Great Harmeston Solar Farm

Design and Access Statement

Development of National Significance
Pre-Application Consultation

March 2026

Document:			Type of document:	
Responsible for the document:	Arise:	Approved by:	Date approved:	Page:

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1. INTRODUCTION

1.1. Pegasus Group has been appointed by ASUK HoldCo 4 Ltd (herein referred to as "the applicant") to prepare a Design and Access Statement for a renewable energy scheme comprising ground mounted solar arrays and associated works on land to the south of Johnston and 1km to the north of Steynton, Milford Haven, Pembrokeshire ("the application site"). The proposed development is called Great Harmeston Solar Farm. A site location plan is provided at **Appendix 1**.

1.2. By virtue of its potential generating capacity, which stands at up to 65MWac [Megawatts], the proposed development constitutes a Development of National Significance ("DNS"). Therefore, instead of applying to the Local Planning Authority, Pembrokeshire County Council, for Planning Permission, the application will be made to the Planning and Environment Decision Wales (PEDW). The application process is managed by PEDW on behalf of the Welsh Minister.

1.3. This draft Design and Access Statement is being published to accompany the pre-application consultation.

1.4. The statutory requirement for a Design and Access Statement to accompany an application for a DNS is set out in article 14 of the Developments of National Significance (Procedure) (Wales) Order 2016. This document has been prepared in line with the Planning (Wales) Act 2015 and the Design and Access Statements in Wales: Why, What and How (Welsh Government 2017). These documents set out the requirements regarding the contents of a Design and Access Statement and reflect the objectives of good design as championed by Future Wales, Planning Policy Wales (PPW), and Technical Advice Note 12: Design (TAN 12).

1.5. This draft Design and Access Statement should be read in conjunction with the other draft documents that support the pre-application consultation. Notwithstanding the above, this Design and Access Statement is designed to be read as a standalone document if required.

2. REGULATORY BACKGROUND

2.1. By virtue of its potential generating capacity, which stands at up to circa 65MWac [Megawatts], the proposed development constitutes a Development of National Significance ("DNS"). Therefore, instead of applying to the Local Planning Authority for Planning Permission, the application will be made to PEDW. The application process is managed by PEDW on behalf of the Welsh Ministers.

2.2. The process for applying for a Development of National Significance is set out by the Development of National Significance (Procedure) (Wales) Order 2016 and subsequent Regulations.

2.3. The DNS application process is managed by PEDW on behalf of the Welsh Government. Decisions are made in the context of the Welsh Government's national planning policy, for renewable energy development this specifically includes Policies 17 and 18 of Future Wales: The National Plan 2040 and Planning Policy Wales (Edition 11) (February 2021). In the context of the proposed development and given its location the relevant polices of the Pembrokeshire Local Plan will also be a material consideration. These policies are described in detail in the Planning Statement.

2.4. The purpose of the DNS process is to ensure timely decisions are made on development proposals that are of the greatest significance to Wales because of their potential benefits and impacts. Prior to submitting the application to PEDW, the applicant must publicise and consult on the proposed application for a period of at least six weeks.

2.5. Following the statutory pre-application consultation, the application would then be finalised and submitted to PEDW for consideration by an appointed Planning Inspector. The appointed Inspector will then consider evidence from the applicant, local communities, the local planning authority and other statutory consultees and interested parties, submitted both in writing and at targeted hearing or inquiry sessions, which are held in public. Following their consideration of the evidence, the Inspector will write a report to the Welsh Ministers, setting out their conclusions and making a recommendation as to whether or not the application should be granted planning permission. The Welsh Minister will then decide the application.

3. SITE ASSESSMENT

3.1. The Site is located on land near Great Harmeston Buildings, Pembrokeshire and has an area of approximately 128 hectares ("ha"), incorporating cable routes.

3.2. The Site is located entirely within the administrative boundary of Pembrokeshire County Council (PCC), on land near Great Harmeston Buildings, Pembrokeshire, SA62 3HM. The village of Johnston lies immediately north, village of Steynton (1.1km) south and Milford Haven (2.9km) south of the Site. The Site comprises of fields predominantly for arable use, bound by a mixture of mature woodland, trees, hedgerows, fencing, tracks, road and a railway line.

3.3. The Site is segregated by two 'A' roads and a railway line, a number of land parcels are located to the west of the A4076 Milford Road, with further land located between the A4076 and A477 (which is bisected by the Transport for Wales (TfW) railway line), and additional fields located on land to the west of the A477 (also bisected by the TfW railway line). There are 11 access points (Access A to K) to the land parcels within the Site, of which 10 are existing accesses. These separate access points are owing to the presence of the TfW railway line.

3.4. The A4076 Milford Road routes between Haverfordwest and the A40 in the north and Milford Haven in the south. It is a trunk road maintained by Welsh Government / Traffic Wales. In the vicinity of the site, it forms the northern and southern arm of the 'Sunnycroft' roundabout at the site's northern boundary. The A447 routes between the A40 at St Clears to the west and the 'Sunnycroft' Roundabout to the west. It forms the eastern arm of the 'Sunnycroft' roundabout and bisects the eastern parcel of the site.

3.5. The surrounding landscape is a mixed rural and urbanising setting, within the immediate area agricultural fields are interspersed with pockets of urban features. This includes the village of Johnston to the north of the Site, the local road network (A4076 Milford Road and A477). A Solar Farm is located south of Tiers Cross, 0.5km west of the Site. The adjoining area to the Site primarily consists of non-built-up land and agricultural land. The Site is surrounded by multiple unused artificial landscapes and industrial/manufacturing units located to the southeast and east. Residential buildings are located to the southeast, east, south, and northeast. Nearby, the Johnston Community Primary School is 0.94 km to the east, and Milford Haven School is 1.72 km to the south.

3.6. The Site will be served from the A4076 Milford Road to the north via Haverfordwest for construction, operation and decommissioning purposes which has onward connections to the A40/A48 and M4. There are a number of separate access points into the Site owing to the land parcels being segregated by the A4076 and A477.

Landscape

3.7. The Site does not fall within any statutory landscape designations and is not within the Green Belt. The Site forms part of the undulating landform and generally gently slopes from the north / north east around Johnston at c. 75 m AOD descending into a

narrow and wooded valley near Great Harmeston and Hayston Bridge / Lower Hayston reaching c. 30 m - 40 m along its southern edge. The eastern part of the Site slopes east descending to c. 60 m AOD along its eastern edge.

3.8. The field enclosures within the Site are medium scale delineated by well maintained hedgerows with occasional gaps and low trimmed sections. Woodland is prevalent in narrow incise valleys that mark the Site's western part and its southern edge. This woodland forms a continuous line of vegetation extending from the north western edge of the Site, across its western part and then runs along its southern edge, and then continuing south east past Rosemarket towards the valley of Westfield Pill.

3.9. There are no public rights of Way (PRoWs) within the Site except for Public Footpath PP81/1, which lies adjacent to the southern-eastern parcel of the Site and comes inside the Site boundary for a very small section along its route.

3.10. Pembrokeshire Coast National Park is located approximately 4km east and west of the Site at its nearest points. The park encompasses a diverse coastal landscape, including dramatic cliffs, sandy beaches, and the Milford Haven waterway. The theoretical visibility of the Proposed Development (bare earth) extends towards Robeston Cross on the outskirts of the oil refinery but does not breach the boundary of the National Park within the preliminary study area. The eastern areas of the National Park are more distant with theoretical visibility largely terminating on the higher ground around Rosemarket and not breaching this part of the National Park either.

3.11. The Site falls into Pembrokeshire County Landscape Character Assessment Landscape Character Area (LCA) 9: Johnston Lowlands. The LCA is located in central Pembrokeshire south of Haverfordwest, north of Milford Haven and west of the Western Cleddau and Daugleddau where it extends to the National Park Boundary.

3.12. The LCA is a rolling plateau landscape of gentle hills and wooded valleys. Farmland is dominated by high quality pastoral agriculture with hedgebanks and some arable, rough grassland and woodland blocks. The area is interspersed with scattered village settlements and farmsteads some of which have a strong historic character such as Rosemarket or Llangwm linked by quiet rural lanes. Busy A roads run north south, the A4076 and A477, between Haverfordwest to the north and Milford Haven and Pembroke Dock to the south.

3.13. Johnston is the largest settlement and hosts both commercial and industrial/business uses. The area to the east is more tranquil and rural in character closer to the Western Cleddau, Daugleddau and the National Park. Views south to the Haven are dominated by refineries and wind turbines and pylons in places and solar farms lie to the south west.

Cultural Heritage

3.14. The Site is not located within any statutory and / or non-statutory designated sites for cultural heritage or archaeology. The Site is not within or adjacent to a Conservation Area. A Scheduled Monument of a prehistoric burnt mound lies adjacent to the northern boundary of the site - Heneb ref. 3347.

3.15. One non-designated historic asset is located within the site: a linear earthwork in the south-eastern part of the site, which the Historic Environment Record (HER) states has been used recently as a farm track but may have its origins in a prehistoric defensive boundary feature - Heneb ref. 33149.

3.16. A high-level review of Heneb (Dyfed Archaeological Trust) HER of non-designated historic assets within a 1km radius of the site has been carried out. The vast majority of assets recorded by the HER within the study area are of post-medieval date and comprise buildings and features recorded on the First and Second Edition Ordnance Survey maps of 1871 and 1908 respectively. From the initial review of currently available information, no overriding archaeological constraints to the proposed development have been identified.

3.17. No designated historic assets are recorded within the site, but some designated heritage assets are recorded close to the site's boundaries and include: There is 1 Scheduled Monument within a 1km radius of the site: Burnt Mound 170m S of Jubilee Cottages - Cadw ref. PE476. Its southern boundary abuts the northern boundary of the north-western part of the site.

3.18. There is 1 Registered Historic Park and Garden within a 1km radius of the site: the Grade II Great Harmeston - Cadw ref. PGW(Dy)19(PEM).

3.19. There are 10 Listed Buildings within a 1km radius of the site, as follows:

- Grade II Listed Upper Harmeston, within the area excluded from the site boundary in the north - Cadw ref. 82698;
- Grade II Listed (two separate Listings) Hayston Bridge, c.50m south of the south-eastern part of the site - Cadw refs. 82524, 83218;
- Grade II Listed Hayston Hall, Lofted Outbuilding at Hayston Hall, and Courtyard of Outbuildings at Hayston Hall, c.220m, c.250m and c.270m south of the southern cable route of the site - Cadw refs. 83215, 83216, 83217;
- Grade II Listed Great Harmeston and Long Agricultural Range to W of Great Harmeston House, including Cartsheds and Food Processing Store, c.90m and c.100m south of the southern boundary of the site - Cadw refs. 13052, 13053;
- Grade II Listed Milepost near Redstock Bridge, c.160m south of the south-western part of the site - Cadw ref. 82696; and
- Grade II* Listed Church of St Peter at Johnston, c.530m north of the northern boundary of the site - Cadw ref. 11996.

The Outstanding Registered Historic Landscape of Milford Haven Waterway covers an area of 204 square kilometres; a very small part of it extends into the southern part of the study area, to within c.35m of the south-western part of the site.

Ecology and Biodiversity

3.20. There are no statutory or non-statutory sites designated for nature conservation located within the Site or adjacent to it.

3.21. The closest statutory nature conservation designations within 3km of the Site include:

- Scoveston Fort SSSI (circa 2.3km south east)
- Milford Haven Waterway SSSI (circa 3km south east of the Site)
- Pembrokeshire Marine Special Area of Conservation (SAC) (circa 3km south east of the Site).

3.22. The Site predominantly comprises a mix of arable land, improved grassland (cattle grazed) and sileage production bounded by species poor (blackthorn and hawthorn dominated) hedgerows and hedgerow and trees. There are a number of ponds, ditches and waterways primarily around the site boundary as well as some woodland blocks.

3.23. There are no areas of Ancient Woodland within the Site, but discrete pockets of Ancient Woodland are dispersed in the wider area.

3.24. Foraging habitats such as hedgerows, field margins and grassland are present across the Site, and badgers are therefore considered likely to use the area for commuting and foraging.

Air Quality

3.25. The Site does not lie within an Air Quality Management Area (AQMA) and is not adjacent or within close proximity to any other AQMA.

Ground Conditions and Agricultural Land

3.26. The Site is not known to have any contaminated land although there is a historic landfill named Hayston covering a small proportion of the southeast area of the Site A.

3.27. The majority of the geology at the Site is underlain by the Rosemarket Formation of the Silurian period, consisting of interbedded sandstone and argillaceous rocks.

3.28. The hydrogeology consists of solid geology beneath the Site designated as a Secondary B Aquifer (Rosemarket Formation) and a Secondary Aquifer (Milford Haven Group). The Site is not within a Source Protection Zone, however, is within an area identified as 'high' for groundwater vulnerability.

3.29. An Agricultural Land Classification survey (ALC) has been carried out for the Application Site and is to be submitted as part of the wider DNS application. The ALC is verified by Land Quality Assessment Service (LQAS) confirming the Site consists of a mix of Grades 2, 3a, 3b, 4 and non-agricultural land although the Site is predominantly low grade (Grade 3b, 4) agricultural land. The ALC

calculations confirm the majority of the development footprint within the Site consists of Grade 3b and Grade 4 (non Best and Most Versatile (BMV) Land) land which constitutes almost 80% of the Site.

Hydrology

3.30. The Flood Map for Planning Rivers Dataset produced by Natural Resource Wales (NRW) shows that the majority of the Site is located in Flood Zone 1 (lowest risk). There are some small areas along the southern boundaries of the Site which are located within Flood Zone 2 and 3. There is no proposed infrastructure within areas of Flood Zone 2 and 3.

3.31. The Flood Map for Planning Sea dataset (NRW) shows that the entire Site is located in Flood Zone 1 and therefore there is no tidal flood risk on Site.

3.32. The Flood Map for Planning Surface Water and Small Watercourses dataset (NRW) shows that the majority of the Site is in Flood Zone 1. There are some Flood Zone 2 and 3 flow paths located within the Site, however these are mainly associated with existing watercourses on Site.

3.33. There are no Main Rivers located within the Site according to DataMapWales and the closest Main River, known as 'Merlins Brook' is located approximately 1.8km north of the Site. There are several Ordinary Watercourses along the boundaries of the Site and through western portions of the Site.

4. DESIGN PARAMETERS AND DESIGN SOLUTION

The Proposed Development and Design Principles

4.1. The applicant's design aim for the project was to design a cohesive scheme which maximises the potential energy yield available; whilst achieving a layout which relates to and takes into account the surrounding landscape, environmental designations, residential amenity and delivers on green infrastructure requirements.

4.2. The design of the development has developed thorough a multidisciplinary design process guided from the following five sources:-

- the physical opportunities and constraints the application site provides;
- the physical needs (and land take requirements) of the proposed development;
- the policy context which surrounds the proposed development;
- consultative process - technical and design comments provided by statutory and specialist consultees as part of the various informal consultation undertaken by the applicant; and
- advice put forward by the applicant and their multidisciplinary design team.

Design Solution

4.3. The application proposal relates to the construction, operation, maintenance and decommissioning of a ground mounted solar farm. The proposed development will have an operational lifespan of 40 years, after which the proposed development will be decommissioned and the site restored.

4.4. The development proposal can be split into the following key components:

- Solar photovoltaic ("PV") fixed panels mounted on a simple metal framework;
- Associated infrastructure including access tracks, parking, CCTV, gates and fencing, lighting drainage infrastructure, storage containers, earthworks, culverts, surface water management, maintenance and welfare facilities, security cabins and any other works identified as necessary to enable the development;
- On-site 132kV Substation compound;
- Low voltage cabling to connect and transmit electricity from the solar PV modules to the on-site 132kV substation;

- Underground cabling connecting the 132kV on-site substation to the existing overhead 132kV powerline located to the south of the main development site;
- A number of central inverters (inverters and transformers housed together in prefabricated containers) at various locations around the arrays;
- Boundary fencing (e.g. deer fencing) around the edge of the solar farm at a maximum height of 2.4m above original ground level;
- A CCTV system, either pole or fence-mounted, located at strategic points around the site perimeter for security and maintenance reasons, maximum height of 4m;
- Associated internal service tracks;
- Relevant communications (potential communications mast up to 15m) and monitoring equipment in substation area;
- Landscaping and biodiversity enhancements;
- Temporary development during the construction phase including construction compound, parking, and temporary internal access tracks; and
- A number of separate access points into the Site for construction, operation and decommissioning purposes, predominantly utilising existing farm access points.

Development Constraints

4.5. Appropriate design and siting required to take account of:

- Established built form and other physical constraints within the landholdings (including overhead electricity cables, underground utilities pipes and the railway line);
- Established field boundaries, with ditches/watercourses and site-specific ecological sensitivities;
- Proximity to nearby residential receptors;
- Scheduled monument bounding the development site; and
- Features of archaeological interest located within the site.

Development Opportunities

- Land take requirement – the application site is an appropriate size for the development proposal;

- Most points of access to the application site are via existing agricultural accesses;
- Sunlight intensity levels – the site is well located geographically for solar gain and is free of any buildings or landscape features that could cause overshadowing;
- Contribute to the provision of renewables and low carbon energy;
- Contribute towards Welsh energy strategy which seeks to speed up the move from using fossil fuels to renewable energy;
- Rural diversification to the farming enterprises;
- Great Harmeston Solar Farm would make a significant contribution towards Wales' 70% target of electrical consumption from renewables by 2030, which is a relatively short time away;
- It would deliver biodiversity net gain, and this would be managed and maintained during the lifetime of the proposed development;
- Development is time limited and would be decommissioned and removed from site after 40 years of generation to the electricity network;
- As part of the applicant's contribution towards community benefits, the applicant is proposing a legacy community benefit fund and details will be established post the consenting process and prior to construction; and
- Economic benefits would be secured in terms of construction and operational management of the application proposal. The application proposal will provide employment and business opportunities for component suppliers / installers and those involved in grid connection, transport and logistics. Local businesses will be contracted for relevant parts of the scope of works over the period of construction, operation and maintenance, such as landscaping, plant hire, aggregates and security where possible (See employment and skills plan). There will be additional induced impacts during the construction period with any incoming construction workers (engineers, project managers etc) spending their wages at a local level (restaurants, retail stores etc) and using local accommodation.

Design Flexibility

4.6. It is recognised that parts of the proposal's design and construction methodology may be subject to further refinement and optimisation prior to and during construction. This is very pertinent to solar development due to the rapid pace of change in technology. For example, as technology advances, it is possible that solar PV panels could become more efficient, which could result in a potential reduction in total panel area required to deliver the same amount of generation. This in turn could require the micro-siting of panels and the associated equipment and infrastructure to reflect such changes, i.e., the final alignments of cabling and the number and location of panels, substation, inverters and transformers.

Buffer Zones

4.7. A number of buffer zones have been established to protect valuable natural resources, including trees and field margins. The following minimum buffers have been adopted as standard as part of the design of the Proposed Development:

- 10m from ordinary watercourses
- 5m from hedges and trees but further depending on root protection areas (RPA)
- Appropriate distances from residential curtilage
- 30m from badger setts
- For 132 kV lines: minimum 12–15 m horizontal clearance from conductors

Components of the Proposed Development

4.8. The design parameters for each component of the Proposed Development are detailed within the following sections. These have been used to inform the assessment detailed within this ES.

Solar PV panels and framework

4.9. The solar PV panels generate electrical power by converting solar irradiance into direct current (DC) electricity. A solar PV panel consists of a layer of silicon cells, an anodised aluminium frame and various wiring to allow current to flow from the silicon cells. Silicon is a non-metal with conductive properties that allow it to absorb and convert sunlight into electricity. When light interacts with a silicon cell, it causes electrons to be set into motion, which initiates a flow of electric current.

4.10. The solar PV panels will be a maximum of 3m in height above ground level (AGL), on a fixed framework. The minimum height of the lowest part of the solar panels (i.e. not including the mounting structure) will be 0.8m AGL, at a fixed orientation and tilt angle between 10-25°, facing due south. There will be a distance of approximately 3.5m between the solar PV panels of each parallel row, responding to topography.

4.11. For the fixed system, the mounting structure will be supported at intervals by double mounted posts. The posts will be pushed into the ground with a small plant rig, to depths of approximately 1.5m and this will be guided by localised ground conditions. The rest of the mounting frame would then be fitted to the posts to create angled support tables ready for the solar PV panel installation.

4.12. Depending on ground conditions, the posts may be mounted to ballast slabs. If any areas of archaeological interest are identified within the work area, then consideration will be given to the use of non-intrusive installation method, where the posts will be fixed into concrete pads resting on top of the ground. However, there is currently no identified need for this method within the site.

4.13. The solar PV panels would be preconstructed to help minimise on-site construction activity. Land between and beneath the solar PV panels would be used for biodiversity enhancements including dedicated skylark mitigation areas and potential for seasonal sheep grazing for maintenance. Mechanical cutting may also be deployed to manage the grass outside of ecological mitigation enhancement areas. It is proposed to install solar panels across approximately 76.5 ha within the wider site, of which only circa 15.9 ha is of best and most versatile agricultural land.

String Inverters and Inverter Transformer Stations

4.14. String inverters take direct current (DC), as generated by the solar PV panels, and convert it into alternating current (AC) to enable the on-site generated electricity to be transferred to the on-site substation and in turn to the local electricity distribution network. The design of string inverters varies between manufactures, but they are typically approximately 1.1 m wide × 1 m high × 0.5 m deep and attach to the end of panel rows. An approximate 200 string inverters and 90 inverter / transformer stations are anticipated to be spread across the solar PV panelled areas. Due to the continuing advances in solar technology, it is not possible to specify the precise type of inverter at this time, as this will depend on the detailed electrical design and competitive procurement process. However, final details could be controlled through suitably worded planning conditions requiring the final details to be submitted for approval.

Electrical Cabling and Point of Connection

4.15. The solar PV panels will be connected in strings and insulated cabling will be routed in channels fixed on the underside of the mounting frame before being taken below ground. The 33kv electrical cabling from the arrays will be concealed in shallow trenches linking the solar panels to the inverters / transformers and then to the 132kV on-site substation. The dimensions and depth of the trenches would vary depending on the amount of cabling and ground conditions, typically they would be up to 1m in depth and 0.5m wide. The cable trench may also carry earthing and communications cables and will be backfilled with fine sands and excavated materials to the original ground level. Where the solar panels straddle both sides of the existing railway line, two options for the connecting cabling are put forward. Option 'A' is to directional drilling the cable under the railway line. Option 'B' is to lay the cable in an open-cut trench along a section of the A477 and the A477 bridge (or its service duct) which crosses the railway line. It is anticipated that the underground cabling connecting the 132kV on-site substation to the existing overhead 132kV powerline would be laid by open-cut trench. At the point of connection, there may be upgrade works required to the existing pylon to facilitate the connection works.

4.16. The construction process will follow a soil management plan to ensure that the soil structure and quality are not degraded as part of the construction process, a Soil Management Plan is included within the accompanying Outline CEMP (Environmental Statement Technical Appendix 4.1).

4.17. The underground cables will be located in existing gaps in hedgerows wherever feasible, however this assessment assumes the loss of some hedgerows as a worst case.

4.18. It is anticipated that underground cabling would be left in-situ during the decommissioning phase to avoid unnecessary ground disturbance.

Substation Compound

4.19. The design provides for an onsite 132kV substation and compound which is necessary to step up the voltage of the electricity delivered by the solar PV panels from 33kV to 132kV, and connect into the National Grid. The onsite 132kV substation compound would have a footprint area of between approximately 15m^2 and 25m^2 and a below eaves height of 3m.

4.20. The onsite 132kV substation compound would be gated with security fencing, with a 2.4m high palisade fencing. Except for the concrete foundations for the various equipment components, the onsite 132kV substation compound would comprise ground that would be permeable to surface water. Whilst downward facing external lighting will be installed at the onsite 132kV substation compound for emergency work during hours of darkness, the substation will not be continuously lit. The final design for the substation would be subject to agreement with the DNO.

Access Tracks

4.21. Access to the Proposed Development during operation would be required for maintenance. Access to the Proposed Development is proposed through existing access points and one new access as described above. Once accessing the Site, the internal access tracks will connect into the various land parcels.

4.22. The Proposed Development would utilise existing farm track routes, where practicable, with new access tracks approximately 4.5m wide, created as required. The access tracks have been located so they utilise existing field gates between fields to reduce the impact on hedgerows where practicable. Inverter stations will be located off a number of these internal access tracks.

4.23. The access track would be made of permeable, crushed stone and formed by excavating 150mm and laying clean Type 1 aggregates. This in turn, would be laid on a compacted soil base, with a depth of 350 mm.

Operational Phase

4.24. The design life of the proposal is expected to be operational for a maximum of 40 years. During operation, human activity on the Site will be minimal and would be restricted principally to:

- Landscaping and ecological management in accordance with the detailed CEMP and CBMP;
- equipment maintenance and servicing;
- replacement of any components that fail; and
- monitoring to ensure the continued effective operation of the Proposed Development.

4.25. There will be frequent visits made by off-site workers in a small van or similar to ensure that the proposal is maintained properly.

4.26. Operational areas will be surrounded by perimeter fencing with pole-mounted CCTV cameras adjacent to the perimeter fencing for security

Landscape and Biodiversity

4.27. Ecological mitigation and enhancement measures form an integral part of the proposals, including the retention of woodland, hedgerows, ponds and riparian habitats, incorporation of native planting to strengthen habitat connectivity, and the maintenance of dark corridors along hedgerows and the riparian corridor to safeguard bat commuting and foraging routes.

4.28. Green infrastructure features such as habitat buffers, grassland creation areas and wetland enhancements have been located outside higher-value habitats and woodland edges, ensuring that ecological function is maintained while delivering additional biodiversity benefits across the Site. Invasive non-native species will be managed through appropriate mitigation measures to prevent spread and safeguard the integrity of retained habitats and green infrastructure assets. Recorded stands of Japanese knotweed will be subject to a site-specific management strategy, including the establishment of buffer zones, biosecurity controls during construction, and treatment and/or removal by suitably qualified contractors in accordance with best practice guidance and relevant legislation.

4.29. Key measures include:

Features	Description
Habitat creation and tree planting	Creation of areas of new native biodiversity planting, including deep buffers along higher ground and adjacent to Public Rights of Way to the north of the Site, providing landscape screening, enhanced ecological connectivity and increased habitat extent; Native planting to reinforce existing woodland blocks and strengthen the riparian corridor; Occasional large-scale native tree planting along Site boundaries and adjacent to Public Rights of Way to filter views, increase canopy cover and enhance habitat structure; and. Replacement of trees removed as part of the development at a minimum ratio of 3:1, delivering a net gain in tree cover and long-term structural diversity.

Hedgerow restoration and creation	Infill planting of existing hedgerows across the Site at approximately a 30 percent infill rate to address gaps and improve habitat continuity; Extension of existing hedgerows to strengthen ecological connections between woodland blocks, ponds and the riparian corridor; Height management and reinforcement of key hedgerow sections to improve screening while maintaining permeability for wildlife movement; and Creation of new native hedgerows where required to further enhance connectivity and define the Site's green infrastructure network.
Grassland enhancement and creation	Management and enhancement of existing rush pasture to function as a dedicated skylark mitigation area Creation of tussocky grassland and wildflower-rich meadow habitats using appropriate native seed mixes (such as Emorsgate EM10 Tussock Meadow Mix or similar) to increase structural diversity and invertebrate value Establishment of species-rich meadow grassland across lower-value agricultural land using grazing meadow mixes (such as Emorsgate EM2 General Purpose Meadow Mix or similar) to replace and enhance areas of arable and modified grassland Retention and enhancement of areas of neutral grassland alongside new grassland creation to deliver a connected mosaic of open habitats
Riperian corridor enhancement	Strengthening of the riparian corridor through buffering with native woodland and grassland planting Retention and enhancement of natural vegetation along the watercourse to improve habitat quality, connectivity and hydrological function Sensitive integration of crossing points for underground cabling to maintain ecological continuity
Ponds and wet features	Retention of all existing ponds within the Site (with the exception of Pond 1 which has been infilled prior to the updated walkover survey); Protection and enhancement of pond margins through native planting and habitat buffering to improve freshwater habitat networks
Species-specific enhancements	Delivery of skylark mitigation areas through targeted management of rush pasture and tussocky grassland habitats; Maintenance of dark corridors along hedgerows, woodland edges and the riparian corridor to support bat commuting and foraging; and Installation of bird and bat boxes within retained trees and woodland edges to provide additional nesting and roosting opportunities

Decommissioning

4.30. Following a 40 year operational period, the scheme would be decommissioned. The operator will either likely be insured or enter into a bond to guarantee that the scheme is decommissioned at the end of its operational lifespan.

4.31. Depending on the ecological value of the habitats that develop over the lifespan of the scheme, it is possible that certain areas of the site may need to be retained due to their value for wildlife on decommissioning. It cannot reasonably be foreseen what legislative protection will be afforded to particular wildlife species at the end of the scheme's lifespan. Further surveys for protected species which could be impacted by decommissioning would also be expected. No less than 12 months before the 40th anniversary of the first export date, a decommissioning and site restoration scheme would be submitted to the relevant planning authority for approval. The decommissioning strategy would detail how plant and equipment located within the application site would be removed.

5. DESIGN EVOLUTION

5.1. Over the course of the design process, the applicant has continuously refined the design of the proposed development to encompass the Council's and other stakeholders' feedback at numerous junctures. The evolution of the design of the Development since 2024 is shown on Illustrations 5.1 to 5.3. The current layout for the Development is shown on Illustration 5.3

Illustration 5.1 Inception Design – September 2024

5.2. The inception design was established in September 2024 and provided a generation output of approximately 100MW. Battery storage was also proposed as part of the inception design.

Inception Design – Design A

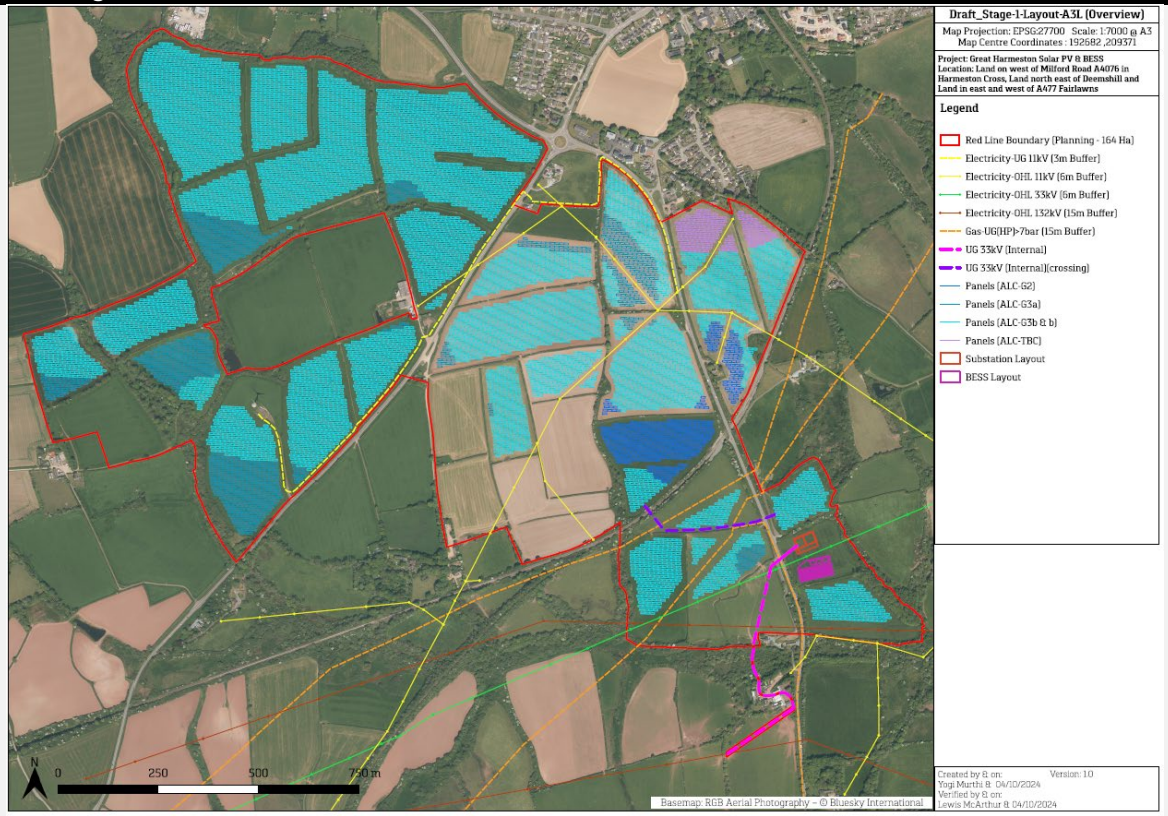


Illustration 5.2 Working Layout – for August 2025 EIA Screening & Scoping Direction Requests

5.3. For the EIA Screening Submisison in August 2025, the Applicant introduces significant changes to the layout which resulted in a revised scheme of circa 65MWac.

5.4. The key changes to the layout include the removal of solar panels occupying Grade 2 agricultural land located to the east of the A477 (the field to the immediate north of the proposed substation compound). The fields fronting the western edge of the A4076 where also removed from the development (these also related to fields containing best and most versatile agricultural land). The solar arrays were also drawn back from the extant wind turbine (located to the west of the A4076).

5.5. Refinement to layout comprising changes to access details, internal access tracks and development buffers.

5.6. This layout was also used for the EIA Scoping Direction request made in December 2025.

Working Layout – Design B

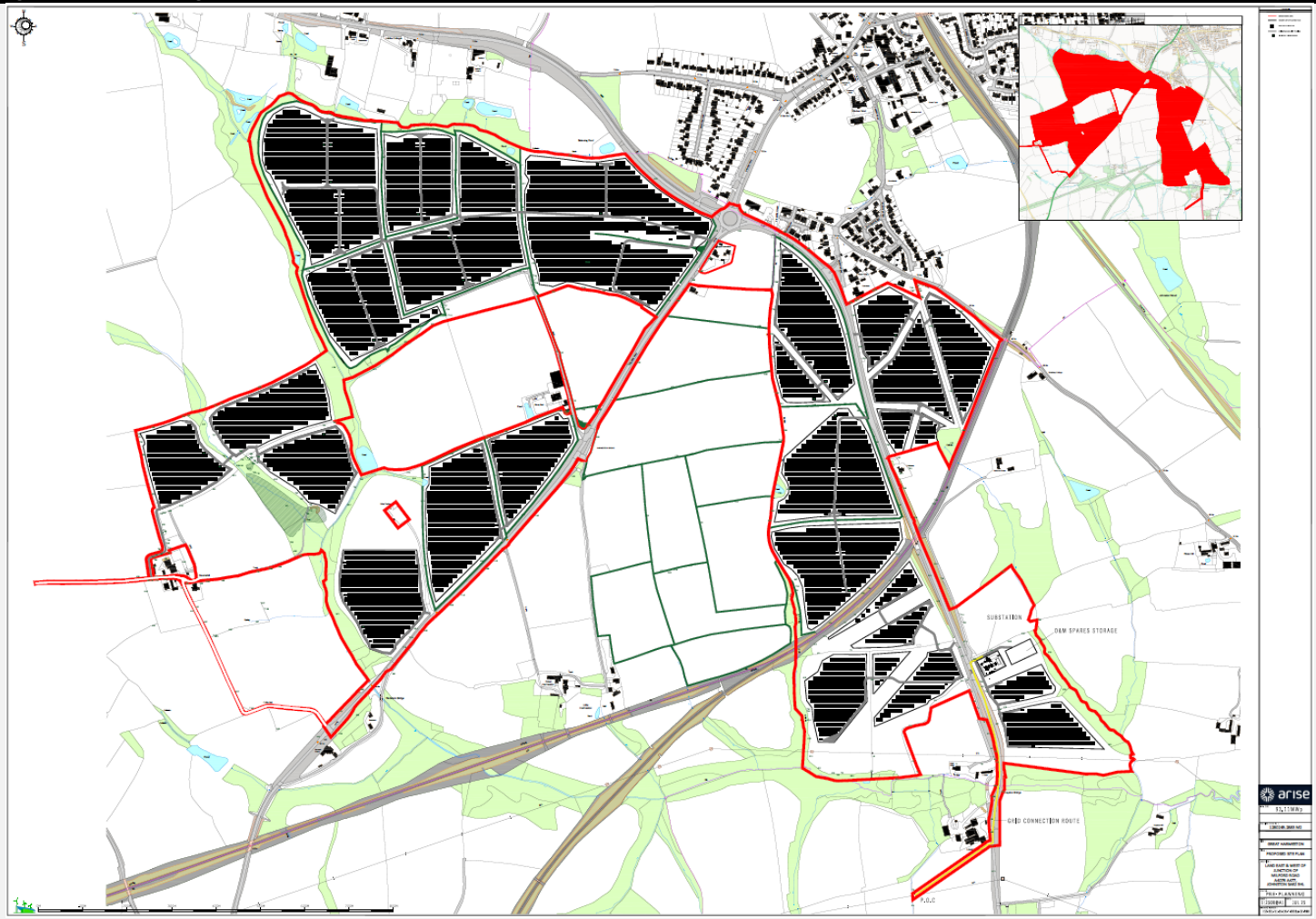
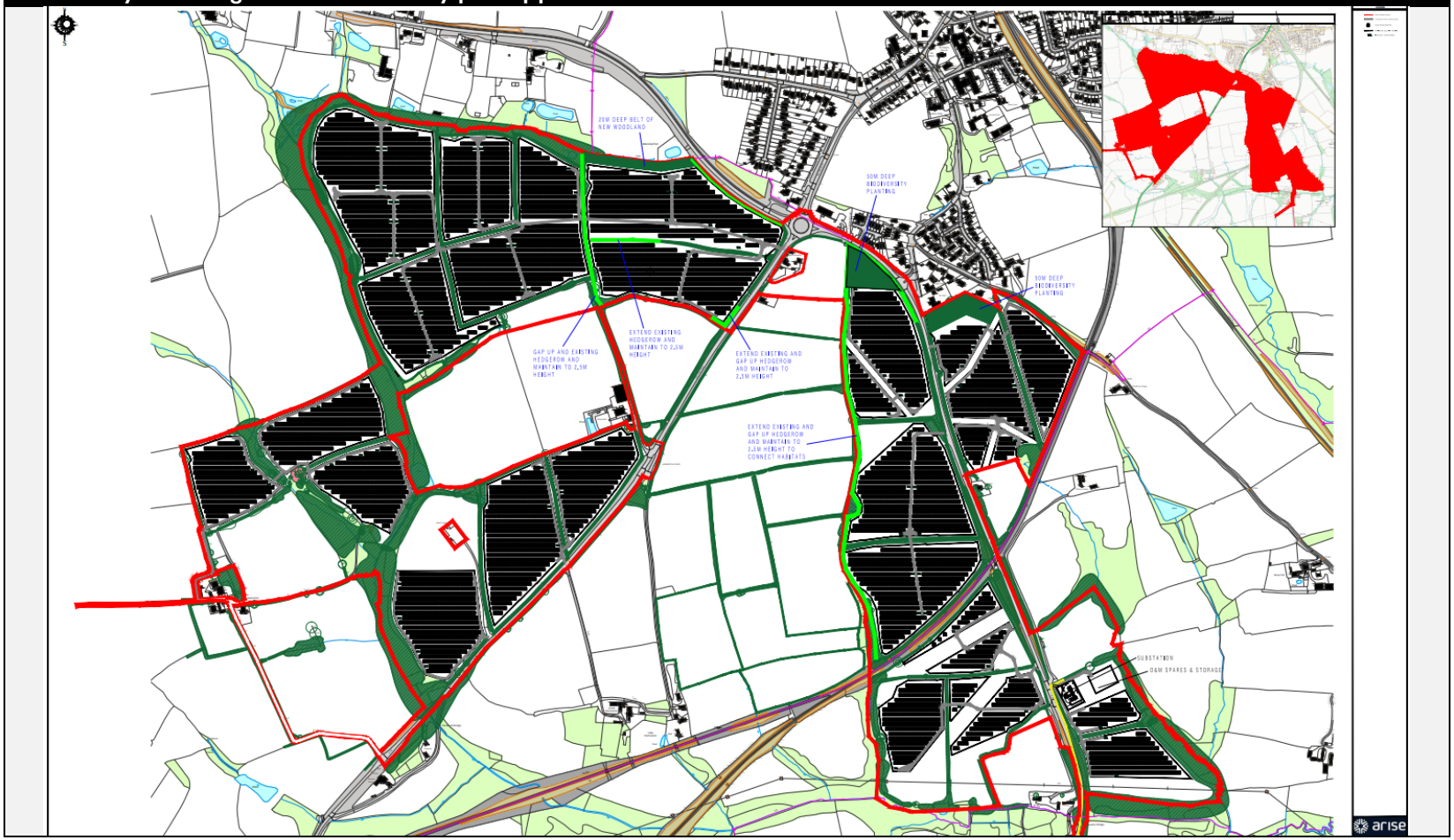


Illustration 5.3 Latest Layout – March 2026 for Statutory Pre-application Consultation

5.7. For the pre-application consultation, the layout was modified to include a development set back from the nearest residential receptors fronting the A477/Hayston View, Hayston Road and Church Road. A refinement was also introduced to the substation compound and its adjacent storage compound area.

Latest Layout Design C – for statutory pre-application consultation



6. CONSTRUCTION

6.1. Details regarding the construction programme and delivery vehicle types are provided below, based on a review of similar sites elsewhere in the UK whilst taking into account the specifics of the application site.

6.2. It is anticipated that the construction phase of the Development would last up to 9 months. The construction of the solar farm element of the Development would include the preparation of the Site, installation of the access tracks, erection of security fencing / CCTV, assembly and erection of the photovoltaic arrays, and the installation of the inverters/transformers and grid connection and underground cables.

Construction Phase

6.3. Construction is expected to take up to 9 months. The location of staff origin points is unknown at this stage, as it will depend on the appointed Contractor. However, it is anticipated that a non-local workforce could stay at local accommodation, for example, in Milford Haven or Haverfordwest, and general operatives could be transported to the site by minibuses to minimise the impact on the local highway network. The number of car trips to the site will be limited to senior staff, such as project managers and the Health and Safety Executive.

6.4. The anticipated HGV movements which could be associated with the construction period are set out in the overleaf.

Activity	Vehicle Type	Total Number of Deliveries	Two-way Movements
Solar modules & mounting structures	Up to 16.5 metre articulated HGV	975	1,950
Substation		10	20
Inverters/Transformers		86	172
Fencing		20	40
Cable delivery		10	20
Foundations/ groundworks		25	50
Construction Compounds		20	40
Access tracks (stone)	10 metre tipper	1,917	3,828
General	Front-end JCB	1	2
Total		**3,064**	**6,128**

6.5. It is estimated that there will be around 14 to 21 deliveries per day by the largest vehicles (i.e. 28 to 42 two-way movements) over an approximate six to nine-month period. There will also be construction workers arriving at the site first thing in the morning and departing in the evening, although the numbers involved are forecast to be relatively low on a day-to-day basis. The level of traffic during the temporary construction phase is not considered to be material and will not have a detrimental impact on the safety or operation of the local or strategic highway network subject to implementation of appropriate HGV management, signage and site housekeeping (by way of wheel washing facilities within the site prior to vehicles exiting and, if required, the deployment of road sweepers along local roads in the vicinity of the site).

6.6. Access to the site during the construction phase is proposed via the existing access points, summarised and one new access point**.** The new access point provides access into the field to the immediate sough of the main development area, which provides the point of connection to the existing overhead wire associated with the routing of the export cable to the existing overhead wire located to the south of the main development site.

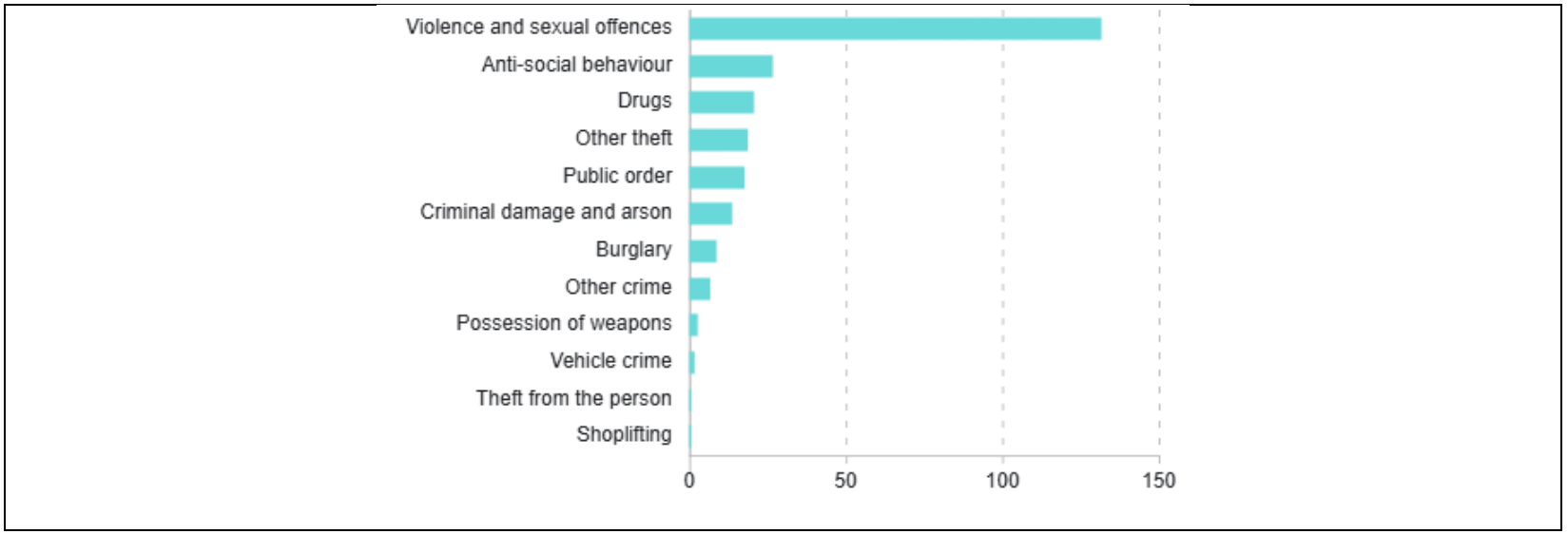
6.7. The access arrangements will be retained where the existing arrangements can accommodate the construction vehicles anticipated to require access to the site, and upgraded where necessary.

7. CRIME AND IMPACT ASSESSMENT

7.1. This section of the Design and Access Statement deals with the issue of crime. The Crime Impact Assessment process involves identifying, evaluating and mitigating the crime and disorder effects of a development proposal early in the design process.

7.2. The goal is to reduce the development's vulnerability to crime by taking into account the analysis of the proposed development context and the crime issues in the area.

7.3. The www.police.uk website provides data on crime levels. For the catchment area of Johnston between 14 to 29 crime incidents have been reported to the Police per month over the last 12 months (February 2025 to January 2026). No crime has been recorded within the demise of the application site over the last 12 months. A breakdown of crime types over the last 12 months is displayed in the table below.



General Risk Assessment

7.4. The typical security issues for a development of this nature are:

- Acts of criminal damage during the construction period;
- Theft of components during the construction phase;

- Criminal damage during operational phase;
- Theft of components during the operational phase;
- Theft of components during site restoration.

Construction Site Risk Assessment

7.5. A secure temporary construction compound will be used to store materials and ancillary welfare facilities during the construction period. Security teams are likely to be detailed to additionally secure the application site.

Design, Layout and Security Requirements

7.6. Taking into account the low level of recorded crime for the locality, the following security measures are considered to be appropriate to combat potential criminal activity and unauthorised access into the arrays:

- A 2.4 m high deer fence will encompass the fields containing the solar panels;
- CCTV cameras raised up to 4m in height with external perimeter intruder detection (PID) will be fitted at appropriate intervals within the fence.

8. CONCLUSIONS

8.1. Matters pertaining to design, access and crime for the proposed development have been explored and presented within this draft Design and Access Statement. The application site is deemed to be appropriate in that it can accommodate the proposed solar scheme with a capacity of circa 65MWac. The applicant duly considers that the application site can suitably accommodate the development proposal without causing any unacceptable impact on the local environment. The applicant will look to further refine the proposal as responses submitted as part of the formal statutory consultation are taken into account.

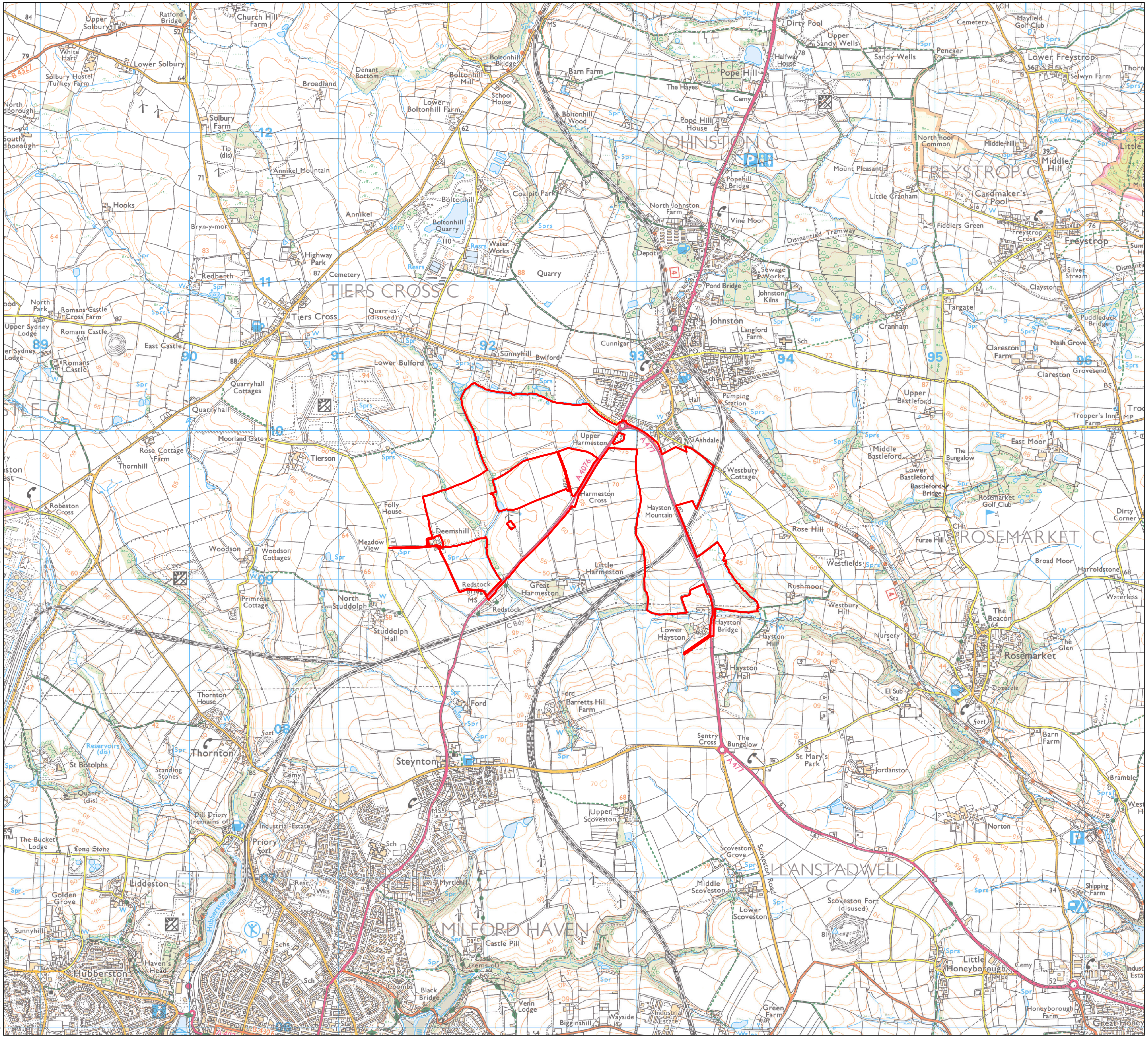
8.2. The benefits of the proposal are multiple:

- Great Harmeston Solar Farm would make a significant contribution towards Wales' 70% target of electrical consumption from renewables by 2030, which is a relatively short time away.
- It would deliver biodiversity net gain, and this would be managed and maintained during the lifetime of the proposed development.
- Development is time limited and would be decommissioned and removed from site after 40 years of generation to the electricity network.
- As part of the applicant's contribution towards community benefits, the applicant is proposing a legacy community benefit fund and details will be established post the consenting process and prior to construction.
- Rural diversification of two farming enterprises
- It is proposed to install solar panels across approximately 76.5 ha within the wider site, of which only circa 15.9 ha is of best and most versatile agricultural land.
- Economic benefits would be secured in terms of construction and operational management of the application proposal. The application proposal will provide employment and business opportunities for component suppliers / installers and those involved in grid connection, transport and logistics. Local businesses will be contracted for relevant parts of the scope of works over the period of construction, operation and maintenance, such as landscaping, plant hire, aggregates and security where possible (See employment and skills plan). There will be additional induced impacts during the construction period with any incoming construction workers (engineers, project managers etc) spending their wages at a local level (restaurants, retail stores etc) and using local accommodation.

8.3. The time limited and reversible nature of the proposed development, together with the measures that are to be taken to enhance and encourage the ecological diversity of the application site will ensure that in the long term the application site can not only be restored

to its current use, but will also have been improved. The wider environmental benefits and sustainability credentials associated with the increased production of energy from renewable sources represents a significant case in favour of the development proposals. This Statement demonstrates how the application proposal accords with the relevant design policies set out in Future Wales, namely Policies 17 and 18. Compliance with these policies demonstrates the applicant's commitment towards good design.

APPENDIX 1 – SITE LOCATION PLAN



KEY

Site Boundary

REV	DATE	DESCRIPTION
-	-	-

SITE LOCATION PLAN

GREAT HARMESTON

ARISE RENEWABLE ENERGY UK LTD

DATE	SCALE	DRAWN	APPROVED
08/08/2025	1:25,000@A3	NC	RCH

SHEET	REV	N	0 — 0.5 KM
-	D		

DRAWING NUMBER
P24-1037_EN_03

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