



DESIGN AND ACCESS STATEMENT

GOLDBOROUGH ROAD BATTERY ENERGY STORAGE SYSTEM
LAND SOUTH OF GOLDBOROUGH ROAD, HUNDLETON, PEMBROKE, NEAR SA71 5SH
P16-01-DAS JANUARY 2024

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1. INTRODUCTION

- 1.1 This Design and Access Statement (DAS) has been prepared on behalf of Pembroke Green Limited (“The Applicant”) to accompany a full planning application to Pembrokeshire County Council (PCC) for the proposed installation of a Battery Energy Storage System with associated infrastructure and works (“the Proposed Development”) on land south of Goldborough Road, Hundleton, Pembroke (“the Site”).
- 1.2 The purpose of this document is to demonstrate how matters of design and access have been considered and how they have informed the development of application submitted. This DAS first provides an overview of the Site (Section 2), before detailing the Proposed Development (Section 3) and outlining the design principles which have informed the proposals (Section 4). The DAS continues to detail the proposed means of access (Section 5) before an overview of the construction, operation and decommissioning stages are outlined (Section 6).
- 1.3 This document has been prepared in line with the Town and Country Planning (Development Management Procedure) (Wales) Order 2016 (as amended), which sets out the required contents of a DAS.
- 1.4 In accordance with the Town and Country Planning (Development Management Procedure) (Wales) Order 2016 (as amended), a design and access statement must:
- a) *Explain the design principals and concepts that have been applied to the development;*
 - b) *Demonstrate the steps taken to appraise the context of the development and how the design of the development takes that into account;*
 - c) *Explain the policy or approach adopted as to access, and how policies relating to access in the development plan have been taken into account; and*
 - d) *Explain how any specific issues which might affect access to the development have been addressed.*
- 1.5 This DAS should be read alongside the plans and documents forming the application.

2. THE SITE

- 2.1 The Site comprises land totalling approximately 6.8 hectares (ha). This includes the main BESS site, access to the public highway, and the underground cable route that connects the BESS to the point of connection at Pembroke Substation to the north of the Site.
- 2.2 The main BESS site sits within an irregularly shaped agricultural field, with the cable route to the point of connection crossing agricultural land and Goldborough Road to the east, before turning north towards Pembroke Power Station. The grid reference for the proposed BESS site is SM 92762 01061.
- 2.3 With regards to topography, the main BESS Site has a southerly aspect, sloping gently from approximately 60m above ordnance datum (AOD) on the northern boundary to 55m AOD on the southern boundary.
- 2.4 The immediate context comprises agricultural land set within fields which have strong hedgerow boundaries. The southern and western boundaries of the Site are bounded by a belt of trees and a watercourse. The eastern and northern boundaries comprise hedgerow planting. There is a small gap in planting on the north-western boundary.
- 2.5 Agricultural land and the settlement of Wallaston Green are located to the south; The C3101 road, agricultural land and two solar farms (Hoplass Solar Farm and Wogaston Solar Farm) are located to the west; Green Hill Reservoir is located to the north with Pembroke Power Station, the Valero Oil Refinery beyond; agricultural land and Lambeth Farm are located to the east.
- 2.6 The Valero Oil Refinery and the Pembroke Combined Cycle Gas Turbine ('CCGT') Power Station with overhead electricity transmission power lines are located approximately 1km north of the Site. Within the broader setting, the Dragon LNG terminal and South Hook LNG terminal are visually prominent features within the landscape near Milford Haven.
- 2.7 Pembroke Dock is located approximately 3.5km to the north-east of the Site. Milford Haven is located approximately 5km to the north-west of the Site.
- 2.8 Access to the Site is achieved via the C3101, leading to the B4320 towards Pembroke with the A477 beyond. There are no Public Rights of Way (PRoW) within the BESS Site. The Wales Coast Path, which runs around and through the Angle Peninsula is located approximately 1km to the east of the BESS Site at its closest point. Footpath SP34/6 is located approximately 100m to the northeast of the BESS site.

3. PROPOSED DEVELOPMENT

3.1 This planning application relates to the proposed development of a battery energy storage system which would be utilised to reinforce the electricity grid. All associated development (such as CCTV and fencing) is included within the proposals.

3.2 The description of development for the application is:

“Installation of a battery energy storage system with associated infrastructure and works”.

3.3 The main components of the proposal comprise:

- Battery storage facility comprising a series of linked batteries housed within shipping containers (or containers of similar appearance);
- Inverter/transformer stations with cooling equipment and associated electrical infrastructure are distributed evenly across the site housed within metal containers;
- Underground cabling to connect the battery storage facility and inverters/transformer stations to the proposed on-site 132kV Substation and control room, which comprises the plant and equipment necessary to export the electricity stored on-site to the electricity network;
- Underground cabling from the BESS to the Pembroke Substation;
- Security fencing (2.4m high metal weld mesh) and monitoring CCTV/infra-red cameras mounted along the perimeter of the BESS Site;
- Landscape planting, biodiversity enhancements and surface water attenuation measures;
- Groundworks; and
- land for the temporary construction laydown area and site access from the public highway.

3.4 Individual elevations and component parts of the proposals described above are shown on the supporting drawings to the application.

3.5 The relevant planning policies for design matters are addressed within the Planning Statement.

4. DESIGN

4.1 The overarching design principles of the development is to support the use of renewable and low-carbon energy within the electricity network, through the deployment of flexible energy storage to tackle climate change, improve energy security while also providing ecological improvements.

4.2 While several factors have influenced the design, the development is of functional scale and appearance. The proposals have been refined because of the advice received from the consultant team and site surveys undertaken. The scheme design is also influenced by the site selection, landform, the existing topography and opportunities to improve local green infrastructure.

Use

4.3 The site is an irregularly shaped agricultural field. The cable route to the point of connection crosses agricultural land and Goldborough Road to the east, before turning north towards Pembroke Power Station.

4.4 The Site is proposed to be used for a BESS which shall be connected to Pembroke Substation. The plant and equipment necessary for the Proposed Development to function for this use is set out within this report.

4.5 This Design and Access Statement, and the accompanying documents forming the application, set out the relevant considerations for why this site is well suited to accommodate the proposed use.

Layout

4.6 The proposed layout is fully detailed on the accompanying drawings to this application. The site layout responds to site specific considerations which have been identified as the application has been progressed.

4.7 The identification of such constraints, and opportunities to improve the site, have been identified from several sources. These include assessments made by the Applicant, the consultant team (both as part of desk and site studies and survey) and in other feedback received from informal discussions with statutory consultees and the landowner. Such examples include the proposed levels strategy, the proposed surface water drainage arrangements and the landscaping works, which includes planting trees and areas dedicated to biodiversity improvements.

Amount and scale

- 4.8 The total site extends to approximately 6.8 hectares. The Proposed Development occupies approximately 1.7 hectares of this area; the rest of the site is dedicated to surface water drainage scheme, biodiversity improvements and landscape planting.
- 4.9 A cable connection corridor is identified. This is where an underground cable will be laid to connect the Proposed Development to Pembroke Substation. The final cable route will be confirmed at the detailed design stage.
- 4.10 The amount and scale of the Proposed Development has been defined by the equipment necessary to form a BESS with an export capacity of up to 350 MW. The equipment specifications for the Proposed Development (see Section 3), and general layout of the BESS compound, have been designed to occupy as small a footprint as possible whilst still being able to carry out their specific functions.
- 4.11 As part of the application, a cut-and-fill study and levels strategy has been completed. This study demonstrates how the 132kV substation will be accommodated on a flat plateau, with the battery containers and other infrastructure located on an approximate 1:40 slope.

Appearance

- 4.12 The development is of functional appearance. The plant and equipment associated with the Proposed Development are shown on the accompanying drawings to the application.
- 4.13 The appearance of the Proposed Development is fully assessed within the Landscape and Visual Appraisal within the Environmental Statement that accompanies the planning application. This report concludes the Proposed Development will not result in significant effects on landscape character or landscape features, and will not result in significant effects on visual amenity at representative viewpoints.
- 4.14 The proposed mitigation planting around the periphery of the site will provide further benefits in the longer-term, softening the visual impact of the proposed development from those areas where individuals transiting through the site can see it, for example the accessing the Sailing Club.

Landscaping

- 4.15 A scheme of landscaping has been developed which is prepared to deliver biodiversity improvements and screen the Proposed Development from localised views. A detailed landscape design accompanies the application, which includes:

- Proposed tree planting along the northern, western and southern boundaries of the BESS compound, with additional tree planting along the southern and eastern area of the Site;
- Proposed native buffer hedgerow planting;
- Areas of native scrub planting;
- Surface water attenuation feature seeded with an appropriate riparian planting tolerant of occasional water submergence;
- Installation of invertebrate banks and other features for local fauna.

4.16 The landscape mitigation proposals include measures that aim to avoid, reduce, or remedy any perceived adverse impacts on the local landscape by ensuring the scheme is incorporated into its setting. It also includes measures that would reduce the visual prominence of the Proposed Development from nearby sensitive receptors.

Site Security

4.17 Around the perimeter of the Proposed Development would be circa 2.4 m high welded steel wire mesh (SR2) coloured green. The entrance to the Site will be secured by gates which will be secured with padlocks meeting BS EN 12320 (Grades 56).

4.18 The Site will be secured with a full CCTV and intrusion system manned 24 hours a day by personnel contractually committed to act promptly on the site in case of an alarm.

4.19 During construction, valuable plant and materials will be stored in a secured construction compound within the Site, with a security team undertaking regular inspections. Other measures, as appropriate, will be employed to reduce the risk of crime and deter criminal activity from occurring during this period.

5. ACCESS

- 5.1 Access to the Site is achieved via the C3101, leading to the B4320 towards Pembroke with the A477 beyond. There are no Public Rights of Way (PRoW) within the BESS Site. Site access arrangements are fully detailed within the Construction Traffic Management Plan submitted in support of the application.
- 5.2 The relevant Policy considerations relating to access (TAN 18; Local Policies GN.1 and GN.2), that seek to ensure appropriate access, parking, and no detrimental impact to highway or pedestrian safety have been considered as part of the design.
- 5.3 It is considered that the access proposed is suitable and would provide for a safe means of access to the site. Temporary signage will be placed in the locality of the Site and the construction route to indicate that heavy construction vehicles are turning and using the route. Banksman will be present to ensure the safe access and egress of vehicles from the Site.
- 5.4 Once vehicles are within the Site there is sufficient space to enable vehicles to exit onto the Public Highway in a forward gear. The accompanying details set out how the access is to be achieved, where all necessary parking will be located, and provide space for the secure storage of materials, plant and welfare facilities during the construction period.
- 5.5 Once operational the same access would be used for maintenance purposes.

Public Rights of Way

- 5.6 There are no PRoW within the Site.

6. CONSTRUCTION

- 6.1 The construction of the proposal would take place over approximately twelve months, with construction vehicles accessing the site via the C3101, leading to the B4320 towards Pembroke with the A477 beyond.
- 6.2 A Construction Traffic Management Plan has been prepared and is submitted with the planning application. It contains all the required information for the construction phase, as well as suggested mitigation measures which can be controlled by a suitably worded planning Condition.
- 6.3 There will be an average of approximately three HGVs accessing the Site per day over the construction period. The level of traffic expected during the construction period is not of a nature which would have an adverse or material effect on the safety or operation of the local highway network.

Operation

- 6.4 Once operational there would be limited vehicle visits each month comprising a transit style van or similar for maintenance purposes.

Decommissioning

- 6.5 A suitably worded planning condition can ensure the removal of the Proposed Development within a fixed period of time when the BESS is decommissioned.

7. CONCLUSION

- 7.1 This Design and Access Statement has been prepared to support an application made to Pembrokeshire County Council seeking Planning Permission for a BESS on land south of Goldborough Road, Hundleton, Pembrokeshire. This DAS should be read alongside the plans and documents forming the application and has taken a proportionate approach having considered the nature of the application in line with the requirements of the Town and Country Planning (Development Management Procedure) (Wales) Order 2016 (as amended).
- 7.2 This DAS has provided an overview of the Site and the Proposed Development, outlined the design principles on matters of use, layout, amount, scale, appearance, landscaping, crime and access, that have informed the developed proposals. It has also provided a summary of the construction and operation stages. The design and access issues associated with the Proposed Development have been assessed in the context of the scheme as submitted.
- 7.3 The appearance of the BESS and associated plant and equipment are dictated by their functional requirement. The infrastructure proposed is the minimum required for the operation of the Proposed Development. Measures to increase biodiversity and improve boundary planting are proposed as part of the scheme.
- 7.4 The document has demonstrated how matters of design and access have been considered and how they have informed the refinement of application submitted. It is concluded the proposal is appropriate in terms of design and access matters and therefore such matters should not be a reason for refusal.



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