LDĀDESIGN

Castle Road Battery Energy Storage System (BESS)

Green Infrastructure Statement

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This document has been prepared and checked in accordance with ISO 9001:2015.

1.0 Introduction

1.1. Background

This Green Infrastructure Statement has been prepared by LDA Design to accompany the planning application for a proposed Battery Energy Storage System (BESS) with a capacity of up to 440MW on land north of Castle Road, Burton, Rhoose within the Vale of Glamorgan Council (VoGC) administrative area.

Planning Policy Wales, Ed 12 (PPW) paragraph 6.2.12 requires a Green Infrastructure Statement to be submitted with all planning applications. The statement has been informed by the 'Delivering High Quality Green Infrastructure in Wales' briefing paper published by Building with Nature (Nov 2023) and is structured as follows:

- **Section 1**: Introduction
- **Section 2:** Scheme Description and Design Strategy
- **Section 3**: Policy and Guidance
- **Section 4**: Demonstrating the Step-wise Approach
- **Section 5:** DECCA Framework
- **Section 6:** Building with Nature (BwN) Standards Framework
- **Section 7:** Summary and Conclusions

The Site comprises approximately 10.5 ha of agricultural land, located adjacent to Burton and approximately 650m to the north of East Aberthaw. The Site is bounded by the B4265 highway and a strip of woodland along its northern edge. Aberthaw Quarry is directly to the south. To the west, there are a number of properties on Fontygary Road beyond which lies the Aberthaw Cement Works. A pylon and overhead line cross the Site from the north-east to the south-west. In the wider area, the decommissioned Aberthaw Power Station is 1.5km to the south-west, Cardiff Airport 1.8km to the east, and an existing 5.56MW solar farm, known as West Hall Solar Farm, is approximately 1km to the west.

The Site comprises agricultural fields classified as Grade 4 and 3b land under the Agricultural Land Classification (ALC). The Site is currently used for agricultural purposes and is accessed from existing field gates in the hedgerow boundary on Fontygary Road to the west, Castle Road to the south, and an unnamed track to the east. A public right of way (PRoW P4/5/1) crosses through the Site from the north-west to south-east.

The Site is sloping in nature and located within a non-statutory Special Landscape Area (SLA) designation as well as a Mineral Safeguarding Area, Quarry Buffer Zone and Aviation Safeguarding Zone. The Site is not subject to any other historic, environmental or landscape designations. The Site is in Flood Zone A of low risk of fluvial and tidal flooding.

1.2. Purpose

Green infrastructure is defined by the Town and Country Planning Association (TCPA) as *"a network of multi-functional green space and other green features, urban and rural, which can deliver quality of life and environmental benefits for communities."*[1] TCPA also notes that *"the key features of green infrastructure are that it is a network of integrated spaces and features, not just*

[1] https://www.tcpa.org.uk/what-is-green-infrastructure/

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individual elements; and that it is 'multi-functional' – it provides multiple benefits simultaneously. These can be to:

- *Support people's mental and physical health;*
- *Encourage active travel;*
- *Cool urban areas during heat waves;*
- *Attract investment;*
- *Reduce water run-off during flash flooding;*
- *Carbon storage; and*
- *Provide sustainable drainage."*

This statement describes how green infrastructure has been incorporated into the design of the Proposed Development and how the step-wise approach and DECCA frameworks have been applied. It seeks to demonstrate how the design of the Proposed Development has been informed by the BwN Standards Framework as set out in PPW para 6.2.14.

1.3. Associated Documents

This statement should be read in conjunction with the Planning, Design and Access Statement (PDAS) and has been informed with reference to the following drawings and reports:

- Castle Road BESS Design (Windel dwg. WIN-BES-08-DR-03-03-01)
- Proposed Levels Plan (Campbell Reith dwg. 14171-CRH-XX-DR-C-5000-P3)
- Landscape Plan (LDA Design dwg. 8919_100)
- Landscape and Visual Impact Assessment (LVIA) by LDA Design (Feb 2025)
- Ecological Impact Assessment (EcIA) by BSG Ecology (Feb 2025)
- Arboricultural Report and Survey BS5837:2012 by Sylva Consultancy (Feb 2025)
- Landscape and Ecological Management Plan (LEMP) by LDA Design and BSG Ecology (Feb 2025)

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2.0 Scheme Description and Design Strategy

The proposed layout of the battery energy storage units and associated infrastructure is shown on:

- Proposed Layout Plan (Windel dwg. WIN-BES-08-DR-03-03-01)
- Proposed Levels Plan (Campbell Reith dwg. 14171-CRH-XX-DR-C-5000-P3)
- Landscape Plan (LDA Design dwg. 8919_100)

The scheme includes a series of 168 no. single stack battery containers, each measuring 2.9m in height. The containers would be arranged within the southern field with the inverter and transformer units measuring 2.3m in height. In addition to these components, a high voltage substation housing a 33kV to 400kV transformer, three switchgear cabinets and a control room is proposed within a separate compound in the southern field. The proposed harmonic filters, surge arrestor, a disconnector and high level busbars within the high voltage substation compound would have an approximate maximum height of 12m.

The design strategy and embedded mitigation would include:

- Locating the BESS and the high voltage substation compounds within the southern flatter part of the Site to reduce the requirement for ground engineering and landform remodelling.
- Positioning the BESS and the high voltage substation compounds within the southern area of the Site at closer proximity to Castle Road within the visual context of the existing industrial land uses within the Aberthaw Cement Works to the west and Aberthaw Quarry to the south.
- Retention of boundary hedgerows and woodland as far as possible to enhance visual screening particularly from the B4265 highway to the north, the quarry haul road to the east, Castle Road to the south, and Fontygary Road to the west.
- Provision of woodland to the west of the southern field to provide visual screening to residential properties located along Fontygary Road to the west.
- Reinstatement of the partly defunct hedgerow between the northern and southern field to enhance the perceived sense of separation and compartmentalisation.
- Retention and partial diversion of public right of way (PRoW P4/5/1) crossing diagonally through the Site from north-west to south-east between Fontygary Road and Castle Road.
- Retention of boundary hedgerows and woodland as far as possible to enhance visual screening.
- Provision of new habitats including native broadleaf woodland, hedgerows, scrub mosaic, neutral grassland, ponds and marginal planting.
- Creation of new habitat corridors and 'ecotones' between the BESS and the high voltage substation compounds to consist of a gradation of native woodland, tree belts, open scrub mosaic, neutral grassland, ponds and marginal planting.

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- Provision of treebelts and hedgerow reinforcements to provide additional visual screening along the B4265 to the north, the quarry haul road to the east, Castle Road to the south, and Fontygary Road to the west.
- Provision of scrub mosaic vegetation beneath the pylons and overhead lines within internal areas to replicate habitats and vegetation communities within restored areas of the Aberthaw Quarry tip to the south to enhance biodiversity.
- Provision of hibernacula (log piles) at key locations within the Site to enhance biodiversity for birds, mammals, reptiles, etc.
- Provision of bird, bat and dormouse boxes at key locations within the existing hedgerows and woodlands.
- Allowance of a permissive footpath within the proposed scrub mosaic and neutral grassland area within the north field to link into public footpath (PRoW P4/5/1) to enhance recreational value.
- Replacement and/or making good of the footpath stiles to the north-west and south-east of the Site along public footpath (PRoW P4/5/1).
- Locating the cable route within a narrow trench within the highway verge to avoid the rooting areas of existing trees and hedgerows.

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3.0 Policy and Guidance

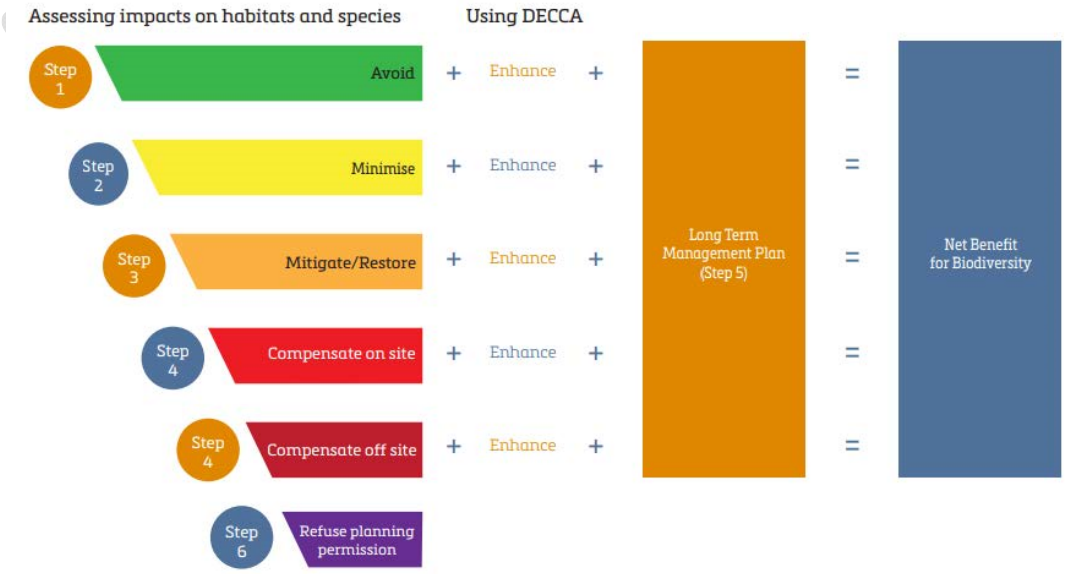
3.1. National Policy

The policy requirement and guidance for Green Infrastructure Statements is outlined in PPW12 which states in para 6.2.12 that *"this will be proportionate to the scale and nature of the development proposed and will describe how green infrastructure has been incorporated into the proposal. In the case of minor development this will be a short description and should not be an onerous requirement for applicants. The green infrastructure statement will be an effective way of demonstrating positive multi-functional outcomes which are appropriate to the site in question and must be used for demonstrating how the step-wise approach (Paragraph 6.4.15) has been applied."*

PPW12 para 6.2.13 notes that *"in most cases the green infrastructure statement should highlight any baseline data considered and surveys and assessments undertaken, including but not limited to, habitats and species surveys, arboricultural surveys and assessments, sustainable drainage statements, landscape and ecological management plans, open space assessments and green space provision and active travel links."*

PPW12 para 6.4.14 provides supporting guidance noting that *"development proposals should be informed by the priorities identified in green infrastructure assessments and locally based planning guidance. The Building with Nature (BwN) standards represent good practice and are an effective prompt for developers to improve the quality of their schemes and demonstrate the sustainable management of natural resources. Using these standards in a way which is proportionate to the nature and scale of the development proposed will be a useful way of ensuring appropriate consideration in circumstances where there is an absence of a green infrastructure assessment and planned approach or relevant local or Supplementary Planning Guidance. The standards are underpinned by an accreditation system and whenever possible, accreditation under these standards should be pursued."*

PPW 12, Figure 12 provides a diagram and summary of the step-wise approach as reproduced below:



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3.2. Local Plan Policy and Guidance

The Vale of Glamorgan Local Development Plan 2011-2026 (Adopted June 2017) provides the following planning policies of relevance to the Green Infrastructure Statement including:

Policy SP10, Built and Natural Environment (page 52) states that:

"Development proposals must preserve and where appropriate enhance the rich and diverse built and natural environment and heritage of the Vale of Glamorgan including:

1. *The architectural and / or historic qualities of buildings or conservation areas, including locally listed buildings;*
2. *Historic landscapes, parks and gardens;*
3. *Special landscape areas;*
4. *The Glamorgan Heritage Coast;*
5. *Sites designated for their local, national and European nature conservation importance; and*
6. *Important archaeological and geological features."*

Explanatory text within para 5.97 states that "*Policy SP10 emphasises the need to protect the Vale of Glamorgan's natural and built environmental assets and reinforces that sensitive design and choice of location of new development can have a positive effect on the Vale of Glamorgan's built and natural heritage. Similarly, new development will be required to minimise its impact on natural systems, landscapes, species and habitats and, where appropriate, provide opportunities for the creation of new habitats or the sensitive enhancement of existing habitats."*

Policy MG17, Special Landscape Areas (page 84) states that:

"The following areas are designated as special landscape areas:

1. *Castle Upon Alun*
2. *Upper & Lower Thaw Valley*
3. *Ely Valley & ridge slopes*
4. *Nant Llancarfan*
5. *Dyffryn basin & ridge slopes*
6. *Cwrt-yr-Ala basin*

Within the special landscape areas identified above, development proposals will be permitted where it is demonstrated they would cause no unacceptable harm to the important landscape character of the area."

Explanatory text within para 6.119 notes that *"the designation of SLAs is not intended to prevent development but to ensure that where development is acceptable careful consideration is given to the design elements of the proposal such as the siting, orientation, layout and landscaping, to ensure that the special qualities and characteristics for which the SLAs have been designated are protected."*

Para 6.120 goes on to note that *"development proposals within SLAs will be required to fully consider the impact of the proposal on the SLA through the submission of a Landscape and Visual*

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Impact Assessment (LVIA). A LVIA will be required for any development that is likely to have a significant impact upon landscape character, or have a significant visual effect within the wider landscape (by virtue of its size or prominence or degree of impact on the locality) and will be prepared in accordance with the latest Landscape Institute and the Institute of Environmental Management and Assessment guidelines. Where applicable, this should form a key element of a planning application's design and access statement and should demonstrate that the proposal has been designed to remove or reduce any unacceptable impacts on the qualities for which the SLA has been designated. Any cumulative impacts that the proposal may have in relation to existing or planned proposals in the locality should also be considered. This is particularly the case for wind turbines or large structures and large-scale proposals such as solar farms. The level of detail required in each landscape impact assessment should be commensurate with the scale of the proposal."

Policy MD1, Location of New Development (page 99) provides guidance on development sites which are not allocated in the Local Plan, stating that:

"New development on unallocated sites should:

1. Have no unacceptable impact on the countryside;

2. Reinforce the role and function of the key settlement of Barry, the service centre settlements, primary settlements or minor rural settlements as key providers of commercial, community and healthcare facilities;

3. Where appropriate promote new enterprises, tourism, leisure and community facilities in the Vale of Glamorgan;

4. In the case of residential development, support the delivery of affordable housing in areas of identified need;

5. Have access to or promote the use of sustainable modes of transport;

6. Benefit from existing infrastructure provision or where necessary make provision for new infrastructure without any unacceptable effect on the natural or built environment;

7. Where possible promote sustainable construction and make beneficial use of previously developed land and buildings;

8. Provide a positive context for the management of the water environment by avoiding areas of flood risk in accordance with the sequential approach set out in national policy and safeguard water resources; and

9. Have no unacceptable impact on the best and most versatile agricultural land."

Policy MD2, Design of New Development (page 100) provides guidance on design stating that:

"In order to create high quality, healthy, sustainable and locally distinct places development proposals should:

1. Be of a high standard of design that positively contributes to the context and character of the surrounding natural and built environment and protects existing features of townscape or landscape interest;

2. Respond appropriately to the local context and character of neighbouring buildings and uses in terms of use, type, form, scale, mix, and density;

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3. Where appropriate, provide new or enhanced areas of public realm particularly in key locations such as town centres, major routes and junctions;

4. Promote the creation of healthy and active environments and reduce the opportunity for crime and anti-social behaviour. In the case of retail centres, developments should provide active street frontages to create attractive and safe urban environments;

5. Provide a safe and accessible environment for all users, giving priority to pedestrians, cyclists and public transport users;

6. Have no unacceptable impact on highway safety nor cause or exacerbate existing traffic congestion to an unacceptable degree;

7. Where appropriate, conserve and enhance the quality of, and access to, existing open spaces and community facilities;

8. Safeguard existing public and residential amenity, particularly with regard to privacy, overlooking, security, noise and disturbance;

9. Provide public open space, private amenity space and car parking in accordance with the council's standards;

10. Incorporate sensitive landscaping, including the retention and enhancement where appropriate of existing landscape features and biodiversity interests;

11. Provide adequate facilities and space for the collection, composting and recycling of waste materials and explore opportunities to incorporate re-used or recyclable materials or products into new buildings or structures; and

12. Mitigate the causes of climate change by minimising carbon and other greenhouse gas emissions associated with their design, construction, use and eventual demolition, and include features that provide effective adaptation to, and resilience against, the current and predicted future effects of climate change."

The following VoGC Supplementary Planning Guidance (SPG's) documents are also of relevance to this Green Infrastructure Statement:

- Biodiversity and Development SPG (April 2018)
- Design in the Landscape SPG (1996 – 2011)
- Renewable Energy SPG (March 2019)
- Trees, Woodlands, Hedgerows and Development SPG (Updated January 2025)

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4.0 Demonstrating the Step Wise Approach

PPW12 para 6.2.12 states that the Green Infrastructure Statement must be used for demonstrating how the step-wise approach (see Figure 12 above) has been applied. The key aspects of the step-wise approach and measures proposed are summarised in Table 1 below.

Table 1, Application of the step-wise approach

Assessing Impacts on Habitats and Species through the Step-wise Approach	**Measures Proposed**
Step 1, Avoid	Sensitive siting of the BESS, high voltage substation compounds and cable route to avoid impacts upon: • Statutory International and Nationally Designated Sites such as Word Heritage Sites, National Parks, National Landscapes (AONB), Site of Special Scientific Interest (SSSI), Special Protection Areas (SPA's), RAMSAR sites, etc; • European protected species; • Priority and irreplaceable habitats. The BESS and high voltage transformer compounds are located within the southern field to avoid the requirement for significant ground-engineering and re-contouring of the Site. The construction access and cable route would be aligned and 'micro-sited' to avoid important hedgerows and trees as far as possible.
Step 2, Minimise	LVIA, EcIA, LEMP and other technical assessments have informed the siting and design of the BESS, high voltage transformer compound and cable route to minimise the environmental impacts. The BESS and high voltage transformer compounds are located on the southern, flatter area of the site to minimise the visual impacts on key receptors within the SLA to north and to appear aligned with existing industrial land uses within the Aberthaw Cement Works to the west and Aberthaw Quarry to the south.
Step 3, Mitigate / Restore	Minor habitat loss required to facilitate development within the Site will be

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	mitigated for through reinstatement and/or enhancements to habitats including native broadleaf woodland, hedgerows, scrub mosaic, neutral grassland, ponds and marginal planting. Visual impacts would be mitigated through provision of additional woodland, treebelts, hedgerow reinforcements to reduce the effects from the B4265 highway to the north, quarry haul road to the east, Castle Road to the south, and Fontygary Road to the west.
Step 4, Compensate Onsite	Minor habitat loss of habitat would be compensated through new or replacement habitats within the Site including native broadleaf woodland, hedgerows, scrub mosaic, neutral grassland, ponds and marginal planting. Hibernaculum (log piles) would be provided at key locations within the Site to enhance biodiversity for birds, mammals, reptiles, etc. Bird and bat boxes would be provide at key locations within the existing hedgerows and woodlands.
Step 4, Compensate Offsite	No offsite compensatory measures are proposed.
Step 5, Long Term Management Plan and Additional Measures	Implementation of a LEMP will ensure the appropriate management and maintenance of all retained and newly created habitats/features proposed over the lifetime of the development. The LEMP will include the need for monitoring of habitats including management of natural colonisation, succession and scrub encroachment.

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5.0 DECCA Framework

The DECCA Framework sets out the approach to net environmental benefit an ecosystem resilience through five key attributes summarised in Table 2 below:

Table 2, DECCA Framework

DECCA Framework Ecosystem Resilience Criteria	**Design Attributes / Measures Proposed**
Diversity – *the variety of species and habitats in an ecosystem.*	The Proposed Development has sought to avoid or if it cannot be avoided, minimise or compensate all impacts relating to biodiversity identified within the EcIA. Embedded mitigation and enhancement measures will seek to create a diverse range of habitats through management and long-term restoration of retained habitats as detailed within the LEMP.
Extent – *the size of an ecosystem and the amount of semi-natural habitat it contains.*	The Proposed Development has sought to reduce the extent of ecological impacts through avoidance of physical features and existing habitats. The BESS and high voltage substation compounds are positioned in the southern field of the Site which is within arable farmland of limited ecological value. Habitat restoration and long-term management of the Site through the outline LEMP will increase ecosystem resilience.
Condition – *the health of an ecosystem, including its structure and functioning.*	The Proposed Development has sought to enhance the condition of habitats through the long term management and monitoring AS outlined within the LEMP. The embedded mitigation would enhance the condition, structure and function of retained and proposed habitats within the Site.
Connectivity – *the links between and within ecosystems.*	The Proposed Development has sought to enhance habitat connectivity. This would be achieved through the creation of new habitat corridors including native woodland, tree belts, scrub mosaic, neutral grassland, ponds and marginal planting. Embedded mitigation and enhancement measures include scrub mosaic vegetation within the Site would connectivity and a 'steeping stone' to priority habitats within restored areas of the quarry tip to the south to enhance biodiversity.

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Adaptation – *how well an ecosystem can change and adapt to environmental and economic changes*	Minor habitat loss is required to facilitate development within the Site and will be mitigated through reinstatement and/or enhancements to existing and proposed habitats including native broadleaf woodland, hedgerows, scrub mosaic, neutral grassland, ponds and marginal planting. Adaption of these new habitats as monitored through the LEMP would enhance ecosystem resilience in the long term.

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6.0 Building with Nature (BwN) Standards Framework

PPW12 required the submission of proportionate Green Infrastructure Statement with all planning applications and refers to the BwN Standards Framework[2] as guidance for best practice. BwN provides an evidence-base framework of 12 quality standards that provides a UK wide benchmark for high quality green infrastructure.

Application of the BwN Standards helps to create resilient, healthy places where wildlife thrives, where people want to live, and which responds positively to a changing climate. The assessment of the Proposed Development through the BwN Standards Framework offers a means of recognising and valuing the proposed GI as outlined in Table 3 below.

Table 3, BwN Standards Framework

BwN Standards	**Design Attributes / Measures Proposed**
Standard 1, Optimises Multifunctionality and Connectivity – *the green infrastructure optimises multifunctionality and connectivity within the boundary of the project and links with the existing and planned for green infrastructure in the surrounding area.*	The Proposed Development would: • Retain boundary hedgerows and woodland as far as possible to enhance visual screening. • Reinstate a partly defunct hedgerow between the northern and southern field to enhance the perceived sense of separation and compartmentalisation. • Retain and partly divert public right of way (PRoW P4/5/1) crossing diagonally through the Site. • Provide of new habitats including native broadleaf woodland, hedgerows, scrub mosaic, neutral grassland, ponds and marginal planting. • Create new habitat corridors and 'ecotones' between the BESS and the high voltage substation compounds and the existing boundary vegetation. • Provide scrub mosaic vegetation within the Site replicate to provide a 'steeping stone' and connectivity with priority habitats to the south.
Standard 2, Positively Responds to the Climate Emergency – *the green infrastructure is designed to be climate resilient by incorporating mitigation and adaptations that respond to the impacts of climate change. The green infrastructure is designed to promote low*	The Proposed Development would: • Provide new areas of native broadleaf woodland, hedgerows, scrub mosaic, neutral grassland, ponds and marginal planting to contribute to carbon sequestration and mitigating the effects of climate change.

[2] https://www.buildingwithnature.org.uk/standards-form

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carbon behaviours and contributes to achieving zero carbon development by optimising carbon sequestration and demonstrating low carbon approaches to design, construction and long-term maintenance.	
Standard 3, Maximises Environmental Net Gains – *the green infrastructure is designed to actively mitigate any unavoidable harmful environmental impacts of development on soil and air quality and to minimise light and noise pollution. In addition, it delivers environmental net gains, including improving air and water quality and wherever possible includes quiet spaces for people and wildlife.*	The Proposed Development would: • Provide environmental net gains in terms of new habitats including native broadleaf woodland, hedgerows, scrub mosaic, neutral grassland, ponds and marginal planting. • Provide enhanced opportunities for access and recreation including the existing public footpath (PRoW P4/5/1) and the provision of permissive footpaths to enhance the accessibility and recreational value of the Site.
Standard 4, Champions a Context Driven Approach – *the green infrastructure positively responds to the local context, including the physical environment, such as landscape and urban character and social, economic and environmental priorities, including the evidenced needs and strengths of existing and future local communities.*	The Proposed Development is: • Positioned within the southern field within the visual context of existing industrial land uses within the Aberthaw Cement Works to the west and Aberthaw Quarry to the south. • Located within the southern field which is flatter to reduce the requirement for ground engineering and landform remodelling.
Standard 5, Creates Distinctive Places – *the green infrastructure is integral to the project and is designed to reinforce local distinctiveness and / or create a distinctive sense of place.*	The Proposed Development would: • Appear continuous with character and appearance of the existing industrial land uses to the south and west of the Site.
Standard 6, Secures Effective Place-keeping – *the green infrastructure is subject to management arrangements that demonstrate a commitment to effectively implement, establish and maintain features at all stages of the development process. This should include details of funding, governance, maintenance, monitoring, remediation and, where appropriate, community involvement and stewardship.*	The Proposed Development would: • Secure the long term management and monitoring of the embedded mitigation through the LEMP and appropriate planning conditions.

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Standard 7, Brings Nature Closer to People – *the green infrastructure is close to where people live, work, learn, play and / or visit and is designed to optimise use and enjoyment for everyone across the year, to maximise health and wellbeing outcomes and to promote active living for existing and future communities.*	The Proposed Development would: • Retain and enhance the existing public footpath (PRoW P4/5/1) crossing diagonally through the Site from the north-west to south-east. • Provide a new permissive path through neutral grassland and scrub mosaic to maximise health and wellbeing outcomes.
Standard 8, Supports Equitable and Inclusive Places – *the green infrastructure is designed to encourage and enable everyone, including those from vulnerable or excluded groups, to use and enjoy it, help reduce health inequalities and to build a shared sense of community and belonging.*	The Proposed Development would: • Support equitable and inclusive places through enhancement to the accessibility and recreational value of the Site. • Additional woodland planting provides health benefits in terms of shading and assisting with air cooling and particulate removal in the surroundings of the Aberthaw Cement Works and quarry.
Standard 9, Delivers Climate Resilient Water Management – *the green infrastructure is integral to sustainable drainage using above ground features to manage flood risk, maintain the natural water cycle and improve water quality within the boundary of the project and at a catchment scale. The green infrastructure is designed to be drought resistant and wherever possible, includes measures for the retention and the reuse of rainwater.*	The Proposed Development would: • Create ponds within the northern field and a drainage basin in the southern field to the west of the BESS and high voltage substation compounds as part of the drainage strategy to contribute to climate resilient water management.
Standard 10, Brings Water Closer to People – *the green infrastructure is designed to integrate water, including areas of standing water, flowing water, seasonal and ephemeral features, to bring additional amenity and wildlife benefits.*	The Proposed Development would: • Create a pond within the southern field to the west of the BESS and high voltage substation compounds as part of the drainage strategy. • Create ponds in the northern field at the lowest point within the Site. • Due to site security, it would not be appropriate to permit public access around the ponds.
Standard 11, Delivers Wildlife Enhancement – *the green infrastructure optimises long term and climate resilient net benefits for nature,*	The Proposed Development would: • Provide new habitats including native broadleaf woodland, hedgerows, scrub

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by retaining and enhancing existing ecological assets and creating locally relevant new habitats within the boundary of the project. Wildlife measures are secured at all stages of implementation and where applicable, across multiple phases of development.	mosaic, neutral grassland, ponds and marginal planting. • Create new habitat corridors and 'ecotones' between the Site and existing boundary vegetation. • Provide hibernacula (log piles) at key locations within the Site to enhance biodiversity for birds, mammals, reptiles, etc. • Provide bird, bat and dormouse boxes at key locations within the existing hedgerows and woodlands.
Standard 12, Underpins Nature's Recovery – *the green infrastructure creates effective links with existing and planned for ecological features and networks beyond the boundary of the project to support the creation and restoration of resilient ecological networks in the wider landscape.*	The Proposed Development would: • Provide scrub mosaic vegetation beneath the pylons and overhead lines within the Site to provide a 'steeping stone' and connectivity to priority habitats to the south of the Site.

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7.0 Summary and Conclusions

This statement outlines the design approaches and embedded mitigation measures to demonstrate how the Proposed Development has responded to existing and proposed green infrastructure assets. The accompanying Planning, Design and Access Statement (PDAS), Landscape and Visual Impact Assessment (LVIA) and Ecological Impact Assessment (EcIA) further describes how the site context has informed the siting and design of the Proposed Development as well as the embedded mitigation which would be secured through the Landscape and Ecological Management Plan (LEMP) and appropriate planning conditions.

In particular, the proposed BESS and high voltage substation compounds have been sited within the southern field to appear in the visual context of the Aberthaw Cement Works to the west and to reduce the requirement for ground engineering and landform remodelling within the flatter area of the Site. The location of the BESS and high voltage substation compounds aligned with the Aberthaw Cement Works is intended to reduce the extent of landscape and visual impacts on the non-statutory Nant Llancarfan Special Landscape Area (SLA) covering the Site and wider landscape to the north of the B4265 highway.

The construction stages will result in the minor loss of landscape features and habitats within the development footprint of the BESS, high voltage substation compounds and haul road although this would primarily include the arable farmland within the southern field of limited ecological value. The majority of hedgerows and woodlands on the Site boundaries would be retained and enhanced to provide visual screening from the B4265 highway to the north, the quarry haul road to the east, Castle Road to the south, and Fontygary Road to the west. The partly defunct hedgerow between the northern and southern fields would be reinstated to enhance the perceived sense of separation and compartmentalisation within the Site. The proposed cable route would be laid in a narrow trench within the highway verge and would avoid the rooting areas of existing trees and hedgerows as far as possible.

The Proposed Development would provide new habitats to connect into existing habitats in the wider landscape including native broadleaf woodland, hedgerows, scrub mosaic, neutral grassland, ponds and marginal planting as shown on the Landscape Plan (LDA dwg 8919_100). These habitats are intended to provide 'ecotones' or a gradation of new habitats across the Site including linkages with offsite woodland and treebelts along the Site boundaries for ecosystem resilience. The scrub mosaic vegetation is intended to provide connectivity and a 'stepping stone' with priority habitats in the adjoining quarry tips to the south of the Site. The Proposed Development would include hibernacula (log piles) as additional habit for birds, mammals, reptiles, etc. Bird, bat and dormouse boxes would also be provided key locations within the existing hedgerows and woodlands to enhance biodiversity.

The Proposed Development would enhance the accessibility and recreational value of the Site through the retention, partial diversion and upgrade of the existing public footpath (PRoW P4/5/1) crossing diagonally through the Site from north-west to south-east between Fontygary Road and Castle Road. The footpath stiles would be replaced or made good. In addition, the scheme also includes a new permissive footpath within the northern field to link into public footpath (PRoW P4/5/1) for enhanced recreation, health and wellbeing outcomes.

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As set out within Section 4.0, the step-wise approach has been used to ensure that loss of habitat is avoided and minimised and any potential impacts on protected species and priority habitats are appropriately mitigated, where necessary. The proposed mitigation and enhancement measures will be secured through the LEMP and appropriate planning conditions.

As set out within Section 5.0 and 6.0, the iterative design and assessment process undertaken as part of the LVIA and EcIA ensures that the Proposed Development will avoid, minimise, mitigate and compensate for the identified environmental impacts as far as possible. The Proposed Development also supports a number of positive outcomes with regards to delivery of green infrastructure in support of the BwN Standards Framework and the policy requirements of PPW12, Section 6.2.

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