsequently updated on 24th July 2018, 19th February 2019, 20th July 2021 and 5th September 2023. The NPPF sets out Central Government's planning policies for England and how these are to be applied when submitting an application and assessed when making a planning decision. The following transport policies are relevant to the consideration of this proposal:
- 1.91. The NPPF seeks to promote sustainable transport within all new developments. However, the Government recognises that different policies and measures will be required in different communities and opportunities to maximise sustainable transport solutions will vary from urban to rural areas.
- 1.92. All developments that generate significant amounts of movement should be supported by a Transport Statement or Transport Assessment. Plans and decisions should take account of whether:
- the opportunities for sustainable transport modes have been considered, depending on the nature and location of the site, to reduce the need for major transport infrastructure;
 - safe and suitable access to the site can be achieved for all people; and
 - improvements can be undertaken within the transport network that cost effectively limit the significant impacts of the development.
- 1.93. It is noted that development should only be prevented or refused on transport grounds where the residual cumulative impacts of development are "severe".
- 1.94. **Paragraph 104** indicates that transport issues should be considered from the earliest stages of development proposals to address the potential impacts on transport networks.
- 1.95. **Paragraph 110** states that proposals should ensure that opportunities to ensure sustainable transport modes should be taken up, safe and suitable access can be achieved and any significant impacts from the development on the transport network or highway safety can be mitigated to an acceptable degree.

³ [National Planning Policy Framework \(publishing.service.gov.uk\)](https://www.gov.uk/publishing-service)

National Planning Practice Guidance (NPPG)⁴ Travel Plans, Transport Assessments and Statements in Decision Taking

- 1.96. This NPPG seeks to provide clarification on the issues raised within the NPPF in relation to Transport Statements and is a material consideration in the determination of applications.
- 1.97. The NPPG defines Transport Assessments and Statements as ways of '*assessing and mitigating the negative transport impacts of development in order to promote sustainable development*'. As set out within the guidance, this Transport Statement primarily focuses on evaluating the potential transport impacts of a development proposal and proposes mitigation measures where these are necessary to avoid unacceptable or "severe" impacts.
- 1.98. The guidance highlights a number of principles to be taken into account during the preparation of the Transport Statement, these include:
- Proportionality to the size and scope of the proposed development to which they relate and build on existing information wherever possible;
 - Tailoring to particular local circumstances; and
 - Works being brought forward through collaborative ongoing working between the Local Planning Authority/ Transport Authority, transport operators, Rail Network Operators, Highways Agency where there may be implications for the strategic road network and other relevant bodies.
- 1.99. NPPG identifies that the scope and level of detail in a Transport Assessment or Statement will be site specific and the following has been considered when setting the scope of the assessment:
- Information about the proposed development, site layout, (particularly proposed transport access and layout across all modes of transport);
 - Information about neighbouring uses, amenity and character, existing functional classification of the nearby road network;
 - Data about existing public transport provision, including provision/ frequency of services and proposed public transport changes;

⁴ Ministry of Housing, Communities & Local Government, National Planning Practice Guidance, Travel Plans, Transport Assessments and Statements, March 2014. Available at <https://www.gov.uk/guidance/travel-plans-transport-assessments-and-statements>

- An analysis of the injury accident records on the public highway in the vicinity of the site access for the most recent three-year period, or five-year period if the proposed site has been identified as within a high accident area; and
- A description of parking facilities in the area and the parking strategy of the development.

Local Planning Policy

North Devon and Torridge Local Plan 2011 - 2031

1.100. Chapter 4 of the North Devon and Torridge Local Plan 2011 – 2031⁵, ‘Spatial Strategy – Transport Strategy’, of the existing LP contains policies and objectives in relation to transport; with the below policies relating directly to this Proposed Development.

1.101. Policy ST10 states:

“Reduce the environmental and social impacts of transport by:

(a) reducing the need to travel by car and enabling alternative sustainable travel options as supported by the Local Transport Plan;

(b) improving transport connectivity between rural communities and the main towns where viable;

(c) requiring a Transport Assessment or a Transport Statement and a Travel Plan for developments that generate significant traffic movements;

(d) actively managing car parking provision through type, capacity and charging to influence demand patterns;

(e) developing traffic management schemes in the main towns;

(f) maximising safety on transport networks through improvements to physical infrastructure design whilst conserving historic environment assets;

(g) ensuring that access to new development is safe and appropriate; and

(h) protecting the landscape character and ecological interest along the main and minor route(s).”

⁵ North Devon and Torridge Council. North Devon and Torridge Local Plan 2011 - 2031. Available at <https://consult.torridge.gov.uk/portal/planning/localplan/adoption/interactive?pointId=5051463>

1.102. Chapter 13 'Development Management Strategies – Highways' also contains a policy on transport.

1.103. Policy DM05 states:

“(1) All development must ensure safe and well designed vehicular access and egress, adequate parking and layouts which consider the needs and accessibility of all highway users including cyclists and pedestrians.

“(2) All development shall protect and enhance existing public rights of way, footways, cycleways and bridleways and facilitate improvements to existing or provide new connections to these routes where practical to do so.”

Consultation with Torridge District Council

1.104. A request for pre-application advice was made by Neo Environmental Ltd on behalf of the Applicant to Torridge District Council in March 2024. A formal pre-application response was provided on the 1st of May 2024. A copy of the written response is provided in **Appendix A** of the **Planning Statement**. With regards to transport, the response from the Council's Highway Officer stated:

“Although I have concerns regarding the access roads between the site and the higher category network, I appreciate that a degree of mitigation has been offered within the submitted information, including the strategy for large vehicle routing to the site. This will need to be included in their Construction Management Plan (or equivalent). Although not mentioned, I would add the necessity to include wheel-washing facilities as well as photographic / video evidence of the LGV routes to show the pre-existing condition of the public highway before the proposed development.

A suitable access will need to be provided with acceptable visibility splays; these should be 2 x 43 metres in either direction when measured to the centre of the carriageway and must pass over no feature greater than 600mm in height.

The first 10 metres should be a 'bound' material such as concrete or bitumen.

Provisions will need to be made to ensure that no excess surface water drains onto the public highway.

Construction details and cross sections of the road widening will be required as part of any application. The relevant Section 38/278 documents will also need to be acquired by the applicant. Assuming the above points are met, it is unlikely that the Highway Authority would raise objections”.

Policy Assessment

- 1.105. A Transport Statement (TS) has been produced as part of the planning application and can be found in **Transport Statement of Volume 3**. The TS adheres to the above policies by outlining the overall framework for managing the movement of construction and delivery traffic to and from the proposed Stoneworthy BESS. It identifies the number and type of vehicles used throughout all phases of the Proposed Development as well as assesses the existing conditions of the highways network and the potential impact of the Proposed Development. The TS proposes traffic management measures to be followed during the construction and operation of the Proposed Development and ensures that access to the Proposed Development takes the safest and most appropriate route.
- 1.106. It is proposed that most equipment and all construction material deliveries shall take the following route to site:
- Deliveries are expected to approach site from the A30, heading NW onto the A388 at Clawton.
 - Turn off the A388 onto Bodmin Street.
 - Turn off Bodmin Street onto Unnamed Road Passing Derriton
 - Turn off Unnamed Road Passing Broadshell Cottage/The Old Rectory leading to Site Entrance. In the event of any road closures on the proposed delivery route, all vehicles will follow the designated diversion route.
- 1.107. The Application Site will be accessed from the unnamed local road that runs adjacent to the northern boundary. The speed limit on this unnamed road is likely to be 60mph. It was observed that vehicles are highly likely to travel at speeds lower than the statutory speed limit due to it being a single carriageway with limited visibility.
- 1.108. An Automatic Traffic Count (ATC) survey took place on the unnamed road from at three different points. These were within the vicinity of each of the site entrances and the survey equipment was set up on the 18th April 2024 and was left in place for one week. The purpose was to collect real time data to determine the speed of road users at each point.
- 1.109. The TS states
- “The ATC surveys demonstrate that there is an 85th percentile speed of 40mph on this road near the site entrance, and therefore a junction visibility splay distance of 96m, as measured along the site frontage, is proposed to serve the site in accordance with DRMB CD 123. A set back of 2.4m from the carriageway, is proposed to serve the site entrance. This 96m visibility splay distance is greater than the recommended minimum 43m distance stated in the EIA Screening Opinion (0284-2024-SCRHID - Section 3c).*”

The visibility at the site entrance has been verified to satisfy these criteria and is therefore suitable.

A Swept Path Analysis (SPA) has been carried out for potential delivery vehicles entering and exiting site. Any diversion of the existing private water supply pipe and protection of existing buried electrical cables will be agreed with the asset owners. The existing drainage ditch will be culverted, and the detailed design of the site entrance will progress in agreement with Torridge District Council. The SPA shows that standard minor enabling works on the verge will likely be required to form the site entrance.”

- 1.110. It is anticipated that all traffic movements will be carried out between 08.00 to 18.00 on Monday to Friday and 08.00 to 13.00 on Saturdays and at no time on Sundays or Bank/National Holidays unless otherwise agreed in advance with Torridge District Council.
- 1.111. The number of HGVs deliveries required for the construction phase is anticipated to be approximately 939 (i.e. 1,878 movements) with LGVs expected throughout each year for routine maintenance. The number of HGVs involved in the decommissioning period will be slightly less than the construction phase due to some of the materials being left in-situ.
- 1.112. Given the minor impact of the Proposed Development on the highways network and the traffic management measures to be implemented, the Proposed Development conforms to the policies and objectives of the North Devon and Torridge Local Plan, the NPPF and the Design Manual for Roads and Bridges.

CONCLUSION

1.113. This Design and Access Statement has been prepared in accordance with requirements of Article 9 of the DMPO and the NPPG. The DAS has established:

- The design principles and rationale that have been applied to the Development, including the various relevant environmental and technical criteria;
- The steps taken to appraise the context of the Site, and how the design of the Proposed Development takes that context into account, in respect of design iteration, the various relevant environmental and technical criteria, and each design component;
- The relevant planning policies in respect of access, and how these policies have been taken into account and are addressed; and
- That all relevant issues which might affect access to the Proposed Development have been addressed.

1.114. The DAS has thus established that the Applicant can demonstrate an integrated approach that will deliver inclusive design and address the full range of access requirements throughout the design process.