# DESIGN AND ACCESS STATEMENT: KELHAM SOLAR FARM AND BATTERY ENERGY STORAGE SYSTEM

KELHAM | NEWARK



**PREPARED BY** 



Sirius Planning | 4245 Park Approach Thorpe Park | Leeds | LS15 8GB

PREPARED FOR

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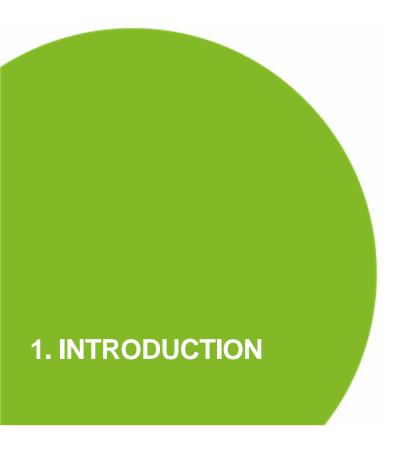
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Design and Access Statement: Kelham Solar Farm and BESS

## DRAWING SCHEDULE

Drawing Number	Drawing Title	Scale
HC1002/5/01	Site Location Plan	1:10,000 1:25,000
HC1002/5/02	Planning Application Boundary	1:2,500
HC1002/5/03	Site Layout	1:2,500
HC1002/5/04	Substation and BESS Compound Arrangement	1:500
HC1002/5/05	PV Panel Details (pile and Sleeper)	1:50
HC1002/5/06	DNO Substation Detail	1:50
HC1002/5/07	Solar and BESS Switchgear Cabin Details	1:50
HC1002/5/08	Transformer Station (Solar) Details	1:50
HC1002/5/09	Spares Cabin Details	1:50
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HC1002/5/11	Battery Module Details	1:100
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HC1002/5/14	Point of Connection Details	1:2,000
HC1002/5/15	Section through Substation and BESS Compound	1:1,000 1:250
HC1002/5/16	Landscape Masterplan	1:2,500
HC1002/5/17	Fencing and Security Details	1:2,500
HC1002/5/18	Internal Access Track Construction Detail	1:20
HC1002/5/19	Palisade Fencing Details	1:25
HC1002/5/20	Deer Mesh Fencing Details	1:100
HC1002/5/21	Acoustic Fence Details	1:50
HC1002/5/22	Paladin Fence Details	1:25

HC1002/5/23	Site Access Details	1:250
HC1002/5/24	Site Access Construction Details	1:20 1:50
HC1002/5/25	Temporary Site Set Down Area Details	1:1,000
HC1002/5/26	Indicative 132kv Substation Details	1:250
HC1002/5/27	Public Access Details	1:2,500
HC1002/5/28	Archaeology Mitigation Areas	1:2,500
HC1002/1/03	Constraints Mapping	1:25,000



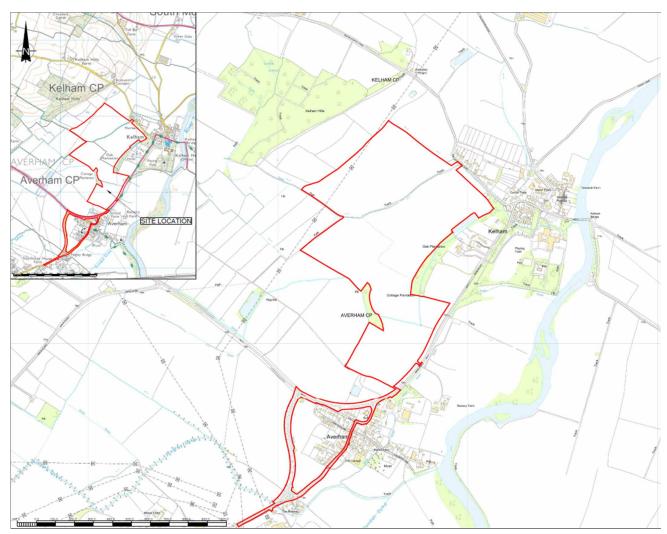
#### INTRODUCTION 1.1

- 1.1.1 This Design and Access Statement (DAS) accompanies a planning application to construct and operate a solar farm and battery energy storage system on approximately 65ha of land located to the west of Kelham, Nottinghamshire.
- 1.1.2 The purpose of this DAS is to allow the applicant to demonstrate that development proposals are based on a thoughtful design process and a sustainable approach to access. The DAS also demonstrates how the development proposals have evolved during the design process.
- 1.1.3 This statement sets out the design and access principles for the proposed development in accordance with the Charted Associated of Building Engineers (CABE) guidance.
- 1.1.4 The planning application is also accompanied by a Planning Statement including Technical Appendices. The Planning Statement provides an appraisal of the proposed development against the Development Plan and other material considerations.
- 1.1.5 This DAS has the following structure:
  - Chapter 1 provides an introduction to the development;
  - Chapter 2 describes the high-level design considerations:
  - Chapter 3 considers the design of the scheme; and
  - Chapter 4 considers the access arrangements for the site
  - Chapter 5 provides a summary and conclusion.

## **OUTLINE DESCRIPTION OF THE SITE AND** 1.2 SURROUNDINGS

- 1.2.1 The application site is located between the villages of Kelham (to the east) and Averham (to the south). The market town of Newark-on-Trent is located approximately 2.8km to the east of the proposal site. The site location is illustrated on drawing HC1002/05/01 and Figure 1.1 below.
- 1.2.2 The site comprises three fields and part of a fourth, totalling approximately 65ha of flat land located between the villages of Kelham and Averham. The crops grown on site are energy and animal food crops. A small irrigation pond is located in the eastern corner of the site.
- 1.2.3 The site is bounded by a network of hedgerows and ditches, with copses of broadleaved woodland. The surrounding area consists mainly of agricultural land. Along the south eastern edge of the site is Main Road (A617), beyond which is the village Averham and the River Trent.
- 1.2.4 The nearest residential properties to the application site, are along Broadgate Lane, located along the site's northeastern boundary, and to the east lies a small, gated cul-de-sac of detached dwellings, known as 'The Rutlands'. There are also residential properties in the nearby villages of Kelham and Averham.

Figure 1.1: Site Location



- 1.2.5 The nearest non-residential property to the application site is Kelham House, located beyond the established plantation to the east of the site's boundary.
- 1.2.6 There are no statutory ecological designations within 5km of the application site, the nearest non statutory designation is Kelham Hills Local Wildlife Site (LWS), located approximately 160m to the west of the site. There are two LWSs along the River Trent approximately 410m to the east of the site and approximately 650m to the east of the proposal site.
- 1.2.7 The application site does not lie within any historic environments, however Kelham Conservation Area is adjacent to the eastern boundary of the proposal site. There are numerous Listed Buildings in Kelham and Averham. The nearest Listed Building is the Grade II listed Farm Buildings at Home Farm located within Kelham, approximately 300m to the east of the site. The nearest Scheduled Monument is 'Averham moat and enclosure' located approximately 420m south of the site.
- 1.2.8 Environment Agency Flood Risk Maps advise that the site is largely within Flood Zone 1, with localised area of Flood Zone 2 along the eastern boundary.
- 1.2.9 From the Nottinghamshire County Council Definitive Map there is a single public right of way that enters the north eastern boundary of the site. The public footpath runs in a westerly direction and once it meets the western boundary of the application site it splits into two public footpaths, one heads north west and the other south west.
- 1.2.10 Figure 1.2 shows a photograph of the proposal site looking

south west.

Figure 1.2: View of the proposal site from the north eastern boundary looking south west, overlooking the public right of way and electricity pylons in the distance



1.2.11 Figure 1.3 below is a photograph of the proposal site looking north from the A617.





### THE PROPOSAL 13

1.3.1 Assured Asset Solar 2 Ltd is seeking planning permission to construct and operate a solar photovoltaic (PV) farm and battery energy storage system on 65ha of agricultural land. Below ground cabling to the point of connection will increase the application site area to approximately 71ha. It is anticipated that the proposed Solar Farm will have an export capacity of 49.9MW of electricity, enough to power over 12,600 homes per year<sup>1</sup> and offset approximately 13,400 tonnes of CO2 every year, the equivalent of taking over 5,100

## cars off the road2.

- The proposal will comprise the following:
- Photovoltaic (PV) panels;
- Mounting frames matt finished small section metal structure:
- Battery container units:
- Scheme of landscaping and biodiversity enhancement;
- Permissive public access
- Inverters (accommodated on the mounting frames) and transformers (housed in prefabricated containers) and associated cabling (largely below ground):
- Separate Distribution Network Operator (DNO) and customer substations, communication mast(s) and meter points for the solar and BESS;
- Deer fencing and infra-red CCTV (CCTV cameras would operate using motion sensors and would be positioned inward only to ensure privacy to neighbouring land and property);
- Temporary construction set down and storage area;
- Internal service roads; and
- Site access for the construction and operational phases.
- 1.3.2 There will be two types of mounting frames used on site. The majority will be matt finished galvanised steel that will be fixed to the ground employing a pile mounting system, the piles will be pushed into the round via a mobile piling rig. Where there is known archaeological features on site, the panel frames will be mounted on ballast blocks to ensure stability of the panels

Average electricity consumption based on BEIS (May 2020) Review of the average annual domestic gas and electricity consumption levels https://assets.publishing.service.gov.uk/government/uploads/system/uploa ds/attachment\_data/file/886473/annual-domestic-gas-electricityconsumption-levels-review-methodology-note.pdf

<sup>&</sup>lt;sup>2</sup> Based on the UK Government Conversion Factors for greenhouse gas (GHG) reporting https://www.gov.uk/government/uploads/system/uploads/attachment\_data/ file/715425/Conversion\_Factors\_2018\_-\_Condensed\_set\_\_for\_most\_users\_\_v01-01.xls

and frames without disturbing heritage features. A geo-grid system will be installed beneath each ballast block to reduce soil cohesion to the block when it is moved. In some of archaeological mitigation areas, the ground height will be raised by 300mm to increase the soil depth to avoid potential compaction of the archaeological feature. The soil used to create the raised areas will be site won material. **Drawing** HC1002/05/05 and Figure 3.1 below provide a specification of the panel and frames.

- 1.3.3 The proposed point of connection is at Staythorpe Substation, located approximately 1.4km to the south of the site. The cable route will run underground within the highway. Any reinforcement works necessary at Staythorpe Substation to facilitate the connection will be carried out by the statutory undertaker using permitted development rights.
- 1.3.4 The indicative cable route is presented in **Drawing** HC1002/05/14. The drawing show a 'corridor' within which the cable will be laid. The exact alignment of the route is to be confirmed at the detailed design stage via separate authorisation from the Local Highway Authority.
- 1.3.5 The proposal will have a lifespan of 40 years, after which all equipment will be removed from the site and the land will be returned to agricultural use.
- 1.3.6 The construction of the proposed solar farm and BESS is expected to last around 6 to 12 months, however, the majority of vehicle movements will be carried within the first six months. The remaining 6 months will be commissioning and 'snagging' works which typically do not generate HGV movements. The construction of the solar farm is expected

- employ up to 50 staff.
- 1.3.7 A secure temporary set-down area will be established within the site for the construction phase. The set down area will accommodate site materials for the construction works and will be a car park for site construction operatives.
- 1.3.8 Construction is expected to take place during the hours of 08:00 to 18:00 (Monday to Friday) and 08:00 to 16:00 hours (Saturday). Under exceptional circumstances deliveries outside of these hours may be required.





#### 2.1 **DESIGN PROCESS**

- 2.1.1 The application site was selected through an extensive search criteria exercise undertaken by the Applicant. Nottinghamshire represents a particularly favourable area for solar deployment because of the high levels of solar irradiation.
- 2.1.2 A range of technical, environmental and economic factors are considered when assessing a site for ground-mounted solar PV development. Key factors for consideration include:
  - Solar irradiation levels:
  - Availability and proximity of the local distribution network (grid):
  - Proximity to local population;
  - Topography;
  - Field size and shape:
  - Potential for overshadowing:
  - Development Plan Policy:
  - Access to the site for construction/decommissioning traffic:
  - Agricultural land quality;
  - Landscape sensitivity and visual impact amenity:
  - Nature conservation and potential for enhancement:
  - Flood risk; and
  - Land availability.
- Based on the high-level selection criteria mentioned above, the proposal site was considered suitable to accommodate a solar farm. As detailed environmental survey and assessment work was undertaken and engagement with local stakeholders (formal pre-application discussions) progressed the design of the proposed development evolved. The key

constraints and opportunities are summarised below:

- Heritage:
- LVIA: and
- Noise

## Heritage

- 2.1.4 A Heritage Desk Based Assessment, Geo-Physical Survey, Evaluation Trenching have been undertaken across the application site. The investigation identified where archaeology was recorded and at what depth. Using this information, a sympathetic design allows panel deployment over the majority of the site. In some areas however, mitigation is needed to ensure identified archaeology is not adversely affected, measures include surface mounted frames and raising the ground levels in localised area. See drawing HC1002/05/27 for the extent of archaeological areas across the site.
- 2.1.5 Figure 2.1 below identifies where the archaeological mitigation is located.
- 2.1.6 A Heritage Impact Assessment has also been carried out. This established that of the seven heritage assets assessed, the development would have a negligible significance of impact on two (The Old Rectory and Averham Park) and a minor impact on five (Averham Conservation Area, Kelham Conservation Area, Kelham Hall, the Church of St. Wilfrid, Averham Park House, and South Farm). These impacts are considered to be less than substantial.

Figure 2.1: Archaeological Mitigation Areas



2.1.7 The design proposals include embedded mitigation (inclusive of screening bunds and associated planting) to minimise heritage impacts.

## LVIA

2.1.8 The gentle topography of the rural fringe landscape area has little variation in height and the surrounding landscape features (woodland and hedgerows) combine to contain the potential landscape and visual effects of the development to the immediate context of the site (generally up to c.200m out into adjoining fields). The visual effects of the development experienced on the footpath crossing through the solar

- deployment are unavoidable but when moving outside of the site the level of effects reduces immediately for users of the footpath.
- 2.1.9 Other visual effects of note are focussed to the few receptors that immediately surround the site and in most cases these effects will reduce once mitigation planting has been fully established, as is evidenced by the mitigation views produced for individual photomontages (VPs 1, 4 and 5).
- 2.1.10 The LVIA assessment demonstrates that the proposed Solar Farm and BESS could be successfully integrated within the existing site features and could be assimilated into the surrounding landscape without causing wide scale change to landscape character and visual amenity.

## Noise

- 2.1.11 Site infrastructure that has the potential to generate noise were positioned away from sensitive receptors and where necessary further attenuation measures have been implemented. These include screening bunds, close boarded fencing, fire walls (associated with the BESS) and acoustic fencing.
- 2.1.12 Site operational noise has been calculated using empirical noise data for the transformers and inverters obtained from similar solar farm sites operating in the UK. The predicted noise contribution from the proposed development using noise modelling software shows that the noise contribution from maximum site operations would be well below the representative background sound level during daytime and early morning periods. During night-time under maximum

operational noise conditions, the noise level would be well below night-time recommended limits.

## 2.2 **COMMUNITY ENGAGEMENT**

- 2.2.1 Assured Asset Solar 2 Ltd is committed to engaging with the local community to give residents and other interested parties the opportunity to find out more about the development and express their views.
- 2.2.2 The local Ward Councillors, MPs, Parish Councillors and local residents were contacted. The Applicant held subsequent public exhibition and drop in session with local stakeholders.
- 2.2.3 In addition to the above, a dedicated project website has been created that provides up to date details on the proposal and advises of forthcoming consultation events. The website address is:

https://cyp-solar.co.uk/





#### **GENERAL CONSIDERATIONS** 3.1

- 3.1.1 The importance of renewable energy generation as part of the response to climate change is recognised at all levels of governance. Furthermore, renewable energy from solar supports the national economic objective to decentralise energy supply and to lessen dependence on fossil fuels. The Government consequently considers that the wider benefits of renewable energy schemes to society and the economy are significant and must be given significant weight by decision makers in reaching their decisions on individual planning applications.
- 3.1.2 The proposed solar farm and BESS has been carefully designed to ensure visibility from outside the application site is reduced as far as possible. The renewable energy will be exported to the Local Distribution Network providing energy to homes and business in the locality.
- 3.1.3 A typical site arrangement will include ground mounted PV panels aligned east to west facing south, similar to that as shown in figure 3.2 below. There will also be transformers, substations (DNO and customer), communication mast and control cabins. The site will be secured by deer fencing and CCTV.
- 3.1.4 The BESS, customer and DNO substations will be located in the southern corner of the application site and from here below ground cables will connect directly to Staythorpe substation located off Staythorpe Road. The cable routes will be in the adopted highway.

Figure 3.1: Image of ground mounted PV panels



Figure 3.2: Ground mounted PV panels and transformer



3.1.5 The Distribution Network Operator requires communication mast(s) to be provided, however, they have yet to confirm the position and size of the mast(s). Indicative positions have been provided on drawing HC1002/05/04 and a suggested specification is provided in Appendix 4.11. Details of the mast(s) will be confirmed by way of a condition.

#### 3.2 **AMOUNT**

- 3.2.1 The extent of deployment is determined largely by the acceptability of environmental effects when weighed against the benefits of the proposal and the contribution it will make in reducing carbon emissions. Whilst indicative site arrangements are provided in Drawing HC1001/05/03 a detailed layout and phasing of construction will be agreed with the Local Planning Authority (LPA) by way of an appropriately worded planning condition following grant of planning permission.
- 3.2.2 There will be two types of mounting frames for the PV panels used on site. Subject to ground conditions, pile foundations to support the mounting frames that carry the panels will be used. The piles are typically pushed into the ground to a depth of 1.5m. Where there is the potential presence of archaeological findings on some parts of the site, the frames will be mounted on ballast blocks to ensure stability of the panels and frames without penetrating the ground and causing potential disturbance.
- 3.2.3 Perimeter deer fencing (c.2m high) and CCTV (using invisible infra-red lighting) will also be installed on the DAs.
- 3.2.4 The BESS compound will comprise of c. 18 battery clusters that contain 22 smaller modules Each battery cluster will measure typically 15.3m in length, 2.5m wide and 3.2m in

height. The batteries will sit in bays of two clusters surrounded by 3m high concrete firewalls. The BESS compound also comprises two switchgear cabins and two spare storage cabins.

- 3.2.5 The substation compounds will be surrounded by a c.4m acoustic fence.
- 3.2.6 The solar panels are constructed from impermeable materials; rainwater will run off directly onto the ground below. As the panels are raised off the ground, the surface below remains permeable. The amount of land that is made impermeable by the installation of the facility is limited to the concrete pads of the transformers and the BESS and Substation compound. The solar deployment land on the site can continue to be used for agricultural purposes (sheep grazing or similar) and for biodiversity enhancement.
- 3.2.7 During the construction phase temporary roads and a construction compound will be required. The compound will accommodate deliveries of materials and equipment during construction. The temporary set down area will be located at the southern end of the site with access taken from A617, from here materials will be transferred around the site.
- 3.2.8 The proposal will have an operational lifespan of 40 years, after which equipment can be removed from the site and the land can continue to be used for agriculture.

## 3.3 **SCALE**

The proposed solar farm will consist of photovoltaic panels 3.3.1 laid out in arrays running from east to west facing south across the site and will be angled approximately 15° to the horizontal and orientated south. Each array will be mounted on simple metal framework similar to that shown in figure 3.3 below.

Figure 3.3: View of typical ground mounting system



- 3.3.2 All panels will be mounted on frames with a maximum height of 2m above ground level; the lowest part of the panel will measure approximately 0.8m above ground level.
- 3.3.3 The rows of panels will be set approximately 4m apart to avoid shadowing and allow for scheduled maintenance.
- 3.3.4 Transformer and switchrooms are typically 3m in height and are designed to be as small as possible. These structures will not be prominent within the landscape and will be significantly smaller than agricultural buildings/barns typically found in the countryside.

## 3.4 **APPEARANCE**

3.4.1 Whilst the application site area will total approximately 71.1ha, of which the solar panels deployment area and BESS

- compound will total 58.8ha. Furthermore, within the deployment area the ground cover ratio of the panels is between 40 to 60%. Significant standoff areas are also included from field boundaries. The standoffs are dependent on local topography and other environmental requirements. including ecology, Public Rights of Way and heritage.
- 3.4.2 The layout of the solar farm and BESS has been designed to fit within the context of the area and all existing perimeter trees and hedgerows will be retained and where necessary managed.
- 3.4.3 Photomontages have been prepared to show how the proposal appears in the landscape once constructed when viewed from selected positions. The photomontages are presented in Appendix 4.6.3.
- 3.4.4 The Landscape and Visual Impact Assessment (Appendix 4.6) considers the potential visual impacts of the proposal. As part of the assessment a scheme of biodiversity enhancement is proposed which has been designed to reduce any adverse visual effects and strengthen landscape character. As the scheme of biodiversity management matures over time any visual effect will continue to be minimised.

### 3.5 LANDSCAPING AND BIODIVERISTY MANAGEMENT

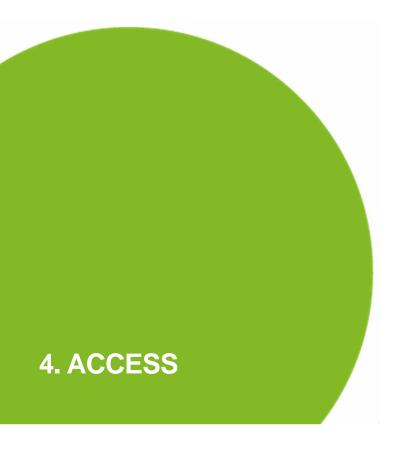
A key aspect of the proposal is to provide biodiversity 3.5.1 enhancements across the site. This and the need for existing planting to reduce potential impacts to visual amenity will be informed by the ecological survey works and the landscape and visual impact assessment.

- 3.5.2 The proposed Landscape Masterplan for the application site can be viewed in figure 3.4 and on drawing HC1001/05/16. The drawing identifies the existing habitats to be retained and how they will be managed. Biodiversity and landscape enhancements are at the fore of the Kelham proposals. In addition to land between and beneath the panels, there will be significant areas of non-deployment land that will be brought under formal management to provide ecological enhancement for the life of the scheme.
- 3.5.3 The landscape and visual impact assessment and ecology and nature conservation reports provide full details of the enhancement proposals, but in summary these include:
  - · Where solar panels are being installed, a buffer of a minimum 7m is present between the woodland and hedgerows. This will ensure woodland is protected and retained:
  - All existing boundary hedges will be allowed to grow to at least 3m.
  - Semi Native low scrub planting will be implemented along the proposed bunds and the eastern corner of the application site,
  - Beneath the panels a low maintenance grass mix will be provided for added ecological benefit, a tussock grassland mix, suitable for ground nesting birds.
  - In the min. 4m gap between the boundary hedges and site security fence, a General Purpose Meadow Mix will be used but left to grow longer to provide additional cover and wildlife habitat adjacent to woodland blocks and hedgerow corridors.
  - Existing hedgerows will be gapped up to strengthen the existing landscape structure, mitigate through views into and across the site and where appropriate hedgerow

- trees planted to help screen long range views
- As all hedgerows are to be left for biodiversity purposes. annual cutting is not required, through active management there is the potential to cut at less frequent intervals providing improvements to screening and wildlife benefits.
- 3.5.4 Deer fencing will be used to manage conservation grazing across the application site, see drawing HC1001/05/17 for details.

Figure 3.4: Proposed Landscape Masterplan





## 4.1 ACCESS

- 4.1.1 The Transport Statement presented in **Appendix 3.3** confirms the proposed vehicle routes to the application site from the A1. The temporary set down area will be accessed from the existing field gate off A617 (Main Road) which is located approximately 4km to the A46, to the west of the site. A further 2.75km connects the A46 to the A1. As these are all principal roads, there should be no issue with the delivery of construction materials to the site.
- 4.1.2 The Transport Statement illustrates the proposed access design from Main Road and the associated vehicle tracking of a 16.5m maximum legal length HGV entering and egressing the site.
- 4.1.3 When viewing the visibility to the left on exit from the site the recommended visibility cannot be achieved to the near side kerbline and even by extending this line of sight to the far side kerbline still falls slightly short but is much improved.
- 4.1.4 It is, therefore, proposed that during the construction period the speed limit will be temporarily reduced to 40mph for the area. It is further proposed that the existing average speed cameras present along the A617 will be adjusted.
- 4.1.5 The temporary set down area will be constructed from compacted crushed stone and will temporarily accommodate site equipment, materials and modular accommodation, see figure 4.1 below and drawing HC1001/05/26 for details. Internal service roads will be constructed to allow vehicular access within the site. See Drawing HC1001/05/18 for details.

4.1.6 The construction phase would result in the temporary generation of construction and staff related traffic over a 6-month construction period. During this period, there will be approximately 790 deliveries to the remote set down area, or 1,580 individual movements (in and out).

Figure 4.2 Details of the Remote Set Down Area



- 4.1.7 The first month will see the highest deliveries to site at 225 which is the equivalent of a maximum 1 movement every hour.
- 4.1.8 During the construction period approximately 50 staff will be on-site, depending on the phase of the development. All vehicle parking will be provided within the temporary construction compound at the development site. There will therefore be no parking on the local highway network.

- 4.1.9 After commissioning, the site will only be visited during routine maintenance checks. The access during the operational phase will be as per the construction routes. Service tracks are required to the transformer stations as well as around and within the solar farm deployment areas and BESS which will provide vehicular access around the sites as part of regular inspections and maintenance.
- 4.1.10 The decommissioning phase is expected to generate similar levels of traffic as the construction phase.
- 4.1.11 Whilst there is a significant scheme of public access proposed as part of the proposal, the panel deployment areas will have restricted public access.
- 4.1.12 The design ensures the site is secure and not readily accessible to the public through the installation of deer fencing and infra-red CCTV. Access to the proposed solar farm will be through invitation only.

## 4.2 Public Rights of Way

- 4.2.1 The existing public right of way through the application site will remain open throughout the life of proposal. A detailed CEMP will provide a strategy to ensure the safety of footpath users will not be adversely affected.
- 4.2.2 A permissive bridleway will be provided along the perimeter of the development site as part of the proposals. The bridleway will have a grass surface, be 4m to 5m wide typically from the proposed security fence to the existing hedgerow/woodland and will measure circa 4.5km m in length. The permissive route will be removed on decommissioning of the scheme. Drawing HC1002/05/26

and figure 4.2 shows the alignment of the permissive bridleway.

Figure 4.2: Public Access Plan





#### SUMMARY AND CONCLUSION 5.1

- 5.1.1 This DAS accompanies a planning application for a solar farm and BESS submitted on behalf of Assured Asset 2 Ltd.
- 5.1.2 The Planning Statement and accompanying technical appendices assesses the potential impacts of the proposal on the receiving environment. The assessments conclude that due to the largely well-screened nature of the site area and the limited (vertical) profile of the proposal the visual effects will be minimised.
- 5.1.3 Alongside generating sufficient renewable energy to power approximately 12,600 local homes, the proposal will provide over 4.5km of public access and a significant improvement to local biodiversity.
- 5.1.4 The BESS will deliver significant environmental benefits, enabling technology for renewable generation, replacing the required for gas fired power generation and providing rapid response power to satisfy peak demand This will be achieved principally through:
  - Where solar panels are being installed, a buffer of a minimum 7m is present between the woodland and hedgerows. This will ensure woodland is protected and retained:
  - All existing boundary hedges will be allowed to grow to at least 3m.
  - Semi Native low scrub planting will be implemented along the proposed bunds and the eastern corner of the application site.
  - Beneath the panels a low maintenance grass mix will be provided for added ecological benefit, a tussock grassland mix, suitable for ground nesting birds.

- In the min. 4m gap between the boundary hedges and site security fence, a General Purpose Meadow Mix will be used but left to grow longer to provide additional cover and wildlife habitat adjacent to woodland blocks and hedgerow corridors.
- Existing hedgerows will be gapped up to strengthen the existing landscape structure, mitigate through views into and across the site and where appropriate hedgerow trees planted to help screen long range views
- As all hedgerows are to be left for biodiversity purposes. annual cutting is not required, through active management there is the potential to cut at less frequent intervals providing improvements to screening and wildlife benefits.
- 5.1.5 This DAS discusses the findings of the assessments undertaken to inform the design of the proposal in parallel with an inclusive scheme of community engagement.
- 5.1.6 It is considered that this DAS illustrates how the development proposals have been subject to a thoughtful design process by a range of professionals, demonstrating a sustainable approach to accessibility and design of the solar farm and BESS. Accordingly, the proposals are in accordance with the Development Plan and planning permission should be granted accordingly.



Figure 5.1 Photomontage from Viewpoint 1





