

Parc Solar Caenewydd, Swansea

Planning Statement

Development of National Significance in the Renewable Energy Sector
Application Submission





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1. INTRODUCTION

- 1.1. This Planning Statement has been prepared by Pegasus Group on behalf of Taiyo Power & Storage Limited (herein referred to as “the applicant”) and forms part of a suite of documents supporting a planning application for Development of National Significance for the construction, operation, management and subsequent decommissioning of a co-located solar farm and battery storage facility on land fronting the A484 and Swansea Road (B4560) at Gowerton, Swansea (“the application site”). The proposed development will deliver a host of landscape, biodiversity, soil and hydrological enhancements, including measures to strengthen habitat connectivity through this part of the valley, the creation of green buffer zones and public right of ways improvements. The proposed development is called ‘Parc Solar Caenewydd’.
- 1.2. By virtue of its potential export capacity, which stands at 44.45MWp DC [Megawatts peak], the proposed development constitutes a Development of National Significance (“DNS”). Therefore, instead of applying to the Local Planning Authority for Planning Permission, the application is made to the Planning and Environment Decision Wales (PEDW). The application process is managed by PEDW on behalf of the Welsh Minister.
- 1.3. A site location plan is provided at **Appendix 1**.

The Applicant

- 1.4. Parc Solar Caenewydd is being promoted by Taiyo Power & Storage Limited, a joint venture between developer and investor Kajima Partnership, which was recently appointed to deliver the new Velindre Cancer Centre in Whitchurch, North Cardiff and sustainability specialist Low Carbon Alliance Limited. Taiyo Power & Storage Limited is committed to building a sustainable world through environmental vision and carbon-reducing insight and through Taiyo’s collective experience and expertise, they have a unity of purpose and the strength to drive this change towards net zero.
- 1.5. The issues relevant to the assessment of the application proposal are set out in this Statement. The subsequent sections of this Statement are divided into: –
Section 2: The Application Proposal
- 1.6. This section contains a description of the planning application.
Section 3: Background for renewable energy schemes Wales and the UK
- 1.7. The section summarises the key legislative background and support for standalone renewable energy schemes in Wales and the UK.
Section 4: Application Site and its Surrounds
- 1.8. This section contains a description of the application site and its environs.
Section 5: Planning Policy Context
- 1.9. The planning policy context for the application site includes both national policy guidance and the development plan which include Future Wales and Planning Policy Wales. Brief



explanations of the key policies pertaining to the development proposal is contained within this section.

Section 6: Planning Assessment

- 1.10. The sixth section outlines the planning matters that are considered to be important to the determination of the application. Considerations are addressed in turn and explained in the context of the relevant planning policy outlined in the previous section and the legislative background set out in Sections 3 and 5.

Section 7: Very Exceptional Circumstances

- 1.11. This section offers a full assessment of the applicant's position on very exceptional circumstances.

Section 8: Planning Balance

- 1.12. This section establishes the planning balance for the development proposal.

Section 9: Conclusions

- 1.13. This section provides the concluding comments in relation to the application proposal.

Supporting Documentation

- 1.14. The application submission is supported by the following documents and plans: –

- **Application Form**
- **Planning Application Drawings**, prepared by Taiyo Power & Storage Limited and ICP Success Connections: –

<u>Drawing No</u>	<u>Rev</u>	<u>Drawing title</u>
PSC 100 002	9	Site Location Plan
PSC 100 001	13	Proposed Layout Plan
PSC 100 102	13	Proposed Site Layout Sheet 01 (Scale 1:500)
PSC 100 103	13	Proposed Site Layout Sheet 02 (Scale 1:500)
PSC 100 104	13	Proposed Site Layout Sheet 03 (Scale 1:500)
PSC 100 105	13	Proposed Site Layout Sheet 04 (Scale 1:500)
PSC 100 106	13	Proposed Site Layout Sheet 05 (Scale 1:500)
PSC 100 107	13	Proposed Site Layout Sheet 06 (Scale 1:500)
PSC 100 108	13	Proposed Site Layout Sheet 07 (Scale 1:500)
PSC 100 109	13	Proposed Site Layout Sheet 08 (Scale 1:500)
PSC 100 110	13	Proposed Site Layout Sheet 09 (Scale 1:500)
PSC 100 111	13	Proposed Site Layout Sheet 10 (Scale 1:500)
PSC 100 112	13	Proposed Site Layout Sheet 11 (Scale 1:500)
PSC 100 113	13	Proposed Site Layout Sheet 12 (Scale 1:500)
PSC 100 114	13	Proposed Site Layout Sheet 13 (Scale 1:500)
PSC 100 115	13	Proposed Site Layout Sheet 14 (Scale 1:500)
PSC 100 116	13	Proposed Site Layout Sheet 15 (Scale 1:500)
PSC 100 117	13	Proposed Site Layout Sheet 16 (Scale 1:500)



PSC 100 118	13	Proposed Site Layout Sheet 17 (Scale 1:500)
PSC 100 119	13	Proposed Site Layout Sheet 18 (Scale 1:500)
PSC 100 120	13	Proposed Site Layout Sheet 19 (Scale 1:500)
PSC 100 121	13	Proposed Site Layout Sheet 20 (Scale 1:500)
PSC 100 122	13	Proposed Site Layout Sheet 21 (Scale 1:500)
PSC 100 123	13	Proposed Site Layout Sheet 22 (Scale 1:500)
PSC 100 123	13	Proposed Site Layout Sheet 23 (Scale 1:500)
PSC 100 017	3	PV Array Details 3 Modules Vertical
PSC 100 019	0	Fence and CCTV Detail
PSC 100 020	0	Gate Detail
PSC 100 016	1	Site Road Cross Section
SC PJ 55 02-150-23	B	Overall Cable Route Plan
SC PJ 55 02-150-24	B	Cable Route Plan Sheet – 01 of 05
SC PJ 55 02-150-25	B	Cable Route Plan Sheet – 02 of 05
SC PJ 55 02-150-26	B	Cable Route Plan Sheet – 03 of 05
SC PJ 55 02-150-32	B	Cable Route Plan Sheet – 04 of 05
SC PJ 55 02-150-33	B	Cable Route Plan Sheet – 05 of 05
LOA1002-212	0	Spare Parts Container Details
SC PJ 55 02-150-29	1	WPD Tower Plan & Elevation
SC PJ 55 02-150-07	6	Proposed Site Plan (BESS & Substation)
SC PJ 55 02-150-07	0	AET Plan & Elevation
SC PJ 55 02-150-08	0	Auxilliary Transformer Plan & Elevation
SC PJ 55 02-150-09	0	Battery Container Plan & Elevation
SC PJ 55 02-150-10	0	BCP Plan & Elevation
SC PJ 55 02-150-11	0	Lighting Column Plan and Elevation
SC PJ 55 02-150-12	0	Client Substation Plan & Elevations
SC PJ 55 02-150-13	0	Grid Transformer Plan & Elevation
SC PJ 55 02-150-14	0	NER Plan & Elevation
SC PJ 55 02-150-15	0	NG Substation Plans & Elevation
SC PJ 55 02-150-16	0	PCS Plan & Elevation
SC PJ 55 02-150-17	0	Transformer & Inverter Plan & Elevation
SC PJ 55 02-150-18	4	Proposed Site Levels
SC PJ 55 02-150-19	4	Proposed Site Sections
SC PJ 55 02-150-20	2	BOP & 132kV Compound Fencing Details
SC PJ 55 02-150-22	4	Site Elevation
SC PJ 55 02-150-31	3	132kV Cable Route Trench Sections
SC PJ 55 02-150-27	5	132kV Cable Option 2
SC PJ 55 02-150-28	A	Proposed Trench Sections
17_230655_03	A	New Sealing Ends and Surge Arresters (NG proposed tower works north)
17_220550_04	A	132kv feasibility WCD for tower UU20A (NG proposed tower works south)
P21-29908_13	L	Green Infrastructure Plan

- **Covering Letter**, prepared by Pegasus Group
- **Design and Access Statement**, prepared by Pegasus Group
- **Planning Statement**, prepared by Pegasus Group
- **Collaborative Benefits Report**, prepared by Taiyo Power & Storage Limited



- **Consultation Report & Appendices**, prepared by Pegasus Group
- **Sequential Site Selection Report**, prepared by Taiyo Power & Storage Limited
- **Economic Benefits Statement**, prepared by Pegasus Group
- **Landscape and Visual Impact Assessment**, prepared by Pegasus Group
- **Landscape Planting Plan**, prepared by Pegasus Group
- **Flood Consequence Assessment**, prepared by Pegasus Group
- **Surface Water Drainage Strategy**, prepared by Pegasus Group
- **Construction Traffic Management Plan**, prepared by Pegasus Group
- **Outline Construction Environmental Management Plan**, coordinated by Pegasus Group
- **Ecological Appraisal**, prepared by Devon Wildlife Consultants
- **Outline Landscape Ecological Management Plan** is appended to the Ecological Appraisal
- **Confidential Badger Report**, prepared by Devon Wildlife Consultants
- **Habitat Regulations Assessment – No Significant Effects Report**, prepared by Devon Wildlife Consultants
- **Heritage Desk-Based Assessment**, prepared by Pegasus Group
- **Geophysical Survey Report**, undertaken by Magnitude Surveys
- **Archaeological Field Evaluation**, prepared by Archaeology Wales
- **Archaeological Field Surveys Overview Report**, prepared by Heritage Archaeology
- **Arboricultural Impact Assessment**, prepared by Barton Hyett
- **Agricultural Considerations Report**, prepared by Kernon Countryside Consultants
- **Outline Soil Management Plan** is appended to the Agricultural Considerations Report
- **Phase 1 Geoenvironmental Report and Coal Mining Risk Assessment**, prepared by Hydrogeo
- **Noise Assessment**, prepared by Ion Acoustics
- **Glint and Glare Study**, prepared by Pager Power

Statutory Requirements

- 1.15. On 29 April 2022, the applicant submitted to the Planning and Environment Decisions Wales ("PEDW") a request, made under regulation 31(1) of the Town and Country Planning (Environmental Impact Assessment) (Wales) Regulations 2017 (as amended) ("the Regulations"), for the Welsh Ministers to make a screening direction as to whether or not the proposed development is "EIA Development" within the meaning of the Regulations. PEDW is authorised by the Welsh Ministers to provide that screening direction.
- 1.16. On 17 August 2022, PEDW released its Screening Direction, directing that the proposed development is not EIA-Development within the meaning of the Regulations. Taking into account the selection criteria in Schedule 3 to the Regulations and the advice in Welsh Office Circular 11/99: Environmental Impact Assessment on establishing whether EIA is required, the PEDW's assessment concludes as follows:

"The application fronts the A484 and Swansea Road (B4560) at Gowerton, Swansea. The site is to the southwest and northwest of residential settlements, and the site is allocated as both a Green Wedge and Special Landscape Area. To the Northwest and south of the site lies two Strategic Development Areas, as allocated in the Adopted LDP. The site is within 3 km of Burry Inlet RAMSAR / Special Protection Area (SPA) site, as well as Carmarthen Bay and Estuaries Special Area of Conservation (SAC). The proposed development is for a solar farm of c. 44 MW DC capacity, along with associated infrastructure and battery storage facilities. Due to the topography, hedgerows and vegetation coverage, coupled with the surrounding site constraints, the impacts of the proposed development are limited in EIA terms. Initially NRW raised concerns regarding the potential for ground nesting birds in the area as little information was provided. However, upon additional information being provided by the applicant, NRW are content that the impacts generated from the proposal can be appropriately mitigated. Based on the information before me, I am led to conclude that the proposed development is not likely to cause significant environmental impacts, and an Environmental Impact Assessment is not required."

Consultation Undertaken to Date

- 1.17. The application proposal has been subject of detailed informal and formal consultation with the relevant statutory consultees and the local community. These are discussed in detail in the accompanying Consultation Report. The supporting technical reports detail the outcomes of topic specific informal advice provided by the statutory consultees prior to the start of the formal consultation period.

Overview of key Benefits

- 1.18. The key benefits of the development are summarised below: -
- It would provide a valuable contribution with regards to provision of decentralised renewable energy for the south-west region of Wales without the use of best and most versatile agricultural land.
 - The solar power element of the proposed development would generate clean renewable energy for the equivalent of over 11,500 homes a year. The anticipated CO₂ displacement is 18,000 tonnes per annum.



- The development would contribute towards energy security and the BESS would provide significant resilience to the local grid network to support growth of additional intermittent renewables and avoid future brownouts and blackouts.
- It would deliver significant ecological enhancements, habitat creation and biodiversity net gain, and this would be managed and maintained during the lifetime of the proposed development.
- The proposals are likely to meet the requirements for on-site biodiversity net gain, with a predicted gain of at least 26.25%, including restoration of priority habitat. It is furthermore considered that the creation of habitat corridor linkages and the restoration of grassland to priority habitat standard, with benefits to wildlife associated with these habitats, will provide ecological benefit additional to that indicated by the calculations.
- The development would occupy low quality agricultural land. The site is not best and most versatile agricultural land and this has been agreed in consultation with the Welsh Government.
- The proposed management of the land under solar PV panels will improve soil health, such as increasing soil organic matter, and hence soil organic carbon, increasing soil biodiversity, and improving soil structure. By increasing soil health, soil biodiversity and soil organic carbon, solar farms present an ideal setting for significant biodiversity net gain, by increasing the soil microbial, mycorrhizal and invertebrate populations. The proposal would assist in the transition from artificial to the use of green fertilisers.
- The tenant farmer would continue to farm land located to the south of Afon Llan. The farm shop would remain in-situ and the tenant has already been provided with alternative land by the estate with the support of the applicant.
- The application proposal represents an efficient use of land that was formerly used for shallow depth coal mining activities.
- Development is temporary and would be decommissioned and removed from site after 40 years.
- Economic benefits would be secured in terms of construction and less so 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. Where possible, local businesses will be contracted for relevant parts of the scope of works over the period of construction, operation and maintenance. 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.
- There are considered to be no significant adverse impacts on internationally or nationally statutory designated sites for nature conservation.

1.19. As part of the community benefits associated with the application proposal, the applicant commissioned Community Energy Wales to identify investing into shared community



ownership. This identified Gower Power Limited who continued interest to deliver the shared ownership element of the proposed scheme. In addition to community ownership, the applicant is looking to enter into a legal agreement to provide funds to the Council to upgrade the local PRow infrastructure. Details of the proposed community benefits are presented within the accompanying Collaborative Benefits Report.

2. THE APPLICATION PROPOSAL

- 2.1. The application proposal relates to the construction, operation, maintenance and decommissioning of a ground mounted solar power and battery storage facility and ancillary development. An operational lifespan of 40 years is sought after which the proposed development will be decommissioned, and the application site returned to full agricultural use.
- 2.2. Individual elements of the proposed development are shown on the accompanying Planning Application Drawings, the key drawings are also provided at Appendix 2 of this Statement.
- 2.3. The proposed development can be split into three key components, these are:
 - Ground Mounted Solar PV Arrays.
 - Compounds for the Battery Energy Storage System and Substations.
 - Ecological Enhancement and Biodiversity Habitat Management Areas.

Design Flexibility

- 2.4. The proposed development has employed a 'maximum design scenario' approach which reflects the Rochdale Envelope approach.
- 2.5. The Rochdale Envelope is employed where the nature of the proposed development means that some details of the whole project have not been confirmed and flexibility is sought to address uncertainty. It provides a 'maximum design' scenario approach to the impact of a project and allows for a broad definition of the project to be framed within a number of set parameters. This approach allows for a project to be assessed on the basis of maximum project design parameters in order to provide flexibility, while ensuring all potentially significant effects (positive or adverse) are assessed within the planning application. The need for flexibility in design, layout and technology is required to address uncertainties inherent to the development. This is very pertinent to solar development due to the rapid pace of change in module technology and commercial availability. As technology advances, it is possible that modules could become more efficient which would result in a potential reduction in total module area required to deliver the same amount of generation or greater generation on the same land area.
- 2.6. This in turn could require the micro-siting of ancillary equipment to reflect such changes, i.e., the final locations of cabling and inverters. Accordingly, a final build plan would be submitted to the Local Planning Authority as part of a pre-commencement condition.
- 2.7. The final build plan would demonstrate how the final 'as-built' design remains within the parameters of the DNS application submission. This approach is consistent with good practice applied at other recently permitted DNS energy schemes¹.

¹ Including Penderi Solar Farm (DNS 3213164); Brynrhyd Solar Farm (DNS/3260565), & Penpergwm Solar Farm (DNS/3252305)

Ground Mounted Solar PV Arrays

- 2.8. The design principles of the solar modules are:
- Arrays will be comprised of a galvanised steel and anodised aluminium mounting structure with the solar panels attached to it.
 - Arrays will have a maximum top height of 3m and the lowest part of the arrays will be 0.8m above ground level.
 - All solar panels will be south facing.
 - Solar panels will be dark blue, grey or black in colour.
 - Indicative slope of the solar panels from horizontal would be 15 degrees.
 - Internal access track will be of permeable construction.
 - Typical minimum distance between edge of the arrays to the 2m high perimeter fencing would be 5m (this varies across the site).
 - Biodiversity will be enhanced within and around the arrays.
 - Appropriate offset will be provided between the development and the Public Rights of way running through the site.
 - CCTV will be positioned along the perimeter fencing of the arrays, on 2.7m high poles.
- 2.9. The solar PV modules would convert solar irradiance into Direct Current (DC) electricity. The proposed PV panels may also be bifacial (such that they will collect light both on the front and the rear sides of the panel as it captures sunlight reflected from the grass surface under the solar framework).
- 2.10. The PV modules would be mounted on south facing galvanised steel and anodised aluminium metal racks. The racks will be laid out in multiple parallel rows running east to west across the various field enclosures. The framework and arrays would be static. The distance between the arrays would respond to topography but would vary between 3.0m to 5.2m. Land between and beneath the panels would be used for biodiversity enhancements and/or seasonal sheep grazing. This is discussed in detail below.
- 2.11. Parts of the two south-westerly fields, which fronts onto Afon LLan, are located within a flood risk area. The applicant has confirmed that solar modules are water compatible development and can still operate after being partly submerged by flood water. Sensitive components such as inverters and transformers will be positioned above projected maximum flood level of 12.5m and outside the flood risk area. The lowest levels within the site boundary where panels are placed would be approximately 10.5m AOD suggesting that the base of the panel would be set at 11.2m AOD with the flood water set partially up the panels.
- 2.12. The arrays would be set within a 2.0m high security fence. Cables linking the rows of panels will be buried in the ground within trenches, typically 0.5–1.1m in depth. Further cables will be used to link areas of panels to inverters and then the substation compound located in the



eastern parcel of the application site. The dimensions of the cable trenches will vary and this is dependent on its location and ground conditions.

- 132KV cable trench – depth between 1m to 2m, and width of 0.85m
- 33KV cable trench – depth between 1m to 1.5m, and width of 0.85m
- 690v Trench – depth between 0.9m to 1.2m, and width of 0.85m

- 2.13. Sections of the cable will also be laid via trenchless techniques and this is discussed within the Outline Construction Environmental Management Plan.
- 2.14. An existing agricultural underpass, located under the A484, will be used for the cable route section linking the single northern land parcel and the main site.
- 2.15. Internal access tracks of permeable aggregate are required during the lifetime of the development.

Battery Energy Storage System (BESS) and Substation Compounds

- 2.16. The battery energy storage system consists of containerised battery units that can store energy and are able to release or absorb energy from the power network. Being able to absorb and release energy, the BESS at the proposed development can be used to contribute towards the frequency balancing services, where the power is being generated or absorbed statically or dynamically depending on the system frequency. When there is not enough power, batteries are discharged to balance under frequency preventing black and brown outs. To balance over frequency batteries are charged to prevent dangerous spikes across electricity infrastructure.
- 2.17. Under normal working conditions, the BESS would be unmanned. Visual checks will be undertaken during maintenance visits to the proposed development. The compound for the battery energy storage will require engineering works comprising cut and fill to achieve a level platform. Underground cabling works will be installed to connect the battery energy storage system to the proposed substation.
- 2.18. A new substation compound will be required for the proposed development, and this will be constructed in the easternmost field of the main application site. This is necessary to step up and covert voltage of the electricity delivered by the solar PV for connection to the National Grid Circuit.
- 2.19. The equipment and infrastructure to be installed at the BESS and Substation compounds include:
- Compound created through cut and fill
 - Internal access tracks
 - Vehicular parking
 - 42 No. containerised battery units measuring 7.81m by 2.65m with a height of 3.05m.

- 5 No. skid mounted transformers and inverters
- 2.4m high palisade fencing and lighting with CCTV
- DNO compound comprising: emergency floodlight & CCTV columns; high level connectors; circuit breaker, low level disconnectors; and anchor blocks
- 15m high lattice telecoms tower
- The compounds will be surfaced with chippings.
- DNO/BESS track providing ingress / egress directly to/from Carmarthen Road.

2.20. There are two options put forward within the application submission for the connections works linking the substation and point of connection to the circuit, these are: –

- Option 1 – the first is the overhead pylon located off Ystrad Road, Forestfach. The proposed routing option runs along the existing local highways (namely Swansea Road, Carmarthen Road, Ystrad Road and Denver Road).
- Option 2 – the alternative point of connection is the terminal overhead pylon tower located to the north off Carmarthen Road, near the Paper Mill Fisheries. The proposed routing option runs along the existing local highways (namely Swansea Road and Carmarthen Road).

2.21. A final decision on the point of connection will be made prior to construction and this can be secured by pre-commencement condition as part of the final build plan.

Ecological Enhancement and Biodiversity Habitat Management Areas

2.22. Measures have been specifically designed to enhance habitats after intensive grazing and provide a gain in biodiversity at the site during its operational phase.

2.23. Green infrastructure provision will include the creation and enhancement of 6.24ha of lowland meadows, 6.8ha of rhos pasture enhancement, 5.51ha of floodplain habitats, 3.56ha of targeted mitigation for species, approximately 1.9ha of tree planting, and approximately 3km of hedgerow creation.

2.24. Confirmed priority habitat fields have been removed from the scheme layout following the results of the botanical surveys. These fields are included in the proposed green infrastructure areas.

2.25. Furthermore, a number of areas that do not currently meet priority habitat standard including three large fields, totalling an extensive area approximately 9.36ha in size, have been removed from the solar facility layout yet remain within the site boundary as part of the green infrastructure. This field lies within the SINC designation but does not currently meet priority habitat standard. Therefore, it is proposed that these fields are restored by altering the management regime and additional seeding where necessary.



- 2.26. This will also provide a large area of habitat for ground-nesting birds and invertebrates. A significant area of farmland bird mitigation on fields adjacent to the river will also be retained and enhanced. The proposals for the cable route to connect the proposed Parc Solar Caenewydd to the National Grid will now be limited to the existing highway and therefore no habitat loss is anticipated.
- 2.27. Planting of native hedge, tree and scrub, and creation of wild bird cover plots will aim to extend the habitat mosaic and enhance habitat value for a range of species including bats and farmland the habitat mosaic and enhance habitat value for a range of species including bats and farmland bird species.
- 2.28. Enhancement of rhos pasture and creation of butterfly banks will enhance habitat and connectivity for butterfly species. A wildlife corridor will be created along the public right of way linking the site from north to south. This will comprise a habitat mosaic of grassland, scrub and hedgerow planting.
- 2.29. Additional woodland and hedgerow creation and infill planting will also strengthen habitat connectivity across the wider site.
- 2.30. The river corridor and adjacent SINC are considered to be a key component of the mitigation approach; a continuous wide corridor of habitat creation and enhancement will be created along the river corridor within the redline boundary, extending and linking valuable habitats as an ecological network. Open riparian habitats will be retained as part of the mosaic, but with a wider buffer zone than at present. An area of farmland bird mitigation will also be created adjacent to the river. Treatment and removal of extensive Japanese Knotweed will also provide habitat enhancement.
- 2.31. It is proposed to provide a series of enhancements such as swales, basins, leaky dams and filter trenches along arrays rows and in existing drainage ditches, as part of a SuDS betterment which will provide additional wetland habitat diversity. The additional hedgerows and the Rhos grassland field provide flood betterment once the cattle poaching has stopped, and the meadow grasses recover.
- 2.32. A minimum of 20 bat boxes and 20 bird boxes will be installed on retained mature trees across the site to provide new roosting and nesting opportunities for these species. Bird boxes will be suitable for a range of woodland bird species.
- 2.33. Any brash, log or grass arisings resulting from vegetation management will be utilised to create habitat piles, providing potential habitat and over-wintering sites for invertebrates, amphibians, reptiles and small mammals. At least 10 habitat piles of approximately 1m³ in size will be located within relatively undisturbed locations at the edge of the grassland on site, including within the reptile mitigation area.
- 2.34. The proposals are likely to meet the requirements for on-site biodiversity net gain, with a predicted gain of at least 26.25% compared to baseline conditions.

Access Arrangements

- 2.35. The primary access for the development is from the private access road which serves Penyfodau Fawr Farm.



- 2.36. A secondary access fronts the rear of an existing lay-by on the southern side of the B4560 Swansea Road, approximately 430m east of the Hospital Road access. Access to this farm track is currently blocked up and the applicant understands that the landowners will reinstate this access. Improvement works to the access and track will be delivered as part of the application proposal. This access will be used by both the operator of the BESS compound and National Grid to access its substation compound.
- 2.37. The development parcel located to the north of the A484, will be served via an existing access on the western side of the B4560 Swansea Road (W), located approximately 30 metres northwest of the A484 / B4560 Swansea Road roundabout.

Temporary Construction Compounds

- 2.38. Two temporary construction compounds are proposed, the main construction compound will be located off the Penyfodau Fawr Farm access track, the secondary construction compound will be positioned within the field containing the substation. As the proposed development is built out, the construction compounds would be scaled down and removed from the application site.
- 2.39. The construction compounds would contain the following: –
- Temporary site facilities (Port-a-Cabin type) to be used for site office and welfare facilities, including welfare facilities with provision for sealed waste storage and removal
 - Container storage unit(s) for tools and equipment storage
 - Container storage unit(s) for components and materials
 - Refuelling compound for construction vehicles and machinery
 - Adequate parking area for cars, construction vehicles and machinery
 - Designated skips for recycling and construction waste
 - Wheel washing facility
 - Adequate space for HGV to manoeuvre and offload within site to reduce impacts on local roads.
- 2.40. Construction is expected to be carried out in a single phase of around 8–9 months, depending upon any required enabling works, available daylight hours, ground conditions and ecological considerations. During this period, there will be a combination of HGVs for the component deliveries and cars/vans for construction staff. HGV movements are expected to be most intense throughout the early stages of construction, tailing off towards the final weeks.
- 2.41. All traffic movements will be carried out between the hours of 07.00 to 19.00 on Monday to Friday and 08.00 to 16.00 on Saturdays. The primary access for construction is the private access road which serves Penyfodau Fawr Farm. Construction vehicles will access the road from the southern arm of the A484 / B4560 Swansea Road roundabout.



- 2.42. The secondary construction compound is principally to aid the construction of the substation, battery storage area and the cable trench works from the substation to the point of connection, this will be accesses via the secondary farm track fronting the layby on the on the southern side of the B4560 Swansea Road.
- 2.43. For the single field north of the A484, all plant and machinery will be off loaded at the main compound and then transported along the local road to the northern site.

Operational Lifespan

- 2.44. A temporary operational lifespan of 40 years would be sought for the entire development and linked to the first export date of electrical energy from the development. During the operational phase, the activities on the application site would amount to servicing and maintenance of plant and equipment and vegetation management. Traffic impacts from the operational phase of the proposed development will only consist of between 10-15 Light Goods Vehicles per year.

Decommissioning

- 2.45. After a 40 year generation period the proposal would be decommissioned with all electricity generating equipment and built structures associated with the proposed development removed from the application site and the land returned to agricultural use.
- 2.46. A decommissioning plan would be prepared prior to the decommissioning commencing. The application site will be surveyed by an appropriately qualified ecologist to identify any ecological constraints arising from decommissioning activities. 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. Alternatively, and on application of the mitigation hierarchy principles, their loss may require compensation through on or off-site measures to ensure land/habitats are preserved for wildlife into the future.
- 2.47. 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. Where possible and when electrical items have an ongoing life-span they will be removed from the application site in whole units and re-used in current form. Where units do not have an ongoing life-cycle they will be placed into a suitable re-cycling skip or container and then removed from the application site to a suitable waste recycling centre. Following decommissioning, there may be a period of soil management aftercare.

Agricultural Matters

- 2.48. The applicant has advised that as part of the contractual arrangement with the landowners, one of the two tenant farmers would surrender land within the application site in exchange for replacement agricultural assets (The applicant understands that these include alternative, adjacent to land already being farmed by the tenant). The tenant farmer already took occupation of these nearby replacement fields in March 2022. The applicant is supportive of the tenant's transition to the alternative land to ensure it is of the required quality for the tenant's purposes. The tenant will also continue the use of the farmstead, residence and outbuilding, and will continue to farm the land south of the Afon Llan, outside the



development area. The developer and Estate landlord intend to continue agricultural use within the site by way of sheep grazing during the operational lifetime of the development. The existing Penyfrdau Fawr Farm shop will remain.

Undertakers

- 2.49. The layout of the proposed development will provide an appropriate easement for the existing underground infrastructure, which include sewers and gas pipes. No arrays will be erected over the line of any underground infrastructure. The applicant is in discussion with Welsh Water and Wales & West Utilities to agree a strategy for the directional drilling of the cable run under their assets.

Community Benefits & Shared Ownership

- 2.50. As part of the community benefits associated with the application proposal, the applicant commissioned Community Energy Wales to identify investing into shared community ownership. This identified Gower Power Limited who continued interest to deliver the shared ownership element of the proposed scheme. In addition to community ownership, the applicant is looking to enter into a legal agreement to provide funds to the Council to upgrade the local PRow infrastructure. Details of the proposed community benefits are presented within the accompanying Collaborative Benefits Report.

Public Rights of Way (PRow)

- 2.51. The proposed layout incorporates and protects the definitive line of the Public Rights of Way traversing the application site. The application proposal introduces a permissive footpath that links the farm track fronting the layby on the southern side of the B4560 Swansea Road, to other existing PRow within the site.

Renewable Energy and Carbon Displacement

- 2.52. The solar power element of the proposed development would generate clean renewable energy for the equivalent of over 11,500 homes a year. The anticipated CO₂ displacement is 18,000 tonnes per annum.

Site Selection

- 2.53. In terms of site selection, the accompanying Site Selection Report demonstrates that there are no other available sites that could accommodate the development. The Site Search Report established that: -
- There are no appropriate alternative sites that are sequentially preferable to accommodate the application proposal that are located outside of the green belt;
 - There are no appropriate brownfield sites available within the Swansea that can accommodate the proposal, and no appropriate sites have been put forward by consultees or third parties during the informal consultation, the statutory consultation and the statutory re-consultation.



- Other potential greenfield sites have been assessed within the Report, but none represent an improvement in comparison to the Application Site, given similar or better agricultural land quality and higher environmental habitats would be potentially harmed by the proposals.
- The site comprises low quality agricultural land.

3. BACKGROUND AND RENEWABLE ENERGY IN WALES AND THE UK

- 3.1. The explicit need to introduce a step change in how the country deals with climate change has been recognised by the UK Government who, on 1 May 2019, declared an Environmental and Climate Change Emergency, following the finding by the Inter-governmental Panel on Climate Change, that to avoid more than 1.5°C rise in global warming, global emissions would need to fall by around 45 per cent from 2010 levels by 2030, reaching net zero by around 2050. Through the declaration, the Government recognises a need to move swiftly to capture economic opportunities and green jobs in the low carbon economy, while managing risks for workers and communities currently reliant on carbon intensive sectors. The Welsh Government made its climate emergency declaration in April 2019. The declaration sends a clear signal that the Welsh Government will not allow the process of leaving the EU, to detract from the challenge of climate change, which threatens our health, economy, infrastructure and our natural environment.
- 3.2. The Climate Change Act 2008 (2050 Target Amendment) Order 2019, SI 2019/1056 (the order), came into force on 27 June 2019 and amended the legally binding target to reduce greenhouse gas (GHG) emissions set in section 1 of the Climate Change Act 2008 (CCA 2008) from 80% to 100%, or net zero.
- 3.3. On 20 April 2021, the UK Government announced its commitment to reduce carbon emissions by 78% by 2035 compared to 1990 levels (including, for the first time, emissions from shipping and aviation). The new target is set out in The Carbon Budget Order 2021, which came into force on 24 June 2021.
- 3.4. At a local level, Swansea Council made its own Climate Change Emergency Declaration in 2019. As part of its commitment to a Net Zero Swansea by 2050, the Council adopted its Charter on Climate Change in December 2020.
- 3.5. The South West Wales Energy Strategy (published in March 2022) sets out the need to deliver 840MW of ground mounted solar with the region by 2050. The City and County of Swansea Cabinet discussed the draft South West Wales Region Energy Strategy plan during its meeting on 20 January 2022. At the meeting the Cabinet Member for Economy, Finance & Strategy and Cabinet Member for Climate Change & Service Transformation jointly submitted a report that sought approval to adopt the South West Wales Regional Energy Strategy. The minutes of the Cabinet recorder the following resolutions:-
 - The 'draft' version of the South West Wales Regional Energy Strategy, as set out in Appendix A of the report be approved.
 - Authority be delegated to the Director of Place and Cabinet Member for Climate Change and Service Transformation to make any final changes to the Strategy in line with the approval process of the four Local Authorities.
 - The onward submission of the draft South West Wales Regional Energy Strategy to the Regional Corporate Joint Committee (CJC) once formally constituted be approved.

- 3.6. The South East Wales Energy Strategy was discussed at the South West Wales Corporate Joint Committee on Tuesday 15 March 2022. The minutes of the committee confirmed that **“members resolved That the South West Wales Regional Energy Strategy be adopted as the framework for the CJC’s work programme with further reports to be brought forward in due course identifying how it is proposed that the strategic intent will be delivered”**.
- 3.7. All local authorities located within the catchment area of the south east energy strategy have therefore given their full support to the need to deliver 840MW of ground mounted solar with the region by 2050.
- 3.8. The Government’s latest Renewable Energy Planning Database Quarterly extract database (October 2023)^{2,3} shows that Swansea Council have been underperforming in terms of renewable energy provision, with only 72MW installed within Swansea administrative area since 2007 with a further 30MW either under construction or awaiting construction (as at preparation of this report in December 2023). Notably, a further 85.50MW of potential generation capacity have either been refused permission, abandoned or permissions have expired. The relevant extract of the database shown all projects within Swansea’s administrative area is set out below.

Site Name	Planning Application Reference / Appeal Ref	Technology Type	Installed Capacity (MWelec)	Application submitted	Development Status
Kings Dock Biomass	2007/2684 & APP/B6855/A/09/2111230	Biomass (dedicated)	49.90	27/11/2007	Application Refused
Clydach Refinery	2012/0452	Advanced Conversion Technologies	10.30	27/03/2012	Abandoned
Cefn Betingau Farm	2013/0865	Solar Photovoltaics	9.00	10/06/2013	Operational
Pencefnarda Uchaf Farm	2014/0761 & APP/B6855/A/15/3005095	Solar Photovoltaics	3.60	03/06/2014	Application Refused
Brynwhilach Solar Park	2014/1022	Solar Photovoltaics	4.00	16/07/2014	Operational
Webbsfield	2014/0876 & APP/B6855/A/14/2226732	Solar Photovoltaics	1.00	18/06/2014	Application Refused
Gelliwern Isaf Farm	2014/0739	Solar Photovoltaics	6.00	21/05/2014	Operational
Rhyd-y-Pandy Solar Farm	2013/1639	Solar Photovoltaics	6.00	15/11/2013	Operational
Timet UK	2003/1860	Wind Onshore	2.00	15/09/2003	Application Refused
Mynydd Y Gwair Wind Farm	2012/1221	Wind Onshore	32.80	11/09/2012	Operational

² The Renewable Energy Planning Database (REPD) tracks the progress of UK renewable electricity projects over 150kW through the planning system. It provides as accurate and comprehensive a snapshot as possible of projects, and of progress across the technology sectors.

³ <https://www.gov.uk/government/publications/renewable-energy-planning-database-monthly-extract>

Site Name	Planning Application Reference / Appeal Ref	Technology Type	Installed Capacity (MWelec)	Application submitted	Development Status
Gwenlais Uchaf Farm	2014/1620 & APP/B6855/A/A5/3124709	Solar Photovoltaics	4.00	29/10/2014	Revised
Cockett Valley	2014/1837	Solar Photovoltaics	4.00	05/12/2014	Operational
Land at Llty Morphil Farm	2015/1529 & APP/B6855/A/15/3139869	Solar Photovoltaics	5.00	22/07/2015	Abandoned
Killan Farm Solar Array Extens	2015/1209	Solar Photovoltaics	1.00	17/07/2015	Operational
Carn Nicholas Farm	2015/1546	Solar Photovoltaics	5.00	10/08/2015	Under Construction
Castell Ddu Solar Farm	2015/1786	Solar Photovoltaics	5.00	09/09/2015	Planning Permission Expired
Carn Nicholas Farm	2015/1646	Solar Photovoltaics	5.00	07/08/2015	Application Withdrawn
Carn Nicholas Farm (Extension)	2020/0173/FUL	Solar Photovoltaics	10.00	31/01/2020	Operational
Eurofoods Building	2019/0331/FUL	Solar Photovoltaics (roof)	0.60	13/02/2019	Awaiting Construction
Tir John Solar Farm	2022/1907/FUL	Solar Photovoltaics	3.00	03/10/2022	Awaiting Construction
Brunel Way, Pentrechwyth - Solar Panels	2022/0087/FUL	Solar Photovoltaics (roof)	0.74	03/02/2022	Awaiting Construction
John Green Frog Power Compound, John North Road - Battery System	2022/2356/FUL	Battery	20.00	17/10/2022	Awaiting Construction
Brynwhilach Solar Farm, Morriston - Battery Storage	2022/2922/FUL	Battery	1.00	06/01/2023	Awaiting Construction

Welsh Commitment to Address Climate Change

3.9. Part 2 of the Environment (Wales) Act 2016 (2016 Act) places duties on the Welsh Government to reduce emissions of greenhouse gases, including a requirement to ensure that net emissions for 2050 are at least 80% lower than the baseline. The 2016 Act places several duties on Welsh Ministers to ensure the 2050 target is met. These include:

- Setting interim emissions targets for 2020, 2030 and 2040;
- For each five year budgetary period the Welsh Government must set a maximum total amount for net Welsh emissions (described as a carbon budget); and
- The Welsh Government must take into account international agreements to limit increases in global average temperatures.

- 3.10. On 9 February 2021, the Welsh Government adopted a suite of regulations, known as The Climate Change (Wales) Regulations 2021 which formally commit Wales, for the first time, to legally binding targets to deliver the goal of net-zero emission by 2050. By setting a long-term framework for meeting the net zero 2050 target, the regulations provide milestones and a direction of travel for Wales' decarbonisation pathway, whilst the carbon budgets help to focus near-term action to enable Wales to reach their long term goal. They provide clarity on the Welsh Ministers' vision for, and commitment to, a net zero future. As such, they provide a context for today's decision-makers to safeguard the needs of future generations.
- 3.11. However, the targets and budgets are achieved, reducing Welsh emissions will help to lessen the impacts on Wales and the world arising from increased temperatures. These impacts include flooding, risks to health, water shortages and risks to biodiversity. The Welsh Government is proposing to increase Wales's climate targets in response to the latest climate science and the recommendations of the Climate Change Committee (CCC) regulations that prioritise the delivery of renewables are: –
- The Environment (Wales) Act 2016 (Amendment of 2050 Emissions Target) Regulations 2021, which increase the 2050 greenhouse gas emissions reduction target from 80% to at least 100% lower than the baseline;
 - The Climate Change (Interim Emissions Targets) (Wales) (Amendment) Regulations 2021, which update the existing 2030 and 2040 targets from 45% and 67% to 63% and 89% respectively. They align the interim targets with the new 2050 target and front load climate action in the 2020s in line with the Climate Change Committee (CCC)'s advice;
 - The Climate Change (Net Welsh Emissions Account Credit Limit) (Wales) Regulations 2021, which revise the existing carbon budgets for 2021–2025 and 2026–2030 to an average of 37% and 58% reductions below the baseline (respectively); and
 - The Climate Change (Carbon Budgets) (Wales) (Amendment) Regulations 2021, which limit the use of carbon offsets for 2021–2025 to 0%. They effectively prohibit using carbon offsets during this period.
- 3.12. On 1 January 2021, the United Kingdom left the European Union Internal Energy Market (IEM). The IEM allows harmonised, tariff-free trading of gas and electricity across Europe (through interconnectors), leading to lower prices and greater security of supply. As wholesale gas and electricity prices in the UK are generally higher than elsewhere in Europe, interconnection has caused a reduction in wholesale prices, and hence consumer prices in the UK. Leaving the IEM has the potential to impact the trade of energy through interconnectors. The Government's Briefing Paper on Energy, Climate Change and Brexit identifies how one potential impact of leaving the IEM is an increase in the cost of energy imports and this in turn would be passed on to UK's householders and businesses. In terms of energy security, it notes how the interest of the United Kingdom should be to increase the flexibility and resilience of the grid, especially with increasing intermittent renewables.
- 3.13. In April 2006, all 22 unitary authorities in Wales signed the Welsh Commitment to address Climate Change. This commitment was developed with the Welsh Assembly Government (WAG). It commits the individual authorities to work to adapt to the effects of climate change and to reduce emissions of greenhouse gases. Wales is the only country in the European Union where all local authorities have signed a public commitment to address climate change.

- 3.14. Through the commitment, the Welsh Government has tasked Swansea Council to:-
- Work with the National Assembly and central government at a local level to deliver the UK climate change programme in Wales.
 - Include consideration of climate change issues within Community Strategies.
 - Make a public declaration, in line with agreed targets with the WAG, to: (i) deliver a significant reduction in greenhouse gas emissions; (ii) improve energy efficiency in council buildings and homes; and (iii) increase the use of "green" energy from renewable resources where it is appropriate and effective.
 - Encourage local residents and businesses to take action to reduce emissions of greenhouse gases and where appropriate publicise their actions.
 - Work with key building operators e.g. health authorities, businesses and development bodies to seek ways to adapt to potential effects of climate change on our communities.
 - Encourage the development of practical, economically viable, sustainable energy.
 - Encourage production of combined heat and electricity from these sources e.g. bio-mass.
 - Encourage local manufacture of energy efficient equipment for producing heat & power.
 - Monitor the progress of our plan against the actions needed and publish the results.
 - Take the necessary action to rectify any deviation from the plan where required.
- 3.15. Furthermore, through their commitment the Welsh Government recognised the benefits that will be delivered from : -
- Social, economic and environmental benefits likely to derive from combating climate change, and
 - Opportunities for local authorities to lead the response at a local level by helping encouraging local residents and business to reduce their energy costs and improve the local environment.

Joint letter by Welsh and Scottish Government (dated 11 August 2015)

- 3.16. In a joint letter from the Welsh and Scottish Government to the UK Government on 11 August 2015, the Welsh Natural Resources Minister stated that (inter alia) *“Community energy is a key priority for both our governments and we feel very strongly that those communities who have invested heavily, in time, money and commitment, in a cleaner energy future, are deserving of this consideration. We both see that the future direction for energy is one of local generation and supply, based on renewable sources, and smart storage and local grid management, with significant local benefit. The current proposals will significantly damage the prospects for this future if the local ownership and benefits of projects are not considered within the support regime. Schemes like the Abergwynnregyn hydro scheme*



bring significant economic, social and environmental benefits to communities and the DECC proposals will make it much harder for communities to benefit from local renewable energy opportunities in the future”.

- 3.17. This is an open letter emphasis on the Welsh Government commitment towards renewable energy following the DECC announcement to change the Feed-in Tariff accreditation, which the Welsh Government believes would undermine investor confidence in future community renewable energy schemes.

UK OVERVIEW

- 3.18. There is a plethora of Government legislation, guidance and policy which support the transition to a low carbon future and the continued roll out of renewables and low carbon energy and associated infrastructure. With regards to the need for development, the explicit need to introduce a step change in how the country deals with climate change was recognised via the UK Government’s declaration of an environmental and climate change emergency on 1 May 2019, following the findings of the Intergovernmental Panel on Climate Change (IPCC) who concluded that, to avoid a greater than 1.5°C rise in global warming, global emissions would need to fall by around 45 per cent from 2010 levels by 2030, and reach net zero by 2050 at the very latest.

- 3.19. The recently published IPCC Sixth Assessment report is a stark warning of the devastation that will be unleashed if we fail to urgently limit global temperature rises, and has been referred to as a “Code Red for Humanity” by the Secretary General of the UN, António Guterres, illustrating the urgent and desperate need for rapid decarbonisation.

Energy White Paper

- 3.20. On 14 December 2020, the Government released the Energy White Paper which sets out the Government’s vision of how the UK will clean up its energy system and reach net zero emissions by 2050. The white paper addresses the transformation of our energy system, promoting high-skilled jobs and clean, resilient economic growth as we deliver net-zero emissions by 2050. The white paper identifies how *“A low-cost, net zero consistent system is likely to be composed predominantly of wind and solar”* It goes on to state how *“Onshore wind and solar will be key building blocks of the future generation mix, along with offshore wind”*. COP26 agreement included accelerating the transition to 100% zero emissions cars and vans for the UK by 2035.

- 3.21. In June 2022, the High Court found that UK governments Net Zero Strategy breached the Climate Change Act 2008 because it didn’t detail how emissions cuts would be achieved. The High Court ordered the Government to inform parliament by April 2023, of how specific policies would contribute towards reducing emissions. On 30 March 2023, the Energy Security Secretary published a host of documents which outlined ambitious plans to scale up affordable, clean, homegrown power and build a thriving green industry. *Powering Up Britain* (March 2023) presents overarching delivery plan which brings together the government targets for energy security, reducing household bills and maintaining its goal towards achieving net zero, including:-

- Accelerating deployment of renewables by quintuple solar power by 2035.
- Speeding up planning consenting process – alongside Powering Up Britain, the Government has published a revised set of energy national policy statements for

consultation, covering overarching energy, renewables, electricity networks, gas generation, and pipelines. On 23 February 2023, the Government published its Nationally Significant Infrastructure Project (NSIP) Action Plan, which sets out how the government will reform the consenting process to ensure the planning system can deliver for the future, to meet the demands of a greater number and complexity of cases and deliver against government's ambitions.

- Through the Revised National Policy Statement for renewable energy (EN-3 (March), Government has committed to sustained growth in solar capacity to ensure that the UK maintains a pathway to meet net zero. EN-3 identifies how solar also has an important role in delivering the government's goal for greater energy independence. The British Energy Security Strategy states that government expects a five-fold increase in solar deployment by 3035. It sets out that government is supportive of solar that is co-located with other functions, such as storage, to maximise the efficiency of land use.

Clean Growth Strategy

- 3.22. The Clean Growth Strategy, published in October 2017, presented a comprehensive set of policies and proposals that aim to accelerate the pace of "clean growth", i.e. deliver increased economic growth and decreased emissions. To achieve the clean growth, the Government identifies how the UK will need to nurture low carbon technologies, processes and systems that are as cheap as possible, this includes subsidy free ground mounted solar parks as achieved by this development proposal. The Government places significant emphasis on securing increased investment across the energy systems whilst minimising, as much as possible, the public costs for securing such investments and makes multiple references to how they are seeking the delivery of solar without subsidy. Moreover, page 99 specifically states how the **'Government want to see more people investing in solar without government support'**.

British Energy Security Strategy

- 3.23. The Government's published British Energy Security Strategy (7 April 2022) explicitly highlights the urgent need for the UK to rapidly develop not only a decarbonised energy system but one that is more self-sufficient. This strategy provides a direct response by the Government to develop an energy system which is not so heavily reliant on imported oil and gas which has seen significant spikes in global cost and the overall cost of living following the impacts of the COVID-19 pandemic and Russia's invasion of Ukraine. As part of this strategy, the increased deployment of ground based solar development is identified by the Government to hold a key role in the realisation of these aims, with the government targeting a fivefold increase in the level of Solar PV development by 2035 (Up to 70GW). In addition to the increased uptake of decentralised renewable energy, the Energy Security strategy demonstrates the parallel need for improved grid flexibility and energy storage capacity and sets out that new appropriate policy will be developed to enable and encourage investment into sufficient, long duration electricity storage.
- 3.24. The urgent need for increased energy security and self-sufficient energy system has only been compounded in recent months as the UK Government announced the potential need to deploy a Contingency Plan for a reasonable worst-case scenario as reduced electricity imports from mainland Europe, combined with gas shortages, may result in a significant electricity shortfall. The predicted shortfall could be up to a sixth of peak demand during



periods of cold weather over the winter 2022–2023 period which could see the government impose four days of power cuts in January as a final resort under a worst-case scenario.

- 3.25. The targets set out within the Government’s British Energy Security Strategy are reflected in the National Grid’s annual Future Energy Scenarios Report (FES)(July 2022). The National Grid Future Energy Scenario (FES) report outlines how the energy system may need to transform to meet the target for net zero emissions by 2050. The FES illustrates four different, credible pathways for the future of energy between now and 2050: Falling Short; Customer Transformation; System Transformation; Leading the Way. Customer Transformation and System Transformation scenarios achieve net zero by 2050, with Leading the Way achieving it by 2047. The Falling Short Scenario doesn’t get to Net Zero by 2050, diverging from carbon budgets around 2025, resulting in 186 Mt of residual annual emissions by 2050. The heat and road transport sectors are largely decarbonised by 2050 across all scenarios except Falling Short. However, even for the Net Zero scenarios, some sectors such as waste and aviation do not reach zero emissions by 2050, so the energy sector, particularly the power sector, must reach net negative emissions to balance this out.
- 3.26. Across all the four scenarios within National Grid’s FES July 2022, the need for the rapid deployment of Solar PV generating development and increased energy storage capacity is emphasised. However, it is currently estimated that the targeted delivery of up to 70GW of Solar PV generation required under the British Energy Security Strategy by 2035, will only be met under two scenarios, with Leading the Way achieving this target by 2040 and Consumer Transformation achieving this target prior to 2050.
- 3.27. The Government targets and National Grid estimations set out above are further compounded by the National Infrastructure Commission publication ‘Net-Zero Opportunities for the Power Sector, March 2020) which sets out key infrastructure requirements needed to meet the UK’s 2050 net-zero target, including the amount of renewable energy development that would need to be deployed.
- 3.28. The NIC recommends that in meeting these targets, the UK’s energy mix needs to be made up of around 90% renewables. At page 18 of the report, it is recommended that across all scenarios, significant levels of solar, onshore wind and offshore wind will need to be deployed with between 129 – 237 GW (gigawatts) of renewable energy capacity in operation by 2050. To achieve this, the report recommends the following split:
- 56–121 GW of solar;
 - 18–27 GW of onshore wind; and
 - 54–86 GW of offshore wind.
- 3.29. To achieve the above targets would require a significant increase in installed capacity across the UK, including over nine times the current installed capacity of solar technologies in the UK, which as of September 2022 is around 14.1GW according to the Department for Business, Energy & Industrial Strategy (BEIS)⁴.

⁴ <https://www.gov.uk/government/statistics/solar-photovoltaics-deployment>

- 3.30. When considering the above figures and applying them to the number of local authorities across the UK, this would mean that there is an additional 106.9 GW of solar capacity required across the 382 local authorities across England, Scotland, Wales and Northern Ireland required to meet the NIC's upper figure for solar.
- 3.31. It is therefore reasonable to surmise that every local planning authority, where appropriate developable land allows, should be delivering a significant amount of renewable energy capacity, considering a mixture of landscapes and terrain.
- 3.32. To support a prosperous and rural economy, the diversification of agricultural and other land-based businesses is strongly supported by the Government. With the risk of shortfalls resulting from the loss of future subsidies, many farmers are looking to diversify to improve income and provide stability for the agricultural sector. Currently over 60% of farms now employ some form of diversification (according to the 2015/16 Farm Business Survey (FBS)) with diversification ventures ranging from simple building lets, farm shops and installing solar panels for the generation of green energy. The diversification of agricultural land to provide renewable energy generation is a widely accepted form of agricultural diversification and is acknowledged to provide significant financial stability to existing farmsteads and rural businesses.

Mission Zero – Independent Review of Net Zero (Rt Hon Chris Skidmore MP, January 2023)

- 3.33. A recent Independent Review of the UK's Net Zero Targets and current progress, published by the Rt Hon Chris Skidmore MP, makes several recommendations to the Government to ensure UK remains on track to realise its Net zero targets by 2050. The main recommendations made to Government resulting from the review are as follows:
1. Using infrastructure to unlock net zero
 - *accelerating the implementation of the British Energy Security Strategy to update the mandate of Ofgem, creating the Future System Operator and accelerating the connection of cheaper renewables such as solar and onshore wind*
 - *developing a cross-sectoral infrastructure strategy by 2025 supporting the building and adaptation of infrastructure for electricity, hydrogen, other liquid and gaseous fuels and CO2 networks that support the green economy*
 - *reforming our approach to planning, so that where locally supported, more solar and onshore wind can be developed more easily, helping communities reap the benefits of cheaper low-carbon electricity*
 2. Creating sustainable governance structures for net zero
 - *developing an over-arching government financing strategy by the end of 2023*
 - *establishing an Office for Net Zero Delivery, responsible for placing net zero delivery at the heart of government thinking*
 3. Backing businesses to go green
 - *reviewing incentives for investment in decarbonisation, including via the tax system and capital allowances, and protecting British industries from environmental*



undercutting by progressing plans on carbon leakage measures and providing more detail on the UK's new Emissions Trading Scheme (ETS)

- *building skills needed for the transition by driving forward the Green Jobs Taskforce recommendations and launching a 'Help to Grow Green' campaign, offering information and support to SMEs to plan and invest in the transition*

4. *Catalysing local action*

- *reforming the planning system at local and national level to place net zero at its heart*
- *back at least one Trailblazer Net Zero City, local authority and community, with the aim for these places to reach net zero by 2030*

5. *Increasing transparency and engaging people*

- *expanding the government's public reporting on net zero*
- *ramping up public information through a new engagement plan, a new carbon calculator on the carbon cost of choices, and a standardised approach to ecolabelling on products*
- *developing a Net Zero Charter mark, acknowledging 'best in class' among firms for their work in reaching net zero*

6. *Delivering cleaner, cheaper, greener homes*

- *legislating for the Future Homes Standard, meaning no new homes will be built with a gas boiler from 2025, and for all homes sold to be EPC C by 2033*
- *adopting a 10-year mission to make heat pumps a widespread technology in the UK and legislate for the end of new and replacement gas boilers by 2033 at the latest*
- *reforming EPC ratings to create a clearer, more accessible Net Zero Performance Certificate (NZPC) for households*

7. *Capitalising on international leadership*

- *conducting a strategic review on the UK's international climate leadership and introduce environmental and climate protections in future free trade agreements, removing trade barriers to environmental goods and services*

8. *Setting ourselves up for 2050 and beyond*

- *ramping up investment in research and development (R&D), with a new net zero R&D and technologies roadmap up to 2050, supporting up to 3 10-year demonstrator projects.*

Industrial Decarbonisation Strategy, BEIS (March 2021)

3.34. The Industrial decarbonisation strategy sets out how industry can decarbonise in line with net zero while remaining competitive and without pushing emissions abroad. The strategy

recognises that reaching the net zero target will require extensive, systematic changes across all sectors, including industry and emphasises that the 2020s will be a crucial decade to lay the foundation to enable the switch away from fossil fuel combustion to low carbon alternatives, including electrification, hydrogen, and biomass.

- 3.35. The strategy describes that to deliver net zero a minimum of 20TWh of fossil fuel use will need to be replaced by low carbon alternatives in 2030.
- 3.36. The scale and pace of decarbonisation required to achieve this target is therefore urgent.
- 3.37. The modelling contained within the report indicates that electrification of industry could reduce emissions by between 5 MtCO_{2e} and 12.3 MtCO_{2e} per annum by 2050 and describes that as new technologies emerge and renewable electricity prices continue to drop, electrification will become a more attractive option for industry. The role of smart technologies, such as storage and demand side response, are emphasised in relation to facilitating this transition and the report highlights at page 31 that "smart technologies, such as storage and demand-side response, can also provide flexibility to the electricity system, helping industrial consumers use energy when it is cheapest and cleanest".
- 3.38. The report makes clear that electricity networks will need to accommodate significant increased demand from the electrification of industrial processes and will therefore need to be fit for purpose to achieve this to achieve net zero. Increasing the flexibility of the electricity system will make a positive contribution towards achieving this objective.

Smart Systems and Flexibility Plan- Transitioning to a Net Zero Energy System, BEIS (July 2021)

- 3.39. The Smart Systems and Flexibility Plan sets out a vision, analysis and suite of policies to drive a net zero energy system and replaces the previously published 2017 plan.
- 3.40. The Ministerial Foreword to the Smart Systems and Flexibility Plan, 2021 makes clear that:
- "The government is committed to leading the way in the transformation of our energy system. A smarter, more flexible system will utilise technologies such as energy storage and flexible demand to integrate high volumes of low carbon power, heat and transport and reach a carbon neutral future. A smart and flexible energy system can deliver significant benefits for consumers, the system and the wider economy whilst lowering carbon emissions."*
- 3.41. The Executive Summary emphasises the need to deliver system flexibility quickly:
- "It will be very difficult to achieve the deep power sector decarbonisation needed to achieve the sixth Carbon Budget without significantly higher levels of system flexibility. The need for flexibility will rapidly increase as variable renewable power replaces fossil fuel sources, and we electrify heat and transport. The illustrative scenarios in our analysis indicate the scale of deployment that could be needed. Around 30GW of total low carbon flexible capacity in 2030, and 60GW in 2050, may be needed to maintain energy security and cost-effectively integrate high levels of renewable generation."*
- 3.42. The report highlights that this represents a significant increase in deployment needed relative to the 10GW of low carbon flexibility currently on the system and emphasises that

failure to achieve the targets cited risks the need to have to build more fossil fuel generation instead to maintain energy security in the 2030s.

- 3.43. The report provides further breakdown and analysis of the various forms of technology which increase flexibility, including battery storage. Lithium-ion battery storage currently comprises approximately 1GW of the 4GW of electricity storage currently operation in Great Britain (the remaining 3GW provided by pumped hydro storage). Whilst the battery storage pipeline is highlighted as growing there is a need to significantly increase the deployment of battery storage to approximately 18GW by 2050.

National Grid Future Energy Scenario Report (FES), National Grid (July 2022)

- 3.44. The National Grid Future Energy Scenario (FES) report outlines how the energy system may need to transform to meet the target for net zero emissions by 2050. The FES illustrates four different, credible pathways for the future of energy between now and 2050: Falling Short; Customer Transformation; System Transformation; Leading the Way. Customer Transformation and System Transformation scenarios achieve net zero by 2050, with Leading the Way achieving it by 2047. The Falling Short Scenario doesn't get to Net Zero by 2050, diverging from carbon budgets around 2025, resulting in 186 Mt of residual annual emissions by 2050. The heat and road transport sectors are largely decarbonised by 2050 across all scenarios except Falling Short. However, even for the Net Zero scenarios, some sectors such as waste and aviation do not reach zero emissions by 2050, so the energy sector, particularly the power sector, must reach net negative emissions to balance this out.
- 3.45. Across all the four scenarios within National Grid's FES July 2022, the need for the rapid deployment of Solar PV generating development and increased energy storage capacity is emphasised. However, it is currently estimated that the targeted delivery of up to 70GW of Solar PV generation required under the British Energy Security Strategy by 2035, will only be met under two scenarios, with Leading the Way achieving this target by 2040 and Consumer Transformation achieving this target prior to 2050.

UK Energy Security Strategy (2022)

- 3.46. On 7 April 2022, the Government published the UK Energy Security Strategy, a direct response to the energy market position following the significant spikes in energy prices resulting from the COVID-19 pandemic and Russia's invasion of Ukraine. Following the reopening of the global economy after the impacts of the COVID-19 pandemic, the sudden surge in demand for everything from foreign holidays to new cars has driven a significant spike in the demand for oil and gas, and consequentially greatly increasing the price of these fossil fuels. This has only been further compounded following the Russian invasion of Ukraine and the restrictions placed on Russian gas to the European market, which has resulted in prices increasing even further. As result of these factors, we have seen the price of European gas increasing by over 200% in the past 12 months, with coal prices increasing by over 100%. This has seen a record increase in global energy prices and had led to an inevitable rise in the cost of living within the UK as our energy mix is highly reliant on natural gas to generate electricity and also to heat the majority of the 28 million homes in the UK.
- 3.47. On the issue of affordability, a research briefing published by the Government on the House of Commons Library (Domestic Energy Prices, 6 January 2023) identifies that wholesale energy prices have increased rapidly from the second half of 2021 onwards, aided by the impacts of the Coronavirus Pandemic and Russia's invasion of Ukraine which has seen wholesale gas and oil prices dramatically increase over the past 12 months. This has been

reflected in changes to the 'Default Tariff Cap' otherwise referred to as the energy price cap which covers prices for consumers on default or standard energy tariffs. The energy price cap was increased by Ofgem by 54% in April 2022.

- 3.48. It was announced by former Prime Minister Lizz Truss on 8 September 2022 that from 1 October the government would introduce a new Energy Price Guarantee, set at £2500 a year for typical levels of consumption and was originally planned to last a total of 2 years. Following a change in Prime Minister and Chancellor, the new Chancellor of the Exchequer announced that the Energy Price Guarantee would now only last a total of 6 months at its current level and then be increased by a further 20% in April 2023 for another 12 months. Whilst the energy Price Guarantee introduced by the Government is lower than the levels the energy price cap would have otherwise been increased to in Q4 2022 and Q1 2023, it will still mean average energy prices for households have seen increase of 27% in October 2022 and will see a further 20% increase in April 2023.
- 3.49. On 15 June 2022, an article in the Sky News identified how the British Government has extended the life of a coal power plant in a bid to "bolster" energy security. This was a direct action to the uncertainty in Europe following the invasion, as the Government seeks to explore all options to bolster supply. This highlights the urgency for the acceleration of renewables and low carbon projects, such as the application proposal.⁵
- 3.50. The published Energy Security Strategy highlights the urgent need to both develop an energy system which is more self-sufficient and further accelerate the Country's transition away from oil and gas. The Strategy reiterates how Government will ensure a more flexible, efficient network system for both generators and users by encouraging the deployment of renewable energy generation technologies such as Solar PV and encouraging all forms of flexible electricity storage systems to balance the overall system and reduce overall costs of electricity.
- 3.51. It is acknowledged that this transition is not a fast process and is critically dependant on the speed at which we can deploy new renewable energy technologies. The UK Energy Security Strategy outlines the urgent need for the rapid deployment of a range of renewable technologies including on and off-shore wind, nuclear, solar and other technologies. It is acknowledged that net zero targets cannot be sustainably met through the exploitation of only one or a few technologies and requires the exploitation of all available renewable technologies. For ground mounted solar technologies, the new Energy Security Strategy states that the Government will:

"...consult on amending planning rules to strengthen policy in favour of development on non-protected land, while ensuring communities continue to have a say and environmental protections remain in place. We will continue supporting the effective use of land by encouraging large scale projects to locate on previously developed, or lower value land, where possible, and ensure projects are designed to avoid, mitigate, and where necessary, compensate for the impacts of using greenfield sites."

⁵ <https://news.sky.com/story/government-keeps-coal-power-station-open-to-boost-security-in-spite-of-lobbying-to-consign-coal-to-history-12633856>

4. APPLICATION SITE AND ITS SURROUNDINGS

- 4.1. The application site is located off the A484 and B4620 (Swansea Road) and in-between the settlements Gowerton, Gorseinon Garden Village and Fforest-Fach. The National Grid Reference (NGR) for the centre of the application site is 260432, 196889, the closest postcode to the application site is SA4 4LE. The surrounding land uses consist of a mix of residential, agricultural and industrial areas. The redline boundary for the application extends to a total area of 83.2 hectares.
- 4.2. The height of the land across the undulating application site ranges from c.55–9.5m Above Ordnance Datum (AOD) and is considered typical of the landscape of the surrounding valley landscape. The application site falls towards and fronts the Afon Llan which runs east to west. To the south of the application site the land continues to rise, reaching c.170m AOD around West Cefncoed. The land gradually falls to the west to the Afon Lluchwr (River Loughor).
- 4.3. The application site sits at the southeast residential edge of Gorseinon, within the designated green wedge and within a Special Landscape Area. The south of the residential site is offset from the edge of Gowerton and Waunarlwydd by woodland and vegetation along the railway line, Afon Llan and Westfield Industrial Park. The edge of Swansea is to the east, beyond intervening fields, woodland blocks, and vegetation along the Afon Llan. Substantial mitigation proposals would aim to retain and enhance the existing landscape elements which presently prevent coalescence.
- 4.4. The main development site currently consists of a number of individual, agricultural fields. The site is bordered by Afon Llan to the south, Gowerton Sewage Treatment Works to the west, agricultural land to the east, a business park, the B4560 and A484 roads to the north.
- 4.5. The roads also separate the main development site area, with a smaller area of undeveloped land located to the north and just south of residential dwellings along the B4620.
- 4.6. The Swansea Local Development Plan 2010–2025 has allocated various land parcels adjacent to the application site for a variety of uses including residential; a primary school; sports pitches; green infrastructure; and, industrial uses.

Landscape

- 4.7. With regards to the National Landscape Character Areas (NLCA), the application site is covered by NLCA 38: Swansea Bay and key characteristics that are relevant to the application and its setting include:
 - "Narrow Coastal Plain – a long lowland area, of limited width in its middle section, between uplands and the sea, and opening out into wider lowland areas at either end.
 - "Character is urban and suburban with large housing and industrial estates. Heavy industries and settlement have made use of these strategically important locations, between coalfield and sea, and major ports around Swansea and the Steel Works at Port Talbot are landmark features."
 - "Tightly fitted between the steeply rising uplands to the north and the sweeping bay to the south, this often busy, noisy, at times messy, urban, transport artery also extends over the broad neck of Gower to include the neighbouring, estuary-set town of Llanelli."

- 4.8. At a more detailed level, LANDMAP divides Wales into discrete geographical areas known as aspect areas. The 5 LANDMAP datasets are called the Geological Landscape, Landscape Habitats, Visual and Sensory, Historic Landscape and Cultural Landscape. The Visual and Sensory dataset locates the application site within Aspect Area, Afon Llan and surrounds. The area is described as:
- "Valley floor with Afon Llan flowing through it, urban areas surround it some being immediately adjacent. Pylons cross the area as do a number of roads with the A484 forming part of the northern boundary. Visual detractors within include a sewage works, roads and pylons. Factories and urban areas border it in places. Some hedgerow field boundaries but has a distinct urban edge character. Change detection 2014: expansion of Swansea edge into this area."
- 4.9. The Landscape Habitats Aspect Area is "Between Gorseinon and Gowerton", described as:
- "Semi-improved Neutral Grassland. Improved Grassland. Marshy Grassland. Arable. Buildings... An area of grassland between two urban areas."
- 4.10. The quality of the area is described as generally low, with the aim to improve ecological value of farmland.
- 4.11. The Gower Area of Outstanding Natural Beauty (AONB) is approx. 3.5km to the southwest of the application site at its closest point. There are no Registered Parks and Garden's, Registered Historic Landscapes, located within or immediately surrounding the application site.
- 4.12. There are two small remnant areas of Ancient Woodland, one within the main part of the application site and a smaller area to the north between the A484 and Swansea Road.
- 4.13. Stafford Common, an area of Statutory Access Land (SAL), is adjacent to the northern parcel of the site. To the north of Swansea Road there is a large area of SAL Penllergaer Common, which expands up to the industrial area. Within this area there is also a Scheduled Monument.
- 4.14. A number of Public Rights of Way (PRoW) cross the application site and link to the wider area, namely; LC101, LC26, LC71, LC72 and CO60. Buffer zones from the PRoWs, lower array heights and breaks in the mass of arrays are all included in the layout design.

Vegetation and Land Use

- 4.15. The application site is crossed by several hedgerows, creating a medium sized field pattern of mixed grazing pasture and arable land. Some of the varying field sizes of the application site appear larger than the fields of the surrounding agricultural landscape. Hedgerows are generally managed at a relatively low height (typical of the area) in the northern part of the application site with some exceptions. The condition of the hedgerows across the western fields appear gappy and would be bolstered in places. A small block of woodland (Ancient Woodland) is present within the eastern part of the application site, where the fields also have dense mature lines of trees around some of their boundaries, notably bordering the Swansea Road.
- 4.16. The southern fields, south of Afon Llan, have greater vegetative enclosure. This is due in part to vegetation around the Afon Llan and self-seeded copse over the restored coal tips to the

south, north of the railway line and industrial area. The topography being flatter around the river corridor gives the appearance of a more vegetated landscape within views, whereas the higher slopes appear more open.

Settlements

- 4.17. The application site is located at the southeast residential edge of Kingsbridge and Gorseinon which extends west to the estuary. Gowerton and Waunarlwydd are to the south of the application site, contained in the main by the railway line, with a small residential area of Gowerton and Westfield Industrial Park encroaching north.
- 4.18. Near to the application site there are isolated properties along the B4560 (Swansea Road) which abut the application site, with Fforest Fach further east. Penyfodau Fawr Farm is located within but specifically excluded from the redline boundary.

Biodiversity

- 4.19. Part of the application site lies within Penyfodau Fawr To Llewitha, a Site of Importance for Nature Conservation (SINC), designated for a number of habitats including native woodland, scrub, lowland meadow, neutral grassland, lowland fen, purple moor grass and rush pasture, and watercourse with exposure/erosion features. The western extent of the application site lies within Alcoa Wet Meadows SINC, designated for wet woodland, scrub, neutral grassland, purple moor grass and rush pasture, linear vegetation and watercourse. Part of the application site located to the north of the A484 straddles the Stafford Common SINC. Table below lists all the designations within 2km of the application site, with an extended search for international designations within 10km of the application site. It is important to note that no physical energy development is proposed on the SINC fields located within the planning application boundary.

Site Name	Designation	Category	Distance from Site Boundary
Burry Inlet	Ramsar	International	1700m
Burry Inlet	SPA	International	1700m
Gower Commons	SAC	International	3300m
Gower Ash Woods	SAC	International	7400m
Camarthen Bay and Estuaries	SPA	International	1700m
Crymlyn Bog	SAC	International	7800m
Crymlyn Bog	Ramsar	International	7800m

Limestone Coast of South West Wales	SAC	International	9800m
Burry Inlet and Loughor Estuary	SSSI	National	1700m
Penplas Grasslands	SSSI	National	1700m
Penllergear Railway Cutting	SSSI	National	3200m
Barland Common Stream Section	SSSI	National	3300m
Nant-Y-Crimp	SSSI	National	3700m
Cadel Heath	Local Nature Reserve	Local	1297m
Cwmllywd	Local Nature Reserve	Local	1757m
Stafford Common	SINC	Local – Non statutory	On Site
Alcoa Wet Meadows	SINC	Local – Non statutory	On Site
Penyfodau Fawr To Llewitha	SINC	Local – Non statutory	On Site
Mynydd Garn goch Common	SINC	Local – Non statutory	9m
Waungron to Gowerton Railway line	SINC	Local – Non statutory	142m
Main Swansea – Fishguard Railway Line	SINC	Local – Non statutory	238m
Gowerton Mart Woods	SINC	Local – Non statutory	278m
Lower Lliw Corridor & Llan Confluence	SINC	Local – Non statutory	462 m

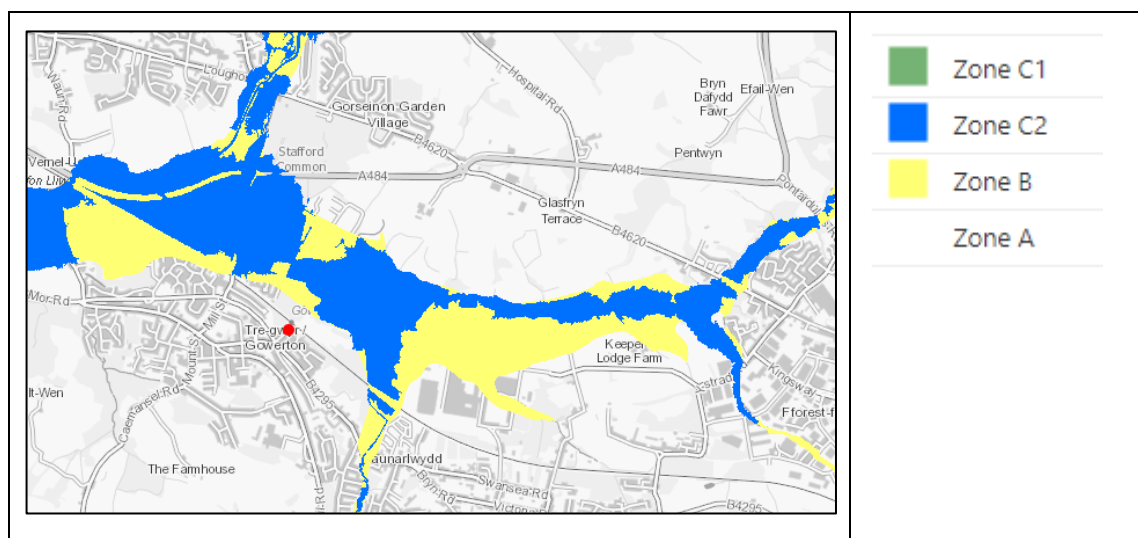
Dunvant Brickworks	SINC	Local – Non statutory	679 m
Mynydd Bach–Y–Glo	SINC	Local – Non statutory	730 m
Valley Wood	SINC	Local – Non statutory	972 m
Portmead Common	SINC	Local – Non statutory	1009m
West Gowerton Woods	SINC	Local – Non statutory	1041m
Bishwell Common	SINC	Local – Non statutory	1094m
Upper Mynydd Garn goch Common	SINC	Local – Non statutory	1096m
Gowerton saltmarsh	SINC	Local – Non statutory	1379m
Marbled White Butterfly Meadow	SINC	Local – Non statutory	1527m
Cwmmawr Woods	SINC	Local – Non statutory	1916m
Nant Llwyd Valley	SINC	Local – Non statutory	1984m
B-Line	B-Line	Local – Non statutory	1700m

- 4.20. Within 2km of the application site boundary there are a further 65 Ancient Semi Natural Woodland Sites, Restored Ancient Woodland Sites, Plantation on Ancient Woodland site, and Ancient Woodland Sites of Unknown Category. These are all unnamed.
- 4.21. When considering the Zone of Influence for designated sites within a 10km radius, it should be noted that the application site lies within 2.1km of Penplas Grasslands Site of Special Scientific Interest (SSSI), Burry Inlet Ramsar Site and SSSI and Camarthen Bay and Estuaries Special Areas of Conservation (SAC). The Afon Llan is connected to the SAC, creating a potential pollution pathway connecting to the proposed development.

Hydrology

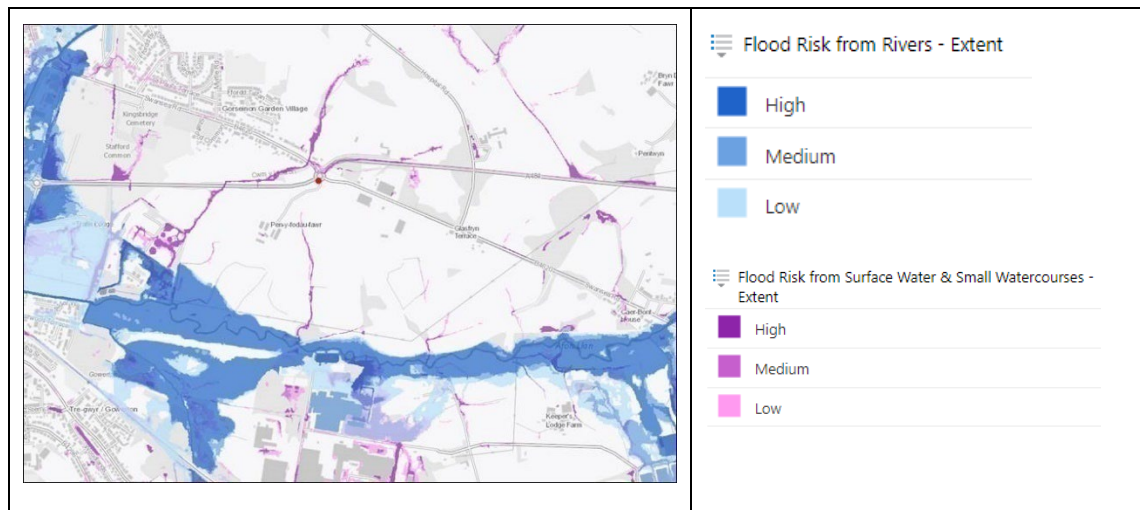
- 4.22. There is a main watercourse running along the southern part of the application site (Afon Llan). The Gors Fawr Brook also runs to the far southwest of the application site and is a tributary of the Afon Llan.
- 4.23. Geological data held by the British Geological Survey (BGS) indicates that the bedrock geology underlying the application site is "Grovesend Formation" – which is shown to be a mix of Mudstone, Siltstone and Sandstone. The application site is currently a permeable greenfield site that allows surface water run-off to drain naturally to ground and toward the existing watercourses. However, the Soilscape soils data shows the application site as "Lime-rich loamy and clayey soils with impeded drainage". There are several other small watercourses/ditches located across the application site which will be used to convey flows. The use of "leaky dams" is proposed in the form of obstacles within field ditches such as earth mounds or reducing the width of the ditch. The underlying ground conditions are shown as Mudstone, Siltstone and Sandstone formation with Sand and Gravel deposits. The topography of the application site falls north to south toward the Afon Llan.
- 4.24. The Natural Resources Wales website provides basic flood mapping data as a general guide to whether the application site is at risk of flooding from various sources including rivers and seas for Flood Zoning classification. This mapping indicates that the application site is predominantly located within Flood Zone A, an area with a low probability of flooding occurring. The southern part of the site is located in Flood Zones B and C2. Given the above the risk to the application site from this source of flooding is considered to be Very Low for the majority of the application site.

Figure: NRW Flooding Map



- 4.25. The Surface Water (Pluvial) Flood Map indicates that the application site is at a very low risk from surface water flooding for the majority of the application site with some small pockets of land shown to be at high risk.

Figure: NRW River & Surface Flooding Map



Cultural Heritage

- 4.26. The application site comprised common land and/or farmland during the early medieval, medieval and earlier post-medieval periods. Evidence of such land use is likely to comprise buried ditches of former field boundaries and buried plough furrows.
- 4.27. Penyfodau Fawr farmhouse, its attached barn, and the range to its south-east were in existence by 1830 while the range to its south was in existence by 1878. These buildings represent non-designated historic assets of local significance.
- 4.28. There is evidence of localised industrial activity within the application site from the later post-medieval period onwards. The infilled cut of the Penclawwd Canal and the leat from Afon Llan are likely to survive in the southern parcel of the application site; and there is potential for buried remains of the track bed and associated structures (e.g. weighing machines) of the tramway and mineral railway in the south-western, eastern-central and central parts of the application site.
- 4.29. Such infrastructure would be considered non-designated historic assets, their heritage significance derived from their evidential and historic value.
- 4.30. Coal pits, mine shafts and pile/drift recorded on historic mapping and by The Coal Authority would not usually be considered as historic assets.
- 4.31. There are no designated historic assets located within the application site. Four Scheduled Monuments are located within 2km of the application site, these are:-

- Mynydd Carn–Goch Roman Earthworks;
- Roman Practice Camp on Stafford Common;
- Garn Goch Round Barrow; and
- Melin Mynach Watermill, Gorseinon.

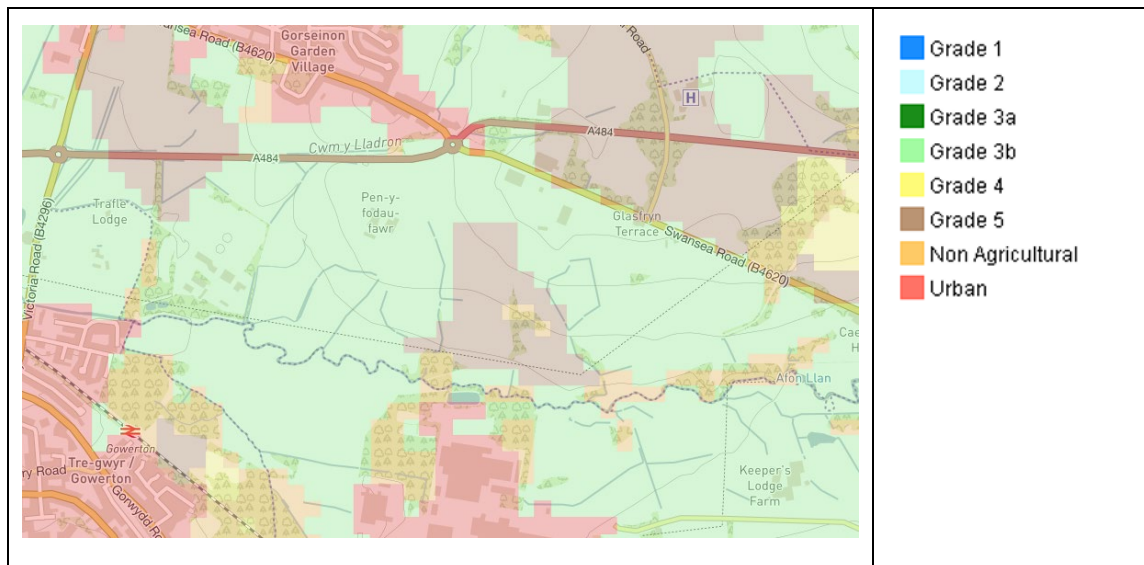
4.32. Twelve Listed Buildings are located within 2km of the application site, these are

- Church of St John;
- Temple United Reformed Church;
- Boundary Stone at Kingsbridge;
- Capel Bethlehem including attached vestry block;
- Walkers Snack Foods Factory;
- Bryn-rhos;
- North farmyard range at Bryn-rhos;
- West farmyard range at Bryn-rhos;
- East farmyard range at Bryn-rhos;
- Church of Saint Catherine;
- War Memorial in grounds of Church of Saint Catherine; and
- Church of the Blessed Sacrament.

4.33. No World Heritage Sites, Registered Historic Landscapes, Registered Historic Parks and Gardens, or Conservation Areas are located within 2km of the application site.

Agricultural Land

4.34. The Welsh Government has developed a web-based Predictive Agricultural Land Classification (ALC) map for Wales. The predictive ALC map shows that the quality of agricultural land within the application site mostly comprises land of Subgrade 3b and Grade 5, with small areas of non-agricultural land. The Welsh Government Soil Advisor has confirmed that a detailed ALC survey is not required, and the application site does not contain any best or most versatile agricultural land.



Ground Conditions

- 4.35. The application site is located within the South Wales Coalfield. There are a high density of former collieries and other mining related features on the application site and the surrounding area. Preliminary assessment has indicated a total of 41no. coal mine entries located within or within 20m the application site boundary (28 shafts & 13 Adits). Of these entries, The Coal Authority indicates that 3no. shafts have been treated.
- 4.36. A review of historical and current Ordnance Survey mapping and environmental registers has indicated that potential contaminative current and historic land uses are present at the application site. These land uses include the historic coal mining legacy of the application site, historic backfilling of on-site canal, as well as the agricultural and farming land uses.

5. PLANNING POLICY CONTEXT

- 5.1. This section of the Statement identifies the national and local planning policy and guidance pertinent to the development proposal and development site. The plan led approach to development as enshrined by Section 38(6) of the Planning and Compulsory Purchase Act 2004 requires development proposals to accord with the adopted development plan unless material considerations indicate otherwise.
- 5.2. In the case of DNS schemes, Planning Policy Wales, at paragraph 5.75, states “Planning applications for onshore generating projects in Wales which have an installed generation capacity of between 10MW and 50MW (there is no upper limit for onshore wind generating stations) are made directly to the Welsh Ministers under the Developments of National Significance (DNS) process and considered under policies in Future Wales”.
- 5.3. Accordingly, as a DNS project, the main policy consideration for the assessment of Parc Solar Caenewydd Solar Farm is the relevant policies set out in **Future Wales**. The local development plan and Planning Policy Wales are also a material consideration.
- 5.4. Planning Policy Wales explains how material considerations could include current circumstances, planning policies of the Welsh Government⁶ and job creation⁷. It goes on to state how factors to be taken into account in making planning decisions (material considerations) must be planning matters; that is, they must be relevant to the regulation of the development and use of land in the public interest, towards the goal of sustainability⁸.
- 5.5. Whether a particular consideration is material in any given case will depend on the circumstances. Planning Policy Wales gives some guidance on what material considerations are. They must be genuine planning matters, that is, they must be relevant to the regulation of the development and use of land in the public interest, towards the goal of sustainability.
- 5.6. Welsh Government’s Development Management Manual (May 2017), which provides comprehensive guidance to local planning authorities on handling and deciding development proposals, provides an explanation of ‘material consideration’ it states⁹:

Section 38(6) of the 2004 Act requires that, if regard is to be had to the development plan for the purposes of any determination to be made under the Planning Acts, the determination must be made in accordance with the plan unless material considerations indicate otherwise.

Factors to be taken into account in making planning decisions (material considerations) must be planning matters; that is, they must be relevant to the regulation of the development and use of land in the public interest, towards the goal of sustainability.

Material considerations must also be fairly and reasonably related to the development concerned. The Courts are the final arbiters of what may be regarded as material

⁶ Planning Policy Wales paragraph 3.1.3

⁷ Ibid paragraph 10.2.11

⁸ Ibid paragraph 3.14

⁹ Welsh Government, Development Management Manual (May 2017) Paragraphs 9.4.1 to 9.4.6.

considerations in relation to any particular application, but they include the number, size, layout, design and appearance of buildings, the means of access, landscaping, service availability and the impact on the neighbourhood and on the environment. The effects of a development on, for example, health, public safety and crime can also be material considerations, as, in principle, can public concerns in relation to such effects.

Where development plan policies are not directly relevant to the development proposal, material considerations will be of particular importance.

The weight to attach to material considerations is a matter of judgement, however the LPA must demonstrate in the planning officers or committee report that, in reaching its decision, they have considered all relevant matters.

Generally greater weight is attached to issues supported by evidence rather than solely by assertion.

- 5.7. The above advice appears to provide a broad and wide-ranging definition of a material consideration, whereby greater weight is attached to issues backed by evidence as opposed to assertion.

Future Wales: The National Plan 2040 (February 2021)

- 5.8. Future Wales provides a spatial context for facilitating the delivery of development in Wales over the next 20 years and constitutes the development plan for DNSs in line with section 38(6) of the Planning and Compulsory Purchase Act 2004.
- 5.9. Future Wales will be used to guide both public and private investment. Welsh Government's aim is to ensure investments and developments – whether large or small in scale – contribute to the broader ambitions of the Welsh Government and to the well-being of communities. Therefore, Future Wales will influence how communities develop over the next 20 years and it is important that we have a comprehensive understanding of the positive and negative effects this could have as the plan developed. Future Wales is the national development framework for Wales and has development plan status.
- 5.10. Page 15 of Future Wales identifies how Future Wales does not contain statements on all land use matters but it provides specific policies on issues which the Welsh Government considers them to be a national policy at this time, it goes on to state *“deciding where to locate renewable energy generation technology is a spatial issue of such significance that national ambitions are unlikely to be achieved without national planning policies”*.
- 5.11. Schemes qualifying as energy Developments of National Significance (DNS) must be determined in accordance with Policy 18 of Future Wales. This point is expanded on further below. The First Minister of Wales's Ministerial Foreword makes an early and important reference to the climate emergency faced by Wales. There is a recognised need for Wales to focus on generating the energy it needs to support its communities and industries over the next twenty years. This message is repeated in the Foreword by the Minister for Housing and Local Government which states (inter alia) *“this Government is committed to supporting and delivering more active travel and sustainable transport infrastructure, new renewable energy schemes, improved digital communications infrastructure and new public services and*

facilities. In all these areas our decisions can contribute towards decarbonisation, healthy and active lifestyles, a resilient and diverse environment and increased economic prosperity and fairness”.

- 5.12. In the ‘Introduction’ to Future Wales, achieving decarbonisation and climate-resilience are noted as being one of the “key national priorities” for Wales; indeed Future Wales only includes policies “on issues where the Welsh Government considers a national priority at this time, or matters which are distinctly spatial and require national leadership. For example, ...deciding where to locate renewable energy generation technology is a spatial issue of such significance that national ambitions are unlikely to be achieved without national planning policies.” It also acknowledges that Wales faces a climate emergency.
- 5.13. It is clear that delivering renewable energy is one of the Welsh Government's top national priorities for the next 20 years. Future Wales sets out 11 outcomes that can be achieved by 2040 provided the planning system is focused on the long-term and provides quality development in the right places for the right reasons.
- 5.14. The application proposal would contribute towards outcome 9, 10 and 11, these are:-
- **Outcome 9 – a Wales where people live in places that sustainably manage their natural resources and reduce pollution.** Wales natural resources, including its minerals, soils and geodiversity, coast, water, forests and landscape support a range of activities and sectors and are assets of great value in their own right. The environmental, social and cultural value of our resources will be managed, maintained and enhanced, while economic benefits will be utilised sustainably and appropriately by promoting nature-based solutions and a circular economy. Across Wales the risks of flooding and coastal erosion will be effectively managed and mitigated while better resource choices will be reflected in more sustainable places. Places will benefit from reduced pollution and be healthier and more liveable.
 - **Outcome 10 – a Wales where people live in places with biodiverse, resilient and connected ecosystems.** The variety of flora and fauna found across Wales make Wales a special place. Biodiversity underpins the functioning of healthy, resilient ecosystems and the multiple benefits they provide. While biodiversity has declined in recent decades, we will reverse these losses and enhance the resilience of ecosystems. The planning system will ensure wildlife is able to thrive in healthy, diverse habitats, both in urban and rural areas, recognising and valuing the multiple benefits to people and nature
 - **Outcome 11 – a Wales where people live in places which are decarbonised and climate-resilient.** The challenges of the climate emergency demand urgent action on carbon emissions and the planning system must help Wales lead the way in promoting and delivering a competitive, sustainable decarbonised society. Decarbonisation commitments and renewable energy targets will be treated as opportunities to build a more resilient and equitable low-carbon economy, develop clean and efficient transport infrastructure, improve public health and generate skilled jobs in new sectors. New homes will be energy efficient and will help communities adapt to the changing climate.
- 5.15. Future Wales sets a clear direction of how Wales should be investing in infrastructure and development for the greater good of Wales and its people – the provision of renewable energy is firmly embedded to this future direction. In terms of the specific policies in Future

Wales, Policies 17 and 18 contain strategic spatial and detailed criteria-based policies respectively and should be considered together in the determination of applications, along with detailed advice on assessing benefits and impacts in Planning Policy Wales.

5.16. Policy 17 states (own emphasis underlined):

Policy 17 – Renewable and Low Carbon Energy and Associated Infrastructure

The Welsh Government strongly supports the principle of developing renewable and low carbon energy from all technologies and at all scales to meet our future energy needs. In determining planning applications for renewable and low carbon energy development, decision-makers must give significant weight to the need to meet Wales' international commitments and our target to generate 70% of consumed electricity by renewable means by 2030 in order to combat the climate emergency. In Pre-Assessed Areas for Wind Energy the Welsh Government has already modelled the likely impact on the landscape and has found them to be capable of accommodating development in an acceptable way. There is a presumption in favour of large-scale wind energy development (including repowering) in these areas, subject to the criteria in policy 18. Applications for large-scale wind and solar will not be permitted in National Parks and Areas of Outstanding Natural Beauty and all proposals should demonstrate that they will not have an unacceptable adverse impact on the environment. Proposals should describe the net benefits the scheme will bring in terms of social, economic, environmental and cultural improvements to local communities. New strategic grid infrastructure for the transmission and distribution of energy should be designed to minimise visual impact on nearby communities. The Welsh Government will work with stakeholders, including National Grid and Distribution Network Operators, to transition to a multi-vector grid network and reduce the barriers to the implementation of new grid infrastructure.

5.17. Policy 18 provides a decision-making framework for renewable and low carbon energy technologies. Policy 18 states:

Renewable and Low Carbon Energy Developments of National Significance Proposals for renewable and low carbon energy projects (including repowering) qualifying as Developments of National Significance will be permitted subject to policy 17 and the following criteria:

1. outside of the Pre-Assessed Areas for wind developments and everywhere for all other technologies, the proposal does not have an unacceptable adverse impact on the surrounding landscape (particularly on the setting of National Parks and Areas of Outstanding Natural Beauty);
2. there are no unacceptable adverse visual impacts on nearby communities and individual dwellings;
3. there are no adverse effects on the integrity of Internationally designated sites (including National Site Network sites and Ramsar sites) and the features for which they have been designated (unless there are no alternative solutions, Imperative Reasons of Overriding Public Interest (IROPI) and appropriate compensatory measures have been secured);

4. there are no unacceptable adverse impacts on national statutory designated sites for nature conservation (and the features for which they have been designated), protected habitats and species;
5. the proposal includes biodiversity enhancement measures to provide a net benefit for biodiversity;
6. there are no unacceptable adverse impacts on statutorily protected built heritage assets;
7. there are no unacceptable adverse impacts by way of shadow flicker, noise, reflected light, air quality or electromagnetic disturbance;
8. there are no unacceptable impacts on the operations of defence facilities and operations (including aviation and radar) or the Mid Wales Low Flying Tactical Training Area (TTA-7T);
9. there are no unacceptable adverse impacts on the transport network through the transportation of components or source fuels during its construction and/or ongoing operation;
10. the proposal includes consideration of the materials needed or generated by the development to ensure the sustainable use and management of resources;
11. there are acceptable provisions relating to the decommissioning of the development at the end of its lifetime, including the removal of infrastructure and effective restoration. The cumulative impacts of existing and consented renewable energy schemes should also be considered.

- 5.18. The amplification to policies 17 and 18, at page 96 of Future Wales, identifies how *“Wales is abundant in opportunities to generate renewable energy and the Welsh Government is committed to maximising this potential. Generating renewable energy is a key part of our commitment to decarbonisation and tackling the climate emergency”*. It goes on to state how *“As set out in legislation, applications for Developments of National Significance must be determined in accordance with Future Wales, which is the national development plan for Wales”*
- 5.19. Policy 17 recognises the wealth of current and emerging renewable energy technologies that can contribute towards our energy and decarbonisation targets. It also demonstrates the Welsh Government’s support in principle for all renewable energy projects and technologies. Proposals should ensure there is no significant unacceptable detrimental impact on the surrounding natural environment and local communities and that the development delivers positive social, environmental, cultural and economic benefits.
- 5.20. On the issue of alternatives, page 97 of Future Wales states (inter alia) *“The Welsh Ministers have considered alternatives to the need for new large-scale electricity generation infrastructure, including building-mounted installations and energy efficiency measures. Although we believe that these measures have an important part to play in meeting our*

energy, decarbonisation and climate change targets, they will not enable us to meet these objectives on their own”.

- 5.21. It is clear that Policy 18 is the starting point when considering renewable energy Developments of National Significance. This provides that renewable energy DNS schemes will be permitted subject to Policy 17 and the criteria listed in Policy 18 itself.
- 5.22. Turning to the regional approach, Future Wales locates the application site within the south west catchment area. The published document, at page 153, sets out how the provision of renewable energy is vital for the south west to play its role in decarbonising. It states (inter alia) (own emphasis underlined and in bold) **“It is vital the region plays its role in decarbonisation and supports the realisation of renewable energy. Policies 17 and 18 set out Future Wales’ approach to renewable energy generation across Wales. There is strong potential for wind, marine and solar energy generation and Strategic and Local Development Plans should provide a framework for generation and associated infrastructure. The Welsh Government wishes to see energy generation, storage and management play a role in supporting the South West economy”.**

Planning Policy Wales (Ed, 11 published February 2021)

- 5.23. The publication of Future Wales has necessitated revisions to Planning Policy Wales to ensure that the content of the two documents are aligned. In particular, some of the policy context in Planning Policy Wales has been clarified and made more explicit to support Future Wales. Other changes to Planning Policy Wales are essentially factual, reflecting updates to legislation, policy and guidance which impact on the planning system and planning policy changes which have been made since the previous edition was published.
- 5.24. Planning Policy Wales (PPW) provides the policy framework for the effective preparation and delivery of development plans. This is supplemented by topic based Technical Advice Notes (TANs) and circulars. PPW, the TANs and the circulars are material to decisions on individual planning applications.
- 5.25. Welsh Government’s main outcomes for the planning system reflect their vision of sustainable development which means the process of improving the economic, social, environmental and cultural well-being of Wales by taking action, in accordance with the sustainable development principle, aimed at achieving the well-being goals. Overall, this means meeting the needs of the present without compromising the ability of future generations to meet their own needs.
- 5.26. PPW is based on a plan approach and the presumption in favour of development proposals which accord with its key principles and the policy objectives of sustainable development (within the planning system). PPW sets out five key principles which underpin Welsh Government’s approach to sustainable development; these are as follows.
- **Growing our economy in a sustainable manner** – The planning system should enable development which contributes to long term economic wellbeing, making the best use of existing infrastructure and planning for new supporting infrastructure and services.
 - **Making best use of resources** – The efficient use of resources, including land, underpins sustainable development.

- **Facilitating accessible and healthy environments** – Our land use choices and the places we create should be accessible for all and support healthy lives.
- **Creating & sustaining communities** – The planning system must work in an integrated way to maximise its contribution to well-being.
- **Maximising environmental protection and limiting environmental impact** – Natural, historic and cultural assets must be protected, promoted, conserved and enhanced.

5.27. Section 3 of PPW sets out the priority for strategic and spatial choices. Paragraph 3.1 considers that (own emphasis in bold) *“Effective strategic placemaking requires early collective consideration of placemaking issues at the outset, in the formulation of a development plan, or when developing specific proposals. **The policy issues should not be considered in isolation from one another.**”*

5.28. In regard to Best and Most Versatile Agricultural Land, Paragraph 3.59 sets out that: *‘When considering the search sequence and in development plan policies and development management decisions considerable weight should be given to protecting such land from development, because of its special importance. Land in grades 1, 2 and 3a should only be developed if there is an overriding need for the development, and either previously developed land or land in lower agricultural grades is unavailable, or available lower grade land has an environmental value recognised by a landscape, wildlife, historic or archaeological designation which outweighs the agricultural considerations.’*

5.29. Paragraph 3.61 under the heading of ‘Supporting Infrastructure’ identifies how adequate and efficient infrastructure such as electricity is critical for economic, social and environmental sustainability. Paragraph 3.63 goes on to state: *“Development should be located so that it can be well serviced by existing or planned infrastructure. In general this will involve maximising the use of existing infrastructure or considering how the provision of infrastructure can be effectively co-ordinated to support development plans. Infrastructure choices should support decarbonisation, socially and economically connected places...”*

5.30. Section 5 sets out the economic components of placemaking and Welsh Government vision here is to achieve productive and enterprising placemaking and well-being. Welsh Government outcomes for productivity and enterprise include:

- manages water resources naturally;
- reduces overall pollution;
- resilient to climate change;
- makes best use of natural resources;
- prevents waste;
- adaptive to climate change;
- fosters economic activity;
- embraces smart and innovative technologies;

- good connections;
- appropriate development densities;
- minimises the need to travel;
- not car dependent; and
- vibrant and dynamic.

5.31. Page 74 of PPW identifies how places which are productive and enterprising contributes to the seven goals of the Well-being of Future Generations (Wales) Act 2015 which includes the following.

- A **Prosperous Wales** can be achieved through increased economic activity across all sectors and at all scales. This is realised through the availability of employment land, lifelong learning and training opportunities, reliable communication networks and investment in renewable and low carbon energy sources. Resource efficient choices are promoted which have financial benefits both now and over the lifetime of development.
- A **Resilient Wales** is supported by our agriculture and tourism industries and through the beauty of our natural, built and historic environment. Tourism development, which can finance preservation activities, needs careful management to ensure continued enjoyment by future generations. Sustainable agricultural practices can also assist in nature conservation and enhancement. Wales' topography also lends itself to renewable energy generation.
- A **Healthier Wales** can be achieved through the reduction in emissions and air pollution as a result of generating energy from non-carbon sources. Greater distribution of our economic wealth can also help alleviate poverty which is a key determinant of health.
- A more **Equal Wales** can be achieved through promoting sufficient employment and enterprise opportunities for people to realise their potential and by recognising and building on the existing economic strengths of places to assist in delivering prosperity for all.
- **Cohesive Communities** are created by people who have access to fulfilling work which is easily reached locally through sustainable transportation infrastructure and who can communicate effectively and safely with their friends and neighbours.
- A **Vibrant Culture** and thriving Welsh Language are supported by the provision of jobs and economic activity which needs to be strategically planned and managed. The Welsh language and culture makes a distinctive contribution to the viability of communities. Our tourism offer also needs promotion to capitalise on and support activities which reflect our distinctiveness.
- Above all, a **Globally Responsible Wales** is promoted by reducing our carbon footprint through integrated public transportation infrastructure, encouraging globally responsible business and the promotion of renewable energy over carbon-

emitting sources and resource choices through which multiple benefits can be realised.

- Development should **prevent** problems from occurring or getting worse such as the generation of carbon emissions, poor air quality and waste and the depletion of our natural resources which will need to be managed for many years to come
- Development should be **integrated** to ensure that common issues are considered and accommodated early on, such as equipping our homes and businesses with the necessary digital and physical infrastructure and ensuring we have the right natural resources to do so.
- **Collaboration** is necessary to strategically plan for our employment, energy, waste and mineral needs. These are areas where 'larger than local' issues need to be addressed by planning authorities with the involvement of other agencies and communities to ensure sustainable outcomes are delivered across Wales.

5.32. Page 75 of PPW sets out the Welsh Government trends and issues in the productive and enterprising places, these include:

- ensuring that there is sufficient employment land to meet the needs and requirements of a range of future employment scenarios (including increased automation and the significant contribution of SMEs to the Welsh economy) whilst ensuring that an over-supply of employment land does not prevent the release of land for other uses;
- supporting and enabling training, education, infrastructure, construction and manufacturing capacity to support progress towards a circular economy; and
- supporting and enabling renewable, low carbon globally responsible material choices and their efficient and most appropriate use, so as to prevent waste and ensure finite resources are not unnecessarily diminished.

5.33. Subsection 5.4 on economic development includes Paragraph 5.4.2 which recognises that: ***“Economic land uses include the traditional employment land uses (offices, research and development, industry and warehousing), as well as uses such as retail, tourism, and public services. The construction, energy, minerals, waste and telecommunications sectors are also essential to the economy and are sensitive to planning policy.”***

5.34. Section 5.7 of PPW specifically relates to Energy. Paragraph 5.7.3 identifies how the planning system plays a key role in delivering clean growth and the decarbonising of energy, as well as being crucial in building resilience to the impacts of climate change.

5.35. Paragraph 5.7.6 identifies how ***“The planning system should secure an appropriate mix of energy provision, which maximises benefits to our economy and communities whilst minimising potential environmental and social impacts. This forms part of the Welsh Government’s aim to secure the strongest economic development policies, to underpin growth and prosperity in Wales, recognising the importance of decarbonisation and the sustainable use of natural resources, both as an economic driver and a commitment to sustainable development”.***

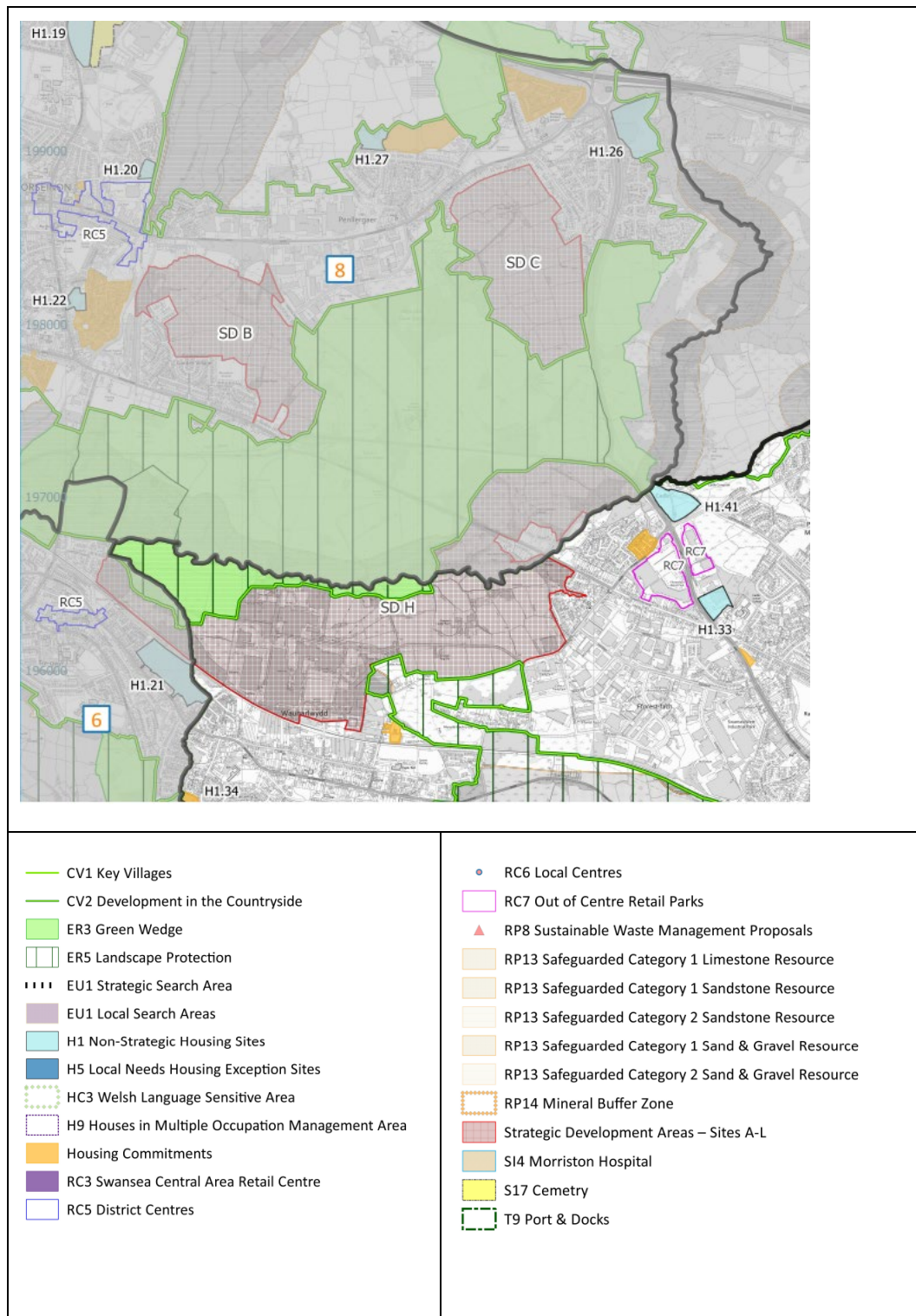
- 5.36. Paragraph 5.7.7 goes on to state how the benefits of renewable and low carbon energy, as part of the overall commitment to tackle climate change is of **'paramount importance'** to the Welsh Government.
- 5.37. Renewable energy targets are discussed at paragraph 5.7.14 of PPW, to recap the Welsh Assembly will seek that: –
- for Wales to generate 70% of its electricity consumption from renewable energy by 2030; and
 - for one Gigawatt of renewable electricity capacity in Wales to be locally owned by 2030.
- 5.38. Subsection 5.9 provides support for renewable and low carbon development. Paragraph 5.9.1 states ***"Local authorities should facilitate all forms of renewable and low carbon energy development. In doing so, planning authorities should seek to ensure their area's full potential for renewable and low carbon energy generation is maximised and renewable energy targets are achieved."***
- 5.39. Paragraph 5.9.14 sets out how ***"Planning authorities should support and guide renewable and low carbon energy development to ensure their area's potential is maximised. Planning authorities should assess the opportunities for renewable and low carbon energy in the area, and use this evidence to establish spatial policies in their development plan which identify the most appropriate locations for development"***. Paragraph 5.9.15 goes on to identify how outside identified areas, ***"planning applications for renewable and low carbon energy developments should be determined based on the merits of the individual proposal. The local need for a particular scheme is not a material consideration, as energy generation is of national significance and there is a recognised need to optimise renewable and low carbon energy generation. Planning authorities should seek to ensure their area's renewable and low carbon energy potential is achieved and have policies with the criteria against which planning applications outside of identified areas will be determined"***.

Swansea Local Development Plan 2010 – 2015 (the "Plan")

- 5.40. The Swansea Local Development Plan 2010–2025 was adopted on the 28 February 2019. Under the provisions of the Planning (Wales) Act, the Swansea LDP forms the statutory development plan for the Council and is a material consideration, whilst tacking into account that energy developments of National Significance must be dealt with through Policy 17 & 18 of Future Wales.
- 5.41. The LDP locates the site within the open countryside and within an area washed over by a green wedge. Preliminary discussions undertaken by the applicant with Swansea Council confirm that the principle of development is acceptable within the green wedge, subject to detailed design considerations. Paragraph 2.91 of the LDP identifies how its core function is to ensure that all development in the County is sustainable, taking full account of the implications of reducing resource use and addressing climate change. Strategic Policy ER 1 provides a framework for sustainable growth by promoting development that mitigates the causes of climate change and which is able to adapt to its likely effects. This long term approach is part of the Council's commitment to realise the economic, environmental and social objectives set out in the Plan's Vision. Through Policy ER1, this would seek to, amongst

other things, promote energy and increase the supply of renewable energy and low carbon energy.

5.42. Relevant extract of the LDP proposal map is set out below.

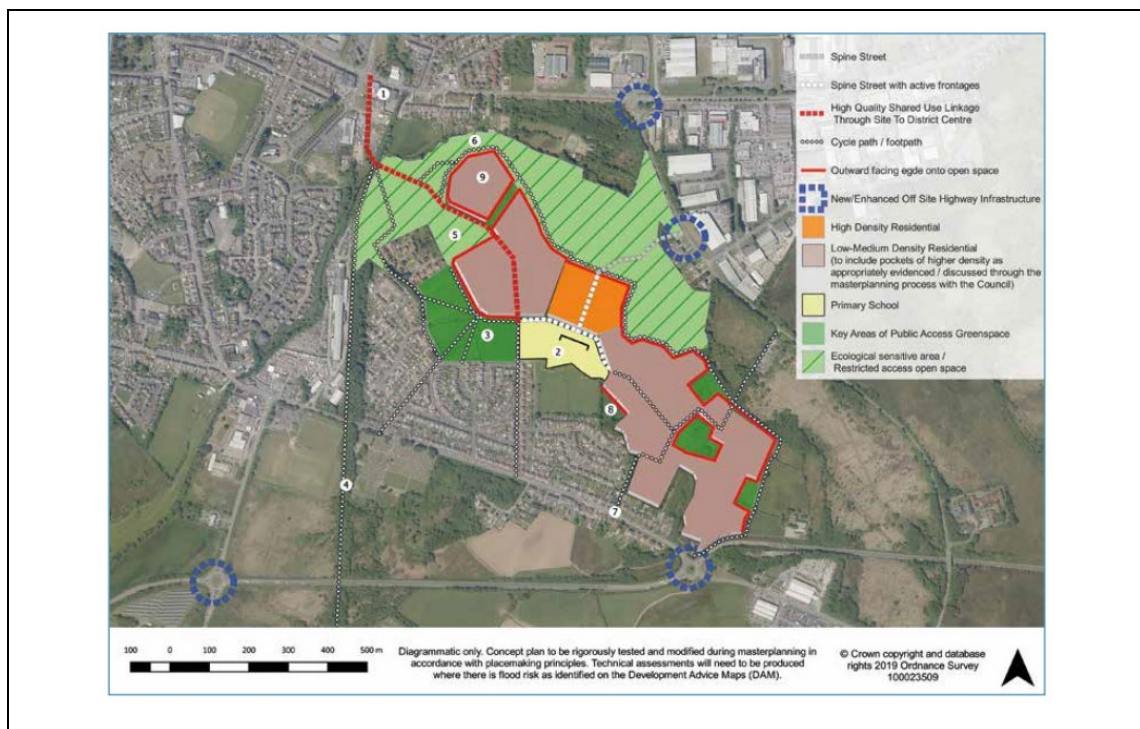


5.43. Three strategic development allocations are located in proximity to the development site. These are:

Strategic allocation SD B North Garden Village

5.44. Allocated for a comprehensive, residential led, development of circa 700 homes during the Plan period, incorporating a Primary School, leisure and recreation facilities, public open space and flexible units for local facilities and commercial uses. Reserved Matters application for details of access, appearance, layout, scale and landscaping for the construction of 750 residential dwellings, local centre and ancillary development was granted on 12 December 2019.

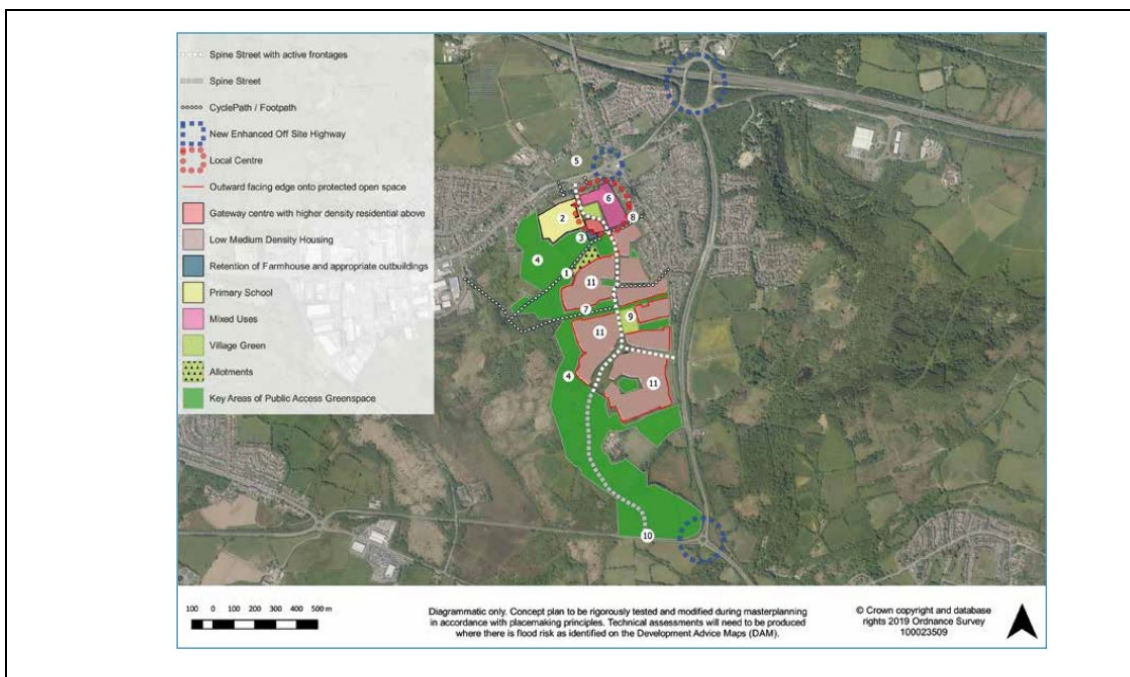
5.45. Concept masterplan is set out below: –



Strategic Allocation SD C ‘Parc Mawr Penllergaer’

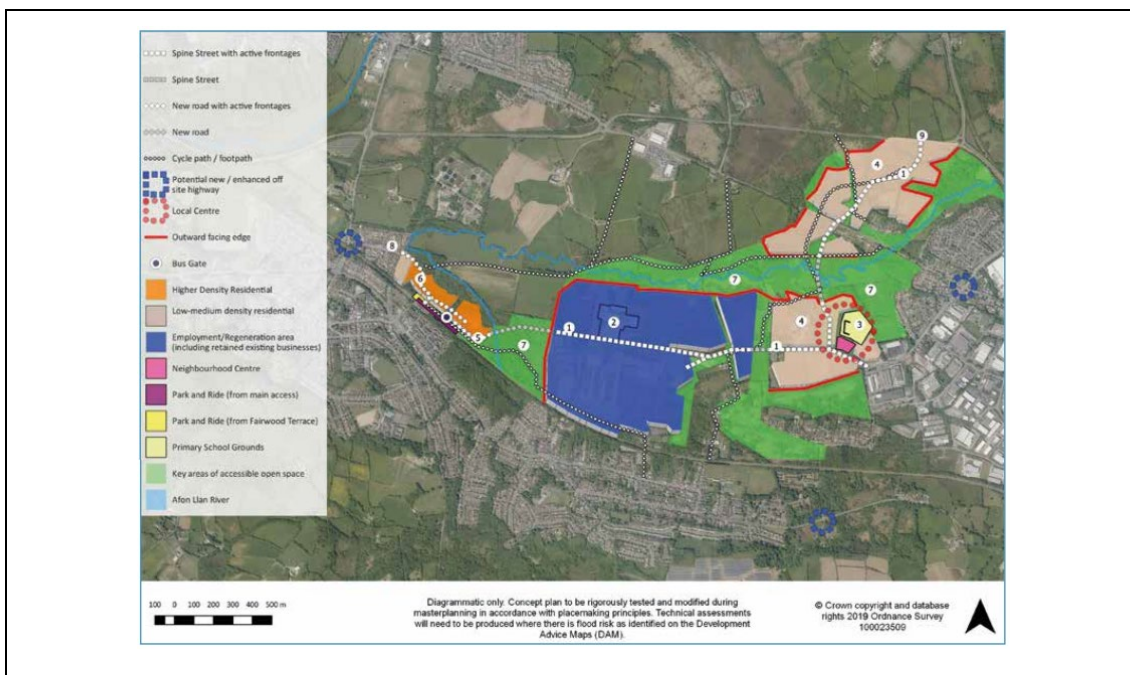
5.46. Allocated for a comprehensive, residential led, mixed use development of circa 644 homes during the Plan period, incorporating Primary School, leisure and recreation facilities, public realm, public open space and appropriate community and commercial uses. Planning permission for a hybrid application comprising, amongst other things, 850 dwellings was approved on 30 April 2020.

5.47. The concept masterplan is set out below.



Strategic Allocation SD H 'North of Waunarlydd / Fforestfach

- 5.48. Allocated for a comprehensive mixed-use development of circa 716 homes during the Plan period, incorporating public realm, a Primary School, commercial units, community buildings and a Regional Employment Site with 26 hectares of potential development areas that could accommodate appropriate B1, B2 and B8 uses.
- 5.49. The concept masterplan is set out below. The applicant has agreed a cable run easement with the Council that will ensure that the development would not prejudice the build out of the strategic allocation.



- 5.50. Policy ER 3 relates to green wedges. Within the designated Green Wedge areas, the Council would only permit development if it maintains the openness and character of the land, unless the development is for acceptable purposes, as outlined in national policy relating to Green Wedge designations. The amplification to the policy, at paragraph 2.9.19 states ***“When located in the Green Wedge, elements of many renewable energy projects will compromise the openness of the land and will be regarded as inappropriate. In order for renewable energy projects to be acceptable in the Green Wedge designated areas developers will need to demonstrate very special circumstances, such as greater benefits associated with increased energy from renewable sources. In order to be acceptable, these must outweigh the importance of maintaining the openness of the Green Wedge designated land and justify why such projects cannot be located in a less sensitive location. The reversible nature of some forms of renewable energy does not affect the impact of the proposal on the openness of the land whilst it is in place. The permanence of a renewable energy scheme will have no bearing on the inappropriateness or otherwise of the proposed development”.***
- 5.51. Policy CV2 deals with development in the countryside, however the amplification to the policy, **at Paragraph 2.10.12 of the LDP, acknowledges that the development plan does not include renewable energy schemes that are covered by separate National Planning Policy and Guidance.** As Stated elsewhere in this Statement, the starting point for determining DNS energy schemes are Policies 17 & 18 of Future Wales.
- 5.52. Other development plan policies pertinent to the development are:
- Policy PS 1 Sustainable Places
 - Policy IO 1 Supporting Infrastructure
 - Policy HC 1 Historic and Cultural Environment
 - Policy HC 2 Preservation or Enhancement of Buildings and Features
 - Policy HC 3 Welsh Language
 - Policy ER 1 Climate Change
 - Policy ER 2 Strategic Green Infrastructure
 - Policy ER 5 Landscape Protection
 - Policy ER 6 Designated Sites of Ecological Importance
 - Policy ER 8 Habitats and Species
 - Policy ER 9 Ecological Networks and Features of Importance for Biodiversity
 - Policy ER 11 Trees, Hedgerows and Development
 - Policy T 1 Transport Measures and Infrastructure
 - Policy T 5 Design Principles for Transport Measures and Infrastructure

- Policy T 6 Parking
- Policy T 7 Public Rights of Way and Recreational Routes
- Policy EU 1 Renewable and Local Carbon Energy Developments
- Policy RP 1 Safeguarding Public Health and Natural Resources
- Policy RP 2 Noise Pollution
- Policy RP 3 Air and Light Pollution
- Policy RP 4 Water Pollution and the Protection of Water Resources
- Policy RP 5 Avoidance of Flood Risk
- Policy RP 6 Land Contamination
- Policy RP 7 Land Instability
- Policy RP 13 Safeguarding Minerals

- 5.53. **Policy PS 1** advises on sustainable places and seeks to protect the countryside from inappropriate development. It states that the delivery of new homes, jobs, infrastructure and community facilities must comply with the plan's sustainable settlement strategy which directs to the most sustainable locations within defined settlement boundaries of the urban area and Key villages; requires compliance with Sustainable Housing Strategy (PS 3) and Sustainable Employment Strategy (PS 4); safeguards Green Wedges; and resists development in the open Countryside.
- 5.54. **Policy PS 2** seeks to protect Swansea's natural and built environmental assets and states that development should enhance the quality of places and spaces and should accord with relevant placemaking principles. The reasoned justification to the policy states "*The Plan is committed to a holistic Placemaking and Place Management approach being applied in all areas and at a range of scales, in order to create a genuine sustainable legacy in accordance with the Well-being of Future Generations (Wales) Act 2015 (WCFG Act)*".
- 5.55. **Policy IO 1** states that development must be supported by appropriate infrastructure, facilities and other requirements considered necessary as part of the proposal.
- 5.56. **Policy HC 1** advises on the Historic and Cultural Environment. It states that proposals must preserve and enhance the County's distinctive historic and cultural environment in compliance with policy principles.
- 5.57. **Policy HC 2** advises on the preservation or enhancement of Buildings and Features. Proposals must preserve or enhance the County's buildings and features of historic importance in compliance with Policy principles.
- 5.58. **Policy HC 3** seeks to safeguard and promote the Welsh language throughout the country. The reasoned justification to the policy states how development names should be in Welsh in order to promote and protect the Welsh language.



- 5.59. Through **Policy ER1**, the Council identifies how a core function of the Plan is to ensure that all development across the City is sustainable, taking full account of the implications of reducing resource use and addressing climate change. The policy provides a framework for sustainable growth by promoting development that mitigates the causes of climate change and which is able to adapt to its likely effects. This long-term approach is part of the Council's commitment to realise the economic, environmental and social objectives. The policy specifically supports the increasing the supply of renewable and low carbon energy.
- 5.60. **Policy ER 2** states that Green infrastructure will be provided through the protection and enhancement of existing green spaces that afford valuable ecosystem services. Development that compromises the integrity of such green spaces, and therefore that of the overall green infrastructure network, will not be permitted. Development will be required to take opportunities to maintain and enhance the extent, quality and connectivity of the County's multifunctional green infrastructure network in accordance with the green infrastructure principles set out in the policy.
- 5.61. **Policy ER 3** advises on Green Wedges. Green wedges are allocated at 8 locations. Within the designated Green Wedge areas development will only be permitted if it maintains the openness and character of the land, unless the development is for acceptable purposes, as outlined in national policy relating to Green Wedge designations.
- 5.62. **Policy ER 5** provides guidance on landscape protection. Development will not be permitted that would have a significant adverse effect on the character and quality of the landscape of the County. Priority will be given to protecting, enhancing and managing the character and quality of the 4 Special Landscape Areas (SLAs) (shown on the Proposals Map). Within SLAs development will only be permitted where there is no significant adverse impact, including cumulative impact, on the character and quality of the landscape, a landscape assessment may be required. Permitted development should aim to protect and enhance the features for which the SLA has been designated. In exceptional circumstances, where development that will have a significant impact on the landscape is necessary, a landscaping scheme will be required with appropriate mitigation and enhancement measures.
- 5.63. **Policy ER 6** advises on Designated Sites of Ecological Importance. Development will not be permitted that would result in a likely significant adverse effect on the integrity of international and national designated sites, except in the circumstances specified in relevant legislation. Development that would adversely affect locally designated sites should maintain and enhance the nature conservation interest of the site. Where this cannot be achieved development will only be permitted where it can be demonstrated that specified policy criteria are met.
- 5.64. **Policy ER 8** states that development proposals that would have a significant adverse effect on the resilience of protected habitats and species will only be permitted where they meet specific criteria.
- 5.65. **Policy ER 9** advises on Ecological Networks and Features of Importance for Biodiversity. Development proposals will be expected to maintain, protect and enhance ecological networks and features of importance for biodiversity. Particular importance will be given to maintaining and enhancing the connectivity of ecological network. Development that could have an adverse effect on such networks and features will only be permitted where meet specific criteria are met.

- 5.66. **Policy ER 11** states that development that would adversely affect trees, woodlands and hedgerows of public amenity, natural/cultural heritage value, or that provide important ecosystem services will not normally be permitted. Ancient Woodland, Ancient Woodland Sites, Ancient and Veteran trees merit specific protection and development that would result in specified outcomes will not normally be permitted. Where necessary a tree survey; Arboricultural impact assessment; an Arboricultural method statement; tree protection plan and/or scheme for tree replacement, including details of planting and aftercare will be required in support of a planning application.
- 5.67. **Policy T 1** states that Development must be supported by appropriate transport measures and infrastructure and dependant the nature, scale and siting of the proposal, meet specified requirements. Development that would have an unacceptable impact on the safe and efficient operation of the transport network will not be permitted.
- 5.68. **Policy T 5** provides design criteria that the design of the new development, including supporting transport measures/infrastructure must adhere to.
- 5.69. **Policy T 6** advises on parking and states that proposals must be served by appropriate parking provision, in accordance with maximum parking standards, and consider the requirements for cycles, cars, motorcycles and service vehicles. In those instances where adequate parking cannot be provided on site, or is judged not to be appropriate, the developer will be required to provide a financial contribution towards alternative transport measures where appropriate. The provision of secure cycle parking and associated facilities will be sought in all major development schemes. Proposals on existing car parks that would reduce parking provision will not be permitted where the loss of the parking facility would result in outcomes specified in the policy.
- 5.70. **Policy T 7** advises on public rights of way and recreational routes. Public Rights of Way and Recreational Routes – development that significantly adversely affects the character, safety, enjoyment and convenient use of a Public Right of Way (PROW) will only be permitted where an acceptable alternative route is identified and provided. Linkages, and where appropriate extensions, to the existing PROW network will be expected from all new developments, which must have regard to the existing character of the PROW and the aspiration to improve access for all.
- 5.71. **Policy EU 1** specifically deals with renewable and low carbon in new development and states how development will be required to maximise the contribution of renewable or low carbon energy technology to meet the energy demands of the proposal. The policy states how proposals for all types of renewable and low carbon energy development and associated infrastructure, either on their own, cumulatively or in combination with existing, approved or proposed development, should comply with all other relevant policies in the Plan and should not have a significant adverse effect on:
- The characteristics and features of the proposed location as a result of the siting, design, layout, type of installation and materials used;
 - Public amenity or public accessibility to the area;
 - Radar, Aircraft Operations or Telecommunications;
 - Carbon sinks, unless it can be demonstrated that on-site loss can be adequately mitigated;

- Satisfactory mitigation should be in place to reduce the impact of the proposal and its associated infrastructure; and in the case of solar proposals must mitigate against any impacts of glint and glare. Proposals shall make provision for the restoration and after-care of the land for its beneficial re-use. This will be agreed with the LPA prior to the development being carried out; and
- Where necessary, additional compensatory benefits will be sought in accordance with Policy IO 1 Supporting Infrastructure and Planning Obligations.

- 5.72. **Policy RP 1** advises on safeguarding public health and natural resources. Development that would result in significant risk to life; human health and wellbeing; property; controlled waters; or the historic and natural environment, especially European designated sites, will not be permitted, particularly in respect of the specified potential risks.
- 5.73. **Policy RP 2** states that noise sensitive developments will not be permitted unless effective and appropriate mitigation is carried out to prevent exposure to existing noise generating uses.
- 5.74. **Policy RP 3** advises on air and light pollution. Where development could lead to exposure to a source of air or light pollution it must be demonstrated that appropriate mitigation measures will be implemented, and incorporated into the design of the development to minimise the effects on existing and future occupants.
- 5.75. **Policy RP 4** states that development that compromises the quality of the water environment, or does not comply with good water resource management, will not be permitted. Development proposals must make efficient use of water resources and, where appropriate, contribute towards improvements to water quality. Sustainable drainage systems (SuDS) must be implemented wherever they would be effective and practicable. Water courses will be safeguarded through green corridors/riparian buffers. Development proposals that would have a significant adverse impact on biodiversity, fisheries, public access or water related recreation use of water resources, will not be permitted.
- 5.76. **Policy RP 5** deals with the avoidance of risk of flooding from new development. It states (inter alia): –

In areas at risk of fluvial, pluvial, coastal and reservoir flooding, unless it can be demonstrated that the development can be justified in-line with national guidance and is supported by a technical assessment that verifies that the new development is designed to alleviate the threat and consequences of flooding;

In areas at risk of flooding from local sources, unless the Council is satisfied with the proposed drainage strategy;

Where it would lead to an increase in the risk of flooding on the site or elsewhere from fluvial, pluvial, coastal or increased water run-off from the site;

Where it would have a detrimental effect on the integrity of existing fluvial, pluvial or coastal flood defences;

Where it would impede access to existing and future tidal and fluvial defences for maintenance and emergency purposes; or

Where the proposal does not incorporate environmentally sympathetic flood risk mitigation measures, such as SuDS, unless it can be demonstrated that such measures are not feasible.

- 5.77. **Policy RP 6** states that development proposals on land where there is a risk from actual or potential contamination or landfill gas will not be permitted unless it can be demonstrated that measures can be taken to satisfactorily overcome any significant risk to life, human health, property, controlled waters, or the natural and historic environment.
- 5.78. **Policy RP 7** deals with land instability. The policy aims to steer development away from areas of unstable land. There is an extensive legacy of underground workings and surface spoil heaps in parts of the County due to the area's long history of mining and quarrying. The possible effects on land stability of past workings, as well as of natural processes in the limestone areas, must therefore be taken into account in the consideration of planning applications, in order to ensure that development is not exposed to, or does not create, significant risks from land instability. Through Policy RP 7, development would only be permitted on unstable or potentially unstable land where it can be satisfactorily demonstrated that proposals to make the land capable of supporting the development are adequate; and, the necessary mitigation measures will be in place before development commences or are an integral part of the construction works.
- 5.79. **Policy RP 13** advises on safeguarding minerals. Development within mineral safeguarding areas that would permanently sterilise identified resources of aggregates will only be permitted where it can be demonstrated compliance with specific criteria. Development of a temporary nature will only be permitted where the site can be restored within a timescale that the mineral is likely to be needed.

Biodiversity and Development SPG (February 2021)

- 5.80. Swansea Council adopted the Biodiversity and Development Supplementary Planning Guidance in February 2021. It sets out how the Council will seek to ensure that development within Swansea maintains and enhances the County's biodiversity and delivers long term ecosystem resilience.

Trees, Hedgerows and Woodland SPG (October 2021)

- 5.81. Swansea Council adopted the Trees, Hedgerows and Woodlands Supplementary Planning Guidance in October 2021. It gives basic information on how trees, hedgerows and woodlands are dealt with in the planning system. It provides guidance to applicants on the requirements of the LPA in respect to trees and development.

6. PLANNING ASSESSMENT

- 6.1. This section of the Statement contains a detailed analysis of the application proposal against the relevant material and planning policy considerations. These considerations have been derived from an understanding of the application site and its surrounds as well as the policy analysis of the previous section and the legislative background set out in the Section 3.

Principle of Development

- 6.2. Future Wales is the national development framework, setting the direction for development in Wales to 2040, and forms part of the development plan alongside the Local Development Plan, and in time, Strategic Development Plans when they are adopted. Future Wales' strategy is to address key national priorities through the planning system, including sustaining and developing a vibrant economy, achieving decarbonisation and climate-resilience, developing strong ecosystems and improving the health and well-being of our communities.
- 6.3. Future Wales is the highest tier of development plan in Wales and local development plans *"are required to be in conformity with Future Wales and must be kept up to date to ensure they and Future Wales work together effectively."* (p.8 and p.15). In addition, Future Wales provides (at p.10) that *"The specific purpose of Future Wales is to ensure the planning system at all levels is consistent with, and supports the delivery of, Welsh Government strategic aims and policies."* This is a legal requirement, as the local development plan must be in conformity with Future Wales under s.62(3A) of the Planning and Compulsory Purchase Act 2004.
- 6.4. Policies 17 and 18 of Future Wales provide the framework for the consenting of renewable energy DNS schemes in Wales.
- 6.5. Policies 17 and 18 of Future Wales are clear that achieving decarbonisation and climate-resilience is one of the **"key national priorities"** for Wales, and Future Wales recognises the need for Wales to focus on generating the energy it needs to support its communities and industries over the next twenty years. The proposed development is for a solar farm which will power approximately 9,181 homes and displace around 16,188 tonnes of CO₂ per year, and 647,538 tonnes during the lifetime of the development. Therefore, through policies 17 and 18, Future Wales supports the principle of the proposal and its potential to contribute to the national priorities of decarbonisation and climate-resilience.
- 6.6. At paragraph 1.2, the PPW identifies its primary objective as being to ensure that the planning system contributes towards the delivery of sustainable development and improves the social, economic, environmental and cultural being of Wales as required by the Well-being of Future Generation (Wales) Act (WBFG) 2015. There is no dispute that the proposed development will increase Wales' installed renewable energy capacity, contributing to meeting local and national renewable energy targets, reducing reliance on energy generated from fossil fuels and thus actively facilitating the transition to a low carbon economy. To this end, the proposed development would achieve the WBFG Act goals to build a globally responsible, prosperous and resilient Wales.
- 6.7. As stated previously, the proposed development has evolved following detailed non-statutory pre-application consultation with Swansea Council, local stakeholders, and

statutory consultees. Details of how the project team have continuously refined the scheme's design to encompass the Council's and other stakeholder feedback at numerous junctures is provided in the Consultation Report and Design and Access Statement and as such are not repeated here.

- 6.8. Policy 17 states that decision-makers should give '**significant weight**' to the urgent need to meet the target of generating 70% of consumed electricity by renewable means by 2030. This is part of Wales' international commitment to combating climate change. Further to this, Policy 17 prohibits the development of DNS schemes where they will cause significant visual impact. Additionally, Policy 17 also dictates that applicants must present the benefits to the local community brought about by the development. The benefits include the wider benefits of renewable energy which include security of energy supply and reduced energy costs for the consumer. Benefits of the project are to be realised through reduced energy bills and security of supply which will reduce Wales' exposure to the volatility of the wholesale energy markets. These are important factors in addressing fuel poverty, which disproportionately affects low-income households across Wales and contributes to economic inequality. The proposal would reduce reliance upon overseas energy sources. The energy production would help to meet the national and local need for energy and therefore the development would fulfil an important social role.
- 6.9. In 2022, the global weighted average levelized cost of electricity (LCOE) from newly commissioned utility-scale solar photovoltaics (PV), onshore wind, concentrating solar power (CSP), bioenergy and geothermal energy all fell, despite rising materials and equipment costs. However, this improvement was surpassed by that of solar PV. This renewable power source was 710% more expensive than the cheapest fossil fuel-fired solution in 2010 but cost 29% less than the cheapest fossil fuel-fired solution in 2022¹⁰.

How the development accords with Policy 18 of Future Wales

- 6.10. Policy 18 specifically relates to qualifying energy Developments of National Significance and presents 11 principles which should be satisfied to secure consent. The requirements set out in Policy 18 are considered in turn below.

Criteria 1: Outside of the Pre-Assessed Areas for wind developments and everywhere for all other technologies, the proposal does not have an unacceptable adverse impact on the surrounding landscape (particularly on the setting of National Parks and Areas of Outstanding Natural Beauty)

- 6.11. The application site is not located within a statutory protected landscape designation such as a National Park or an Area of Outstanding Natural Beauty of national importance, however it is within a green wedge and a Special Landscape Area. The proposals would inevitably change the character of the application site from undulating pastoral farmland to a solar PV development. However, the arrangement of the proposed solar farm responds positively to the landform and field pattern with the existing hedgerow vegetation being retained and strengthened, where appropriate, meaning that overall no unacceptable adverse impact will be caused in this regard.

¹⁰ <https://www.irena.org/Publications/2023/Aug/Renewable-Power-Generation-Costs-in-2022>

- 6.12. The LVIA assessed the effects of the proposed development on landscape elements, landscape character, and visual amenity. These are summarised below.

Potential Effects on Landscape Character

- 6.13. The landscape elements that constitute the character of the LANDMAP geological, habitats, historic or cultural aspect areas within the Site would generally remain physically unaffected by the proposed development. The effects on landscape character would therefore result from the visual influence of the solar arrays on the LANDMAP visual and sensory aspects including the Afon Llan and surrounds SWNSVS700 and to a lesser extent Gorseinon SWNSVS726 for both of which the magnitude of change rapidly diminishes beyond the Site boundaries due to the visual screening provided by landform, woodland and hedgerows containing the solar PV development.
- 6.14. The green infrastructure enhancements (accounting for 63% of the Site area) including circa 3km of hedgerow, and circa 4.75 acres tree planting, would on balance provide beneficial changes. Due to the limited visibility of the Site within the study area, the landscape character of the LANDMAP aspect areas would generally prevail with the proposed development in place.

Potential Effects on Landscape Elements

- 6.15. The landscape elements that constitute the landscape character of the Site would remain largely unaffected by the proposed development. Site topography, field pattern and enclosure, woodlands, hedgerows, and trees would generally remain physically intact with the solar arrays and supporting infrastructure in place. Enhancements to landscape elements would be made in terms of the maintenance and infilling of hedgerows to enhance visual screening, species diversity, age structure, health, and the long-term contribution to the character of the Site.
- 6.16. New hedgerows are proposed to provide an overall net gain of the Site's hedgerow resource (proposed hedgerow circa 3km, tree planting circa 1.9ha). The existing hedgerows would be managed to improve the visual screening of the solar panels and security fencing, and to enhance the landscape character and biodiversity of the Site. Owing to the ease of removal of all the above ground structures, ground fixings and associated infrastructure, any effects upon landscape elements resulting from the proposed development are reversible with the land being returned to agricultural land use on decommissioning

Criteria 2: There are no unacceptable adverse visual impacts on nearby communities and individual dwellings

Potential Effects on Visual Amenity

- 6.17. As described in the LANDMAP Aspect Area, the valley floor has Afon Llan flowing through it, with urban areas surrounding it, some being immediately adjacent. Pylons cross the area as do a number of roads with the A484 forming part of the northern boundary. Visual detractors within include a sewage works, roads, pylons. Factories and urban areas border it in places. There are some hedgerow field boundaries but the area has a distinct urban edge character. Change was in evidence in 2014 as expansion of Swansea edged into this area.
- 6.18. The Zone of Theoretical Visibility (ZTV) presented within the LVIA TV for the site reflects the undulating topography and treecover and theoretical visibility which is generally contained

by built form within 5km of the site. The 'actual' visibility of the site is less than illustrated in the ZTV mapping as demonstrated by the representative viewpoints. The reduced extent and pattern of visibility of the proposed development is due to the visual containment provided by the steeply rising topography and tree cover within the Afon Llan Valley and surrounding settlement. The entire site is not intervisible with itself, and it is therefore not possible to view the entirety of it within a single field of view thus reducing the perceived scale of the proposed development in the wider landscape.

- 6.19. There would be limited to no effects on the majority of residential receptors due to factors such as orientation, intervening landform, built form and vegetation. There are likely major effects at year 1 on residential receptors on high ground Waunarwydd. Mitigation measures in place, such as new 3km of hedgerows and 1.9ha of tree planting to break up the series of panels along the visible slopes of the site, would all help to reduce potential effects at year 15. to an acceptable level.
- 6.20. Based on the location of some of the properties close to the site, their orientation, number of storeys, and nature and character of their curtilage it is predicted that major visual effects may occur at Pen-y-fodau Fawr Farm, and properties along Swansea Road (B4560) overlooking the eastern corner of the proposed development. Boundary mitigation measures have been proposed to help mitigate against these effects, reducing them by year 15.
- 6.21. Considering the intervening boundary vegetation and low-lying profile of the proposed development it is assessed that views from the surrounding network of PRoW would be considerably screened and visual effects would not be adverse. Views from small sections of the PRoW footpaths which cross the Site including LC26 which runs south from Swansea Road (B4560), west of Days Motors to the Afon Llan, would be subject to adverse visual effects due to the proposed developments proximity causing a high magnitude of change to existing views at year 1. There would be no major effects on road users along Swansea Road/A484, Titanium Road, Statutory Access land users north and west of the Site, or long distance footpath users (Wales Coast Path and the Gower Way).
- 6.22. For the reasons set out in the LVIA and summarised above, it is considered that the application proposal accords with the requirements of criteria 2 of Policy 18 Future Wales.

Criteria 3 & 4 – There are no adverse effects on the integrity of Internationally designated sites (including National Site Network sites and Ramsar sites) and the features for which they have been designated (unless there are no alternative solutions, Imperative Reasons of Overriding Public Interest (IROPI) and appropriate compensatory measures have been secured) & there are no unacceptable adverse impacts on national statutory designated sites for nature conservation (and the features for which they have been designated), protected habitats and species.

- 6.23. The statutory consultation is supported by an Ecological Appraisal undertaken by Devon Wildlife Consultants. The Ecological Appraisal provides an assessment of impacts of the proposed development on internationally designated sites. The salient points are set out below.

Camarthen Bay and Estuaries SAC

- 6.24. The Afon Llan is connected to the SAC, creating a potential downstream pathway linking the development site to the SAC. During construction there is the potential for sediment runoff and pollution as a result of construction activity. However, any such impacts can be

mitigated through adequate construction control and runoff design measures. These are set out within the Outline Construction Environmental Management Plan.

- 6.25. During operation of the scheme, it is considered that sediment runoff and nutrient load will be reduced due to the change to grassland from ploughed arable land, particularly for the fields adjacent and uphill of the river. Therefore, a Habitats Regulations Assessment (HRA) is not required as there are no identified likely significant impacts upon this designated site or its key designated habitats and species. The works are likely to have no likely significant impact on the SAC.

Burry Inlet Ramsar Site and SSSI

- 6.26. No significant wading bird species have been recorded utilising the site during the targeted bird surveys. It is considered unlikely that the site is utilised regularly by wading birds and waterfowl. Therefore, there are considered to be no significant impacts on the waterfowl assemblage associated with Burry Inlet Ramsar Site, SPA and SSSI. The works are likely to have no likely significant impact on the Ramsar Site, SPA and SSSI. In compliance with Future Wales Policy 18, there are considered to be no significant adverse impacts on nationally statutory designated sites for nature conservation.

Penyfodau Fawr To Llewitha, Alcoa Wet Meadows and Stafford Common SINCs

- 6.27. The site lies within two SINCs and adjacent to Stafford Common SINC. During construction there is the potential for sediment runoff and pollution as a result of construction activity. Potential impacts can be mitigated through adequate construction control and runoff design measures, including designated Ecological Protection Zones, to be set out in a detailed Construction Environmental Management Plan (CEMP). Habitat retention/creation/management as detailed in Section 4.5 has been specifically designed to maintain and enhances priority habitat associated with these SINCs, from the current suboptimal habitat condition. The works are considered likely to have a Minor Positive impact at a District level.
- 6.28. For these reasons set out above, the proposed development is not considered to materially conflict with criteria 3 & 4 of Policy 18.

Criteria 5 – The proposal includes biodiversity enhancement measures to provide a net benefit for biodiversity

- 6.29. As stated elsewhere in this statement, measures have been specifically designed to enhance habitats after intensive grazing and provide a gain in biodiversity at the site during its operational phase.
- 6.30. Green infrastructure provision will include the creation and enhancement of 6.24ha of lowland meadows, 6.8ha of rhos pasture enhancement, 5.51ha of floodplain habitats, 3.56ha of targeted mitigation for species, approximately 1.9ha of tree planting, and approximately 3km of hedgerow creation.
- 6.31. Confirmed priority habitat fields have been removed from the scheme layout following the results of the botanical surveys. These fields are included in the proposed green infrastructure areas.

- 6.32. Furthermore, a number of areas that do not currently meet priority habitat standard including three large fields, totalling an extensive area approximately 9.36ha in size, have been removed from the solar facility layout yet remain within the site boundary as part of the green infrastructure. This field lies within the SINC designation but does not currently meet priority habitat standard. Therefore, it is proposed that these fields are restored by altering the management regime and additional seeding where necessary.
- 6.33. This will also provide a large area of habitat for ground-nesting birds and invertebrates. A significant area of farmland bird mitigation on fields adjacent to the river will also be retained and enhanced. The proposals for the cable route to connect the proposed Parc Solar Caenewydd to the National Grid will now be limited to the existing highway and therefore no habitat loss is anticipated.
- 6.34. Planting of native hedge, tree and scrub, and creation of wild bird cover plots will aim to extend the habitat mosaic and enhance habitat value for a range of species including bats and farmland the habitat mosaic and enhance habitat value for a range of species including bats and farmland bird species.
- 6.35. Enhancement of rhos pasture and creation of butterfly banks will enhance habitat and connectivity for butterfly species. A wildlife corridor will be created along the public right of way linking the site from north to south. This will comprise a habitat mosaic of grassland, scrub and hedgerow planting.
- 6.36. Additional woodland and hedgerow creation and infill planting will also strengthen habitat connectivity across the wider site.
- 6.37. The river corridor and adjacent SINC are considered to be a key component of the mitigation approach; a continuous wide corridor of habitat creation and enhancement will be created along the river corridor within the redline boundary, extending and linking valuable habitats as an ecological network. Open riparian habitats will be retained as part of the mosaic, but with a wider buffer zone than at present. An area of farmland bird mitigation will also be created adjacent to the river. Treatment and removal of extensive Japanese Knotweed will also provide habitat enhancement.
- 6.38. It is proposed to provide a series of enhancements such as swales, basins, leaky dams and filter trenches along arrays rows and in existing drainage ditches, as part of a SuDS betterment which will provide additional wetland habitat diversity. The additional hedgerows and the Rhos grassland field provide flood betterment once the cattle poaching has stopped, and the meadow grasses recover.
- 6.39. A minimum of 20 bat boxes and 20 bird boxes will be installed on retained mature trees across the site to provide new roosting and nesting opportunities for these species. Bird boxes will be suitable for a range of woodland bird species.
- 6.40. Any brash, log or grass arisings resulting from vegetation management will be utilised to create habitat piles, providing potential habitat and over-wintering sites for invertebrates, amphibians, reptiles and small mammals. At least 10 habitat piles of approximately 1m³ in size will be located within relatively undisturbed locations at the edge of the grassland on site, including within the reptile mitigation area.
- 6.41. The proposals are likely to meet the requirements for on-site biodiversity net gain, with a predicted gain of at least 26.25% compared to baseline conditions.

Criteria 6 – There are no unacceptable adverse impacts on statutorily protected built heritage assets

- 6.42. The application submission is supported by a Heritage Statement undertaken by Pegasus Group. With regards to the built environment, an appropriate and proportionate level of settings assessment has been undertaken for designated historic assets located within a 5km radius of the application site. Particular attention has been given to the Scheduled Monuments of Roman practice camps at Carn Gôch Common and Stafford Common. It was established that their historic associations with one another, the Roman Swansea–Loughor road, and the forts at Swansea and Loughor, and the close-ranging views of the earthworks from within the designated areas contribute through setting to their significance. No association or intervisibility with the application site has been identified.
- 6.43. It is considered that the application site does not contribute through setting to the significance of these or any other Scheduled Monuments, or to the significance of any Listed Building.
- 6.44. Turning to archaeology, the assessment has been informed by a review of historic environment record data, available historic maps and aerial photographs, and a walkover survey. ‘Monuments’ recorded within the site by GGAT HER include a post-medieval leat from Afon Llan, the post-medieval farmstead of Penyfodau Fawr, a post-medieval coal pit, and a modern coal pile or drift. Infrastructure recorded within the site on 19th- and 20th-century maps include the Penclawwd Canal and tramway, two other sections of tramway, and a mineral railway.
- 6.45. As well as the features described above, there is potential in the northern part of the application site for archaeological evidence relating to the Roman Swansea–Loughor road. Buried Roman features, the extant stone-built farm buildings, and any buried remains of the leat, canal, tramways, and mineral railway would be considered non-designated historic assets.
- 6.46. In consultation with GGAT, geophysical survey and targeted trial trenching have been undertaken at the site. The results of the field work have been reported within the following accompanying reports: –
- Geophysical survey prepared by Magnitude Surveys
 - Archaeological Field Evaluation, prepared by Archaeology Wales
- 6.47. A summary review of the field works undertaken to date is provided within the accompanying report prepared by Heritage Archaeology and the salient matters are discussed below.
- 6.48. A geophysical survey of the entire accessible and suitable site area was undertaken between July and September 2022. The survey identified two areas of potential enclosures in the northern part of the application site. One of these areas was subsequently removed from the red line boundary for the proposed development. Anomalies indicative of historical agricultural activity were identified, some of which can be correlated to boundaries marked on historic mapping. Areas of former mineshafts, an aqueduct and mineral railway were also identified, corresponding to the results of the desk-based assessment. A number of anomalies classed as ‘undetermined’ were also plotted, the potential for an archaeological interpretation for these cannot be ruled out from the geophysical survey alone.

- 6.49. As a result of the geophysical survey a targeted programme of archaeological trenched evaluation was undertaken in November – December 2022. In consultation with GGAT, thirty trenches were excavated within the site, targeting anomalies interpreted as ‘archaeology possible’, ‘agricultural’, and ‘undetermined’ by the geophysical survey. The evaluation revealed a site that has been extensively drained, particularly from the industrial period. Some of the features were identifiable as land drains of post medieval to modern date, some clearly correspond to post medieval and modern field boundaries. No finds or environmental evidence was obtained to date the remaining features but it is likely that they are also of post-medieval or modern date. One feature interpreted by the geophysical survey as a possible enclosure in the northern part of the site was removed from the red line boundary so not tested by trenching, the other feature identified as a possible enclosure was tested by trenching but was not present.
- 6.50. The results of the intrusive and non-intrusive surveys conclude that there is evidence for post medieval agricultural activity within the application site and for later post medieval coal mining activity. This confirms and supports the conclusions of the desk-based assessment and helps to clarify the extent of coal mining disturbance within the site. Despite the proximity of the northern part of the application site to two scheduled Roman marching camps, no evidence for Roman activity was identified within the application site. The evidence indicates a site that has been improved by drainage for agricultural use and no evidence for activity within the site pre-dating the post medieval period has been identified within the application site.
- 6.51. The results of the intrusive and non-intrusive surveys indicate that the site does not include any historic assets with archaeological interest of equivalent significance to a scheduled monument. An amendment to the red line boundary excluded a potential archaeological feature identified during the geophysical survey from the development footprint (a potential enclosure). No additional surveys or mitigation are currently proposed given the results of the surveys to date, GGAT has confirmed, through additional consultation (including production of the composite plan for the field surveys undertaken, provided below), that they ***“agree the remaining mitigation works could be carried out post-determination. The exact scope and methodology would of course depend on the detail of the proposed development in such areas and be detailed in an agreed WSI.”*** Any other historic assets present within the site that warrant mitigation could otherwise be safeguarded through additional minor amendments to the layout and foundation design.
- 6.52. Overall, the proposed development is not considered to alter the setting of any of these assets. It would therefore not be contrary to Section 66(1) of the Planning (Listed Buildings and Conservation Areas) Act, 1990 and to the ‘desirability of preserving an ancient monument and its setting’ and the ‘desirability of preserving the building, or its setting’ of Planning Policy Wales.
- Criteria 7 – There are no unacceptable adverse impacts by way of shadow flicker, noise, reflected light, air quality or electromagnetic disturbance***
- 6.53. Criteria 7 sets out the development management considerations for both wind and ground mounted solar. Shadow and flicker are constraints pertinent only to wind turbines and are therefore not relevant in relation to the proposed development.
- 6.54. Turning to noise, the application is supported by a noise assessment prepared by ION Acoustics. Overall, the noise assessment indicates that operational noise from the proposed

development during the likely operating hours would be relatively low in absolute terms and would largely comply with the operational noise target at all the noise sensitive receptors. To that end, noise from the proposed development is unlikely to be audible and the resultant impact across all receptor locations is low. It is considered that there are no noise-related issues associated with the proposed development which would prevent the granting of full planning permission.

- 6.55. Turning to reflected light, the application is supported by a Glint and Glare Assessment, prepared by Pager Power, which concludes that the measured intensity of a reflection from solar panels can vary from 2% to 30% depending on the angle of incidence. It is also noted that evidence shows that reflections from solar panels are significantly less intense than many other reflective surfaces, which are common in an outdoor environment. Given the existing vegetation and terrain within and surrounding the application site, no mitigation is required meaning that no unacceptable adverse impacts are caused from reflected light.
- 6.56. Turning to air quality considerations, the application site is not located near any Air Quality Management Area as per Wales Airborne Pollution Map. The Wales Airborne Pollution map 2017 background air pollution data for the development site suggests an annual mean background concentration of $10.7 \mu\text{g}/\text{m}^3$ for PM10 which is below the objective of $40 \mu\text{g}/\text{m}^3$. It is anticipated that the development would introduce additional road traffic and construction dust. The construction impacts associated with the proposed development would likely generate a small magnitude of dust and PM10.
- 6.57. Impacts from dust emissions during the construction phase would be not significant, which is supported by the low levels of annual mean emissions. It is considered that despite there not being a defined risk present, it is still advisable that a number of good practice measures are implemented, such as considerate traffic speed and observing minimal dust dispersion where at all possible during construction and transport activities and these can be incorporated in a final Construction Environmental Management Plan.
- 6.58. Maintenance vehicles are only expected to visit the application site periodically. Therefore, it is unlikely that the number of vehicle movements during the operational phase will exceed those of the construction phase. As a result, operational phase impacts associated with road traffic emissions are deemed to be not significant. The Outline Construction Environmental Management Plan, details appropriate housekeeping and mitigation measures that would be followed at the construction and operational stages to minimise any adverse impact on air quality.
- 6.59. With regards to electromagnetic disturbance, all equipment that generates, distributes or uses electricity produces electric and magnetic fields (EMFs). The main potential source of interference is the substation. Solar panels and underground cables do not in general produce any significant radio-frequency emissions. The substation would operate in accordance with the management practices of the DNO, when operating under a full load, the field levels located at the boundary of the compound would be significantly less than the EC Council Recommendation 1999 (EC 1999) Reference Levels which form the UK Guidance for electromagnetic field limits. Therefore, it is expected that the electromagnetic fields produced by the proposed development would not present a hazard to members of the public in accessible areas outside of the site boundary and along the public footpaths.
- 6.60. For the reasons set out above it is considered that the proposed development duly accords with the requirements of criteria 7.

Criteria 8 – There are no unacceptable impacts on the operations of defence facilities and operations (including aviation and radar) or the Mid Wales Low Flying Tactical Training Area (TTA-7T)

- 6.61. There are no identified defence facilities or operations within the vicinity of the application site, and the proposed development will not result in unacceptable impacts on the Mid Wales Low Flying Tactical Training Area (TTA 7T).
- 6.62. The development therefore accords with the requirements of criteria 8.

Criteria 9 – There are no unacceptable adverse impacts on the transport network through the transportation of components or source fuels during its construction and/or ongoing operation

- 6.63. The application submission is supported by a Construction Traffic Management Plan prepared by Pegasus Group. The salient points of the report are set out below.
- 6.64. The primary construction and operational access for the solar development is from the private access road which serves Penyfodau Fawr Farm. Construction vehicles will access the road from the southern arm of the A484 / B4560 Swansea Road roundabout. The preliminary consultation response from Swansea Council Highways confirms there is no issue with the use of this access in principle, although there may be a need to widen the access road to accommodate the construction traffic.
- 6.65. The main construction compound for the green infrastructure and renewable energy facility is anticipated to be located in the Central Development Parcel. This will be where all deliveries will be made to throughout the construction phase. This includes deliveries of materials and plant. All machinery and deliveries will be off loaded here before being transported by either a 10-metre rigid vehicle or a tractor and trailer before being dropped off at each parcel of land, respectively.
- 6.66. The secondary construction and operational access for the Central Development Parcel is proposed to be served from the rear of an existing lay-by on the southern side of the B4560 Swansea Road (E), approximately 430m east of the Hospital Road access. The area is currently overgrown and will require clearance prior to construction of the access. The applicant understands that the Estate landowner is looking to reinstate the access. During the operational phase, it is expected that this access will be used by the District Network Operator to gain access to the proposed substation and by the site operator to gain access to the battery compound.
- 6.67. The Northern Development Parcel is proposed to be served via an existing access on the western side of the B4560 Swansea Road (W), located approximately 30 metres northwest of the A484 / B4560 Swansea Road roundabout. It is anticipated that all plant and machinery will be decanted within an internal site compound in the Central Development Parcel, prior to being transported to the Northern Development Parcel via a 10m Rigid Vehicle or a tractor and trailer.
- 6.68. For the reasons summarised above, the proposed development will not have any unacceptable adverse impacts on the transport network and, therefore, duly accords with the requirements of criteria 9 of Policy 18.



Criteria 10 – the proposal includes consideration of the materials needed or generated by the development to ensure the sustainable use and management of resources

- 6.69. The outline Construction Environmental Management Plan details the appropriate pollution protection techniques that will be adopted by the appointed contractor team. The purpose of the document is to demonstrate the measures that could be used during the build out phase to adequately protect the environmental resources including potential impact upon human receptors. The detailed CEMP will be submitted for approval subject to whether the scheme is granted permission.
- 6.70. With regards to flood risk, the development sits within Flood Zones A (1), B (2) and C2 (3), with some parts of the southern portion of the site sitting predominately within Flood Zone C2. The site is at low risk from all other causes of flooding reviewed. Parts of the two south-westerly fields, which fronts onto Afon LLan, are located within a flood risk area. This only extends to 1.55 hectares and is less than 2% of the total development area which is 80.2 hectares. The applicant has confirmed that solar modules are water compatible development and can still operate after being partly submerged by flood water. Sensitive components such as inverters and transformers will be positioned above projected maximum flood level of 12.5m and outside the flood risk area. The lowest levels within the site boundary where panels are placed would be approximately 10.5m AOD suggesting that the base of the panel would be set at 11.2m AOD with the flood water set partially up the panels.
- 6.71. The proposed development will only marginally increase the percentage impermeable surface area. Consequently, the run-off from the post-development site would remain almost exactly as the existing land use. It is therefore proposed to allow the development to drain to the soil surface, where infiltration to the underlying soils would occur, to mimic the existing hydrological characteristics of the application site.
- 6.72. It is important that the proposed development does not increase run-off from the application site and thereby increase the risks of flooding for others. There may be risks associated with soil compaction or degradation during construction or brought about by the rain-shadows under the arrays. However, many such risks also exist with modern farming practices. It is therefore recommended that following installation of the panels the application site is chisel-ploughed or similarly cultivated and seeded with native meadow grass and wildflowers. Chisel-ploughing will reduce soil compaction on the site and promote seed growth; it has been proven to significantly increase infiltration thereby reducing runoff rates from the site. Additionally, longer meadow type grasses and wildflower vegetation provide high levels of natural storage which will serve to reduce the risks of erosion and limit surface water flows across the site. With the implementation of Chisel-ploughing, changing the site's primary function to solar power generation will have several potential longer-term benefits regarding surface water runoff rates. Further information can be found in the accompanying Ecological Appraisal by Devon Wildlife Consultants.
- 6.73. The absence of intensive farming activity will provide the following benefits which serve to reduce soil compaction and runoff rates from the application site:
- The field will not be left without vegetation coverage in the winter (if in arable production);
 - The field will not be intensively trodden or over grazed; and

- The field will not be regularly traversed by heavy machinery.

- 6.74. Using the site for solar power generation therefore has the potential to provide betterment to the existing land use in terms of surface water runoff rates and downstream flood risk.
- 6.75. Turning to surface water management, it is proposed to provide a series of enhancements such as swales, basins, check dams and filter trenches along arrays rows that will be provided to aid in the slowing down of flood waters as part of a SuDS type train which will allow the flows of water to be contained and slow the flows of waters across these areas when flooding occurs during extreme events. Notably the extra hedgerows, tree planting and the restoration of the Rhos grassland field provide betterment once the cattle poaching has stopped, and the meadow grasses recover. This will provide a betterment in overall flood risk to the site but also impact on the current fast rate of connection to the existing watercourses.
- 6.76. For the reasons summarised above, the proposed development duly considers the materials needed or generated by the development to ensure the sustainable use and management of resources and, therefore, accords with the requirements of criteria 10 of Policy 18.

Criteria 11 – There are acceptable provisions relating to the decommissioning of the development at the end of its lifetime, including the removal of infrastructure and effective restoration

- 6.77. Following a 40-year generation period, the proposed development will enter into a decommissioning stage and this can be secured by a suitably worded planning condition.
- 6.78. The applicant will either be insured or enter into a bond to guarantee that the scheme is decommissioned at the end of its operational lifespan. The applicant has therefore made acceptable provisions for the decommissioning of the proposed development. No more than 12 months prior to the decommissioning commencing, an ecological survey would be undertaken to identify ecological constraints arising from decommissioning activities. The application site will be surveyed by an appropriately qualified ecologist to identify any ecological constraints arising from decommissioning activities.
- 6.79. 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. Alternatively, and on application of the mitigation hierarchy principles, their loss may require compensation through on or off-site measures to ensure land/habitats are preserved for wildlife into the future.
- 6.80. It cannot reasonably be foreseen what legislative protection will be afforded to particular wildlife species at the end of the schemes lifespan. Further surveys for protected species which could be impacted by decommissioning would also be expected.
- 6.81. No less than 6 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. The decommissioning strategy will follow the principles laid out in this Outline Decommissioning Strategy and informed by any mitigation requirements identified by the pre-decommissioning ecological survey(s).
- 6.82. Overall the proposed development duly accords with the 11 principles set out in Policy 18 of Future Wales and when weighed against the benefits, the proposals favour approval.

Sustainable Development

- 6.83. Welsh Government's main outcomes for the planning system reflect their vision of sustainable development which means the process of improving the economic, social, environmental and cultural well-being of Wales by taking action, in accordance with the sustainable development principle, aimed at achieving the well-being goals. Overall, this means meeting the needs of the present without compromising the ability of future generations to meet their own needs. The provision of renewable energy plays an important part within Welsh Government priorities towards reducing carbon emissions, as part of decarbonisation, whilst enhancing the economic, social and environmental well-being of the people and communities of Wales.
- 6.84. Economic benefits will arise through the provision of temporary jobs during the construction phase at the application site. Research published in 2014 by the Centre for Economic & Business Research on solar powered growth in the UK highlighted analysis by the Solar Trade Association on the cost of solar energy. The analysis estimated that by 2016, the capital investment cost of building one megawatt of solar power for a large-scale development would be around £800,000, when applied to the proposed development this equates to a capital cost of around £24million and will support a number of jobs during the scheme's build phase.
- 6.85. The contribution of the application site to economic output has been calculated by taking the 30 on-site jobs associated with the scheme, and multiplying this by an estimate of average levels of gross value added (GVA) per construction employee in Wales. Based on data sourced from the Office for National Statistics (ONS), GVA per construction employee in Wales is around £68,817 per annum. This is based on data for 2021. The GVA associated with the temporary jobs supported on site during construction is expected to be around £5.2 million to the wider economy.
- 6.86. Social gain would be provided through the generation of local electricity that will be connected directly to the local grid; the proposal would reduce reliance upon overseas energy sources. The energy production would help to meet the national and local need for energy and therefore the development would fulfil an important social role.
- 6.87. Turning to environmental gains these would be secured through carbon reduction and local biodiversity enhancements.
- 6.88. As stated throughout in this Statement, the land between and beneath the panels would be used for biodiversity enhancements and seasonal sheep grazing. Tree planting would be introduced to bolster screening. The proposed solar farm presents considerable opportunity for landscape and biodiversity mitigation and enhancement and the objectives of the development are: –
- To provide sheltering features around the site for nearby populations of bats, birds and other notable faunal species.
 - To manage the grassland to establish a diverse sward beneath the solar panel arrays.
 - To manage grassland outside the array for wildlife.

- To manage hedgerows and trees to provide habitat for a range of species and ensure visual screening of the site.
- To monitor the site and assess the success of biodiversity management.

6.89. The proposed development would therefore deliver on the environmental arm of sustainable development.

6.90. Reflecting on the above, the social, economic, cultural and environmental issues are balanced and integrated for this proposal and as such in applying the legislative requirements of presumption in favour of sustainable development, it is clear that the need for the application proposal has been clearly justified and should be approved without delay.

6.91. With regards to need, Planning Policy Wales identifies how, in all cases, considerable weight should be attached to the need to produce more energy from renewable and low carbon sources in order for Wales to meet its carbon and renewable targets. The Welsh Government target includes the need to generate 70% of its electricity consumption from renewable energy by 2030. It has a legally binding target to reduce greenhouse gas emissions by at least 80% by 2050 but it also announced in June 2019 to reach net-zero greenhouse gas emissions by 2050, in response to recommendations by the Committee on Climate Change. The Energy Generation in Wales 2018 report identifies how, of all electricity generated in Wales, 25% is from renewable sources, up from 22% in 2017. In terms of its own electrical consumption target of 70% by 2030, Wales reached the milestone of 50% electrical consumption being generated by renewable energy by 2018.

6.92. In terms of progress towards the 70% target, the Energy Generating in Wales 2018 report states how renewable energy installation rates have significantly cut as a result of reductions in government subsidies and *“There remain significant challenges to meeting the 70% target by 2030, notably the lack of available price support for renewable generation, as well as network constraints and network unavailability in some areas restricting the ability for new projects to connect”*.

6.93. At a local level, Swansea Council have also declared a climate change emergency and are seeking to become a carbon zero authority. The Government places significant emphasis on securing increased investment across the energy systems whilst minimising, as much as possible, the public costs for securing such investments and makes multiple references to how they are seeking the delivery of solar without subsidy. The application proposal would contribute towards this requirement and as set out above there is a clear need for the development.

6.94. The United Kingdom has withdrawn from the European Union Internal Energy Market (IEM). The IEM allows harmonised, tariff-free trading of gas and electricity across Europe (through interconnectors), leading to lower prices and greater security of supply. As wholesale gas and electricity prices in the UK are generally higher than elsewhere in Europe, interconnection has caused a reduction in wholesale prices, and hence consumer prices in the UK. Leaving the IEM has the potential to impact the trade of energy through interconnectors. The Government’s Briefing Paper on Energy, Climate Change and Brexit identifies how one potential impact of leaving the IEM is an increase in the cost of energy imports and this in turn would be passed on to UK’s householders and businesses. In terms of energy security, it notes how the interest of the United Kingdom should be to **increase the flexibility and resilience of the grid, especially with increasing intermittent renewables.**

- 6.95. The development proposal would contribute towards the objectives set out in the briefing note.

Compliance with the Local Development Plan

- 6.96. As stated elsewhere in this Statement, in broad terms LDP policies support the principle of renewable development and align with the principles of sustainable development and renewable energy objectives. However, they carry less weight than the updated policy stance in Future Wales, PPW and the WCFG Act.
- 6.97. Section 5 of this Statement identifies the LDP policies that are material to the development. It is enough for the proposal to accord with the development plan as a whole. It does not have to accord with each policy therein. The dominant LDP policies are discussed below.
- 6.98. Policy PS1 deals with distribution of sustainable growth across the County. It follows a simple settlement hierarchy consisting of the urban areas, key villages and the countryside. This approach identifies Swansea's urban area as the primary focus for growth. The reasoned justification to the policy, at paragraph 2.2.3, identifies how generally only development requiring a countryside location would be permitted in such locations. The development Plan places emphasis on safeguarding the openness of the countryside and protecting, conserving and enhancing the County's high quality natural and historic environment. The principle of renewable energy within the countryside is accepted and promoted through Policy EU1, accordingly, there is no conflict between the development and Policy PS 1 subject to consideration of detailed matters. The objective of Policy PS 2 is to create a genuine sustainable legacy in accordance with the Well-being of Future Generations (Wales) Act 2015, the proposals' compliance with the Act is set out within Section 8 of this Statement and as such is not repeated here.
- 6.99. Policy IO 1 seeks to ensure that all new development make effective use of existing infrastructure and where relevant make provision for, or contribute to, new infrastructure. As stated elsewhere in this chapter, the application proposal will make efficient and effective use of spare capacity within the electricity grid network and the point of connection is located in close proximity to the main development. New essential infrastructure provision will be secured by way of on-site highway junction improvement works. The scope of these works will be discussed and agreed with the Council's Highways Department and these can be secured by a suitably worded planning condition. No other infrastructure works are considered necessary to make the development acceptable in planning terms.
- 6.100. For the reason set out above, the development accords with the requirements of Policy IO 1.
- 6.101. Policies HC1 and HC2 deal with the historic and cultural environment, as stated elsewhere in this chapter, the application submission is supported by a Heritage Statement undertaken by Pegasus Group.
- 6.102. With regards to the built environment, an appropriate and proportionate level of settings assessment has been undertaken for designated historic assets located within a 5km radius of the application site. Particular attention has been given to the Scheduled Monuments of Roman practice camps at Carn Gôch Common and Stafford Common. It was established that their historic associations with one another, the Roman Swansea–Loughor road, and the forts at Swansea and Loughor, and the close-ranging views of the earthworks from within the

designated areas contribute through setting to their significance. No association or intervisibility with the application site has been identified.

- 6.103. It is considered that the application site does not contribute through setting to the significance of these or any other Scheduled Monuments, or to the significance of any Listed Building.
- 6.104. Turning to archaeology, the assessment has been informed by a review of historic environment record data, available historic maps and aerial photographs, and a walkover survey. 'Monuments' recorded within the site by Glamorgan Gwent Archaeological Trust (GGAT) HER include a post-medieval leat from Afon Llan, the post-medieval farmstead of Penyfodau Fawr, a post-medieval coal pit, and a modern coal pile or drift. Infrastructure recorded within the site on 19th- and 20th-century maps include the Penclawwd Canal and tramway, two other sections of tramway, and a mineral railway. A geophysical survey of the entire accessible and suitable site area was undertaken between July and September 2022. The survey identified two areas of potential enclosures in the northern part of the application site. One of these areas was subsequently removed from the development boundary. Anomalies indicative of historical agricultural activity were identified, some of which can be correlated to boundaries marked on historic mapping. Areas of former mineshafts, an aqueduct and mineral railway were also identified, corresponding to the results of the desk-based assessment. A number of anomalies classed as 'undetermined' were also plotted, the potential for an archaeological interpretation for these cannot be ruled out from the geophysical survey alone.
- 6.105. As a result of the geophysical survey, a targeted programme of archaeological trenched evaluation was undertaken between November to December 2022. In consultation with GGAT, thirty trenches were excavated within the site, targeting anomalies interpreted as 'archaeology possible', 'agricultural', and 'undetermined' by the geophysical survey. The evaluation revealed a site that has been extensively drained, particularly from the industrial period. Some of the features were identifiable as land drains of post medieval to modern date, some clearly correspond to post medieval and modern field boundaries. No finds or environmental evidence was obtained to date the remaining features but it is likely that they are also of post-medieval or modern date. One feature interpreted by the geophysical survey as a possible enclosure in the northern part of the site was removed from the red line boundary so not tested by trenching, the other feature identified as a possible enclosure was tested by trenching but was not present.
- 6.106. The results of the intrusive and non-intrusive surveys conclude that there is evidence for post medieval agricultural activity within the application site and for later post medieval coal mining activity. No additional mitigation is proposed as a result of the surveys to date, but any other historic assets present within the application site that warrant mitigation could be safeguarded through additional minor amendments to the layout and foundation design. This would be determined in response to the final design and layout and agreed through conclusion of the ongoing consultation with GGAT.
- 6.107. Overall, the proposed development is not considered to alter the setting of any of these assets. It would therefore not be contrary to Section 66(1) of the Planning (Listed Buildings and Conservation Areas) Act, 1990 and to the 'desirability of preserving an ancient monument and its setting' and the 'desirability of preserving the building, or its setting' of Planning Policy Wales.

- 6.108. In addition to cultural heritage, Policy HC 1 seeks to safeguard and promote the use of the Welsh Language and this requirement is supplemented by Policy HC 3. It is appreciated that the Welsh Language is a part of the fabric of the community. The well-being of the language depends upon a wide range of factors including education, demographic change, community activities and a sound economic base to maintain thriving sustainable communities and places. The development would not result in any demographic changes that would put pressure on education or community activities. The development would not impact the current working practices surrounding the development site. Furthermore, the applicant has specifically chosen a Welsh name for the development and this seeks to promote and protect local linguistic character and cultural distinctiveness.
- 6.109. For the reasons set out above the application proposal duly conforms with the requirements of Policies HC 1, HC 2 and HC 3.
- 6.110. Policy ER 1 specifically deals with climate change and this underpins one of the core functions of the Local Development Plan which is to seek that all development within the county is sustainable, taking full account of the implications of reducing resource use and addressing climate change. The policy sets out 6 principles and these are discussed below in reverse order.
- 6.111. Principle (vi) seeks that development proposals maintain ecological resistance and this is further promoted through Policy ER 2. As stated elsewhere in this statement, the application proposal would deliver on this front. To recap, habitat retention, creation and enhancement measures are designed to increase the extent and quality of habitat on key corridors within and through the application site. These measures will strengthen habitat connectivity through the application site, including creation of buffer zones. This will include native wildflower seeding/green hay from a donor site (likely to be from retained habitat to the south) and alteration of grassland management to extend and enhance priority habitat. A wildlife corridor will be created along the public right of way linking the site from north to south. This will comprise a habitat mosaic of grassland, scrub and hedgerow planting. Additional woodland and hedgerow creation and infill planting will also strengthen habitat connectivity across the wider site.
- 6.112. The river corridor and adjacent SINC are considered to be a key component of the mitigation approach; a continuous wide corridor of habitat creation and enhancement will be created along the river corridor within the redline boundary, extending and linking valuable habitats as an ecological network. Open riparian habitats will be retained as part of the mosaic, but with a wider buffer zone than at present. An area of farmland bird mitigation will also be created adjacent to the river. Treatment and removal of extensive Japanese Knotweed will also provide habitat enhancement.
- 6.113. The proposed development will provide a series of enhancements such as swales, basins, leaky dams and filter trenches along arrays rows and in existing drainage ditches, as part of a SuDS betterment which will provide additional wetland habitat diversity. The additional hedgerows and the Rhos grassland field provide flood betterment once the cattle poaching has stopped, and the meadow grasses recover.
- 6.114. For the reasons summarised above and discussed elsewhere in this statement, the application proposal accords with the requirements of principle (vi).
- 6.115. Principle (v) seeks that development avoid unnecessary flood risk. The application submission is supported by a Flood Consequence Assessment which demonstrates how the

application proposal, which is partly within River Flood Zone 3, would not increase the risk of flooding within the site boundary or to surrounding sites. A series of flood compensation and enhancement features are proposed across the entire site to assist in slowing run-off from the fields and providing storage during extreme flood events. The applicant has confirmed that solar modules are water compatible development and can still operate after being partly submerged by flood water. Sensitive components such as inverters and transformers will be positioned above projected maximum flood level and outside the flood risk areas.

- 6.116. For the reasons summarised above and discussed elsewhere in this statement, the application proposal accords with the requirements of principle (v).
- 6.117. Principle (iv) of the policy seeks to promote and increase the supply of renewable energy and low carbon energy – the application proposal would deliver here and provide a significantly important renewable and low carbon energy project at the local level.
- 6.118. Principle (iii) seeks that development adapt to the implications of climate change at both strategic and design level. At a strategic level, the Development, in conjunction with other renewable energy developments, will contribute to the UK’s aims to reduce carbon emissions and achieve its ambitious greenhouse gas emissions reduction targets. When operational, the Development will generate electricity from a renewable source and export this to the National Grid.
- 6.119. Turning to the detailed design and with regards to vulnerability to climate change, the solar panels are designed to capture the sun’s energy and therefore are built to withstand extreme climatic conditions and are purposefully located in open locations. The site is not located within a coastal location and as such is not at risk to any changes to the sea level. The mounting structure holding the solar panels are either driven into the ground at an appropriate depth which responds to site specific ground conditions and are designed to accommodate the predicted relatively small change in wind speed during the lifespan of the development.
- 6.120. Principle (ii) seeks to protect and promote the use of carbon sinks. As trees and soils act as substantial reservoirs for of carbon. The amount of carbon stored in soils is strongly influenced by land use. Soils can be a net carbon source or sink dependent on the nature of changes in land management and use (e.g. agricultural intensification, grassland restoration). The restoration of grassland under solar panels would lead to a break from agricultural production and an increase in vegetation on the site (‘permanent’ grass). The majority of the carbon in grassland systems is stored in soils rather than in the overlying biomass. Evidence suggests that conventionally managed arable land is a net carbon source; reversion to low input grassland such as under solar panels has significant carbon sequestration potential. The provision of new tree planting and new hedgerows will provide additional benefits in terms of carbon capture at the local level.
- 6.121. Principle (i) neatly captures the requirements of all other principles and seeks that developments reduce carbon emissions.
- 6.122. For the reasons set out above the application proposal duly accords with this principle. Moreover, application proposal is compliant with Policy ER1 and Policy ER2.
- 6.123. Policy ER 3 relates to the green wedge. Within the green wedge, the Council will seek to allow development only if it maintains the openness and character of the land – unless the development is for acceptable purposes as outlined in national policy. Planning Policy Wales

confirms that renewable and low carbon energy generation may be appropriate in the green wedge provided the preserve its openness and do not conflict with the purpose of including land within it. There is tension here with the Development Plan as the reasoned justification to policy ER 3, at paragraph 2.9.19, states that for renewable energy proposal to be acceptable in the green wedge, they will need to demonstrate very special circumstances. The applicant case for very special circumstances is discussed at Chapter 7 of this report.

- 6.124. The application submission is supported by a Landscape and Visual Impact Assessment (LVIA), with regard to the green wedge, the LVIA explains how the green wedge performs in providing both physical and perceived visual separation due to the landscape context and disposition of settlements. With the proposed development in place, there would be no material change regarding this, its current position would maintain distinct settlements and safeguard their separate identities. The proposed development would sit low in the landscape and retain the current landscape structure and would always be seen and appreciated in the context of a settlement fringe environment. The physical and visual separation would continue to remain and prevail with the proposed scheme in place. Openness of the countryside would be protected within the landscape framework. The proposed development would act as a buffer between settlements and prevents potential settlement coalescence which housing development for example clearly does.
- 6.125. The application proposal would not conflict with the objective of Policy ER 3.
- 6.126. The application site is located within a special landscape area (SLA) and as such, Policy ER5 is material. Within the SLA, the Council would seek to allow development where there is no significant adverse impact, including cumulative impact, on the character and quality of the landscape. The development should aim to protect and enhance the features for which the SLA has been designated. The reasoned justification to the policy, at paragraph 2.9.37 identifies how one SLA area overlaps a strategic search area for wind. The development plan goes on to state how the requirements to meet national targets for renewable energy provision outweighs the importance of safeguarding the landscape of local significance. The same should therefore apply to this application proposal. As acknowledged by the development plan, the SLA designation will also serve to protect the landscape from potentially damaging permanent development to enable the full reinstatement of the special landscape quality, following the decommissioning of any energy generation development.
- 6.127. Landscape measures include retention of the Rhos grassland, enhancement and offsets from existing boundary trees and hedgerows (managed to approx. 3m height where appropriate), wooded areas (areas of ancient woodland), and riparian vegetation along the Afon Llan. Proposals for additional hedgerows, and circa tree planting, alongside open areas of species-rich grassland, both to re-establish wildlife corridors whilst ensuring minimal 'massing' of arrays. For these reasons it is considered that there is no conflict with Policy EN 5 when taking into account the benefits of the proposal with regards to its contribution towards renewable energy provision.
- 6.128. Policy ER 6 seeks that development will not be permitted that would result in a likely significant adverse effect on the integrity of sites of international or national nature conservation importance, except in the circumstances specified in relevant legislation. As stated elsewhere in this document, the supporting Ecological Appraisal provides an assessment of impacts of the proposed development on internationally designated sites. The salient points are set out below.

Camarthen Bay and Estuaries SAC

- 6.129. The Afon Llan is connected to the SAC, creating a potential downstream pathway linking the development site to the SAC. During construction there is the potential for sediment runoff and pollution as a result of construction activity. However, any such impacts can be mitigated through adequate construction control and runoff design measures. These are set out within the Outline Construction Environmental Management Plan.
- 6.130. During operation of the scheme, it is considered that sediment runoff and nutrient load will be reduced due to the change to grassland from ploughed arable land, particularly for the fields adjacent and uphill of the river. Therefore, a Habitats Regulations Assessment (HRA) is not required as there are no identified likely significant impacts upon this designated site or its key designated habitats and species. The works are likely to have no likely significant impact on the SAC.

Burry Inlet Ramsar Site and SSSI

- 6.131. No significant wading bird species have been recorded utilising the site during the targeted bird surveys. It is considered unlikely that the site is utilised regularly by wading birds and waterfowl. Therefore, there are considered to be no significant impacts on the waterfowl assemblage associated with Burry Inlet Ramsar Site, SPA and SSSI. The works are likely to have no likely significant impact on the Ramsar Site, SPA and SSSI. In compliance with Future Wales Policy 18, there are considered to be no significant adverse impacts on nationally statutory designated sites for nature conservation.

Penyfodau Fawr To Llewitha, Alcoa Wet Meadows and Stafford Common SINC

- 6.132. The site lies within two SINC and adjacent to Stafford Common SINC. During construction there is the potential for sediment runoff and pollution as a result of construction activity. Potential impacts can be mitigated through adequate construction control and runoff design measures, including designated Ecological Protection Zones, to be set out in a detailed Construction Environmental Management Plan (CEMP). Habitat retention/creation/management as detailed in Section 4.5 has been specifically designed to maintain and enhances priority habitat associated with these SINC, from the current suboptimal habitat condition. The works are considered likely to have a Minor Positive impact at a District level.
- 6.133. For the reasons summarised above, it is considered that the development accords with the requirements of Policy ER 6.
- 6.134. Policy ER 8 deals with habits and species. The policy comes to play when a development proposal could have significant adverse effect on the resilience of protected habitats. The policy is not pertinent to the development proposal. The reasoned justification to the policy does identify how planning conditions will be imposed to deal with the appropriate removal of invasive non-native plant. As stated elsewhere in this statement the proposals include the treatment and removal of extensive Japanese Knotweed located within the site and this can be secured by way of an appropriately worded planning condition.
- 6.135. Through Policy ER 9 the Council will seek that development proposal will maintain, protect and enhance ecological networks and features of importance for biodiversity. As stated elsewhere in this Statement, the proposed development will result in a habitat improvement of 26.25% when assessed against baseline conditions. Based on improvement of the habitat

distinctiveness of improved grassland habitats, conversion of arable habitats to grassland, and enhancement of grassland in ecological buffer areas, the development proposals are currently likely to result in a significant net gain in biodiversity on the application site.

- 6.136. Policy ER 11 deals with trees and hedgerows. Through this policy the council will seek that development will normally only be granted where the trees on the site are fully protected in the long term, or appropriate replacement trees will be planted when the removal of a tree or trees is unavoidable. The removal of trees would only be acceptable where there is no other alternative location for the development; and the need for and benefits from the development outweighs the importance of the tree or trees. The application submission is supported by an Arboricultural Impact Assessment. The assessment identifies that on the basis that the construction process is carried out appropriately, the proposed development can be implemented without significant impact on the site's arboricultural resources. In conclusion, the proposals are acceptable from an arboricultural perspective and accord with Policy ER 11. Furthermore, the development will introduce significant amount of new hedgerow planting and tree planting and this can be secured by a suitable worded condition.
- 6.137. Policies T 1, T 5 and T 6 deal with the design principles and measures for transport. The accompanying Construction Traffic Management Plan estimated that there could be a maximum of around 713 deliveries over an eight to nine months 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 with car sharing encouraged and minibuses provided for general operatives. The level of traffic during the temporary eight to nine month construction phase is not considered to be material and it is considered that this will not have a detrimental impact on the safety or operation of the local or strategic highway network. All delivery movements will be carried out between the hours of 8.00 to 16.00 on Monday to Friday and 08.00 to 16.00 on Saturdays.
- 6.138. The primary access for construction is the private access road which serves Penyfodau Fawr Farm. Construction vehicles will access the road from the southern arm of the A484 / B4560 Swansea Road roundabout. The secondary construction compound is principally to aid the construction of the eastern fields, including substation, battery storage area and the cable trench works from the substation to the point of connection, this will be accesses via the secondary farm track fronting the layby on the on the southern side of the B4560 Swansea Road. For the single field north of the A484, all plant and machinery will be off loaded at the main compound and then transported along the local road to the northern site.
- 6.139. The route to and from the site proposes the use of designated A and B roads that are already frequented by HGVs. Measures to mitigate the construction traffic will be agreed between the appointed contractor and Swansea Council as the local highway authority, where considered to be necessary. It is considered that the implementation of these measures can be covered by an appropriately worded planning condition. It is concluded that suitable routing and measures can be provided in conjunction with traffic associated with construction activities at this scheme.
- 6.140. It is concluded that there are no valid highway or transportation reasons which should prevent the proposed development of the site, subject to the agreement of appropriate mitigation measures.
- 6.141. Through Policy T 7, the Council is committed to protect the county's PRow networks. The applicant acknowledges that the consultation layout focuses on the used-line of the PRow

instead of the definitive route. For the final submission and in consultation with the Local Planning Authority, the layout will be amended to also incorporate the definitive line where this deviates from the 'used-line'.

6.142. Policy EU 1 deals with renewable energy developments. It is noted that the local development plan predates Future Wales and as such Policy EU 4 is outdated for the purpose of determining DNS renewable energy schemes. The weighting given to this policy is subject to its consistency with Future Wales Policies 17 and 18. Policy EU1 identifies local search areas for Solar PV between 5–50MW. The application site lies outside the area defined as a local search area (LSA) for solar, however, the LDP clarifies that solar LSAs are areas highlighted by the Council's own Renewable Energy Assessment as being the least constrained. Policy does not seek to exclude consideration of any proposal which lies outside the LSA area.

6.143. The policy states that all other proposals outside the LSA will only be permitted where they can demonstrate that they would not prejudice the purpose of the LSA. Regardless of their location in relation to the LSA, all proposals must satisfy criterion iii, iv, and v of Policy EU1. The development would not prejudice the purpose of the LSA. The LSAs are clustered to the north of the M4 and as such due to the separation distance and topography there is limited potential for any cumulative effects that could prejudice the development of such schemes within those areas. These criteria set out the need to address the impact of the proposal on character, public amenity, telecoms, carbon sinks. Criterion iv requires that satisfactory mitigation is in place to reduce the impact of the proposal, and specifically glint and glare. It also requires appropriate provision for restoration and aftercare which must be agreed with the LPA prior to development being carried out and for additional compensatory benefits being sought in line with Policy IO 1. These matters are discussed in turn below.

- Site decommissioning can be secured by appropriately worded condition and a decommissioning soil management and aftercare plan is presented within the accompanying Agricultural Considerations Report.
- The proposed solar PV development would result in a degree of harm to the landscape character and visual amenity of the site fronting the A484 and Swansea Road (B4560), yet pylons cross the area and visual detractors already include the sewage works and bordering factories and urban areas. However, the landscape and visual effects would be localised owing to the sloping landform of the Afon Llan valley, the surrounding built form, woodland and high sided hedgerows. The proposed development prioritises conforming with the landscape and nature conservation designations by including designs for over 57 hectares of green infrastructure and wildlife habitat improvements across c.63% of the fields; with the PV arrays, substation and battery compound only occupying c.37% (around 31 hectares) of the site. The landscape enhancements would remain beyond the 40-year lifespan (the proposal is temporary and reversible), providing established vegetation and associated habitats. With regard to the green wedge, as the proposals would sit low in the landscape and retain the current landscape structure, the physical and visual separation would continue to remain and prevail with the proposed development in place. Openness of the countryside would be protected within the landscape framework. The proposed development would act as a buffer between settlements and prevents potential settlement coalescence which housing development for example clearly does.
- Turning to reflected light, the supporting Glint and Glare Assessment concludes that the measured intensity of a reflection from solar panels can vary from 2% to 30%

depending on the angle of incidence. It is also noted that evidence shows that reflections from solar panels are significantly less intense than many other reflective surfaces, which are common in an outdoor environment. Given the existing vegetation and terrain within and surrounding the application site, no mitigation is required meaning that no unacceptable adverse impacts are caused from reflected light.

- Turning to telecommunications impacts, this constraint is pertinent only to wind turbines and is therefore not relevant in relation to the proposed development.
- The provision of carbon sinks is incorporated into the application proposal. As discussed elsewhere in this statement, the restoration of grassland under solar panels would lead to a break from agricultural production and an increase in vegetation on the site ('permanent' grass). Most of the carbon in grassland systems is stored in soils rather than in the overlying biomass. Evidence suggests that conventionally managed arable land is a net carbon source; reversion to low input grassland such as under solar panels has significant carbon sequestration potential. The provision of new tree and hedgerow planting will provide additional benefits in terms of carbon capture at the local level.

6.144. For the reasons summarised above and discussed in detail elsewhere in this Statement, the proposed development does not conflict with Policy EU 1.

6.145. Policy RP 1 deals with the effect of development on air, noise, light and water quality, and the policy is expanded via Policy RP 2 (noise) Policy RP 4 (Water Pollution), Policy RP 5 (flood risk). These matters are discussed elsewhere in this statement and are summarised below.

- Turning to noise, the application is supported by a noise assessment prepared by ION Acoustics. Overall, the noise assessment indicates that operational noise from the proposed development during the likely operating hours would be relatively low in absolute terms and would largely comply with the operational noise target at all the noise sensitive receptors. To that end, noise from the proposed development is unlikely to be audible and the resultant impact across all receptor locations is low. It is considered that there are no noise-related issues associated with the proposed development which would prevent the granting of full planning permission.
- Turning to reflected light, the application is supported by a Glint and Glare Assessment, prepared by Pager Power, which concludes that the measured intensity of a reflection from solar panels can vary from 2% to 30% depending on the angle of incidence. It is also noted that evidence shows that reflections from solar panels are significantly less intense than many other reflective surfaces, which are common in an outdoor environment. Given the existing vegetation and terrain within and surrounding the application site, no mitigation is required meaning that no unacceptable adverse impacts are caused from reflected light.
- Turning to air quality considerations, the application site is not located near any Air Quality Management Area as per Wales Airborne Pollution Map. The Wales Airborne Pollution map 2017 background air pollution data for the development site suggests an annual mean background concentration of $10.7 \mu\text{g}/\text{m}^3$ for PM10 which is below the objective of $40 \mu\text{g}/\text{m}^3$. It is anticipated that the development would introduce additional road traffic and construction dust. The construction impacts associated

with the proposed development would likely generate a small magnitude of dust and PM10. Impacts from dust emissions during the construction phase would be not significant, which is supported by the low levels of annual mean emissions. It is considered that despite there not being a defined risk present, it is still advisable that a number of good practice measures are implemented, such as considerate traffic speed and observing minimal dust dispersion where at all possible during construction and transport activities and these can be incorporated in a Construction Environmental Management Plan. Maintenance vehicles are only expected to visit the application site periodically. Therefore it is unlikely that the number of vehicle movements during the operational phase will exceed those of the construction phase. As a result, operational phase impacts associated with road traffic emissions are deemed to be not significant. The Outline Construction Environmental Management Plan details appropriate housekeeping and mitigation measures that would be followed at the construction and operational stages to minimise any adverse impact on air quality.

- With regards to flood risk, parts of the two south-westerly fields, which fronts onto Afon LLan, are located within a flood risk area. The applicant has confirmed that solar modules are water compatible development and can still operate after being partly submerged by flood water. Sensitive components such as inverters and transformers will be positioned above projected maximum flood level of 12.5m and outside the flood risk area. The lowest levels within the site boundary where panels are placed would be approximately 10.5m AOD suggesting that the base of the panel would be set at 11.2m AOD with the flood water set partially up the panels. The proposed development will only marginally increase the percentage impermeable surface area. Consequently, the run-off from the post-development site would remain almost exactly as the existing land use. It is therefore proposed to allow the development to drain to the soil surface, where infiltration to the underlying soils would occur, to mimic the existing hydrological characteristics of the application site.
- The absence of intensive farming activity will provide the following benefits which serve to reduce soil compaction and runoff rates from the application site: Using the site for solar power generation therefore has the potential to provide betterment to the existing land use in terms of surface water runoff rates and downstream flood risk. Turning to surface water management, it is proposed to provide a series of enhancements such as swales, basins, check dams and filter trenches along arrays rows that will be provided to aid in the slowing down of flood waters as part of a SuDS type train which will allow the flows of water to be contained and slow the flows of waters across these areas when flooding occurs during extreme events. Notably the extra hedgerows, tree planting and the restoration of the Rhos grassland field provide betterment once the cattle poaching has stopped, and the meadow grasses recover. This will provide a betterment in overall flood risk to the site but also impact on the current fast rate of connection to the existing watercourses.

6.146. For the reasons summarised above, the application proposal accords with the requirements of Policies RP 1, RP2, RP 3, RP4 and Policy RP 5.

6.147. Policies RP 6 and RP 7 deal with contaminated land and land stability. The application submission is supported by a Phase 1 Geoenvironmental Report & Coal Mining Risk Assessment, the salient points are set out below:-

- The site is located within the South Wales Coalfield. There are a high density of historic collieries and other mining related features on-site and in the surrounding area.
- A review of historical and current Ordnance Survey mapping and environmental registers has indicated that potential contaminative current and historic land uses are present at the application site. These land uses include the historic coal mining legacy of the application site, historic backfilling of the on-site canal, as well as agricultural and farming land uses. The coal mining related risks posed to the site are not expected to preclude development, provided that the appropriate site investigation and mitigation measures are implemented.
- The proposed development is of low sensitivity, with no permanent site occupants. A conceptual model detailing potential source-pathway-receptor pollutant linkages has been produced. Potential sources of contamination are related to the historic coal mining extent and the present day agricultural activities. Potential contaminants associated with these land uses include Asbestos, TPHs, PAHs, Toxic Metals and pesticides/herbicides. Potential transport pathways of the identified contaminants include direct contact and ingestion, as well as the leaching of contaminants.
- The Site Investigation and soil sampling/analysis and monitoring will inform a revised risk assessment, a final Construction Environmental Management Plan (CEMP) and where required a Remediation Strategy. Following implementation of the identified mitigation measures, it is thought that the potential risks posed during and following development of the site should not preclude the proposed development.
- The proposed layout has taken into account the mine entry positions, with no-development zones in the vicinity of these entries. Geophysical investigation works have progressed which have identified a number of magnetically anomalous readings, which may represent historical mining features (entries and shallow workings). The survey will be reviewed further to inform targeted pre-construction site investigation which is recommended to more accurately pinpoint the location of mine shafts within the planning site area. Site investigation data will inform zones that as a minimum are secured by fencing and left devoid of structures for the lifetime of the development. The mitigation measures can be secured by an appropriately worded condition.
- It should be recognised that during the construction phase works all formations, trenches and other excavations should be inspected by suitably qualified personnel to confirm the absence of anomalous features. Where any unforeseen ground conditions are identified these should be highlighted to the project team and Coal Authority in the instance of unrecorded mine entries.

6.148. For the reasons set out above the application proposal conforms with the requirements of Policies RP 6 & RP 7.

6.149. Policy RP 13 deals with safeguarding minerals. The applicant accepts that part of the application proposal lies within a mineral safeguarding area. The policy allows for temporary development provided that the site and be restored within a timescale that the mineral is likely to be needed. In-line with national planning policy, a sub-regional approach has been taken. Swansea is part of the Swansea City Region, with Neath Port Talbot (NPT) County Borough Council and part of Carmarthenshire County Council (CCC). A Statement



of Sub Regional Corporation (SSRC) has been agreed which confirms that each constituent LPA accepts the individual apportionments for aggregates for their individual Authority areas, as set out in the Regional Technical Statement (second Review), and that (as a minimum) the Regional Technical Statement requirements for that sub-region as a whole will be met. NPT will cover Swansea's apportionment requirement until the date of Swansea's Full LDP Review, as they have sufficient reserves.

7. VERY EXCEPTIONAL CIRCUMSTANCES

- 7.1. Planning Policy Wales identifies how renewable energy and low carbon energy are included within the 'closed list' of development which may be appropriate in the green wedge, provided they preserve the openness of the green wedge and do not conflict with purpose of including land within it. The supporting LVIA asserts that with the development in place, the openness of the countryside would be protected within the landscape framework.
- 7.2. If the decision taker reaches a different conclusion, then the development would be defined as 'inappropriate development', and paragraph 3.74 of Planning Policy Wales would be engaged.
- 7.3. This section of the Statement presents the applicant's position for very exceptional circumstances, highlighting the renewed emphasis on the need for this type of development in recent and up-to-date Government energy and climate strategies.
- 7.4. For inappropriate development, planning permission should only be granted in very exceptional circumstances where other considerations clearly outweigh the harm which such development would do to the green wedge. There is no restriction on what might be considered as an 'other consideration'.¹¹
- 7.5. In term of development management, what can be termed the Sullivan approach (from his judgment in *R. (Chelmsford BC) v First Secretary of State [2003] EWHC Admin 2978*) requires the decision-maker first to decide whether very special circumstances exist and then to determine whether those very special circumstances justify the harm to the green belt.
- 7.6. In addition, the decision of Sullivan J. in *R (Basildon DC) v FSS [2004] EWHC 2759 (Admin)* established that in relation to Very Special Circumstances in Green Belt cases **"a number of factors, none of them "very special", when considered in isolation may, when combined together, amount to very special circumstances"**. Thus, for example, in this case the ecological enhancements and local economic benefits may not in themselves amount to exceptional circumstances but they can contribute to establishing such.
- 7.7. As set out within this Planning Statement, there is a plethora of material considerations which are considered to weigh heavily in favour of the proposed development and contribute towards establishing very exceptional circumstances.

Need for Development

- 7.8. The proposed is capable of delivering enough electricity to power between the equivalent of 11,500 homes (based on 2020 local households' consumption data) per annum over its operational lifespan. This represents a substantial contribution to the production of energy from a renewable resource and to the reduction in greenhouse gas emissions in the context of the Welsh Government targets and its commitment to address the climate emergency. Additionally, the battery storage facility would ensure that the supply of energy generated by the panels can be controlled to reduce the miss-match between peak demand and supply;

¹¹ Para 68 of *Brentwood BC v SSE [1996] 72 P&CR 61*

the benefits of an increased use of energy storage to provide a balance in this respect is recognised in PPW.

- 7.9. Acknowledgement must be given to the pace of the legislative and policy evolution pertaining to the energy sector and the strong support to the principle of developing renewable and low carbon energy from all technologies and at all scales to meet our future energy needs. In particular, Policy 17 of Future Wales explains that in determining planning applications for renewable and low carbon energy development, decision-makers must give significant weight to the need to meet Wales' international commitments and Welsh Government's target to generate 70% of consumed electricity by renewable means by 2030.
- 7.10. Turning to the regional approach, Future Wales locates the application site within the south west catchment area. The published document, at page 153, sets out how the provision of renewable energy is vital for the south west to play its role in decarbonising. It states (inter alia) *"It is vital the region plays its role in decarbonisation and supports the realisation of renewable energy. Policies 17 and 18 set out Future Wales' approach to renewable energy generation across Wales. There is strong potential for wind, marine and solar energy generation and Strategic and Local Development Plans should provide a framework for generation and associated infrastructure. The Welsh Government wishes to see energy generation, storage and management play a role in supporting the South West Wales economy"*.
- 7.11. The South West Wales Energy Strategy sets out the need to deliver 840MW of ground mounted solar with the region by 2050. The Government's Renewable Energy database shows that Swansea Council have been underperforming in terms of renewable energy provision, this adds to the significant weight in favour for the development.
- 7.12. In addition to the renewable energy provision, the proposed development will also deliver battery storage. There is also overwhelming need and government support for battery energy storage development as part of the UK Energy Strategy and to facilitate the decarbonisation of the Energy Sector. The battery provision, together with the local energy security benefits associated with grid balancing services, contributes towards the very special circumstances for this development.

Temporary Nature of Development

- 7.13. The temporary nature of the development should further be given weight in the consideration of the proposals as any harm arising from the development on the Green Wedge by way of its inappropriateness will only be temporary and after the development is decommissioned the site will be returned to its former state. This is therefore considered to contribute towards the very exceptional circumstances, weighing in favour of the proposed development.

Community Benefits

- 7.14. Without the proposed development, the community benefits associated with the proposed development would not be delivered. Gower Power Limited have expressed an interest in partnering with Community Energy Wales to progress a plan for Community Shared Ownership.

Environmental Gains

- 7.15. As stated elsewhere in this Statement, habitat retention, creation and enhancement measures are designed to increase the extent and quality of habitat on key corridors within and through the site. These measures will strengthen habitat connectivity through the site, including creation of buffer zones. This will include native wildflower seeding/green hay from a donor site (likely to be from retained habitat to the south) and alteration of grassland management to extend and enhance priority habitat.
- 7.16. Planting of native hedge, tree and scrub, and creation of wild bird cover plots will aim to extend the habitat mosaic and enhance habitat value for a range of species including bats and farmland bird species. Enhancement of Rhos pasture and creation of reptile and invertebrate banks will enhance habitat and connectivity for such species.
- 7.17. A wildlife corridor will be created along the public right of ways linking the application site from north to south. This will comprise a habitat mosaic of grassland, scrub and hedgerow planting. Additional woodland and hedgerow creation and infill planting will also strengthen habitat connectivity across the wider site.
- 7.18. The river corridor and adjacent SINC are considered to be a key component of the mitigation approach; a continuous corridor of habitat creation and enhancement will be created along the river corridor within the redline boundary, extending and linking valuable habitats as an ecological network. Open riparian habitats will be retained as part of the mosaic, but with a wider buffer zone than at present. An area of farmland bird mitigation will also be created adjacent to the river. Treatment and removal of extensive Japanese Knotweed will also provide habitat enhancement.
- 7.19. It is proposed to provide a series of enhancements such as swales, basins, leaky dams and filter trenches along arrays rows and in existing drainage ditches, as part of a SuDS betterment which will provide additional wetland habitat diversity. The additional of hedgerows, tree planting and the enhancement of the Rhos grassland field provide flood betterment once the cattle poaching has stopped, and the meadow grasses recover.
- 7.20. It is anticipated that net biodiversity gain can be achieved at the application site, particularly with regards to the uplifting condition of priority habitats, and habitat connectivity along the river corridor. These proposals for green infrastructure, ecological connectivity and enhancement have been designed to meet Policy 9 of Future Wales, Resilient Ecological Networks and Green Infrastructure.

Economic Development

- 7.21. The accompanying Economic Benefits Report highlights the economic benefits that will be created by a proposed green infrastructure and 44.4MW DC solar and battery storage project in Swansea. The main findings from the analysis can be summarised as follows:

The Swansea Economy

- **Jobs:** Swansea saw no change to employment between 2015 and 2022. By contrast, Wales (1.7%) and Great Britain (7%) saw positive job growth overall. The Proposed Development will create jobs in Swansea and support the area's growth by providing new labour market opportunities.

- **Supporting economic growth:** In October 2020, the claimant count in Swansea was 5.6% and by October 2023 it had fallen to 3.4%. The claimant count in Swansea is currently above the rate seen in for Wales (3.2%) but below the rate for Great Britain. With uncertainty remaining about the UK’s growth prospects, it is important that new job opportunities are created to support economic growth. It is particularly important to create new green jobs following the Roads Review by the Welsh Government, which may result in some proposed new roads being cancelled.

Benefits Generated by the Proposed Development

- **Construction phase employment:** The Proposed Development could support up to 163 temporary jobs, both direct jobs on-site and in the wider supply chain, during the nine-month construction period (and similar levels of employment during decommissioning of the project).
- **Contribution of construction phase to economic output:** The gross value added (GVA) generated by jobs supported during the construction phase could be up to £7.2million.
- **Operational benefits:** It is estimated that the Proposed Development will support up to five full-time equivalent jobs (FTE) in Swansea and the wider economy once it is operational. The GVA associated with the five FTEs is estimated to be £5.77million (present value) over the 40-year operational life span. Business rates generated by the solar project element of the Proposed Development could be in the region of £157,000 per annum.
- **Supporting economic development objectives:** The Proposed Development will support the Welsh Government’s pledge to become net zero and the COP27 aim of reducing carbon emissions and increase generation of clean energy. At the regional scale, it will support South West Wales regional economic objectives in respect of investment in renewable energy and generating benefits across the wider economy and society.

Proximity to Point of Connection

7.22.

One of the biggest constraints which has to be considered when developing a renewable led energy scheme is securing a viable point of connection to the electricity network. Securing a grid connection is very difficult and problematic for energy proposals and this is consistently identified by stakeholders as a major barrier to achieving renewable energy targets in Wales (as detailed in the background papers supporting the preparation of Future Wales). The absence of a grid connection in the locality would be a technical or economic reason for a project not proceeding, its presence does not override the policy considerations on whether this is a suitable site in planning and environmental terms which the applicant has rigorously tested during the formulation of its proposals. The accompanying Site Selection Report demonstrates that there are no other available sites that could accommodate the development. The Site Search Report established that: –

- There are no appropriate alternatives sites that are sequentially preferable to accommodate the application proposal that are located outside of the green belt;
- There are no appropriate brownfield sites available within the Swansea that can accommodate the proposal, and none have been put forward by consultees or third

parties during the informal consultation, the statutory consultation and the statutory re-consultation.

- Other potential greenfield sites have been assessed within the Report, but none represent an improvement in comparison to the Application Site, given similar or better agricultural land quality and higher environmental habitats would be potentially harmed by the proposals.

7.23. It is considered that any perceived impact to the openness of the Green Wedge arising from the proposals would be clearly and exceptionally outweighed by the substantial benefits and material considerations associated with the proposal, as listed above. It is therefore concluded that very exceptional circumstances do exist to justify the proposed development within this Green Wedge location.

8. PLANNING BALANCE

- 8.1. In terms of establishing a planning balance, this section of the statement examines the various material considerations to assist in determining the acceptability of the proposed development.
- 8.2. It is clear that delivering renewable energy is one of the Welsh Government's top national priorities for the next 20 years. The Future Wales set a clear direction of how Wales should be investing in infrastructure and development for the greater good of Wales and its people, the provision of renewable energy is firmly embedded to this future direction. Future Wales correctly picks up on the regulations set out in the Senedd on 9 February 2021 which formally commits Wales, for the first time, to legally binding targets to deliver the goal of net-zero emissions.
- 8.3. Paragraph 5.9.15 of PPW makes the important recognition that (inter alia) ***"The local need for a particular scheme is not a material consideration, as energy generation is of national significance and there is a recognised need to optimise renewable and low carbon energy generation"***. Future Wales and PPW identifies how significant weight should be given to renewable energy development.
- 8.4. Turning to the regional approach, Future Wales locates the application site within the south west catchment area. The published document, at page 153, sets out how the provision of renewable energy is vital for the south west to play its role in decarbonising. It states (inter alia) ***"It is vital the region plays its role in decarbonisation and supports the realisation of renewable energy. Policies 17 and 18 set out Future Wales' approach to renewable energy generation across Wales. There is strong potential for wind, marine and solar energy generation and Strategic and Local Development Plans should provide a framework for generation and associated infrastructure. The Welsh Government wishes to see energy generation, storage and management play a role in supporting the South West economy"***.
- 8.5. It is worth highlighting that the applicant does not consider that the proposals would result in significant effects simply by virtue of the development being visible from any particular location.
- 8.6. Paragraphs 5.9.24 to 5.9.28 of PPW sets out the Welsh Government position towards local involvement and community benefits for renewable schemes. On the matter of community benefits, paragraph 5.9.25 identifies how (inter alia) ***"The social, environmental and economic (including job creation) benefits associated with any development should be fully factored into, and given weight in the decision making process"***. Paragraph 5.9.26 states (inter alia) ***"Experience has shown that there are significant opportunities to achieve local benefits through renewable energy developments. Some benefits can be justified as mitigation of development impacts through the planning process. In addition, developers may offer benefits not directly related to the planning process."***
- 8.7. The applicant duly acknowledges how the Welsh Government has set a target for new renewable energy projects to have at least an element of local ownership. However, this is not a policy requirement and paragraph 5.9.25 sets out how planning decisions on renewable project must be based on the assessment of impacts of the proposed development. Notwithstanding this, the applicant is exploring community ownership options and has engaged the interest of Gower Power Limited.

- 8.8. At paragraph 1.2, the PPW identifies how its primary objective is to ensure that the planning system contributes towards the delivery of sustainable development and improves the social, economic, environmental and cultural being of Wales as required by the Well-being of Future Generation (Wales) Act 2015. There is no dispute that the development would increase the installed renewable energy capacity, contributing to meeting local and national, renewable energy targets, reducing reliance on energy generated from fossil fuels and actively facilitating the transition to a low carbon economy. To this end, it would embrace the WBFG Act goals to achieve a globally responsible, prosperous and resilient Wales.
- 8.9. Overall, the applicant emphasises that the application proposals are in accordance with Welsh Government policies in meeting the challenges of climate emergency as set out in the Future Wales and PPW. Accordingly, in this case the Future Wales & PPW favours approval.
- 8.10. PPW and Future Wales make it clear that achieving decarbonisation and climate-resilience is a key national priority for Wales, and a recognition of a need for Wales to focus on generating the energy it needs to support its communities and industries over the next twenty years. The application proposal would align with and support this approach.
- 8.11. However, there is more at play here, there are additional matters which weigh in favour of the proposed development . These are discussed in turn below.

Well-being and Future Generations (Wales) Act 2015

- 8.12. Planning Policy Wales identifies how the planning system in Wales should seek to maximise the contribution planning makes to achieve the goals set out in the Well-Being of Future Generations (Wales) Act. The Well-being of Future Generations (Wales) Act is about improving the social, economic, environmental and cultural well-being of Wales. The Well-being Act has established seven well-being goals which are intended to shape the work of all public bodies in Wales. In order to demonstrate that appropriate consideration has been given to the well-being goals and sustainable development principle in the decision-making process, public bodies are required to have regard to the ‘five ways of working’ contained in the Well-being Act. These require consideration of involvement; collaboration; integration; prevention; and long term factors.
- 8.13. The Wellbeing of Future Generations (Wales) Act requires planning decisions to comply with the 7 well-being goals of the Act. The seven well-being goals are discussed below together with an assessment of how the application proposal contributes towards them.

Well-Being Goals	Applicant’s Assessment
A prosperous Wales – An innovative, productive and low carbon society which recognises the limits of the global environment and therefore uses resources efficiently and proportionately (including acting on climate change); and which develops a skilled and well-educated population in an economy which generates wealth and provides	Welsh Government’s main outcomes for the planning system reflect their vision of sustainable development which means the process of improving the economic, social, environmental and cultural well-being of Wales by taking action, in accordance with the sustainable development principle, aimed at achieving the well-being goals. Overall, this means meeting the needs of the present without compromising the ability of future generations to meet their own needs. The

<p>employment opportunities, allowing people to take advantage of the wealth generated through securing decent work</p>	<p>provision of renewable energy plays an important part within Welsh Government priorities towards reducing carbon emissions, as part of decarbonisation, whilst enhancing the economic, social and environmental well-being of the people and communities of Wales.</p> <p>Economic benefits will arise through the provision of temporary jobs during the construction phase at the application site. The build phase of the Proposed Development is estimated to generate the following impacts:</p> <ul style="list-style-type: none"> • Direct and indirect construction-related employment: The Proposed Development will support an estimated 163 temporary roles on-site and in the wider economy over the nine-month build programme. • Contribution of construction phase to economic output: An estimated £7.2million of gross value added (GVA) could be generated during the nine-month construction period. <p>The Proposed Development is expected to have a 40-year operational lifespan, at which point it will be decommissioned. Similar economic benefits to those outlined above are expected to be generated by the decommissioning phase.</p> <p>The operational impacts include:-</p> <ul style="list-style-type: none"> • Permanent employment: It is estimated that the Proposed Development will support up to five full-time equivalent jobs (FTE) in Swansea and the wider economy once it is operational. • Contribution to economic output: The gross value associated with the five FTEs is estimated to be £5.77million (present value) over the 40-year operational life span. • Business rates: Business rates generated by the solar project element of the Proposed Development could be in the region of £157,000 per annum. • Supporting economic development objectives: The Proposed Development will support the Welsh Government's pledge to become net zero and the COP27 aim of reducing carbon emissions and increasing generation of
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	<p>clean energy. At the regional scale, it will support South West Wales regional economic objectives in respect of investment in renewable energy and generating benefits across the wider economy and society.</p> <ul style="list-style-type: none"> Public attitudes towards renewable energy: According to a report by the Department for Energy Security and Net Zero, 85% of the UK public supported renewable energy in spring 2023. This went up to 88% when looking at public support for solar energy, which was the highest public support for any source of renewable energy. <p>The scheme would also contribute towards farm diversification, this is discussed further below.</p>
<p>A resilient Wales – A nation which maintains and enhances a biodiverse natural environment with healthy functioning ecosystems that support social, economic and ecological resilience and the capacity to adapt to change (for example climate change)</p>	<p>This Statement has highlighted the national legislation, guidance and policy which supports the transition to a low carbon future and the continued roll out of renewable energy infrastructure. PPW states how the benefits of renewable and low carbon energy, as part of the overall commitment to tackle the climate emergency and increase energy security, is of paramount importance and that the planning system should, inter alia, maximise renewable and low carbon energy generation. The application proposal will have a positive impact on climate change over its 40 year lifespan. The application proposal would contribute to limiting the impacts of climate change and thus increasing the social, economic and ecological resilience to the challenge.</p>
<p>A healthier Wales – A society in which people’s physical and mental well-being is maximised and in which choices and behaviours that benefit future health are understood.</p>	<p>Again, as discussed elsewhere in this statement, national guidance, policy and objectives are clear in their support towards the transition and delivery of a low carbon future. The continued roll out of renewable energy infrastructure is a critical element to achieve net zero by 2050. Adapting to climate change can drive a more sustainable, greener, cleaner society by bringing people together to create better places, through urban and rural green infrastructure; improved air quality; locally managed nature-based solutions; less wastage of resources; and citizen science and engagement in building community resilience. The Welsh Government has recognised the need to</p>

	<p>take action to prepare for climate change in publishing Prosperity for all: A Climate conscious Wales in 2019, its five-year plan to adapt to climate change impacts.</p>
<p>A more equal Wales – A society that enables people to fulfil their potential no matter what their background or circumstances (including their socio economic background and circumstances).</p>	<p>The wider benefits of renewable energy include security of energy supply and reduced energy costs for the consumer. Indeed, the proposed scheme would be delivered without any government subsidy support and as such, there is no burden placed on the taxpayer to fund the development. In this respect, benefits of the project are to be realised through reduced energy bills and security of supply which will reduce Wales’ exposure to the volatility of the wholesale energy markets. These are important factors in addressing fuel poverty, which disproportionately effects low-income households across Wales and contributes to economic inequality.</p> <p>To summarise, social gain would be provided through the generation of local electricity that will be connected directly to the local grid. The proposal would reduce reliance upon overseas energy sources. The energy production would help to meet the national and local need for energy and therefore the development would fulfil an important social role.</p>
<p>A Wales of cohesive communities – Attractive, viable, safe and well-connected communities.</p>	<p>The application proposal delivers decentralised energy generation and would therefore contribute towards energy provision & security at a local level. The application proposal would also assist towards the renewable energy targets as set out in the South West Wales Energy Strategy. The application proposal is therefore considered to contribute to the aim of achieving an attractive, viable, safe cohesive communities in these terms.</p>
<p>A Wales of vibrant culture and thriving Welsh language – A society that promotes and protects culture, heritage and the Welsh language, and which encourages people to participate in the arts, and sports and recreation.</p>	<p>The well-being of the language depends upon a wide range of factors including education, demographic change, community activities and a sound economic base to maintain thriving sustainable communities and places. The development would not result in any demographic changes that would put pressure on education or community activities. The development would not impact the current working practices of agricultural units surrounding the development site. The proposed green infrastructure would</p>

	encourage recreational activity. The proposal would therefore not conflict with goals for the Welsh Language.
A globally responsible Wales - A nation which, when doing anything to improve the economic, social, environmental and cultural well-being of Wales, takes account of whether doing such a thing may make a positive contribution to global well-being	The scheme would principally and directly address the causes of climate change and the declared climate emergency. The development of the scheme would therefore contribute to meeting Wales' net zero target by 2050 and contribute towards meeting the Welsh Government target of meeting 70% of Wales electricity demands from renewables by 2030. The proposal is therefore in line with the objectives of a globally responsible nation as set out in the Well-being of Future Generations Act 2015.

- 8.14. Overall, there can be no dispute that the proposed development will increase the installed renewable energy capacity, contributing to meeting local and national renewable energy goals, reducing reliance on energy generated from fossil fuels and actively facilitating the transition to a low carbon economy; this carries significant weight in the determination process. To this end, it would clearly embrace the WCFG Act goals to achieve a globally responsible, prosperous and resilient Wales and be in accordance with Welsh Government policies in meeting the challenges of the climate emergency as set out in Future Wales and PPW.
- 8.15. Turning to Public Right of Ways, in the case of a DNS ground mounted solar scheme at Llanwern, the Inspector noted how (inter alia) ***"All footpaths and other PROW which pass through the application site would be retained in compliance with Policy. In my opinion, the proposed development would not deter users of these paths, the cycle route, or other access ways in the surrounding area."*** A copy of the Llanwern Steel Works Decision, and Inspectors report is provided in Appendix 4 and 5.
- 8.16. Overall, it is considered there is no conflict with Policy 18 of Future Wales. If the Inspector reaches a different view, reference is made to the approved DNS solar scheme at Wauntysswg (DNS Ref 3213639), whereby the Minister of Housing and Local Government reached the conclusion that "I consider the significant benefits of the proposal, which is anticipated to generate 30MW of electricity per annum from a renewable source, outweighs any harmful landscape or visual impacts ..." In reaching her conclusions, the Minister was satisfied that the landscape and visual impacts of the development **were temporary and fully reversible**. A copy of the Welsh Ministers decision letter and the inspectors report in relation to Wauntysswg Farm is provided in Appendix 6 and 7.
- 8.17. Reference is also made to the approved DNS scheme at Ty Croes, the salient points of the Inspector's Report (IR) are set out below:-
- At IR paragraph 270, the Inspector gave substantial weight in the overall planning balance to the benefits delivered by the Ty Croes Scheme, these comprise the production of renewable energy, a reduction in greenhouse gas emissions, assistance in securing a reliability of supply [IR 269]. It would contribute towards WFGA

wellbeing goals as it would assist in building a stronger, greener economy. The same must therefore apply to Parc Solar Caenewydd.

- At IR 263, on the issue of coal mining, the Inspector acknowledged that it was highly likely that there would be coal mining features and hazards in the area including shallow coal mine workings.
- At IR 264, the Inspector noted how the applicant has undertaken a Coal Mining Risk Assessment which guided the layout of the solar arrays, thus avoiding the areas of concern. The Coal Authority was satisfied, subject to a number of conditions, that the proposals would safeguard public safety. Given this, the proposals would comply with LDP Policy EP6 and would be neutral in the final balance. This conditional approach should therefore be acceptable to the Parc Solar Caenewydd.
- At IR 275, the Inspector identifies how the Future Wales Policies 17 and 18 are the most directly relevant policies to renewable energy projects of national significance.
- At IR 271, on the issue of decommissioning the Inspector stated ***“The Council raised concerns relating to the need for a planning obligation to make provision for a bond to fund the decommissioning of the development at the end of the limited period. Nevertheless, I have no evidence that a planning condition could not deal with this matter effectively and address the removal and restoration issue, as has been the case in many other instances of solar farms and other temporary developments”***. Moreover, the WG Circular O16/2014 states that ***“Local planning authorities should seek to overcome planning objections, where appropriate, or secure mitigation by condition rather than by a planning obligation.”*** In the absence of any evidence to the contrary, a condition could address the removal of the installation and the reinstatement of the land”. Accordingly, a decommissioning condition for Parc Solar Caenewydd should also be acceptable.
- At IR 227, the Inspector acknowledged that there is no evidence that existing or proposed solar farm has/would affect property values, and in any event, would not be material in determining planning applications and proposals.
- At IR 167, the Inspector identifies how ***“Future Wales would be the primary source of policy where there is any conflict [with the lower tiers of the development plan]”***.

8.18. With regards to ecology and biodiversity, it is notable that the Ty Croes application was only supported by a Phase 1 Ecological Survey and shadow HRA. Whilst a number of notable species were present within 1km of the site, no species survey were requested by the Local Planning Authority, Natural Resources Wales nor the Planning Inspectorate and none were undertaken. At IR 232, it was accepted that (inter alia) ***“it is only likely that the boundary features would be used for foraging by bats and Dormice, nesting birds, hedgehogs, reptiles and badger. Otters may also use the River Gwili for feeding, although no holts were found during ecological surveys”***. For the Parc Solar Caenewydd, the applicant has undertaken a proportionate approach to biodiversity and this has included additional ecological surveys on bats, badgers, birds, otters, water voles and dormice. A copy of the Welsh Ministers decision letter and the Inspector’s report in relation to Ty Croes is provided in Appendices 8 and 9.

9. CONCLUSION

- 9.1. This Planning Statement has been prepared to accompany the application submission for Parc Solar Caenewydd. The purpose of a Planning Statement is to provide a balanced justification for the proposed development. This Planning Statement focuses on the principle of the proposed development. For the reasons outlined in this Planning Statement, it is considered that the application proposals are entirely consistent with the relevant planning policies and guidance at local and national levels.
- 9.2. The supporting technical documents confirm that the selected site is appropriate in that it can accommodate the proposed development. The application proposal is considered to be acceptable within the open countryside as it represents agricultural diversification. The benefits of the development are multiple:
- It would provide a valuable contribution with regards to provision of decentralised renewable energy for the south west region of Wales without the use of best and most versatile agricultural land.
 - The solar power element of the proposed development would generate clean renewable energy for the equivalent of over 11,500 homes a year. The anticipated CO2 displacement is 18,000 tonnes per annum.
 - The development would contribute towards energy security and the BESS would provide significant resilience to the local grid network to support growth of additional intermittent renewables and avoid future brownouts and blackouts.
 - It would deliver significant ecological enhancements, habitat creation and biodiversity net gain, and this would be managed and maintained during the lifetime of the proposed development.
 - The proposals are likely to meet the requirements for on-site biodiversity net gain, with a predicted gain of at least 26.25%, including restoration of priority habitat. It is furthermore considered that the creation of habitat corridor linkages and the restoration of grassland to priority habitat standard, with benefits to wildlife associated with these habitats, will provide ecological benefit additional to that indicated by the calculations.
 - The development would occupy low quality agricultural land. The site is not best and most versatile agricultural land and this has been agreed in consultation with the Welsh Government.
 - The proposed management of the land under solar PV panels will improve soil health, such as increasing soil organic matter, and hence soil organic carbon, increasing soil biodiversity, and improving soil structure. By increasing soil health, soil biodiversity and soil organic carbon, solar farms present an ideal setting for significant biodiversity net gain, by increasing the soil microbial, mycorrhizal and invertebrate populations. The proposal would assist in the transition from artificial to the use of green fertilisers.

- The tenant farmer would continue to farm land located to the south of Afon Llan. The farm shop would remain in-situ and the tenant has already been provided with alternative land by the estate with the support of the applicant.
- The application proposal represents an efficient use of land that was formerly used for shallow depth coal mining activities.
- Development is temporary and would be decommissioned and removed from site after 40 years.
- As part of the applicant's intention to maximise benefits to the community, the applicant is proposing and promoting community shared ownership of part of the scheme.
- Economic benefits would be secured in terms of construction and less so 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. Where possible, local businesses will be contracted for relevant parts of the scope of works over the period of construction, operation and maintenance. 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.
- There are considered to be no significant adverse impacts on internationally or nationally statutory designated sites for nature conservation.

9.3. The temporary 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 that the application proposal accords with the relevant design policies set out in Future Wales, namely Policies 17 and 18.

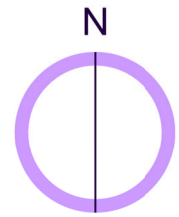
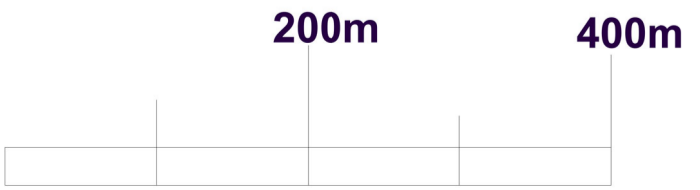
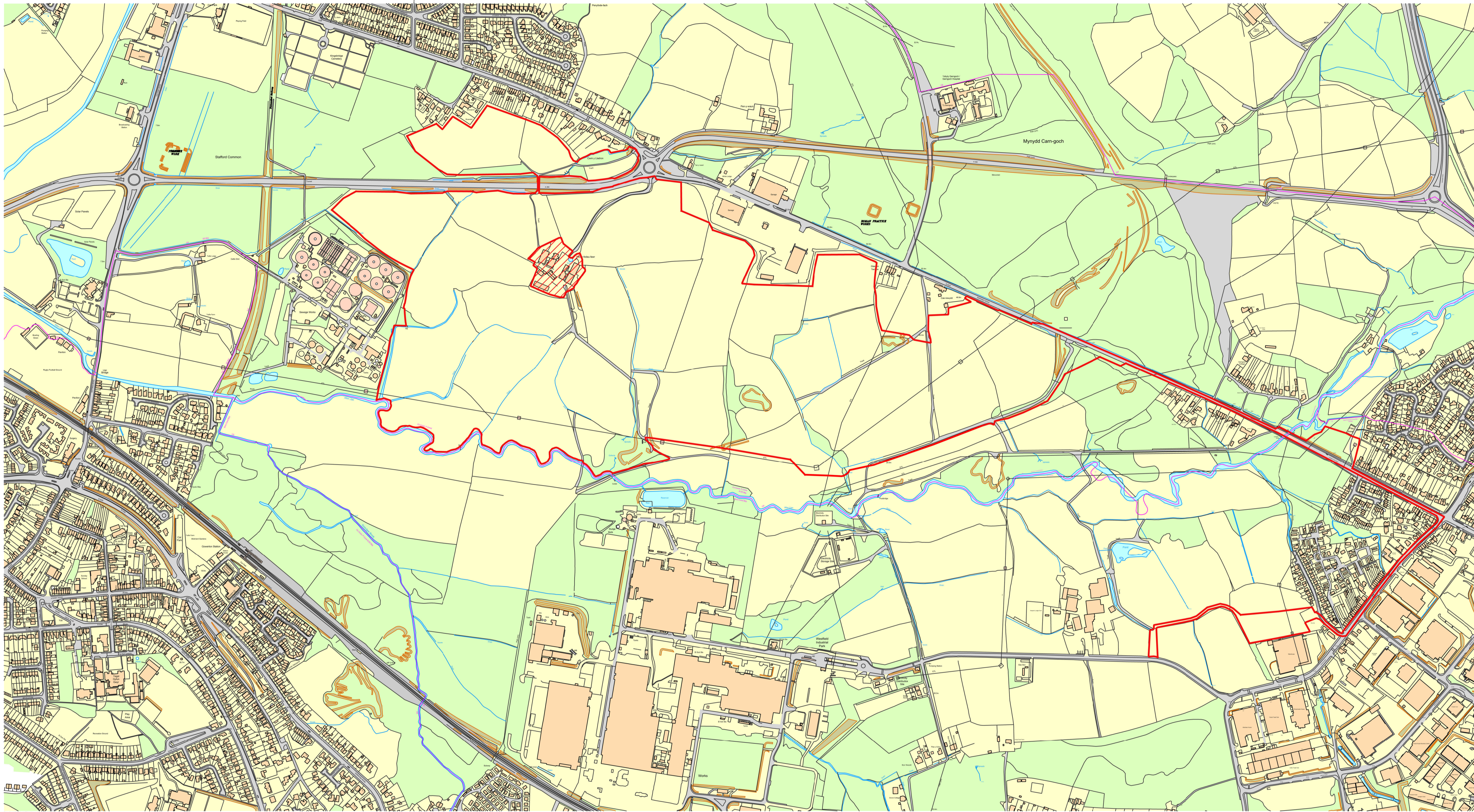
9.4. The temporary and reversible nature of the development, together with the measures that are to be taken to enhance and encourage the ecological diversity, carbon sinks and surface water betterment of the site, will ensure that in the long term the site can not only be restored to its current use, but will also have been environmentally improved.

9.5. It is clear that delivering renewable energy is one of the Welsh Government's top national priorities for the next 20 years. The Future Wales set a clear direction of how Wales should be investing in infrastructure and development for the greater good of Wales and its people, the provision of renewable energy is firmly embedded to this future direction. Future Wales correctly picks up on the regulations set out in the Senedd on 9 February 2021 which formally commits Wales, for the first time, to legally binding targets to deliver the goal of net-zero emissions. Paragraph 5.9.15 of PPW makes the important recognition that (inter alia) **"The local need for a particular scheme is not a material consideration, as energy generation is of national significance and there is a recognised need to optimise renewable and low carbon energy generation"**. Future Wales and PPW identifies how significant weight should be given to renewable energy development.

- 9.6. Turning to the regional approach, Future Wales locates the application site within the south west catchment area. The published document, at page 153, sets out how the provision of renewable energy is vital for the south west to play its role in decarbonising. It states (inter alia) ***"It is vital the region plays its role in decarbonisation and supports the realisation of renewable energy. Policies 17 and 18 set out Future Wales' approach to renewable energy generation across Wales. There is strong potential for wind, marine and solar energy generation and Strategic and Local Development Plans should provide a framework for generation and associated infrastructure. The Welsh Government wishes to see energy generation, storage and management play a role in supporting the South West economy"***.
- 9.7. As discussed above in this section and set out in detail within the supporting LVIA, the Green Wedge performs in providing both physical and perceived visual separation due to the landscape context and disposition of settlements. With the proposed development in place, there would be no material change regarding this, its current position would maintain distinct settlements and safeguard their separate identities. The proposals would sit low in the landscape and retain the current landscape structure and would always be seen and appreciated in the context of a settlement fringe environment. The physical and visual separation would continue to remain and prevail with the proposed development in place. Openness of the countryside would be protected within the landscape framework. The proposed development would act as a buffer between settlements and prevents potential settlement coalescence which housing development for example clearly does.
- 9.8. Under the legislation, developers are required to provide a summary of all issues raised in response to the statutory consultation and show how the responses have been addressed. The applicant will endeavour to record all comments received. Wherever possible, comments and suggestions will feed into the final plans. However, it is important to note that some comments may not always be overcome through the consultation exercise and that sometimes people have contradictory views. Where changes have not been made based on the feedback received, justification is provided in the accompanying Consultation Report.



APPENDIX 1 – SITE LOCATION PLAN



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On behalf of:



Notes

Key:

— Red Line Boundary

DRWN	CKD	APP	REV	DESCRIPTION
GR				REV
28/11/2023	SC		V9	
PROJECT	Parc Solar Caenewydd			
TITLE	Site Location PLAN			
CLIENT	Taiyo Power and Storage			
STATUS	Planning Application			
Sheet No	Sheet Title			Sheet Size
1				A1
Scale:	Drawing Number			
1:5000	PSC 100 002			



APPENDIX 2 – PLANNING APPLICATION DRAWINGS



On behalf of:



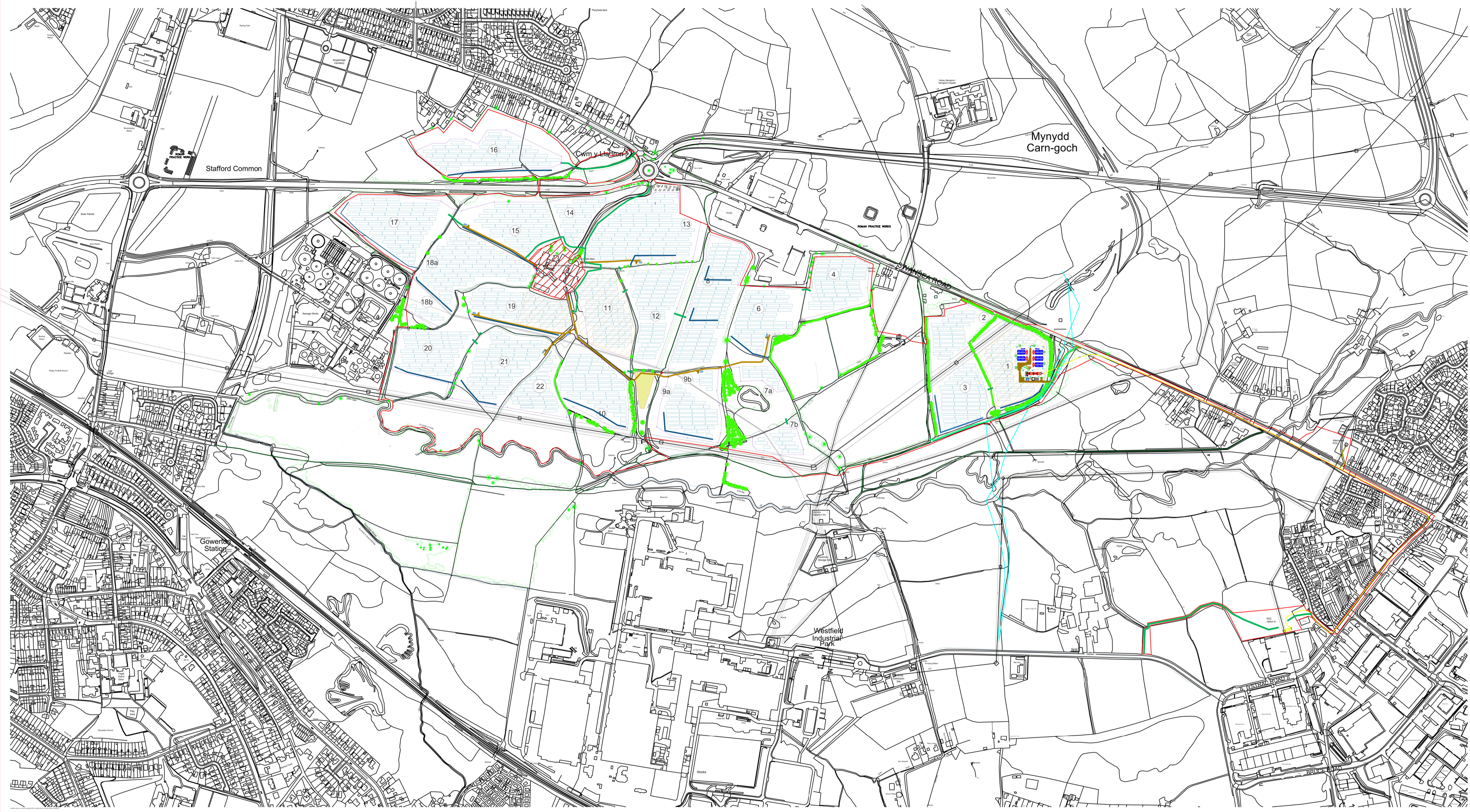
Notes
 Key:

Existing Assets

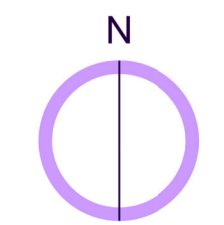
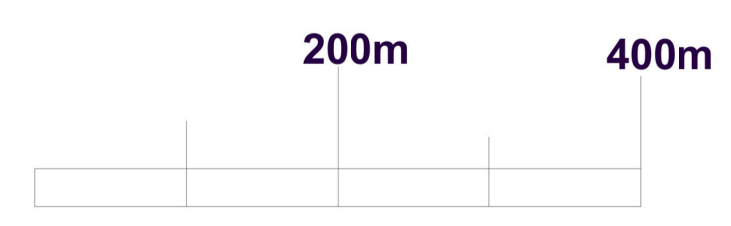
- Public Right of Way
- Gas Line
- Hedges & Trees

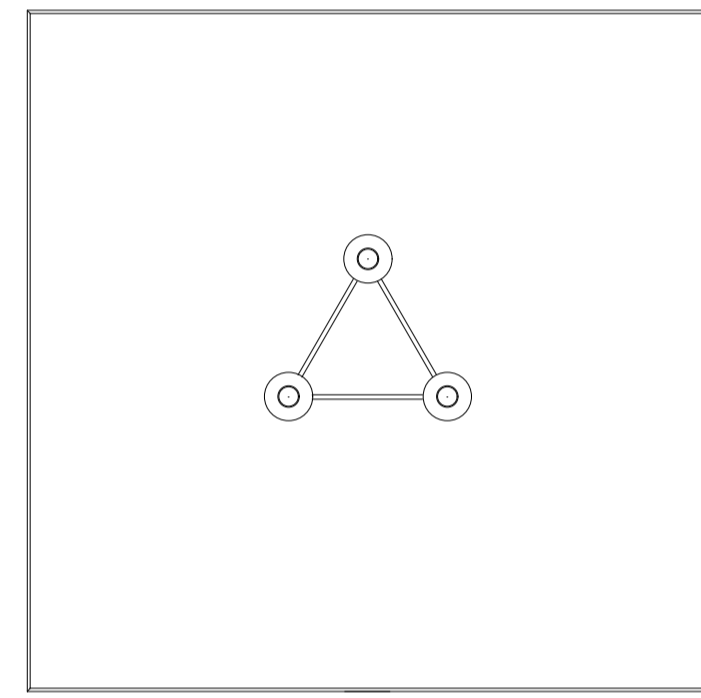
Proposed Assets:

- Planning Application Boundary
- Swale
- Fence
- Cable Route with Jointing Pits
- Gates
- Solar Array
- Transformer
- Site Road Permanent
- CCTV
- Temporary Construction
- Track
- Construction Compound
- No Crossing
- BESS Transformer
- BESS Battery unit
- Field Number
- Permissive Footpath

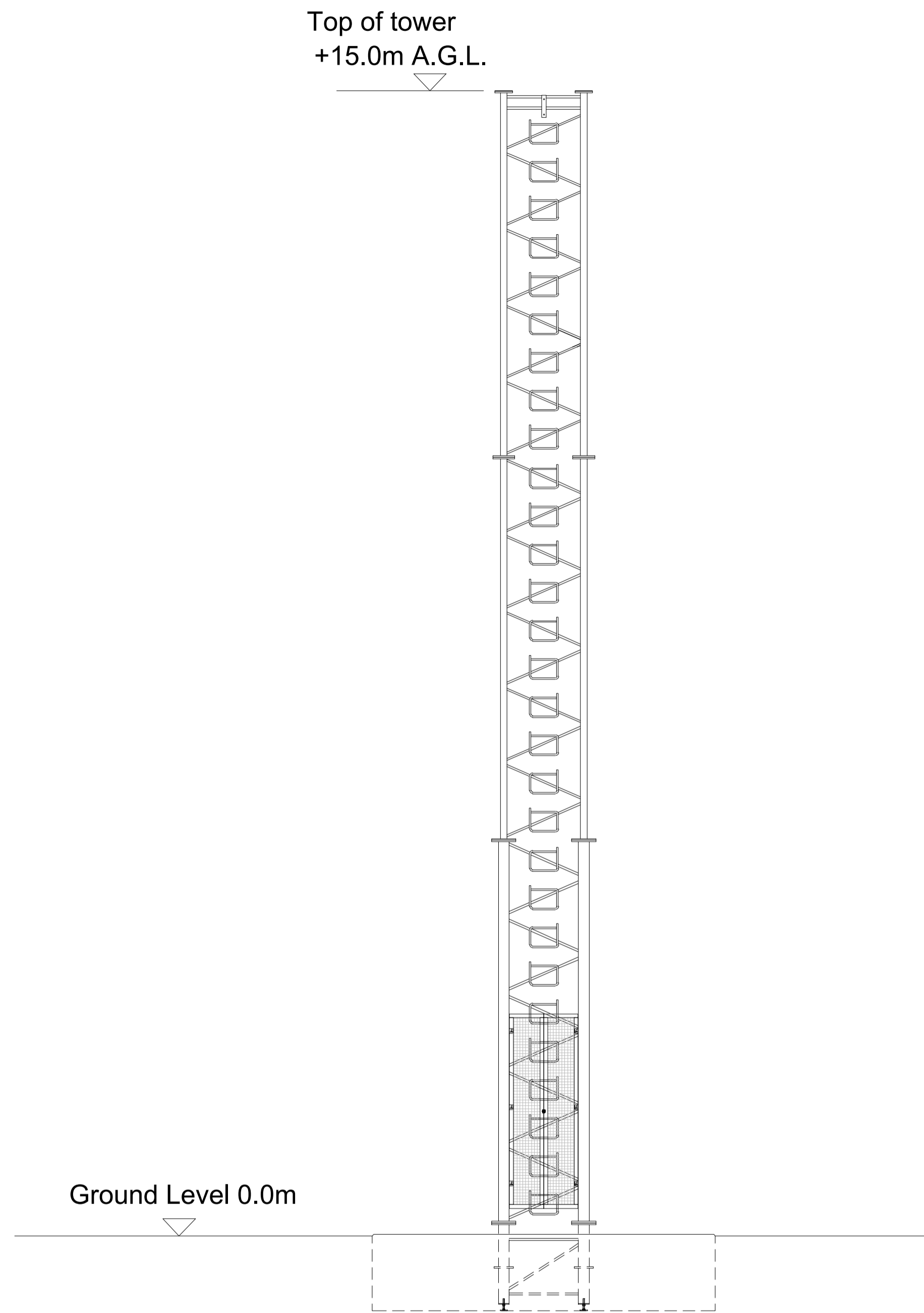


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MSTP	GR			
Date	Approved By	V13		
01.12.2023	CD			
PROJECT	Parc Solar Caenewydd			
TITLE	Proposed Layout Plan			
CLIENT	Taiyo Power and Storage			
STATUS	Planning Application			
Sheet No	Sheet Title	Sheet Size		
1		A1		
Scale:	Drawing Number			
1:5000	PSC 100 001			





PLAN



ELEVATION

1.0	28.11.2023	ORIGINAL	SF	SF
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Issue	Date	Purpose of Issue	Drawn	Checked
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Client:
Low Carbon Alliance

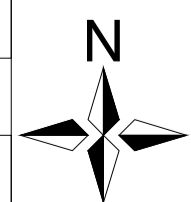
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WPD TOWER PLAN & ELEVATION

Drawn: SF	Date: 28.11.2023	Checked: SF	Date: 28.11.2023
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Project Title:
Gowerton

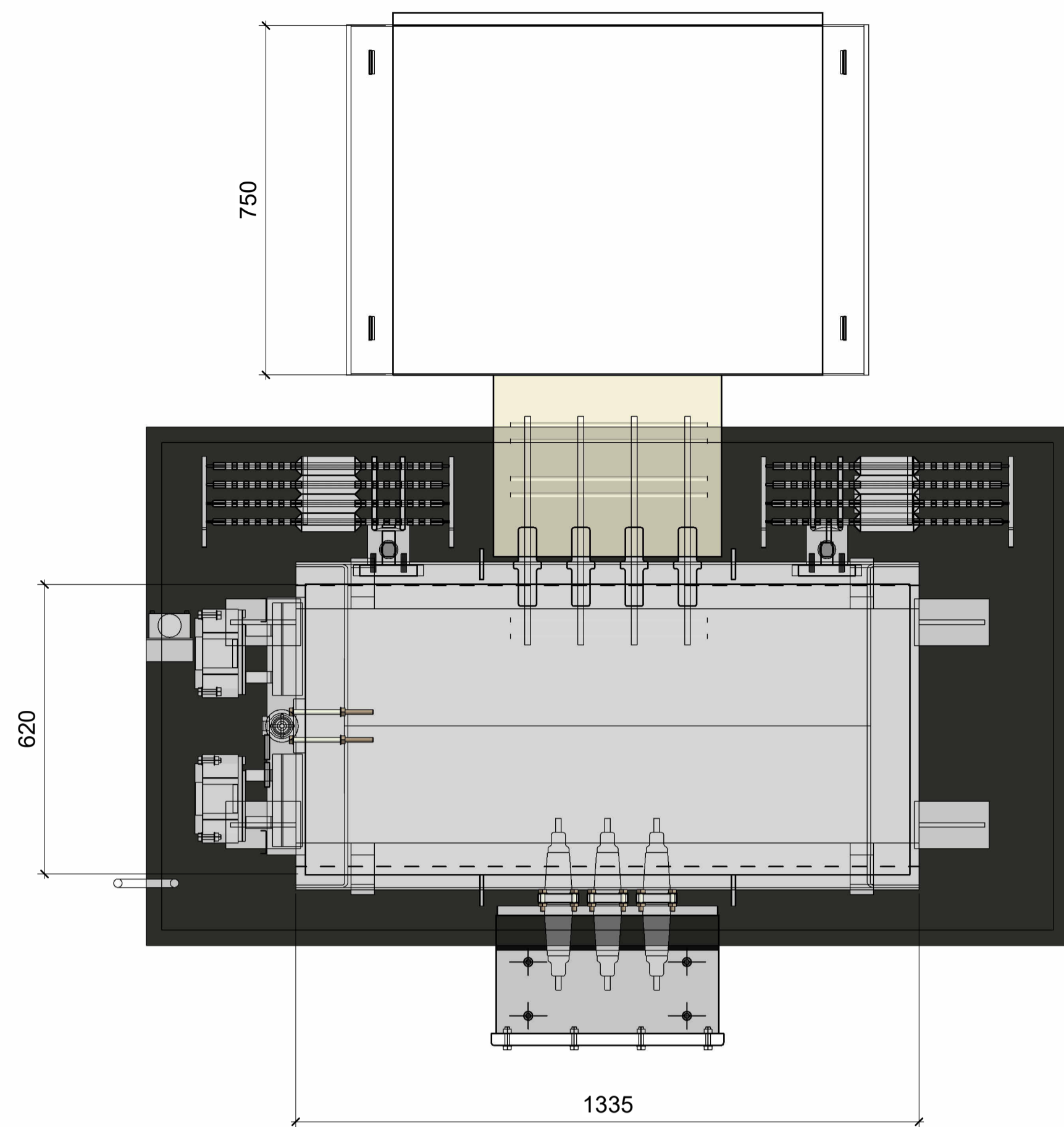
Job Ref:
SC PJ 55 02

Scale:
As Shown @ A1

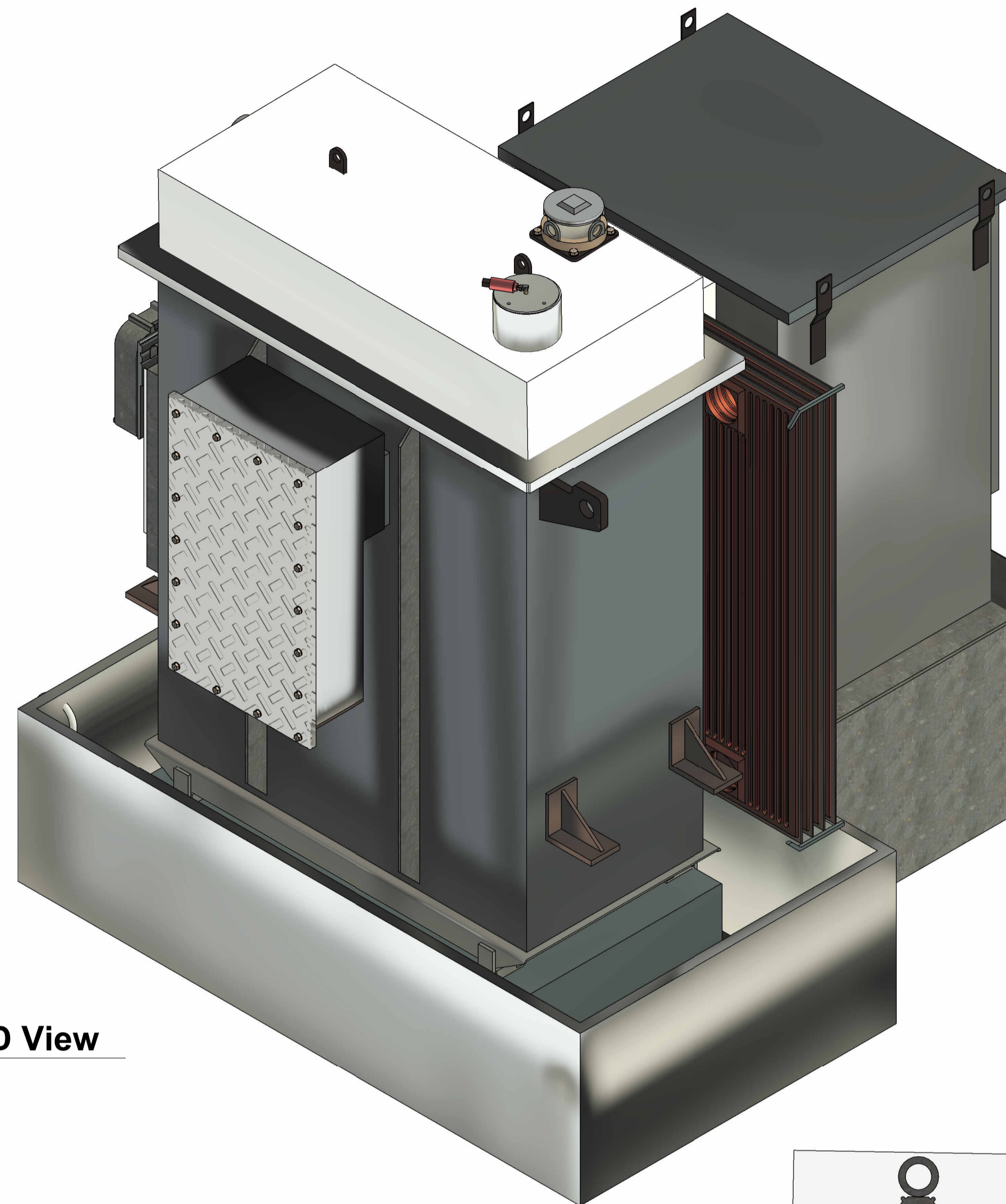


Drawing Number: SC PJ 55 02-150-29	Page Number: 1 of 1	Issue 1.0
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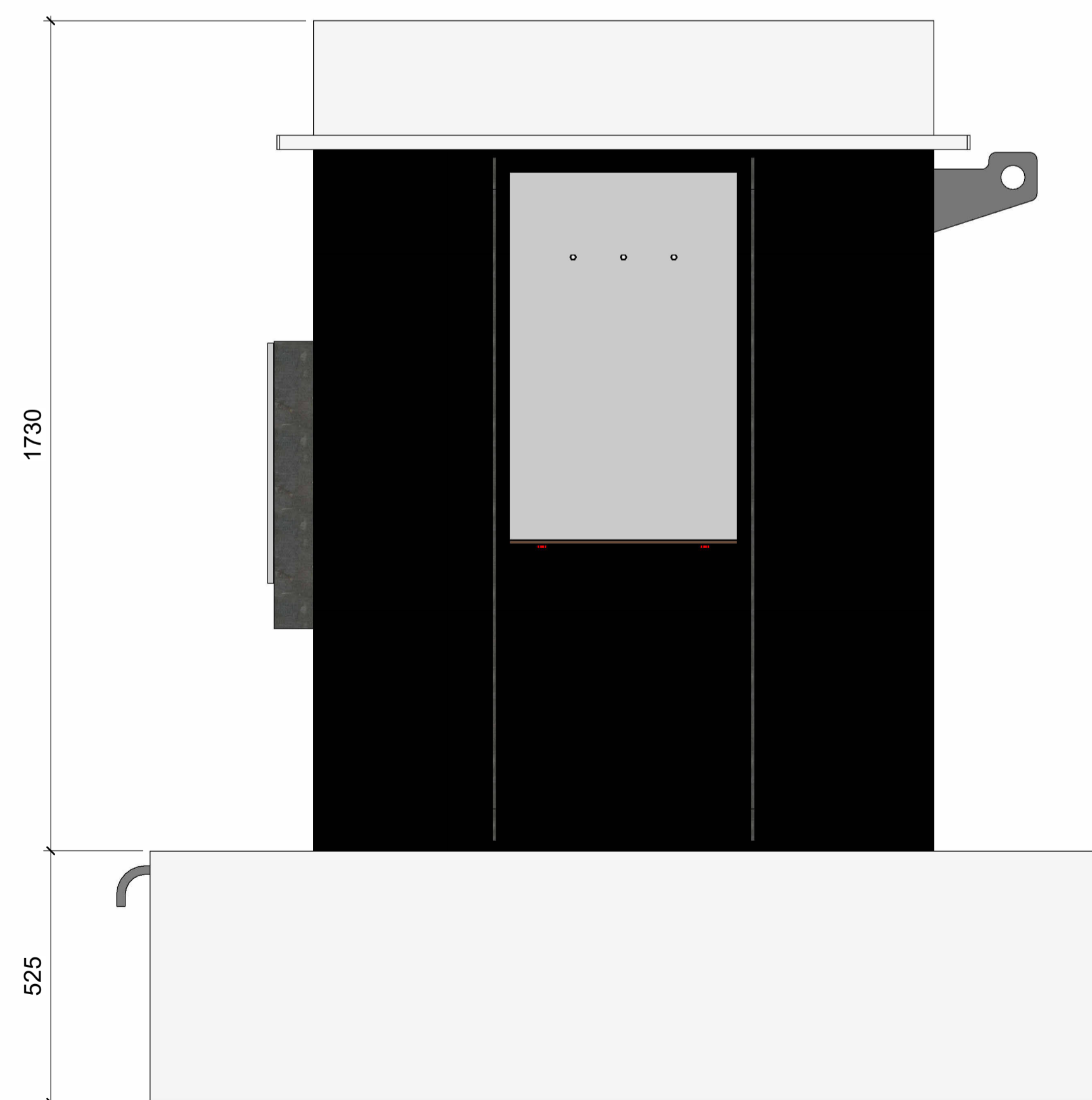
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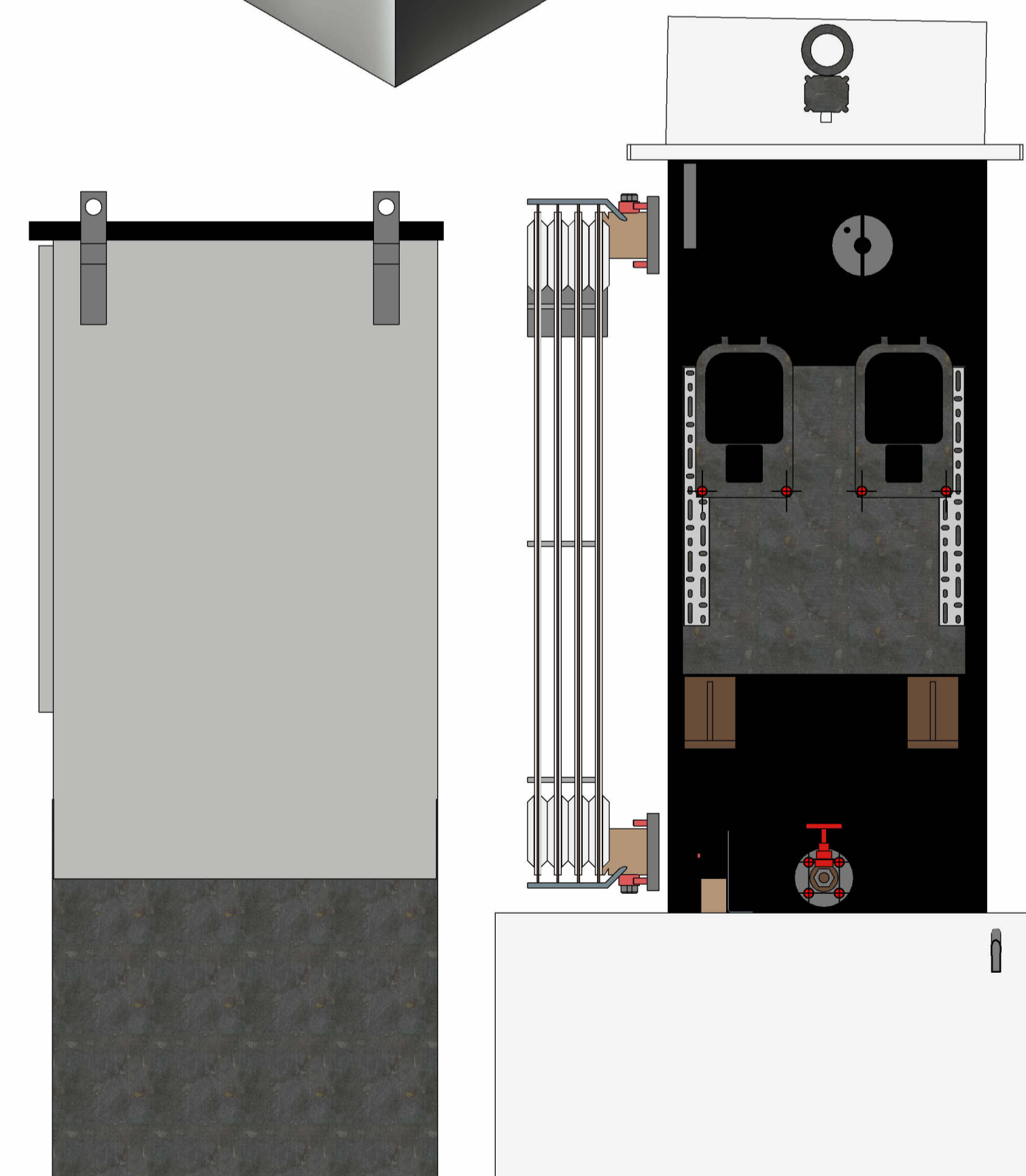
1 Plan View
1 : 10



2 AET 3D View



4 Front View
1 : 10



5 Side View
1 : 10

O	Original	AJ	03.08.23
REV:	DESCRIPTION:	ISS BY:	DATE:

Revision Schedule

Status: **FOR PLANNING**



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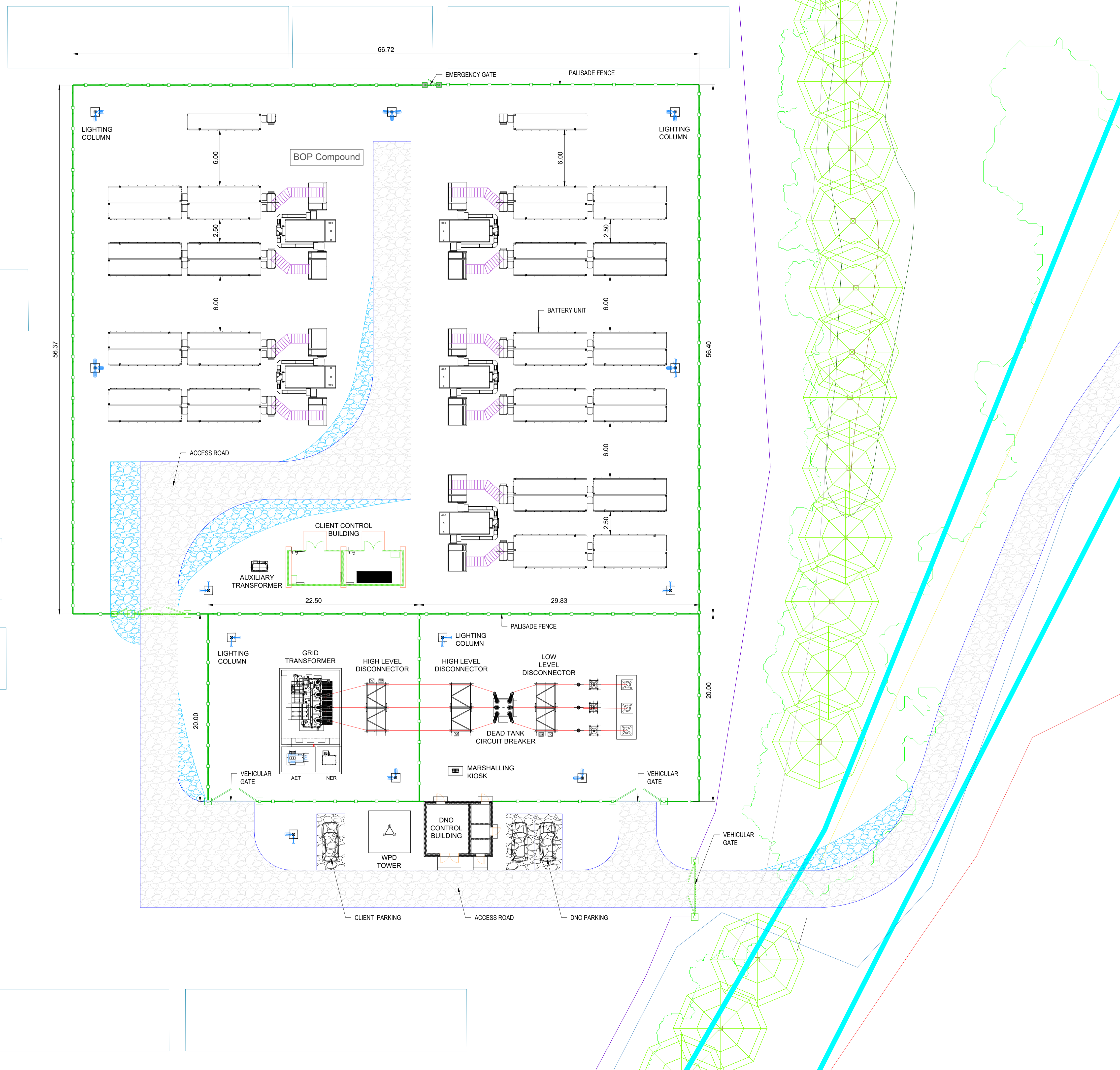
Client Name: **Low Carbon Alliance**

Project Title: **Parc Solar Caenewydd**

Drawing Name: **AET Plan & Elevation**

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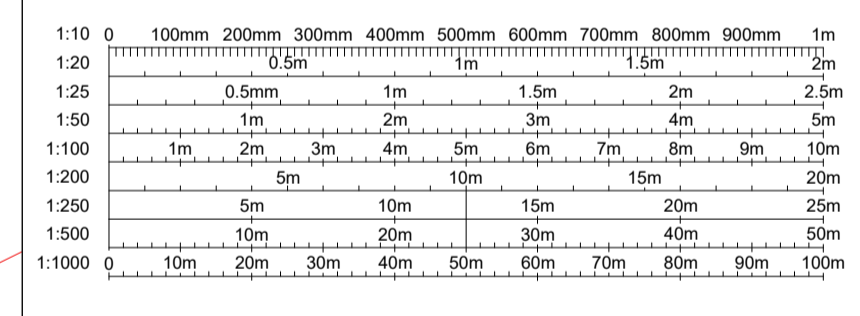


- General Notes**
1. This drawing is to be read in conjunction with all other relevant Engineers', Architect's and specialists' drawings and specifications.
 2. Any grid lines, building lines, etc. are to be set out in accordance with the relevant Architect's plan.
 3. Dimensions are not to be scaled from this drawing, either manually or electronically.
 4. Any dimensional discrepancies on this drawing are to be referred to the Engineer before the affected work proceeds.
 5. All dimensions in meters unless otherwise specified.
 6. Battery compound and temporary welfare compound to be used as storage and loading/unloading areas.

- Legend**
- Existing Assets**
- Trunk Sewer
 - Gravity Sewer / Rising Main
 - Public Right of Way
 - Gas Line
 - Hedges & Trees

- Proposed Assets:**
- 2.4m High Palisade Fence
 - Access Road
 - BESS Transformer
 - BESS Battery Unit

Site Address : Gowerton Solar PV & BESS,
Swansea Road, Goreinon,
Swansea, South Wales
Site Postcode: SA4 4LE



Issue	Date	Purpose of Issue	Drawn	Checked
6.0	21.11.2023	Access Road amended to avoid trees	SF	SF
5.0	21.11.2023	Battery separation increased to 6m	SF	SF
4.0	05.10.2023	132kV Cable Route and WPD Tower Amended	SR	SF
3.0	20.09.2023	Access Road Amended	SR	SF
2.0	08.09.2023	Site Plan Amended	SR	SF
1.0	11.08.2023	For Information	SR	SF



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Client:
Low Carbon Alliance

Drawing Title:
Proposed Site Plan

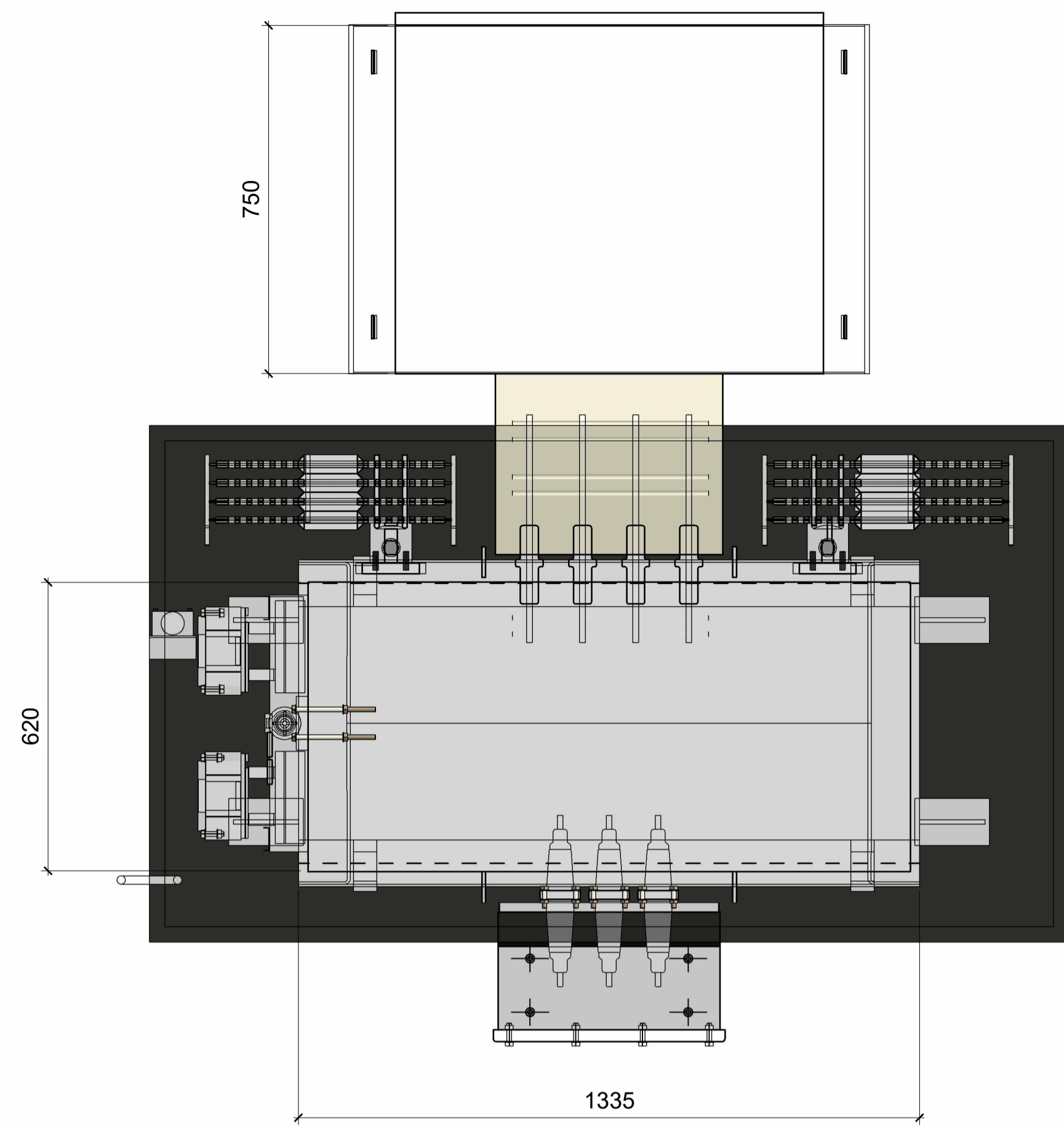
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Project Title:
Gowerton

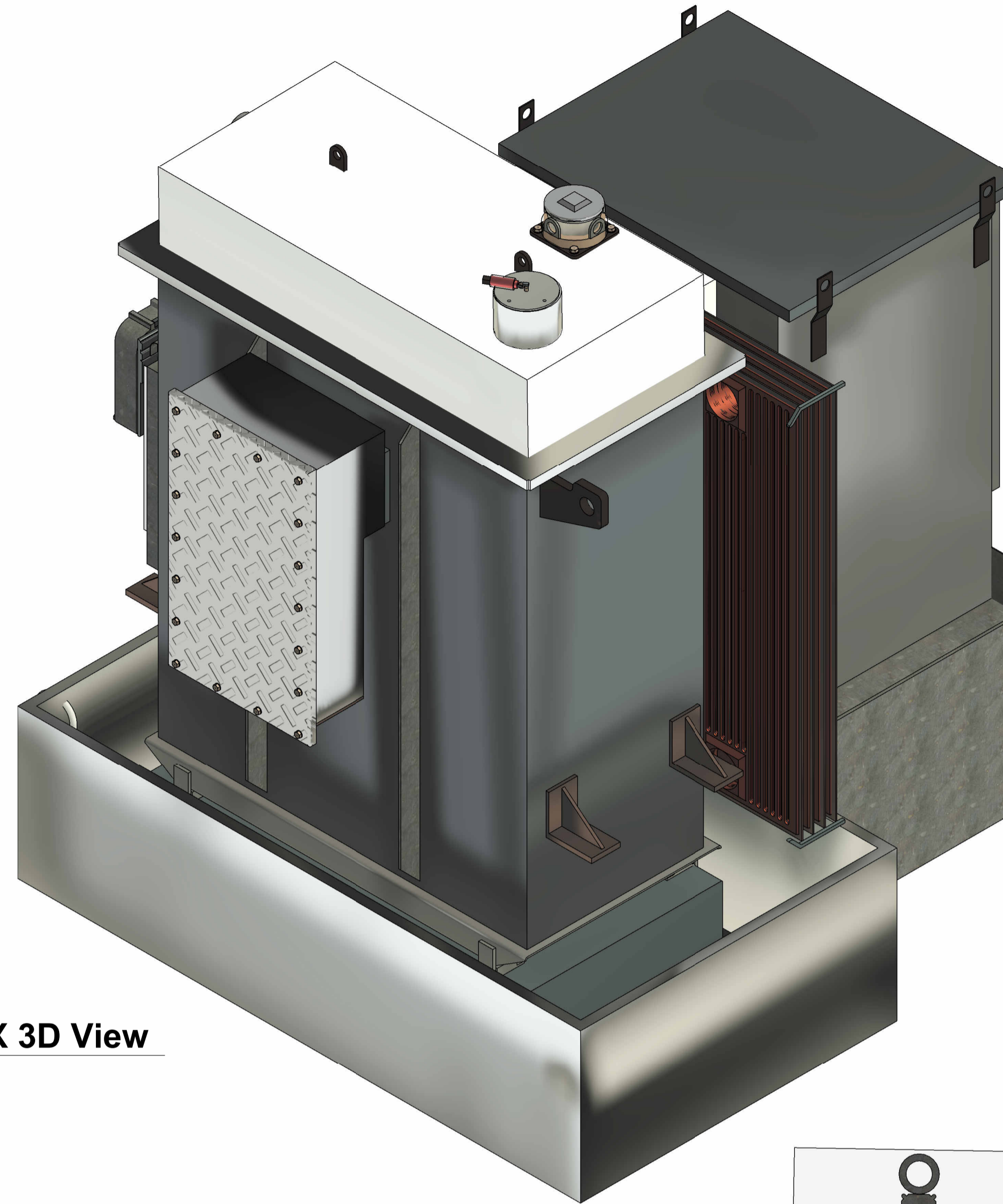
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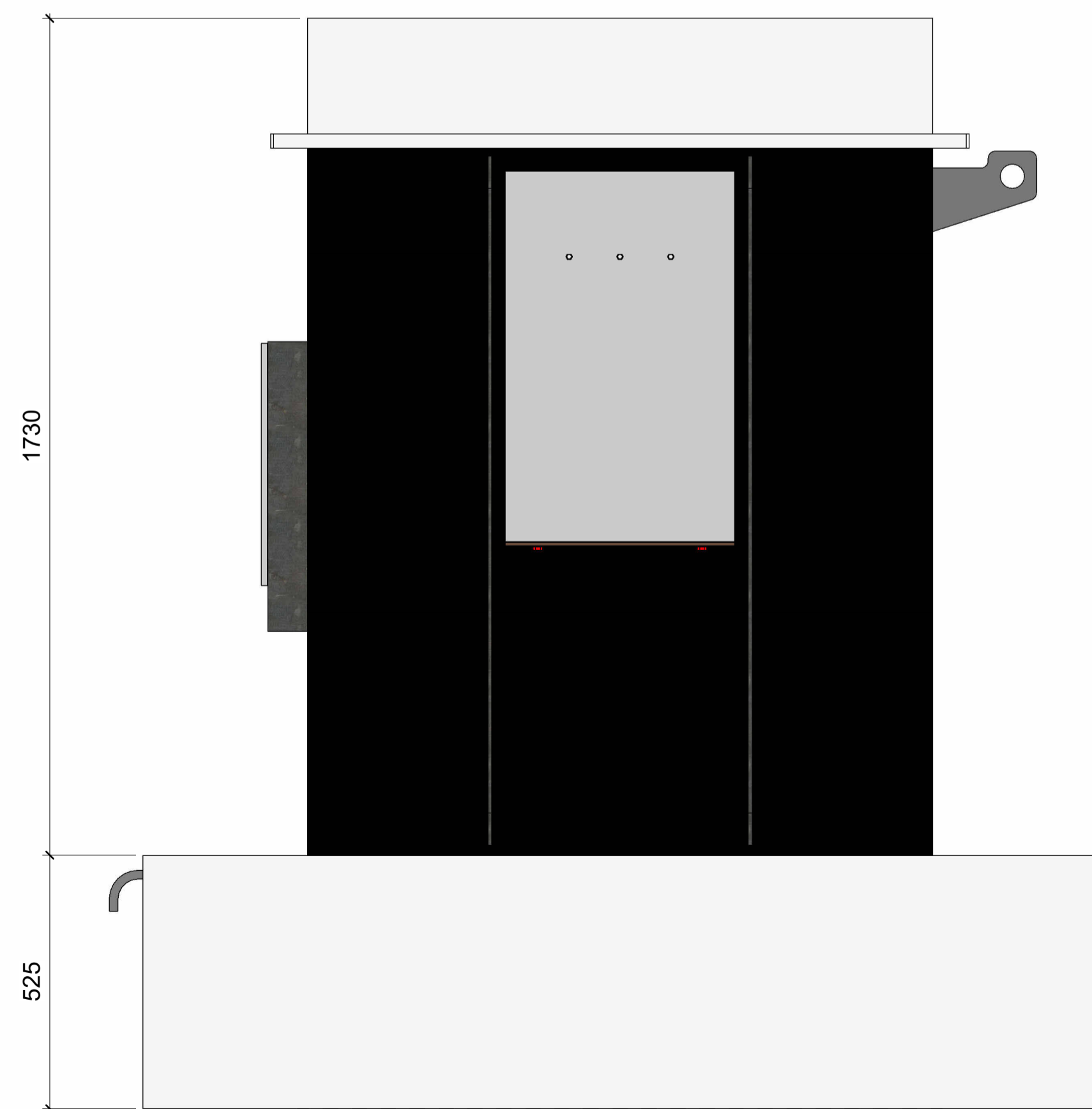
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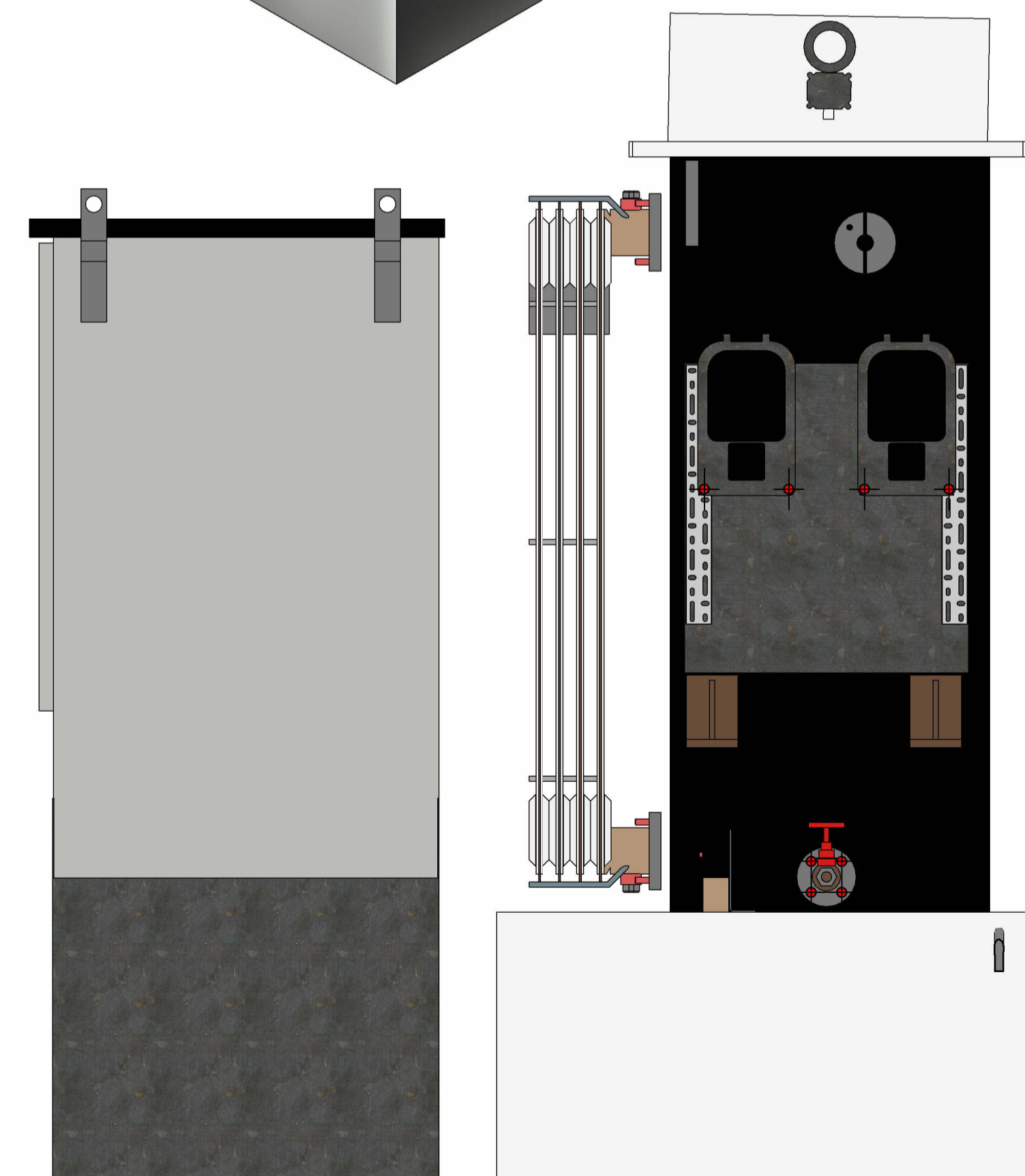
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2 Aux TX 3D View



3 Front View
1 : 10



4 Side View
1 : 10

O	Original	AJ	03.08.23
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Client Name: **Low Carbon Alliance**

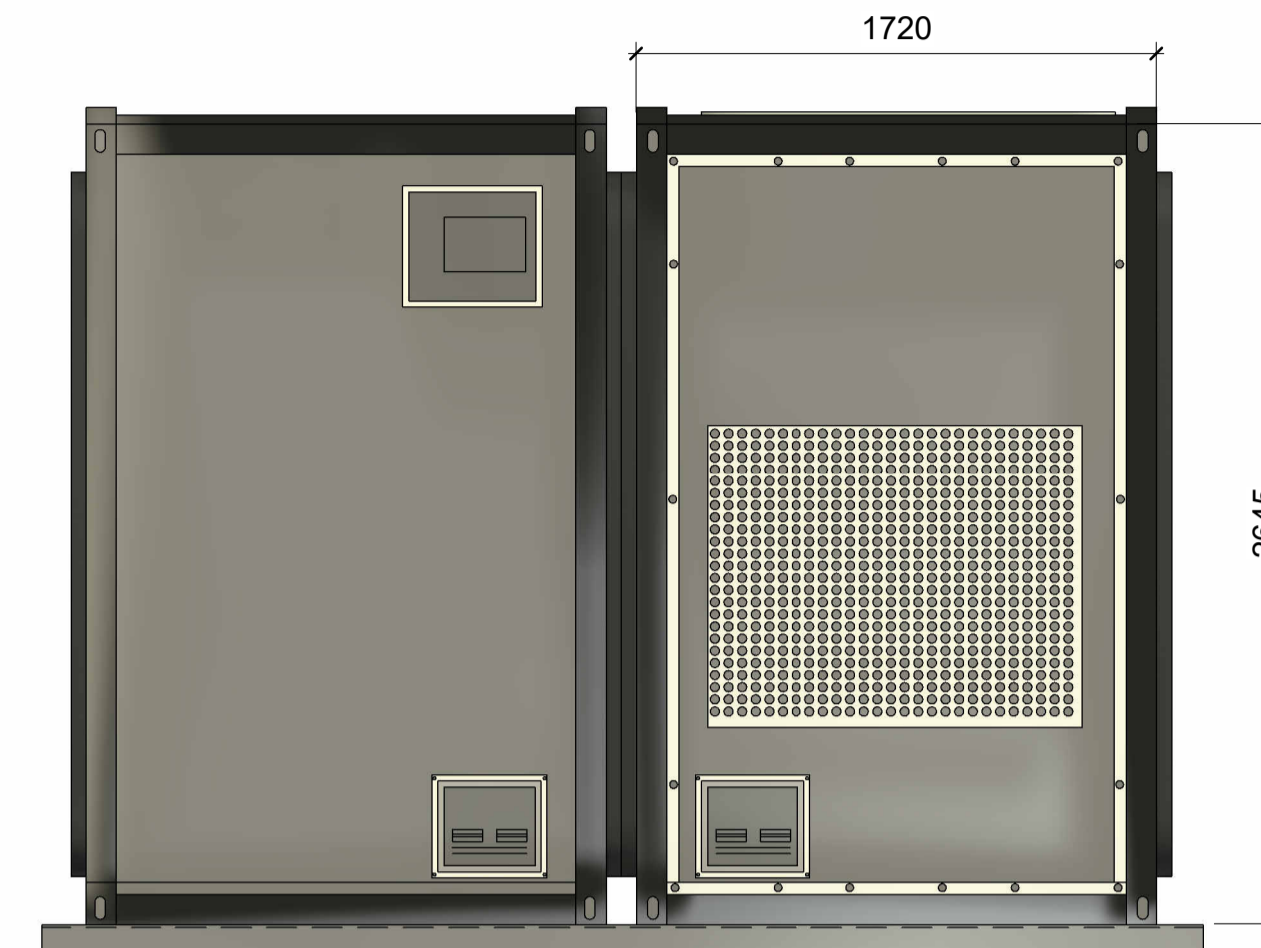
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Drawing Name: **Auxiliary Transformer Plan & Elevation**

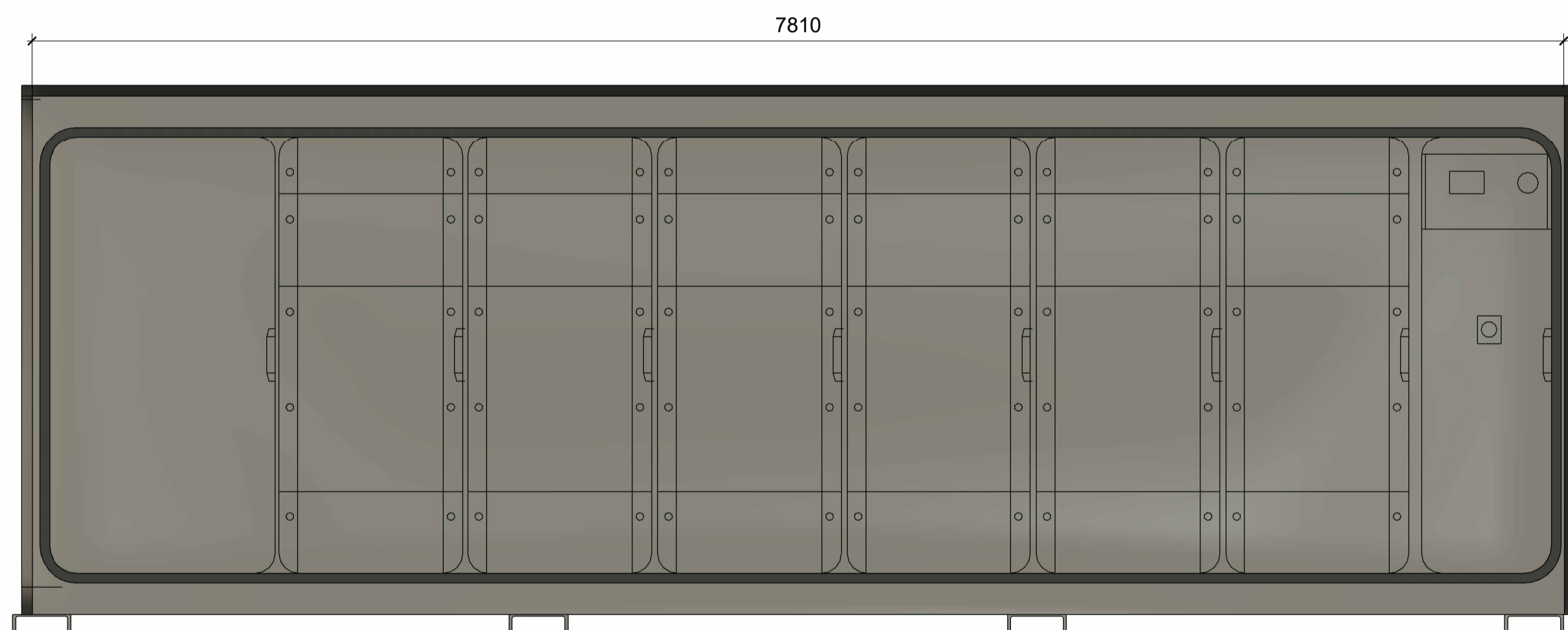
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REVISION										0	



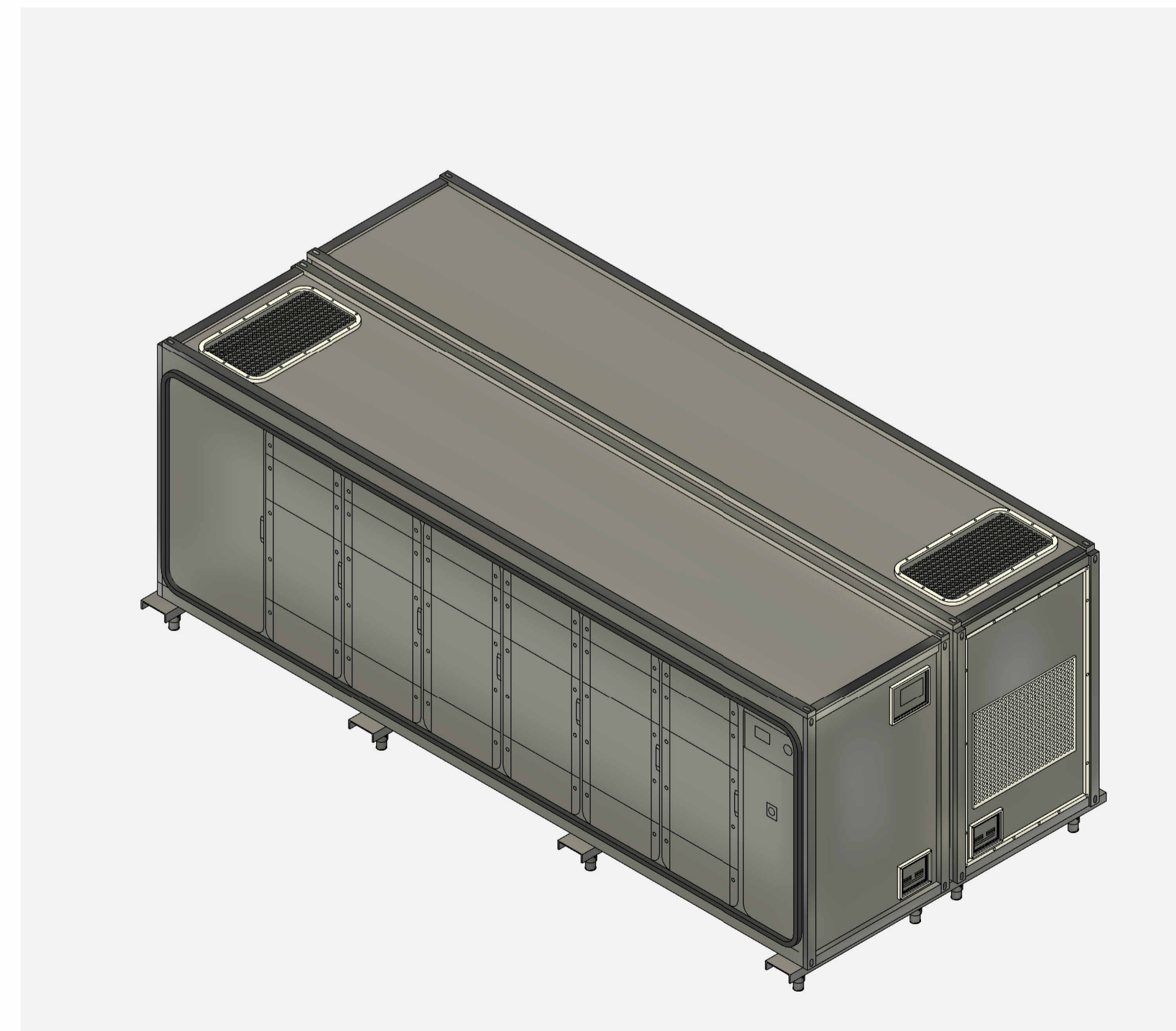
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2 Elementa Battery Front Elevation
1 : 25



3 Elementa Battery Side Elevation
1 : 25



4 Elementa Battery 3D View

NOTES:

O	Original	AJ	03.08.23
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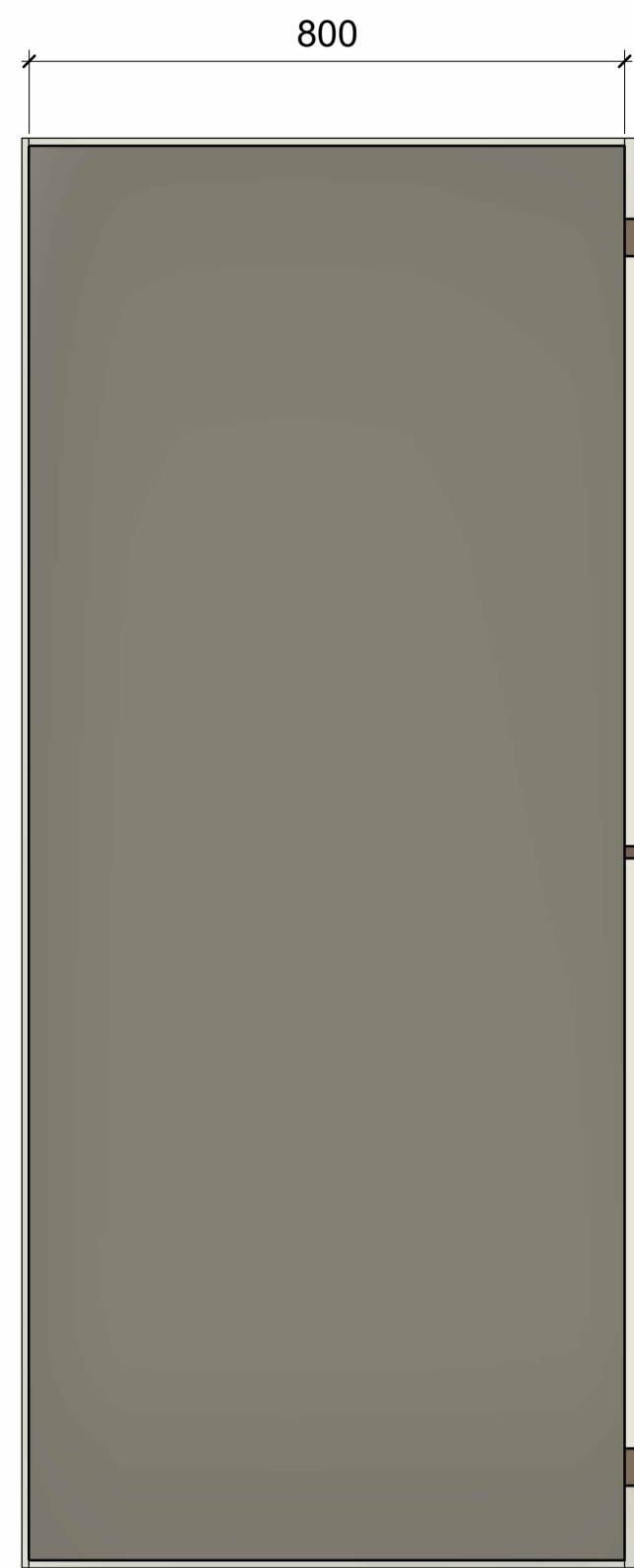
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Project Title: **Parc Solar Caenewydd**

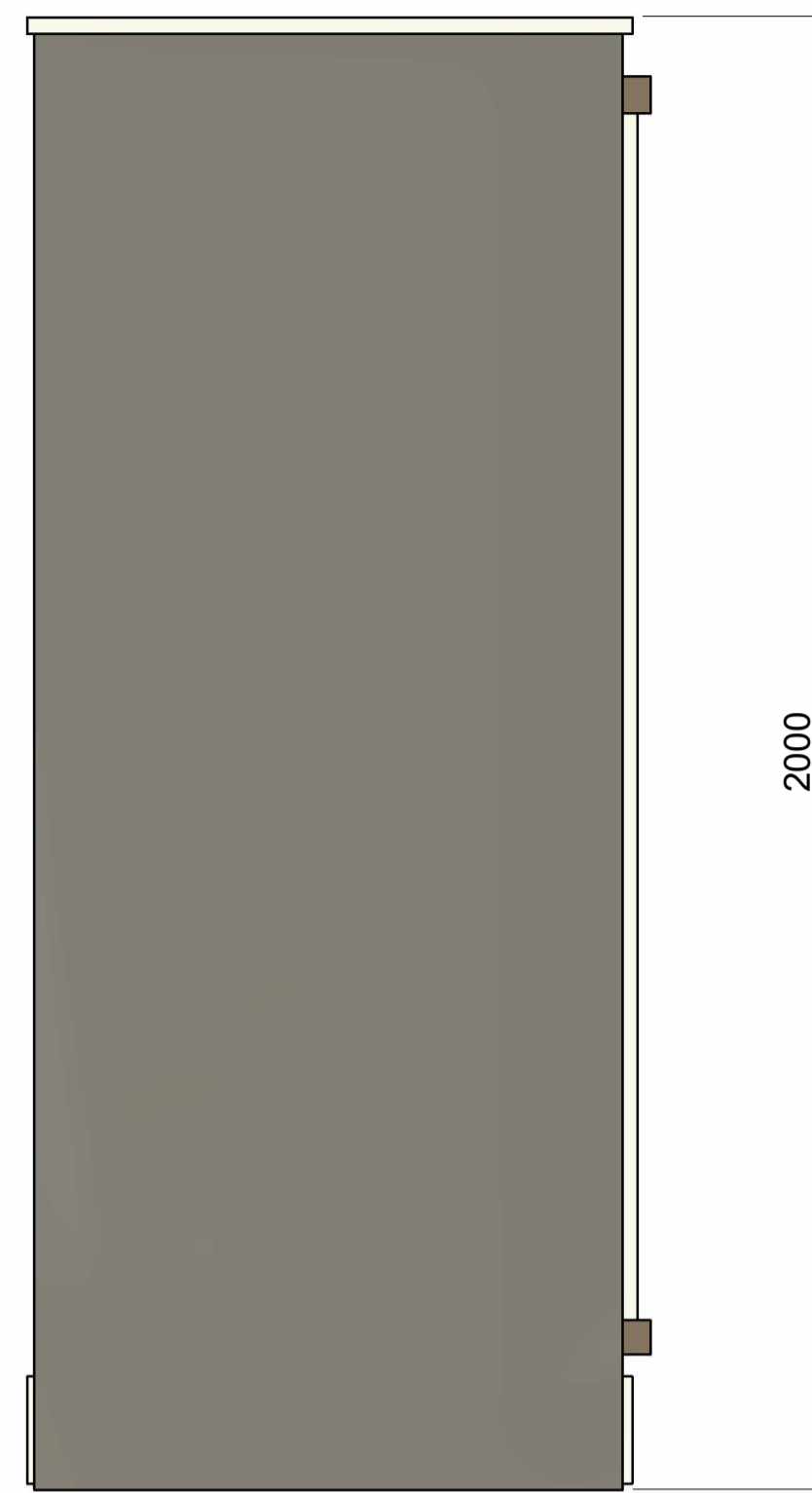
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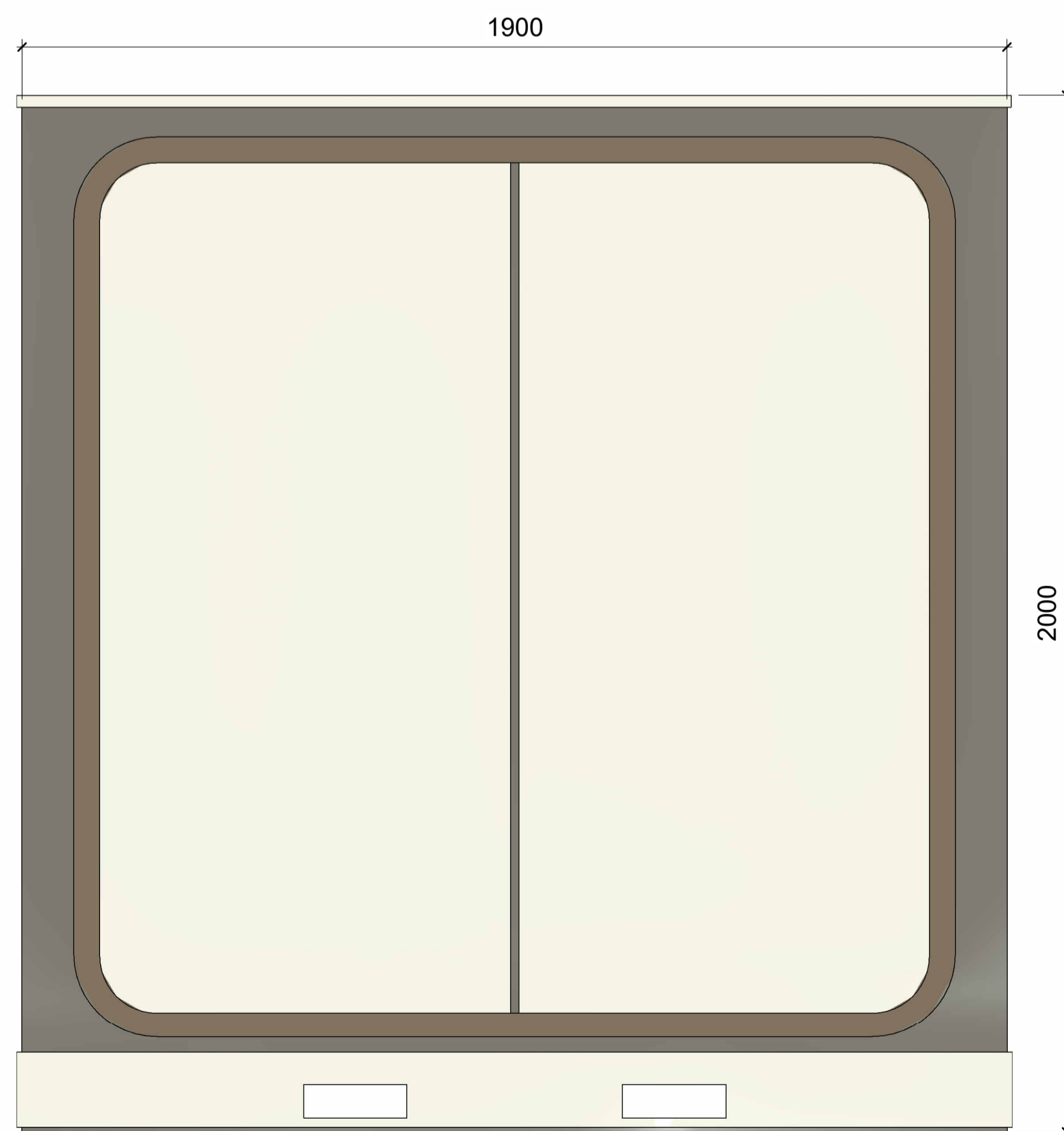
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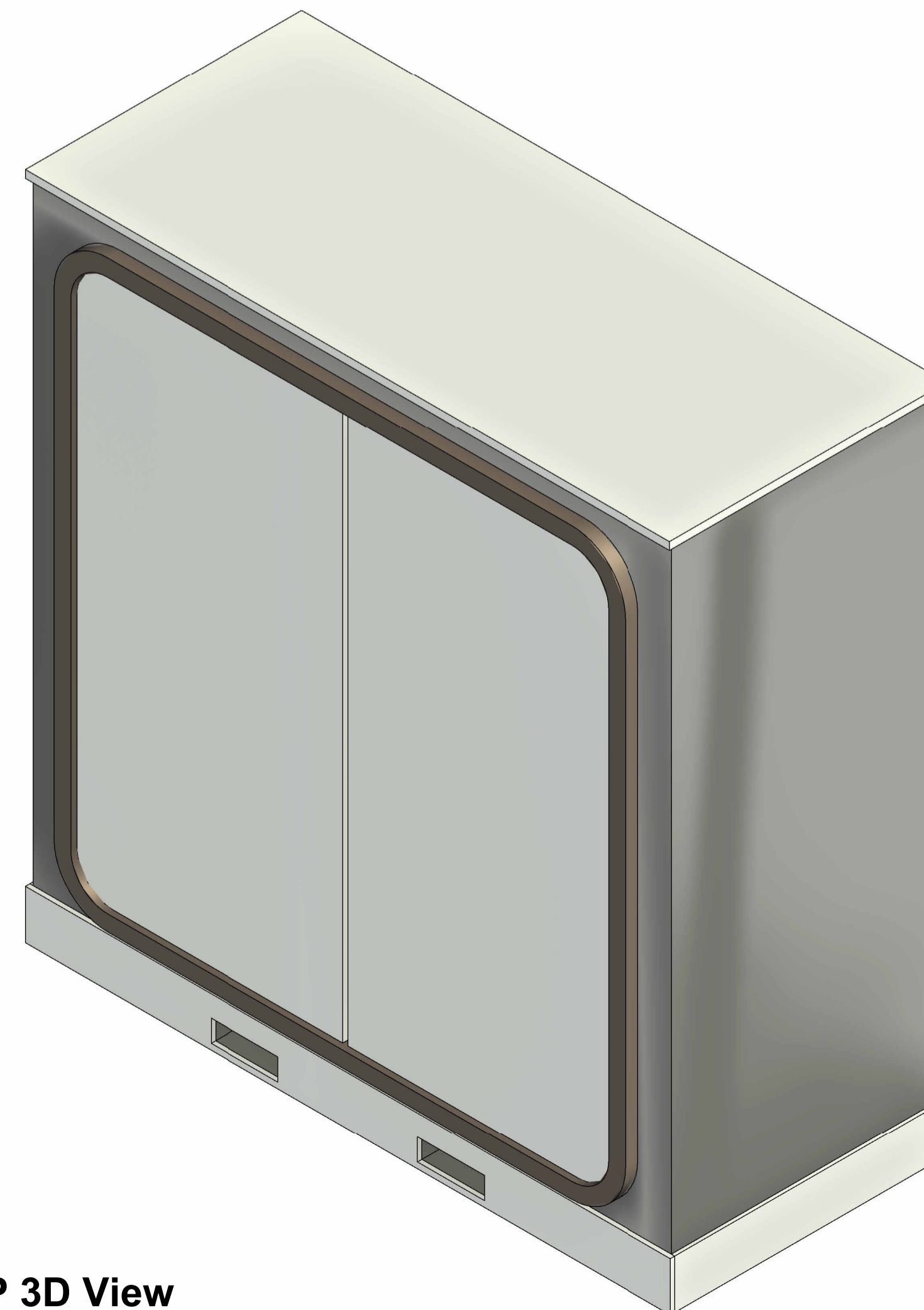
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2 Side View
1 : 10



3 Front View
1 : 10



4 BCP 3D View

NOTES:

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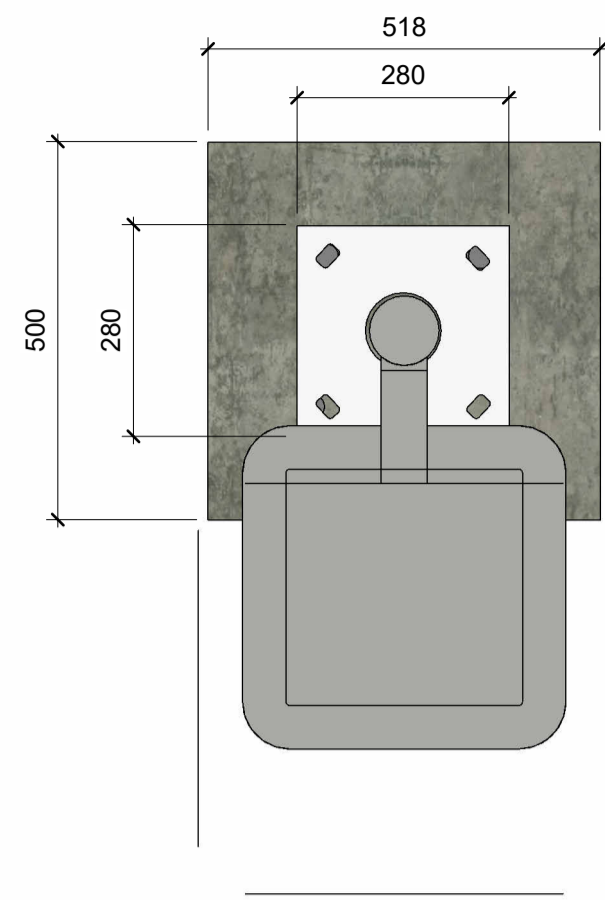
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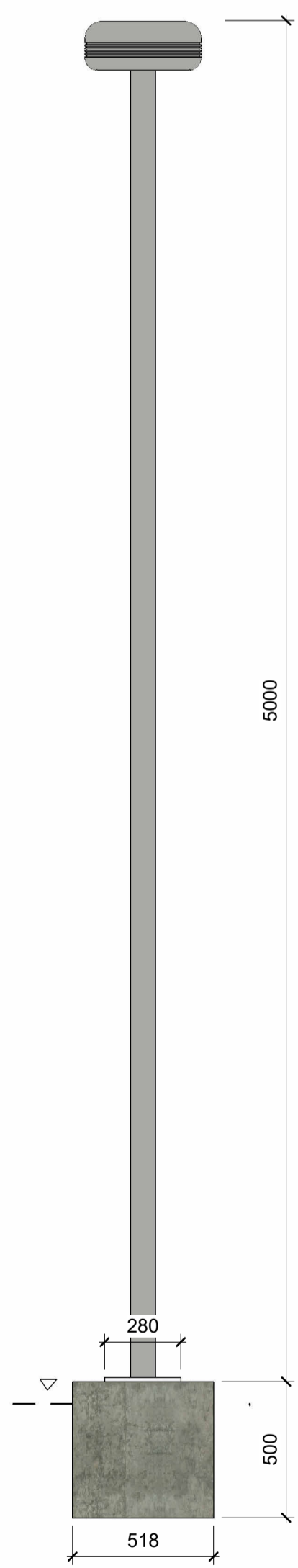
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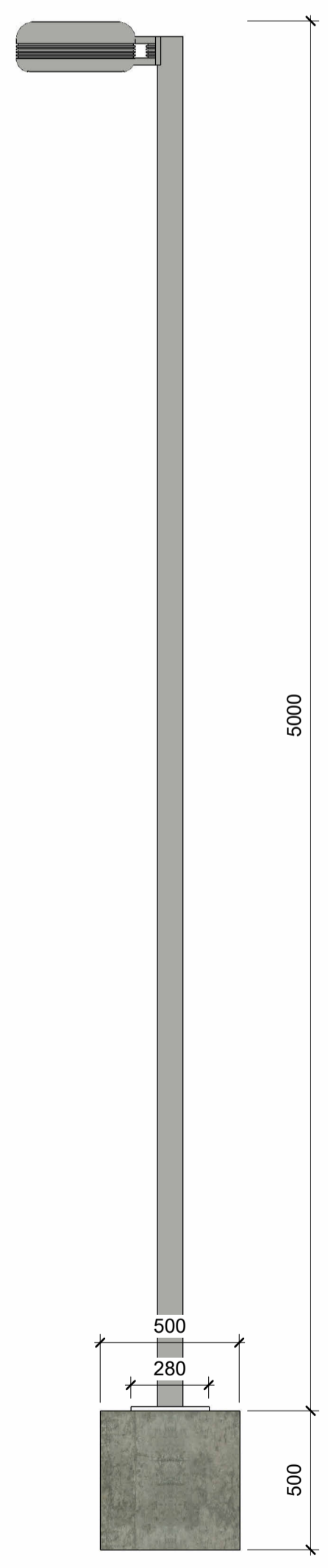
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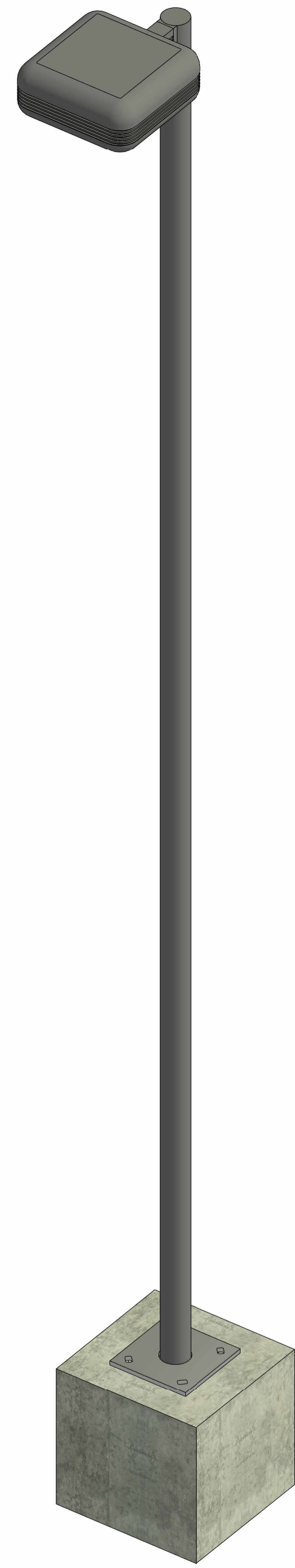
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2 Front View
1 : 20



3 Side View
1 : 20



4 ISOMETRIC VIEW

NOTES:

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REV:	DESCRIPTION:	ISS BY:	DATE:

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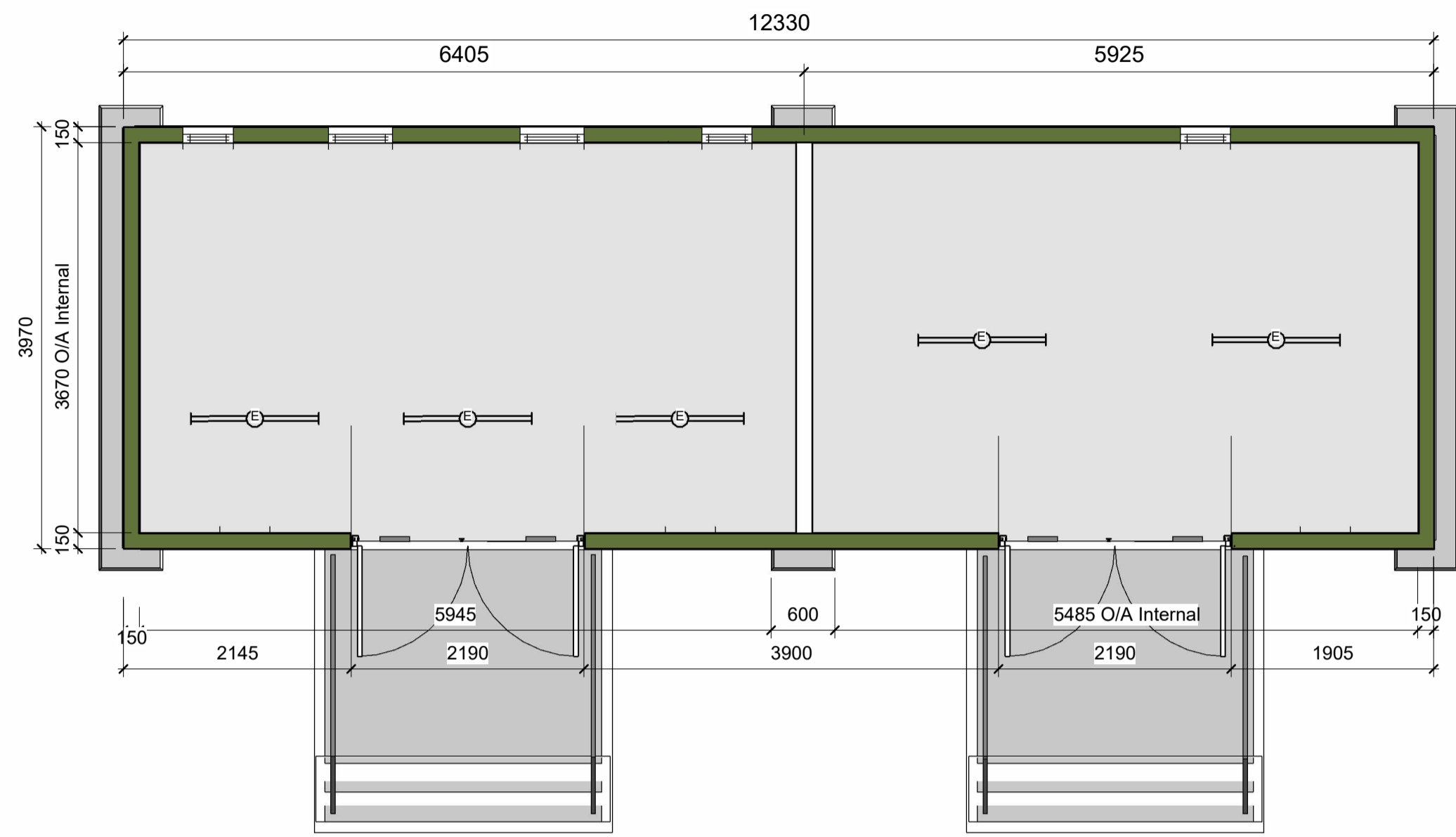
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Project Title: **Parc Solar Caenewydd**

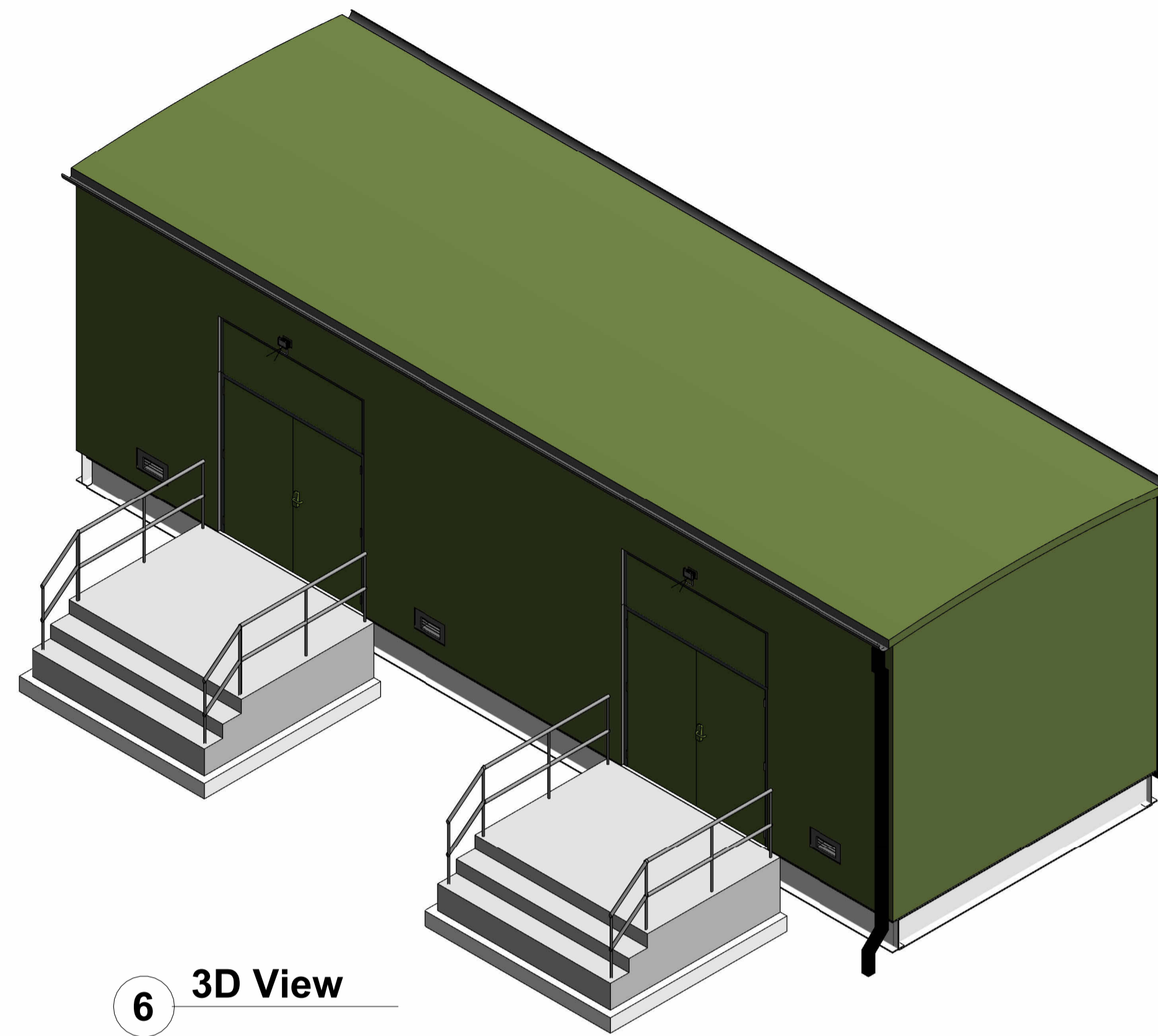
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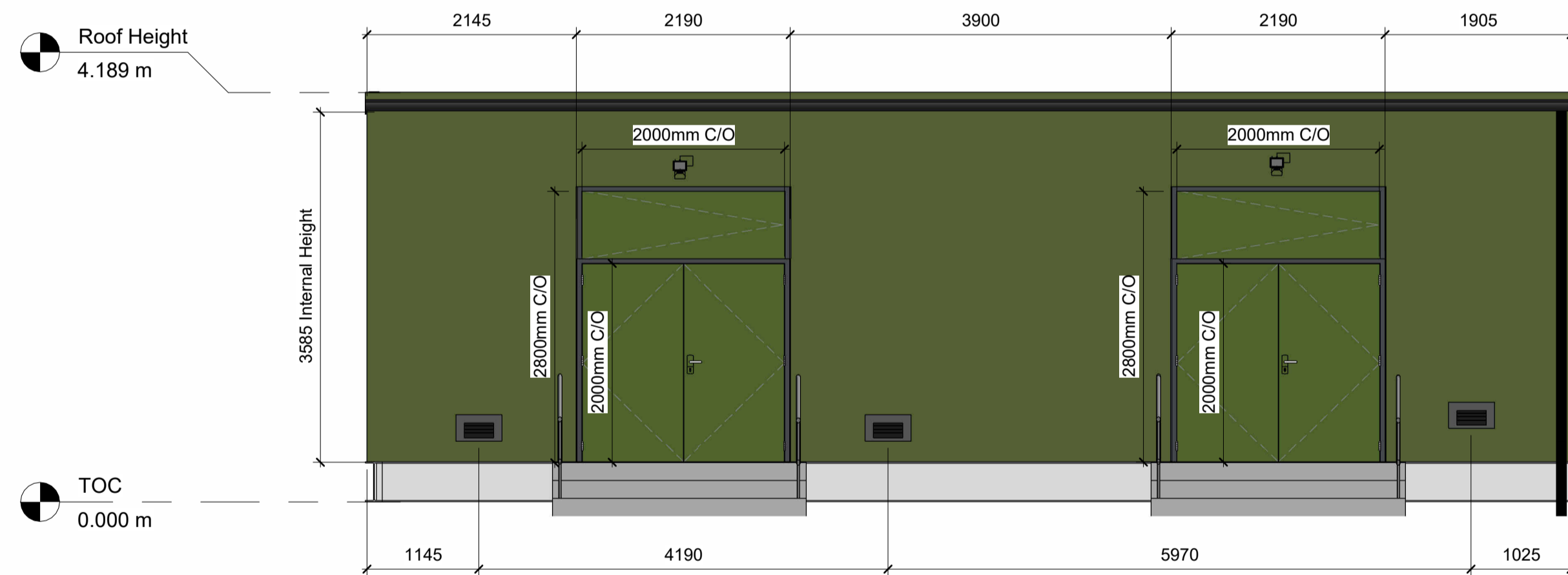
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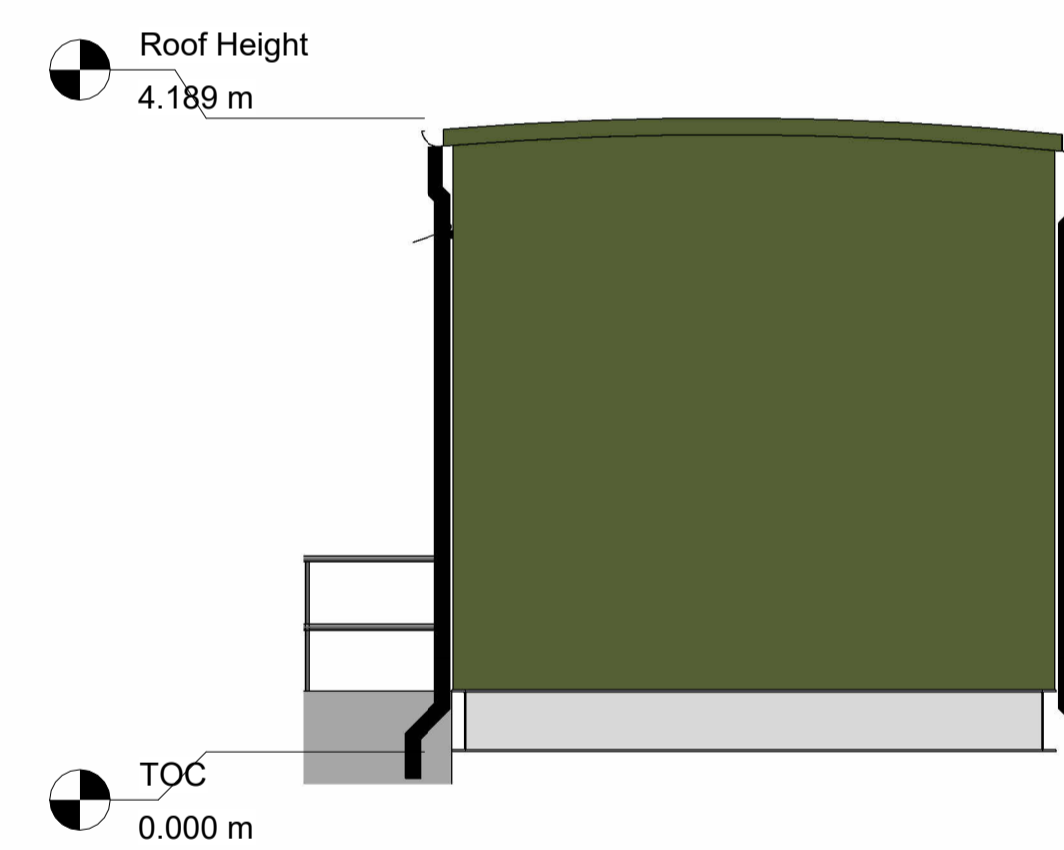
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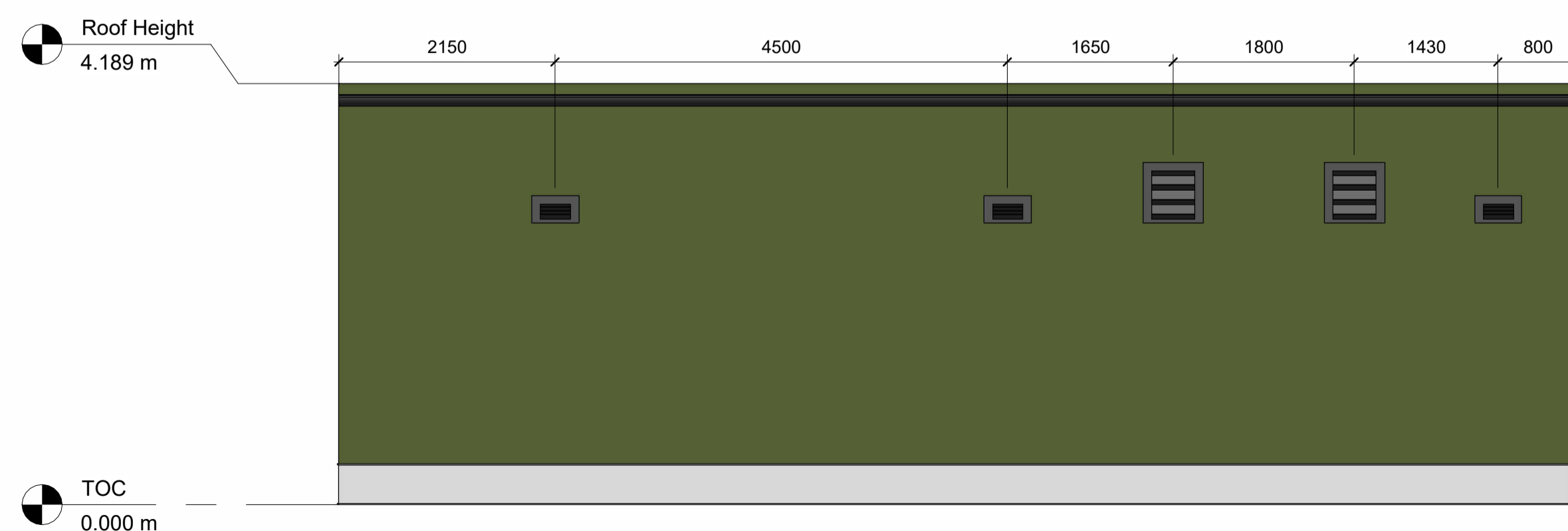
6 3D View



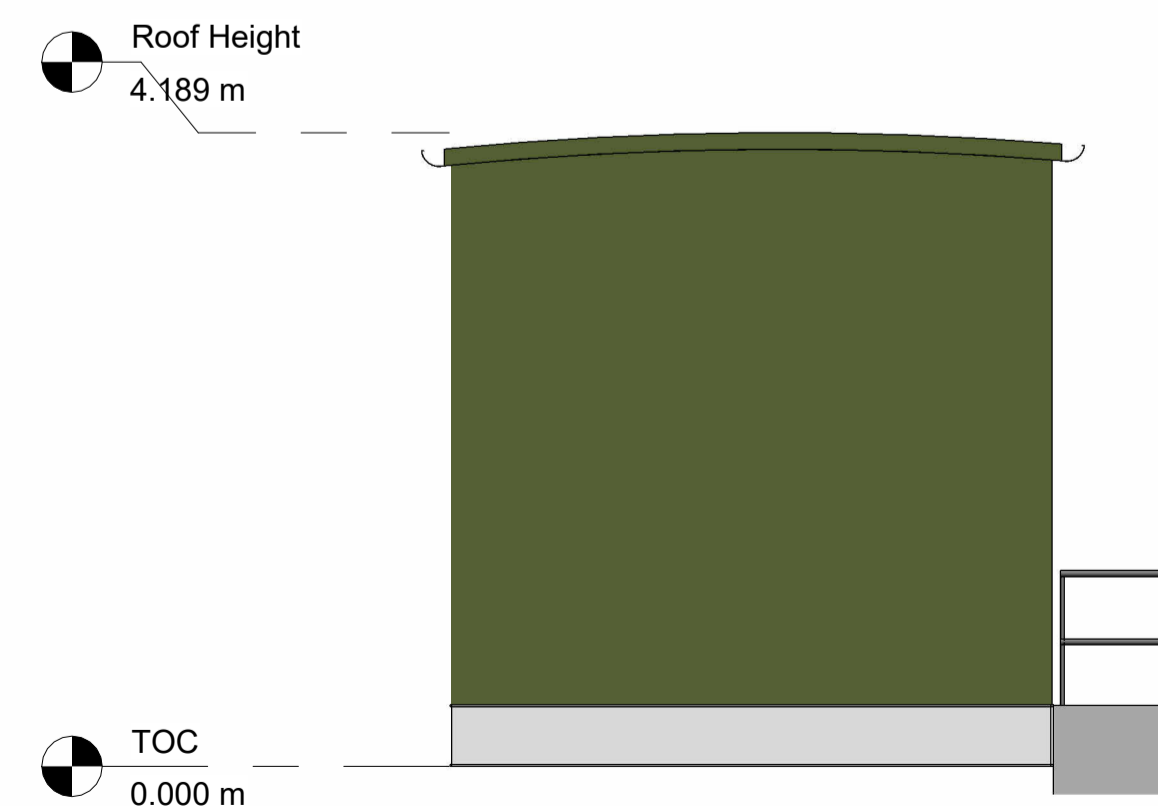
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4 Right Elevation
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3 Rear Elevation
1 : 50



5 Left Elevation
1 : 50

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Project Number: **SC PJ 55 02**

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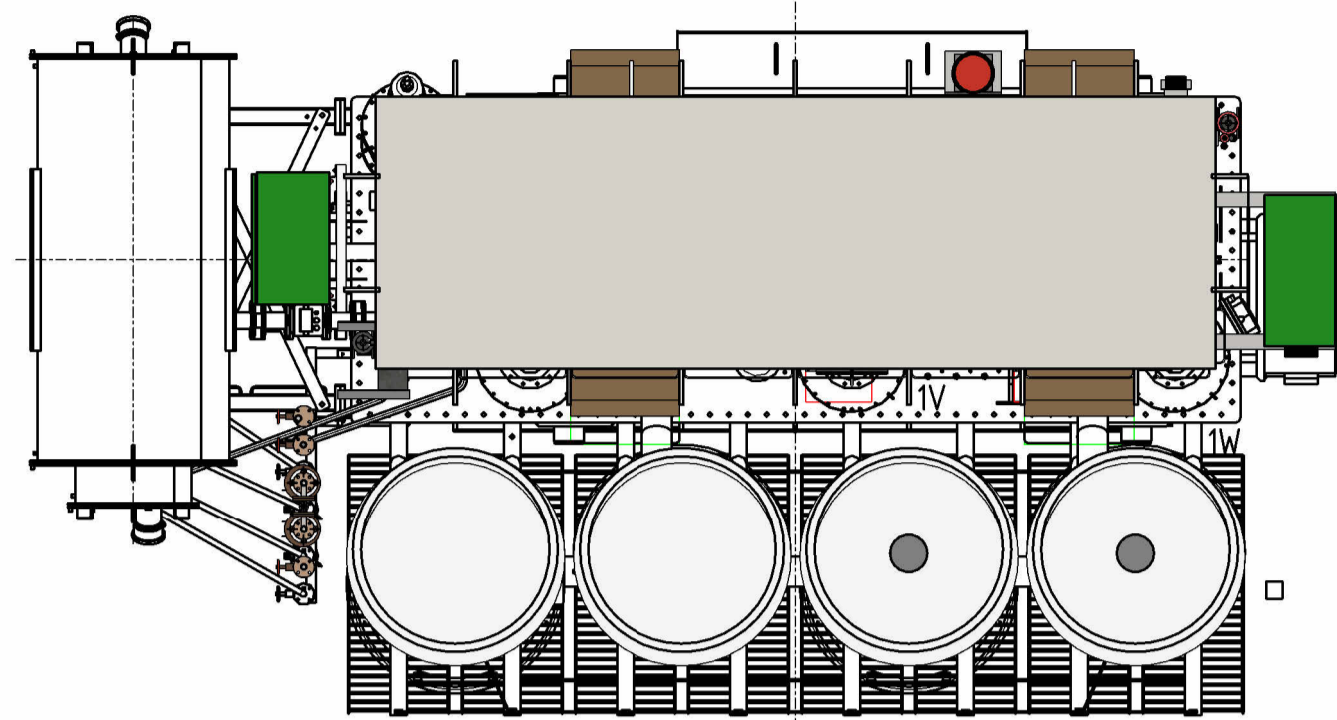
Project Title: **Parc Solar Caenewydd**

Drawing Name: **Client Substation Plan & Elevations**

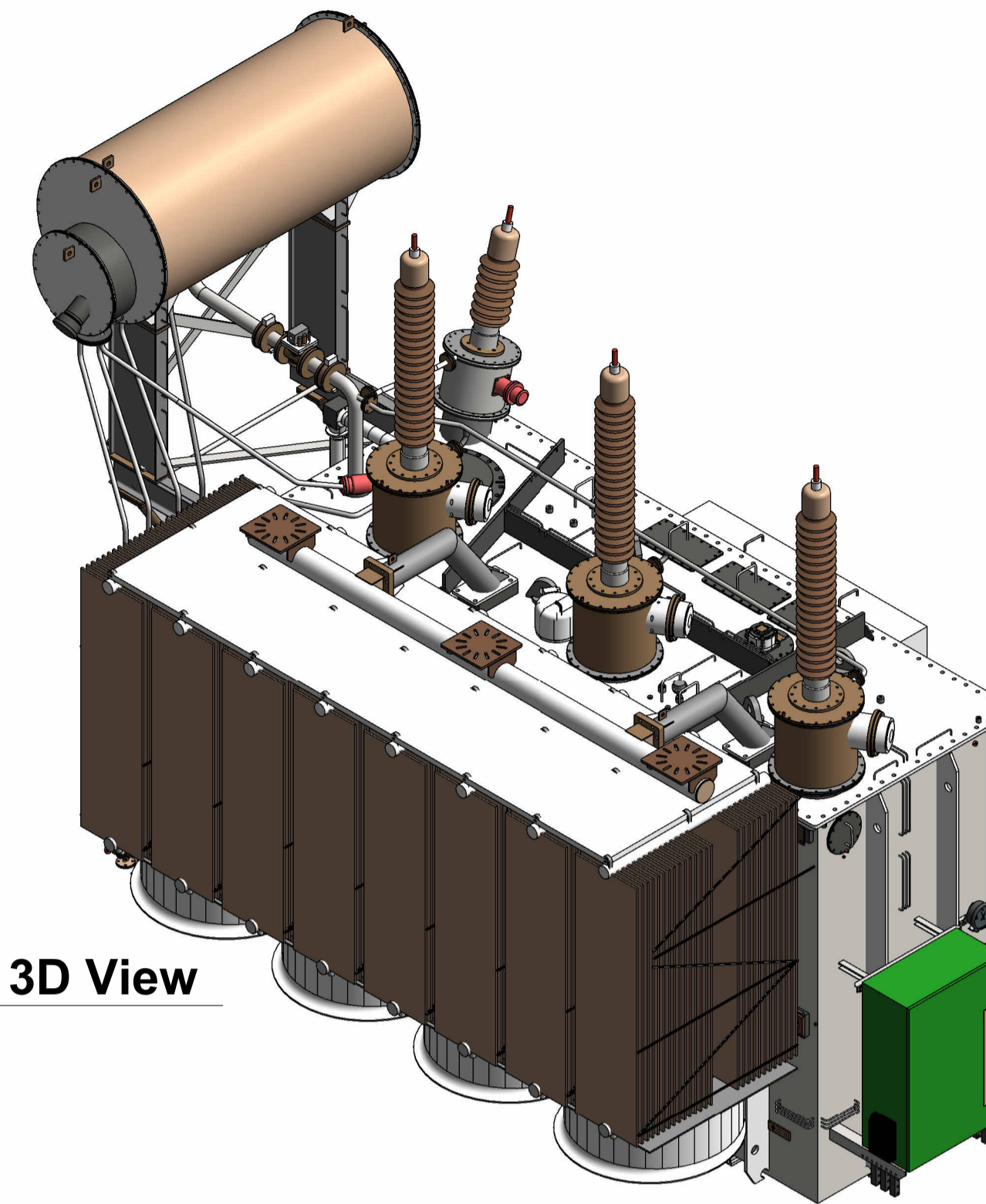
DRAWN	AJ	CHK'D	AJ	APP'D	AJ	SCALE (@ A1)	1 : 50	SHEET No.	1 of 1
-------	----	-------	----	-------	----	--------------	--------	-----------	--------

Drawing Number:	SC PJ 55 02-150-12	REVISION	0
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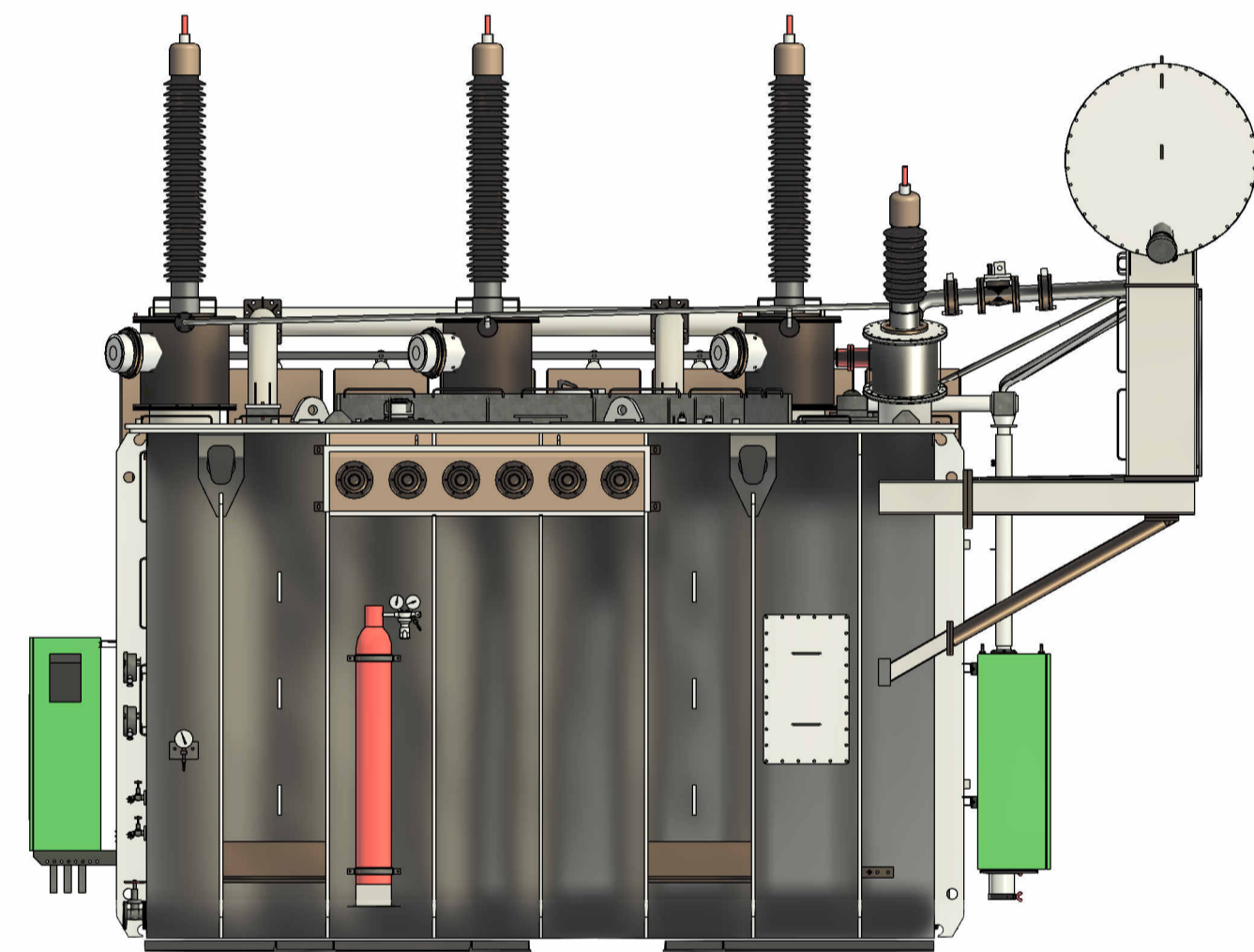
NOTES:



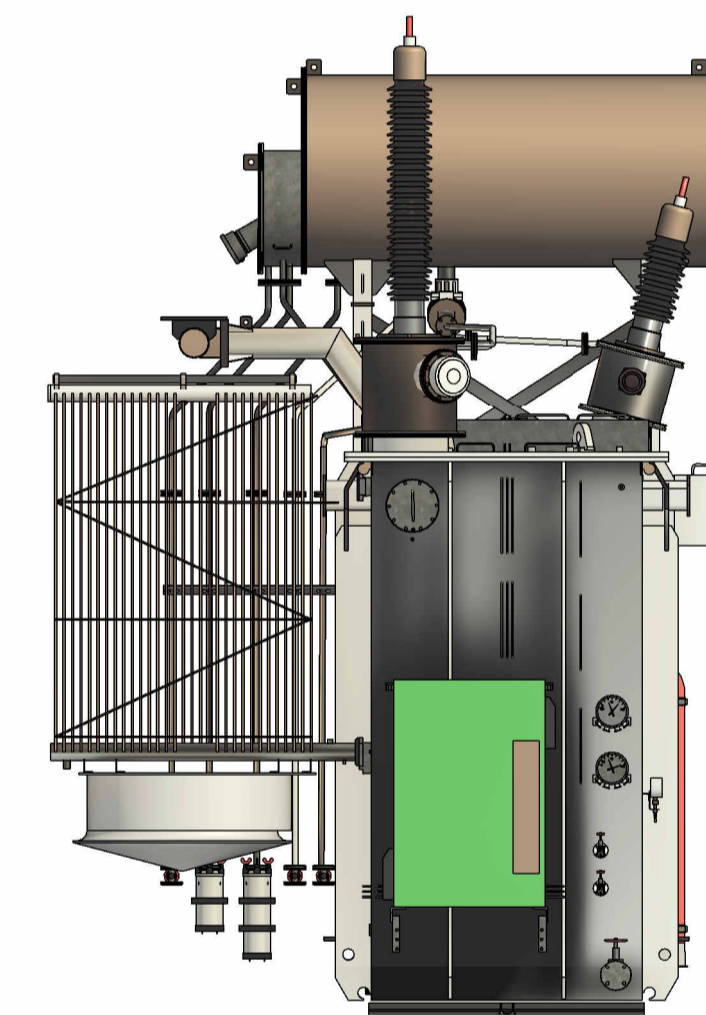
1 Plan View
1 : 40



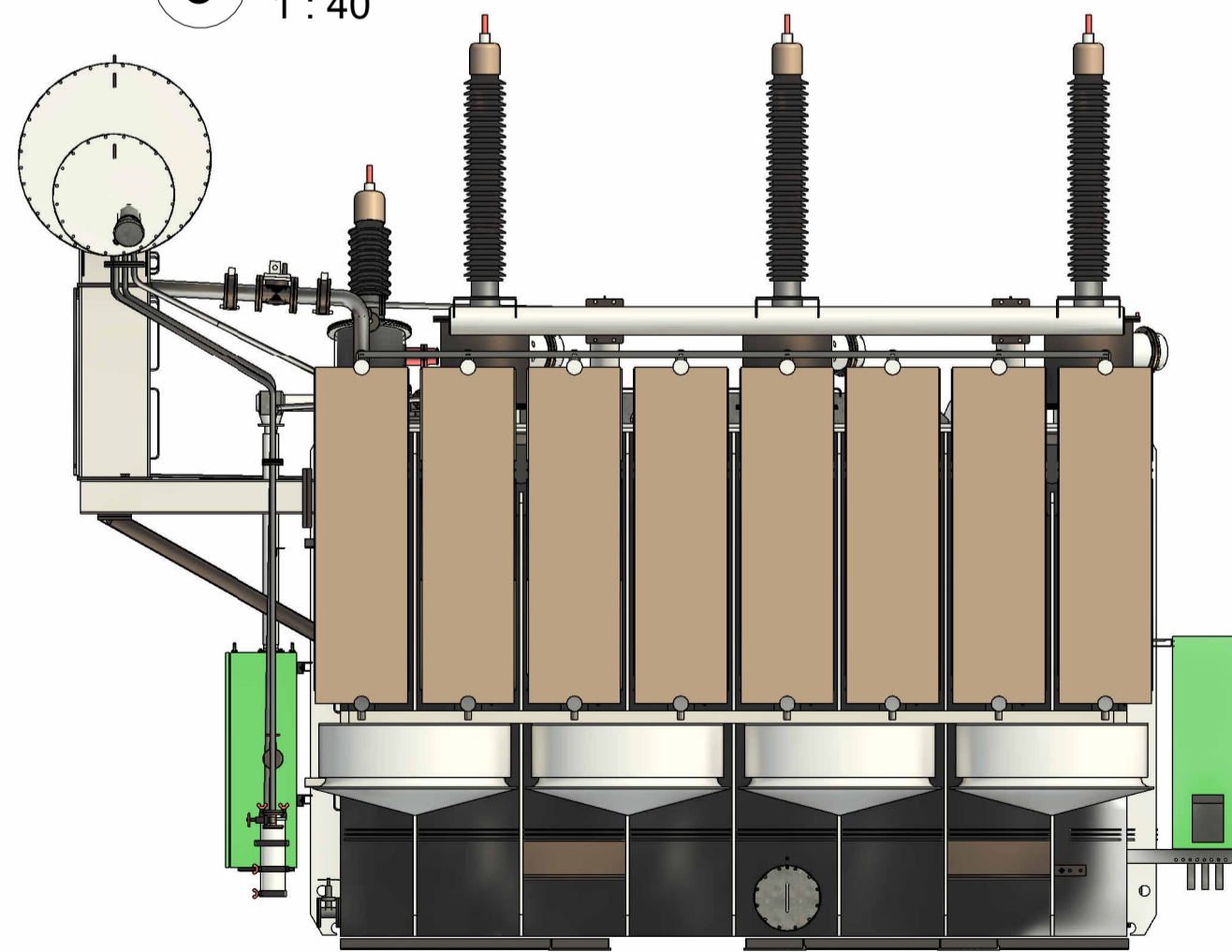
2 3D View



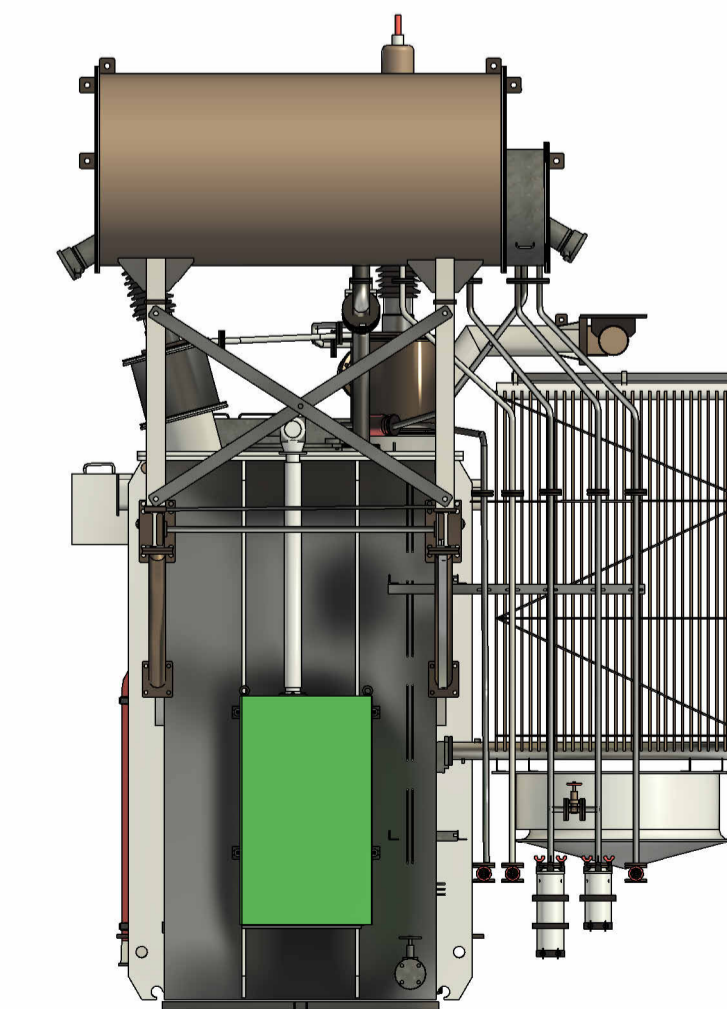
3 Front View
1 : 40



4 Right View
1 : 40



5 Rear View
1 : 40



6 Left View
1 : 40

O	Original	AJ	03.08.23
REV:	DESCRIPTION:	ISS BY:	DATE:

Revision Schedule
Status: **FOR PLANNING**

SUCCESS CONNECTIONS
YOUR GRID CONNECTION EXPERTS
Suite 5, Exchange Station, Tithebarn St, Liverpool, L2 2QP
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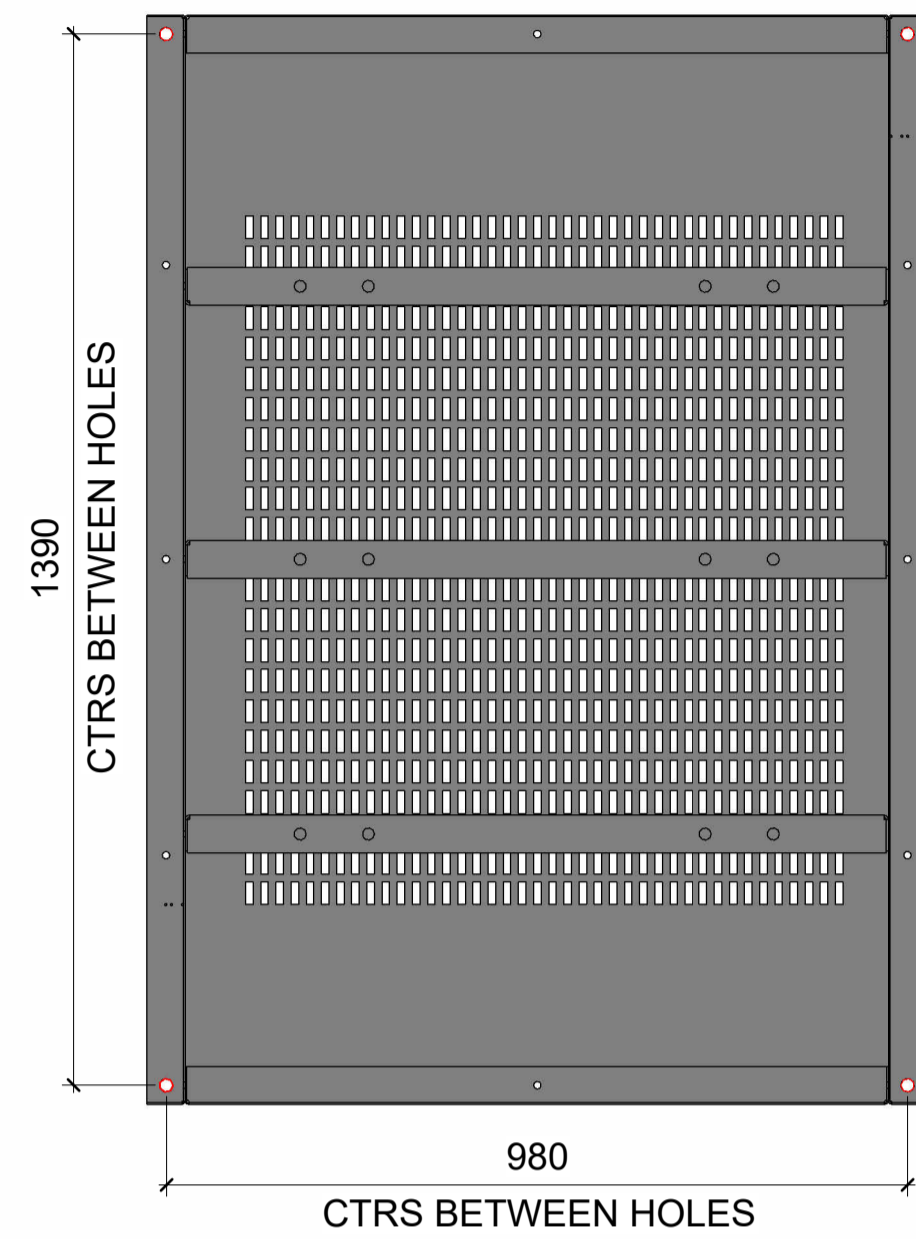
Project Number: **SC PJ 55 02**

Client Name: **Low Carbon Alliance**

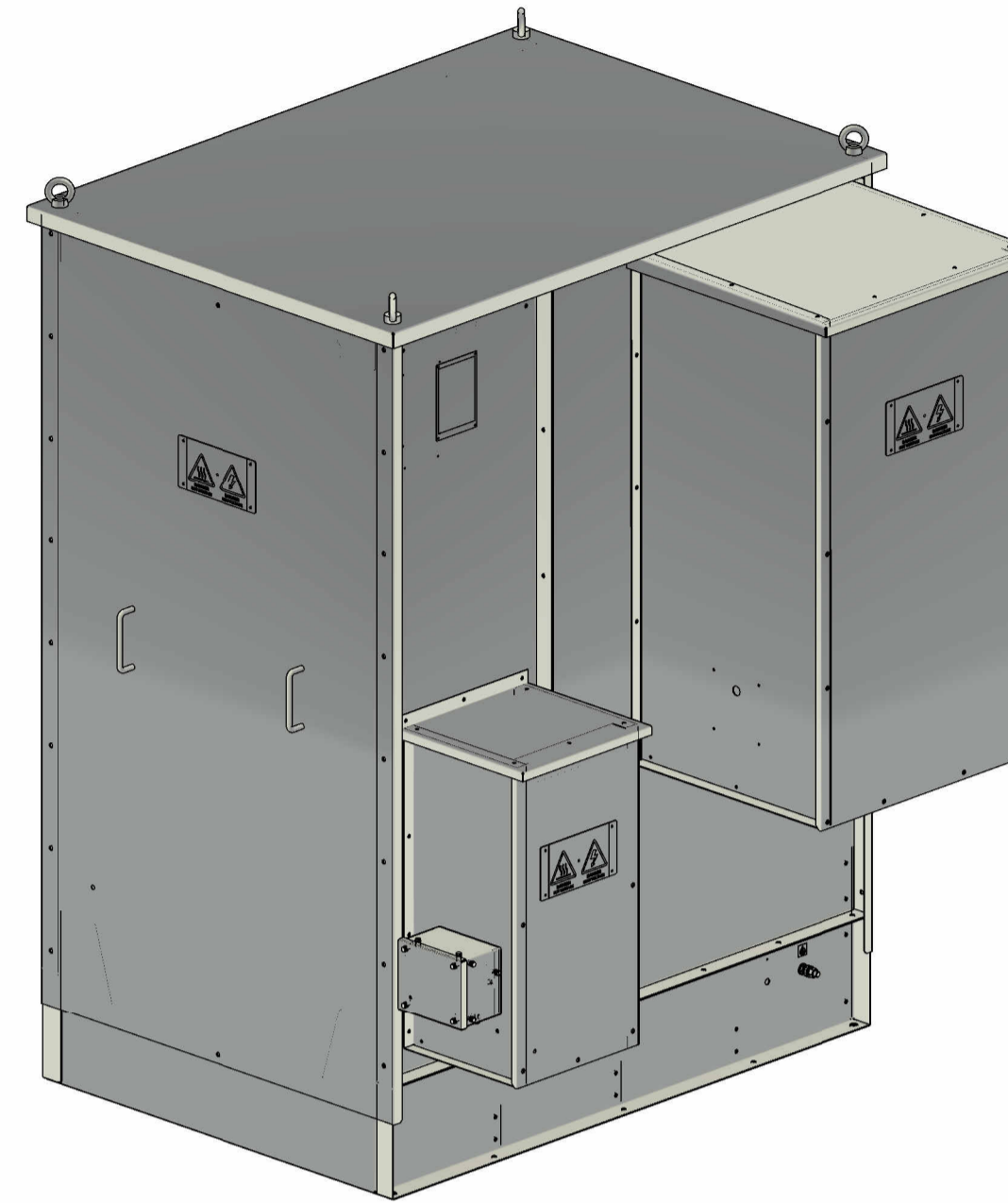
Project Title: **Parc Solar Caenewydd**

Drawing Name: **Grid Transformer Plan & Elevation**

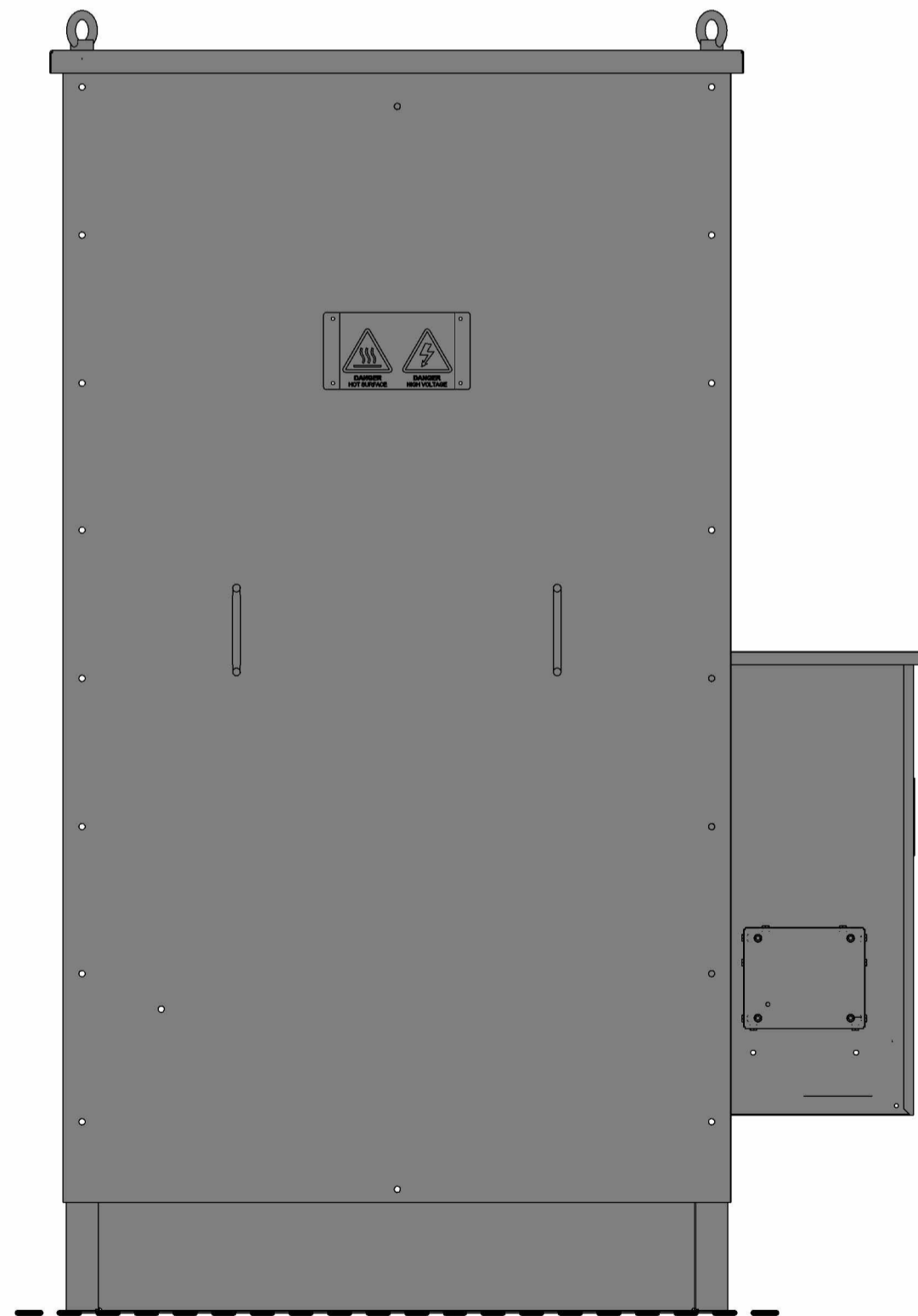
DRAWN	AJ	CHK'D	AJ	APP'D	AJ	SCALE (@ A1)	1 : 40	SHEET No.	1 of 1	
Drawing Number:	SC PJ 55 02-150-13								REVISION	0



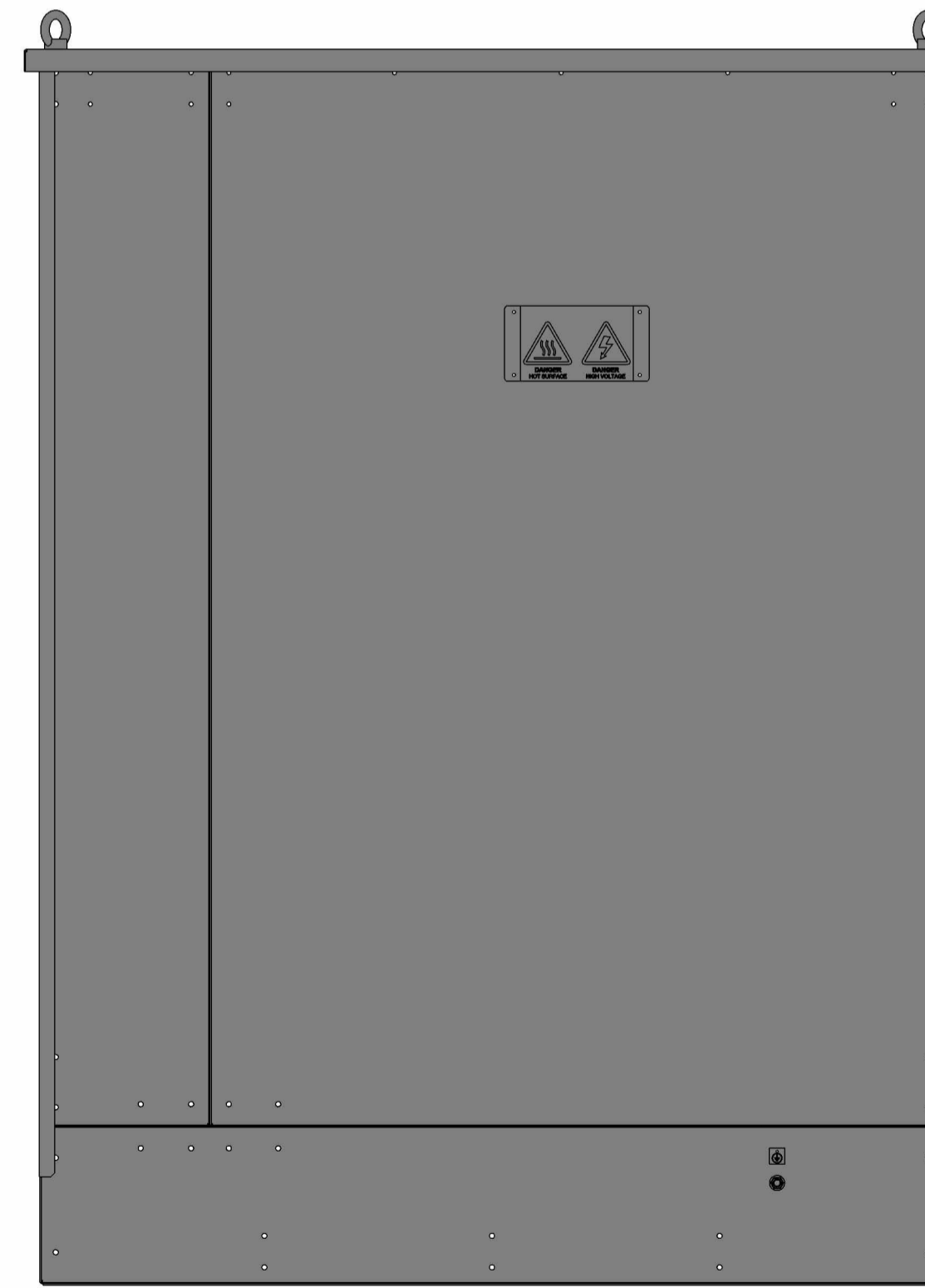
1 Plan View
1 : 10



2 3D View



3 Side View
1 : 10



4 Front View
1 : 10

NOTES:

O	Original	AJ	03.08.23
REV:	DESCRIPTION:	ISS BY:	DATE:

Revision Schedule

Status : **FOR PLANNING**



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Project Number: **SC PJ 55 02**

Client Name: **Low Carbon Alliance**

Project Title: **Parc Solar Caenewydd**

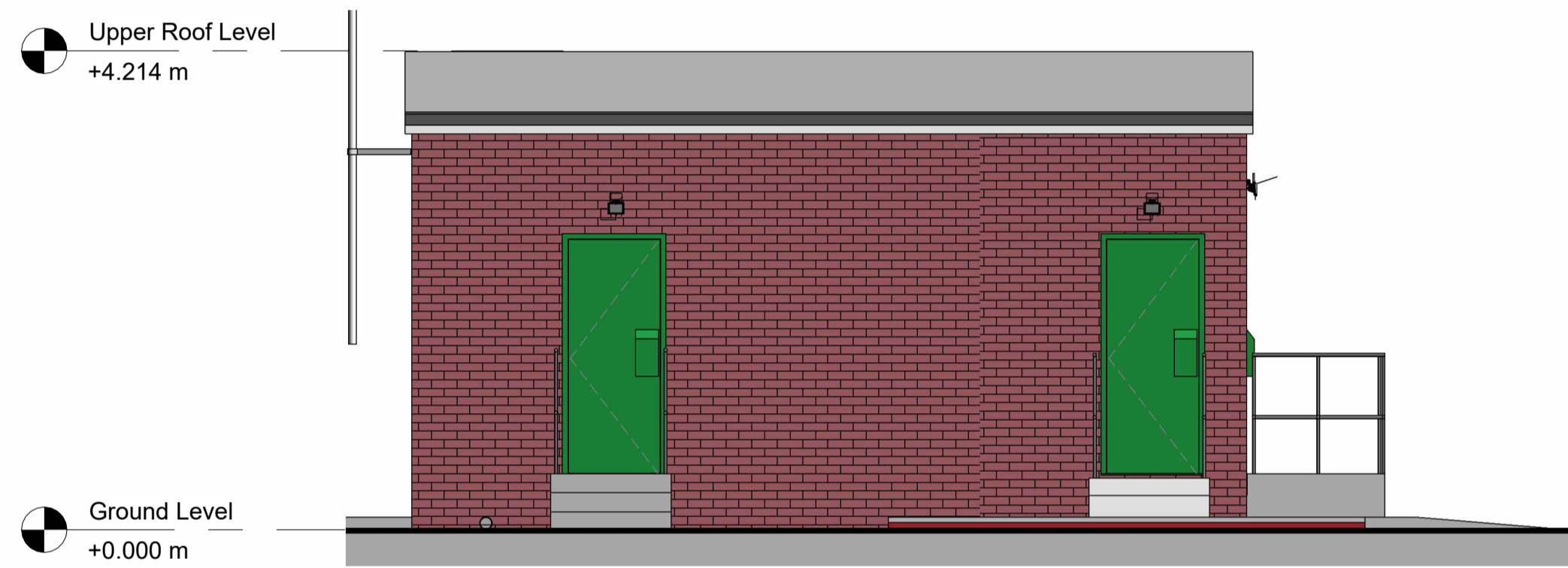
Drawing Name: **NER Plan & Elevation**

DRAWN	AJ	CHK'D	AJ	APP'D	AJ	SCALE (@ A1)	1 : 10	SHEET No.	1 of 1
Drawing Number:								REVISION	

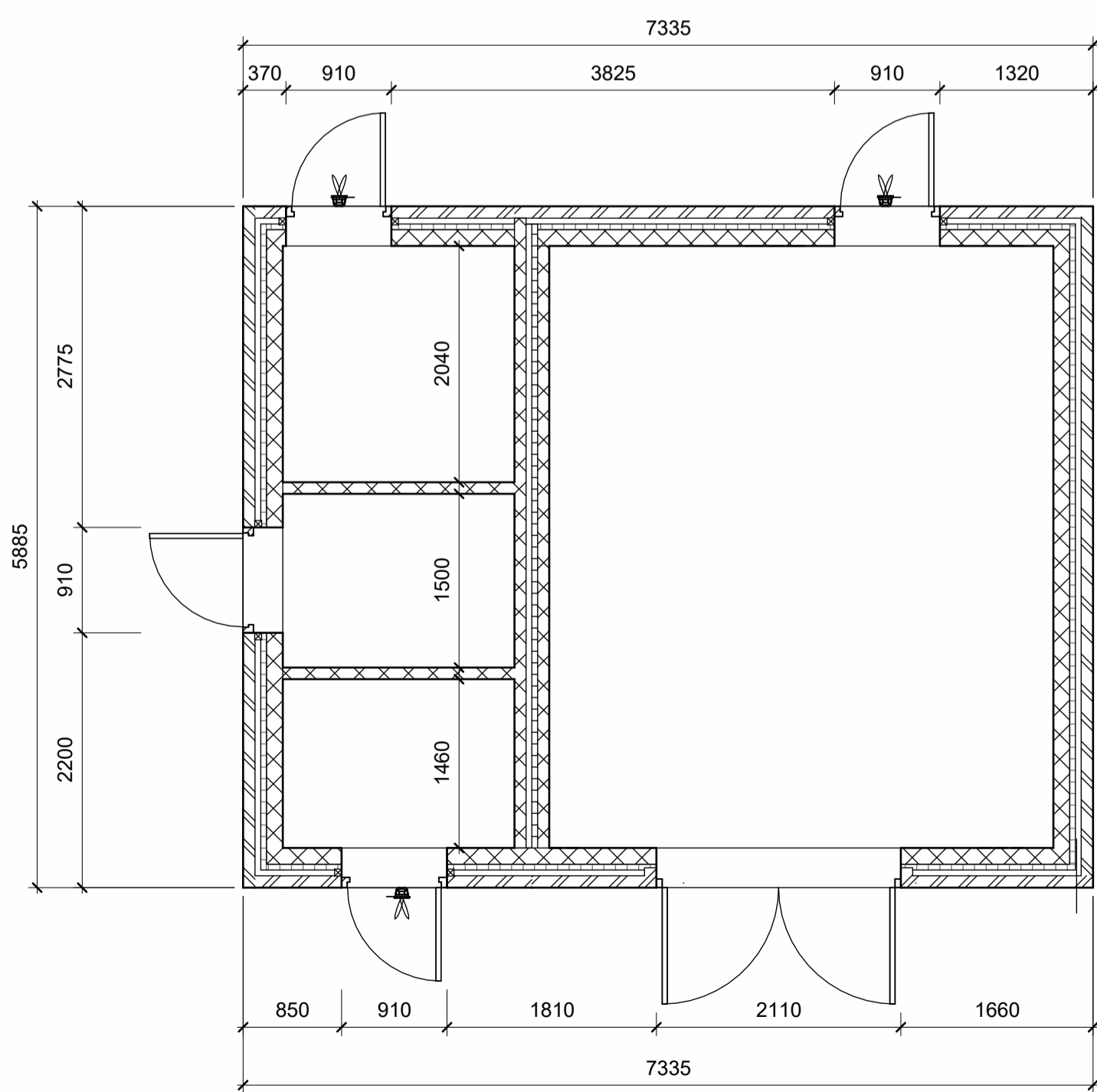
SC PJ 55 02-150-14 **0**



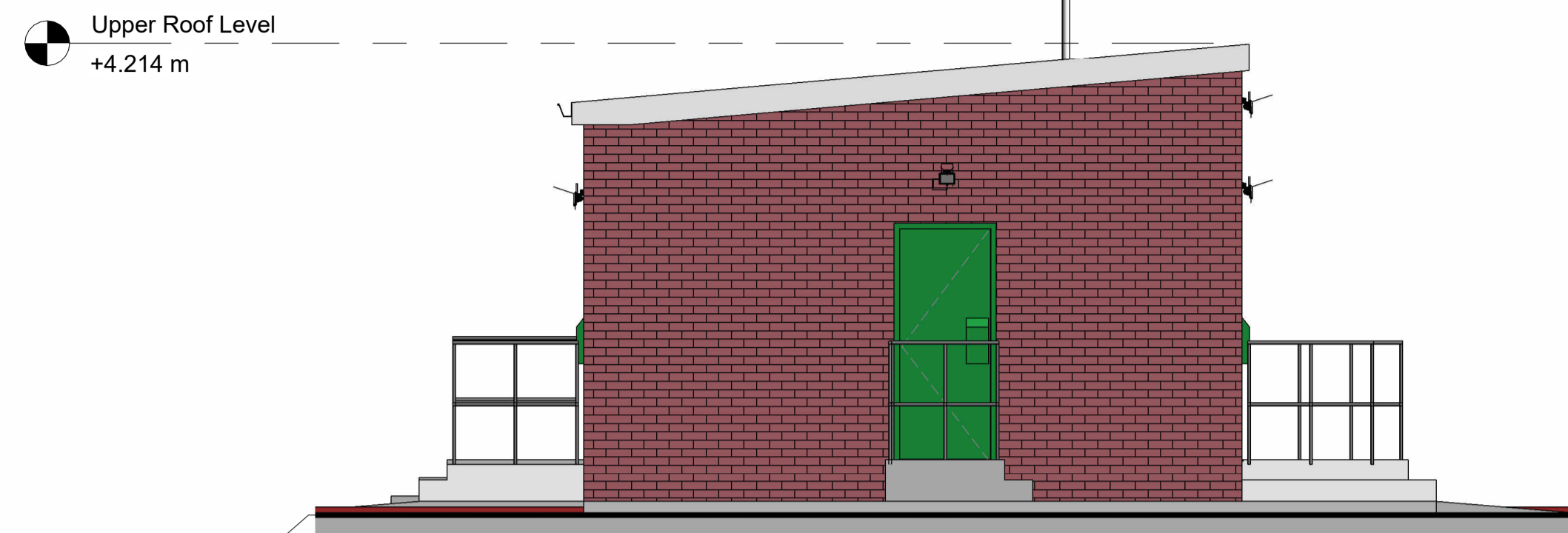
1 **Front View**
1 : 50



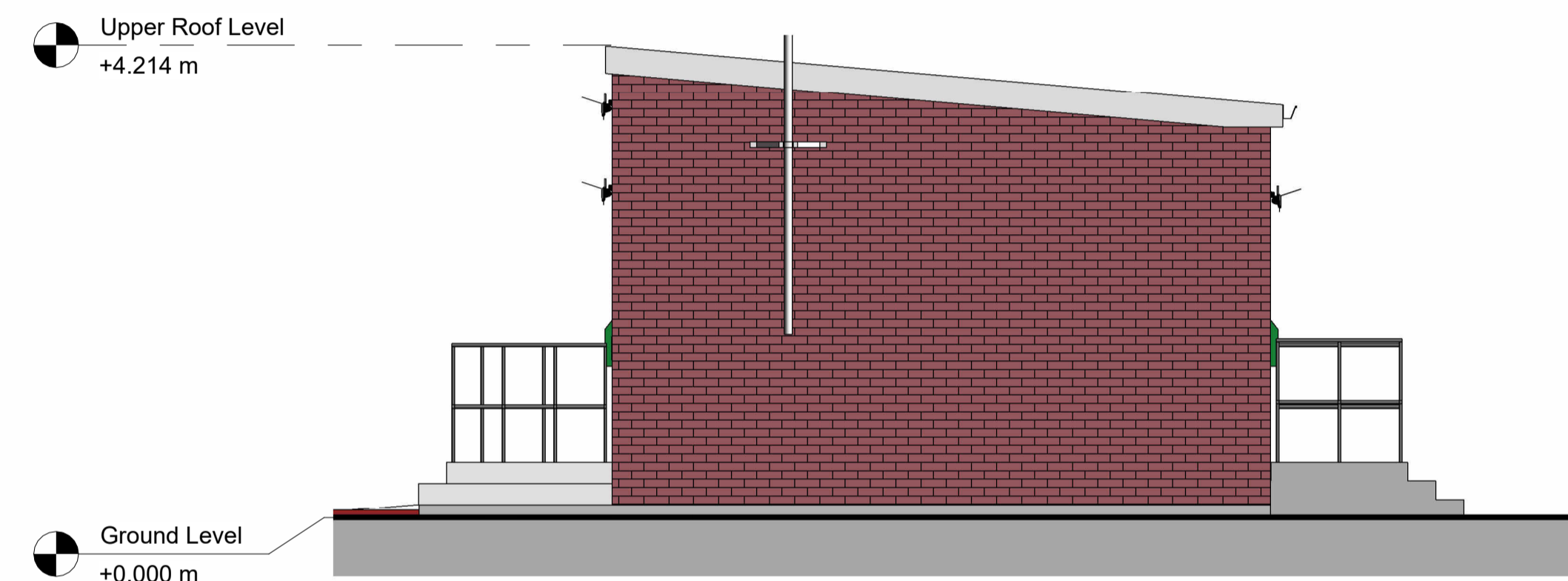
3 **Rear View**
1 : 50



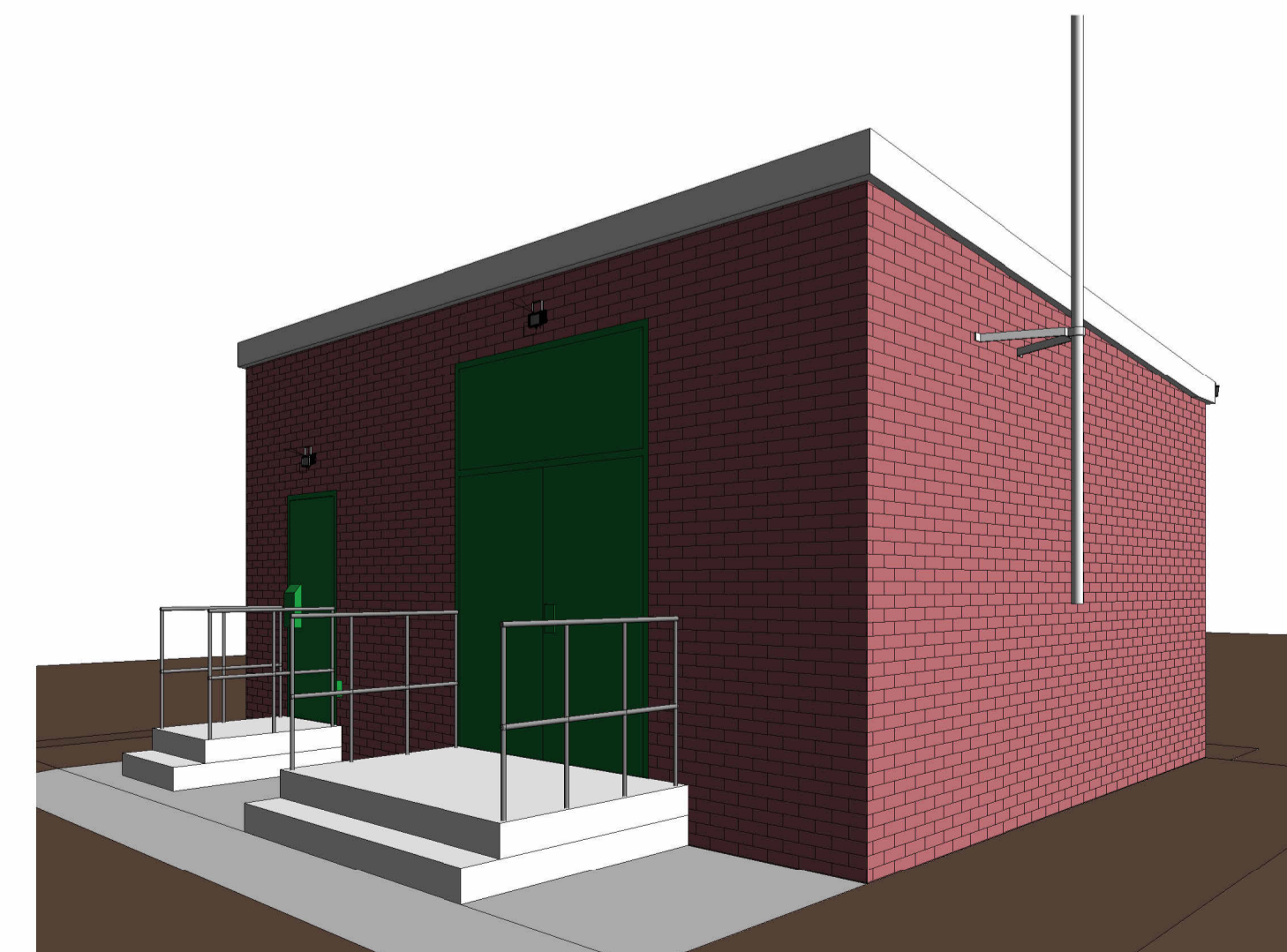
5 **Plan View**
1 : 50



2 **Right View**
1 : 50



4 **Left View**
1 : 50



6 **3D Perspective**

NOTES:

O	Original	AJ	09.08.2023
REV:	DESCRIPTION:	ISS BY:	DATE:

Revision Schedule

Status : **FOR PLANNING**



Suite 5, Exchange Station, Tithebarn St, Liverpool, L2 2QP

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Project Number: **SC PJ 55 02**

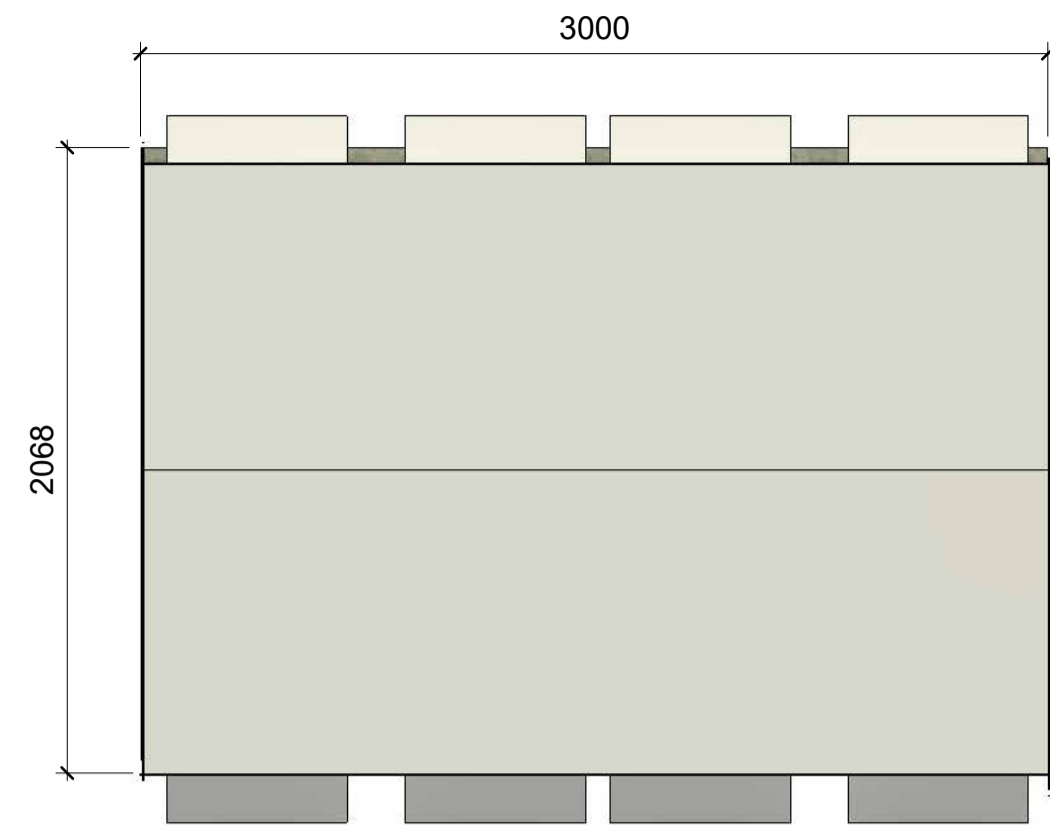
Client Name: **Low Carbon Alliance**

Project Title: **Parc Solar Caenewydd**

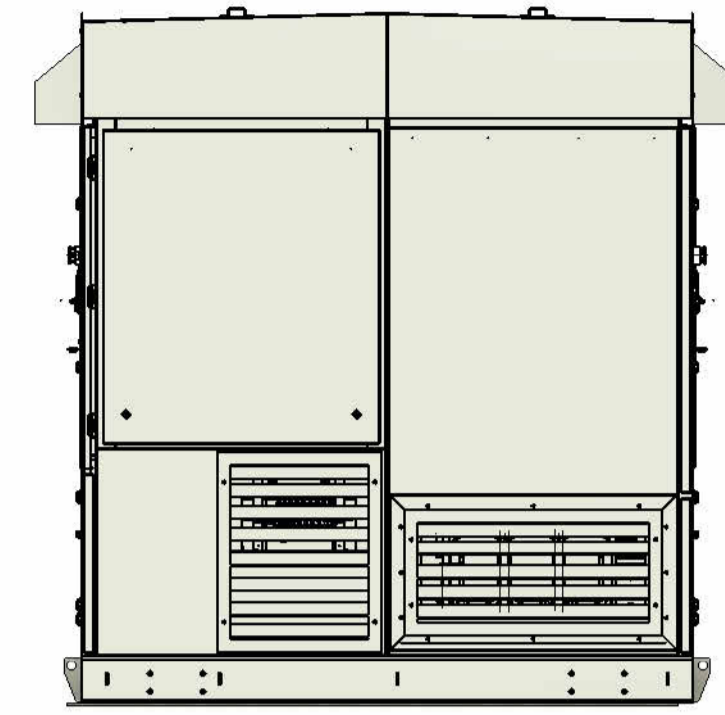
Drawing Name: **NG Substation Plans and Elevations**

DRAWN	AJ	CHK'D	AJ	APP'D	AJ	SCALE (@ A1)	1 : 50	SHEET No.	1 of 1
-------	----	-------	----	-------	----	--------------	--------	-----------	--------

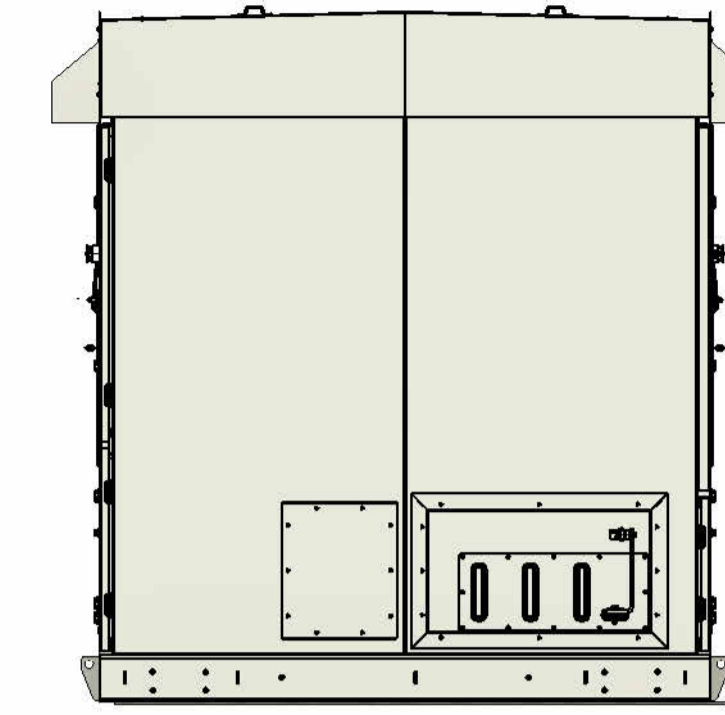
Drawing Number:	SC PJ 55 02-150-15	REVISION	0
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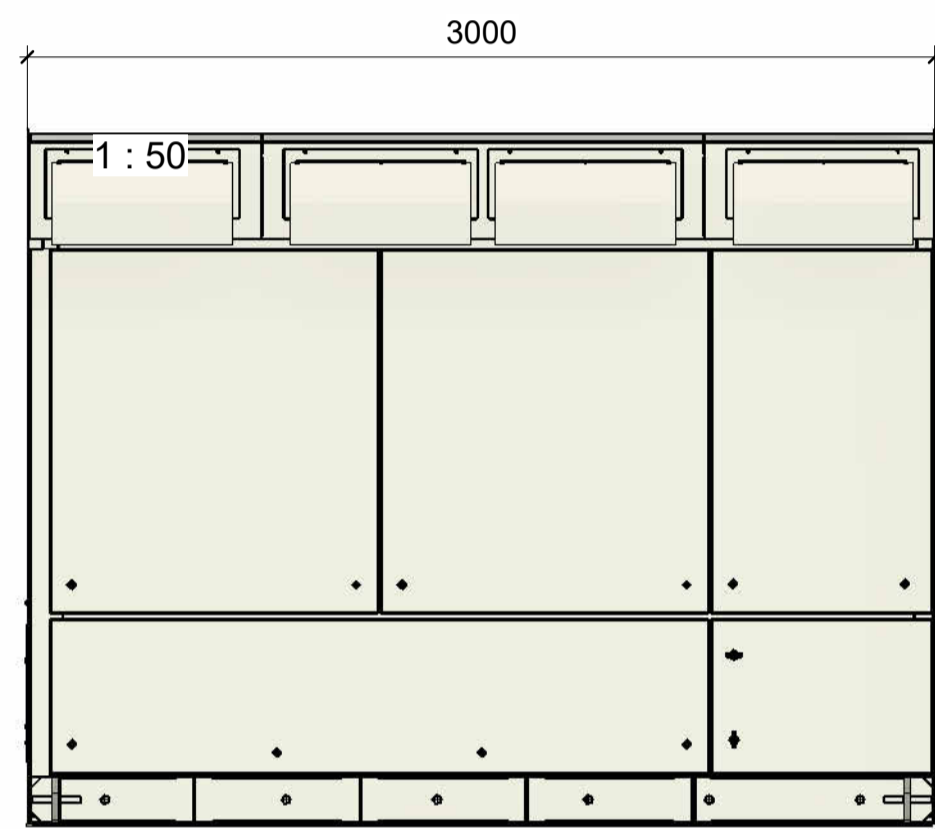
1 Plan View
1 : 50



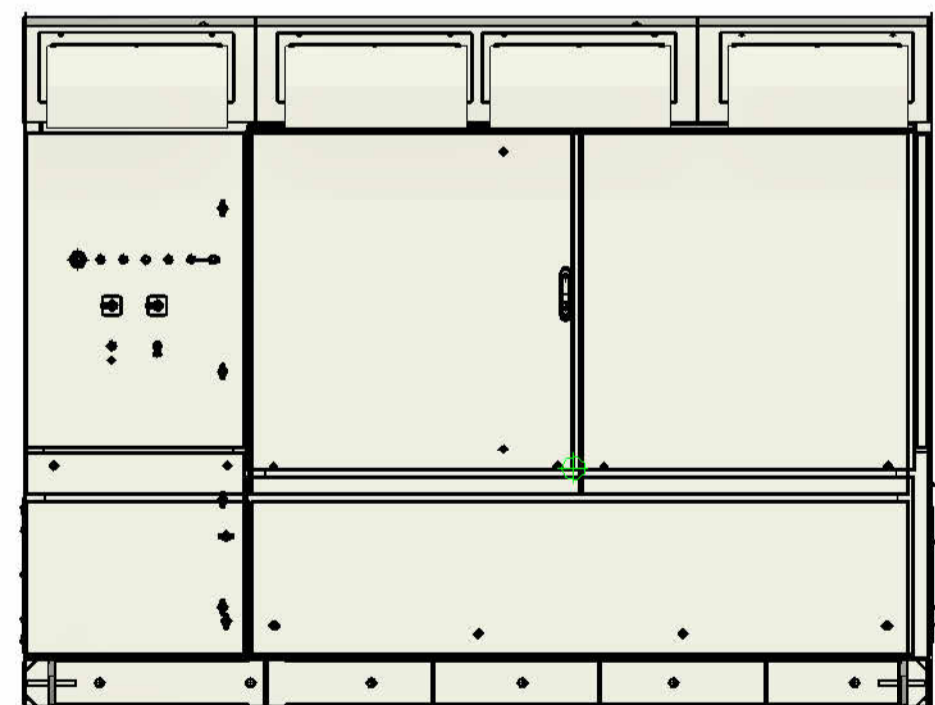
2 Left Elevation
1 : 50



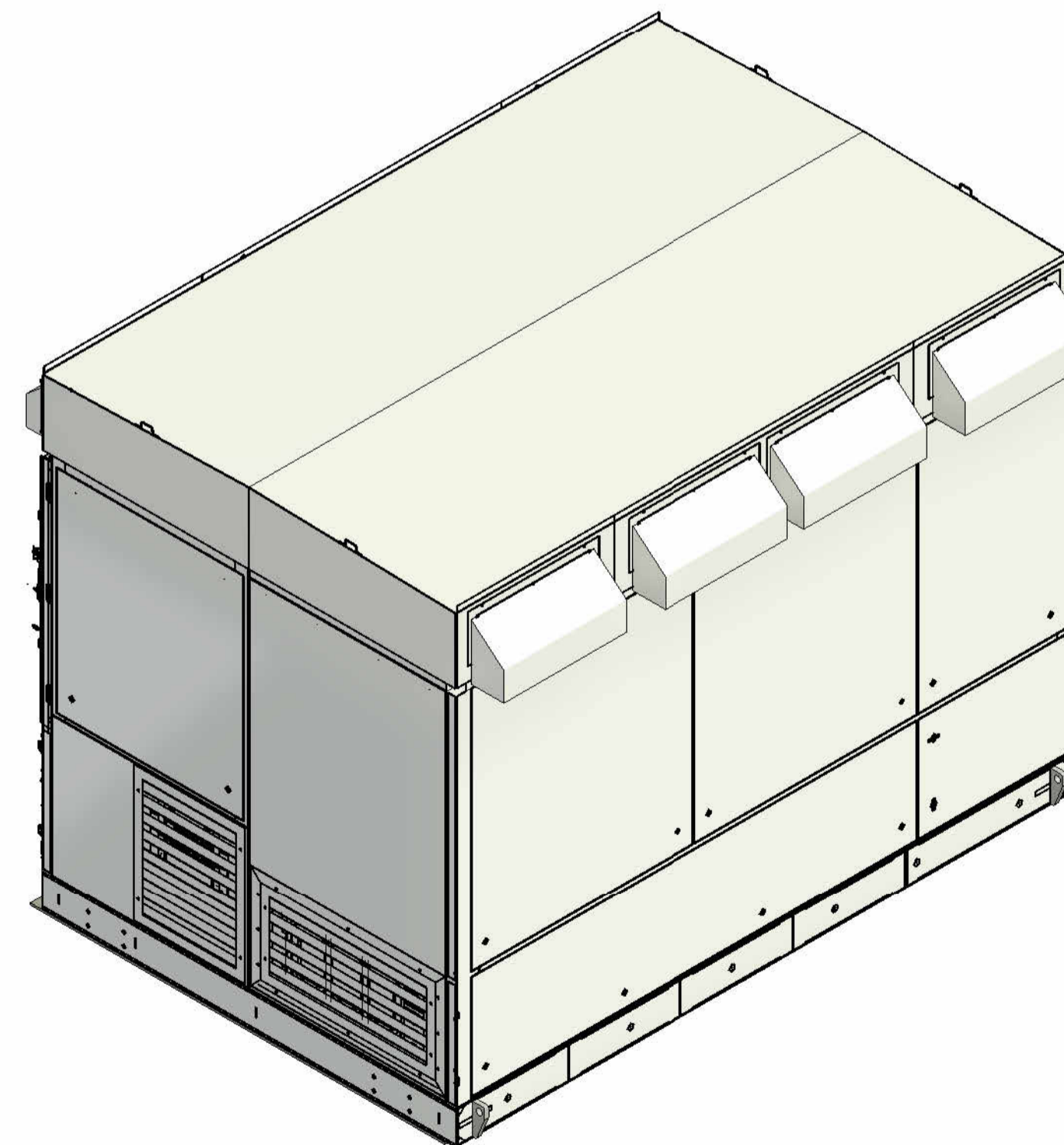
3 Right Elevation
1 : 50



4 Front Elevation
1 : 50



5 Rear Elevation
1 : 50



6 3D View

NOTES:

O	Original	AJ	03.08.23
REV:	DESCRIPTION:	ISS BY:	DATE:

Revision Schedule

Status : **FOR PLANNING**



Suite 5, Exchange Station, Tithebarn St, Liverpool, L2 2QP

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Project Number: **SC PJ 55 02**

Client Name: **Low Carbon Alliance**

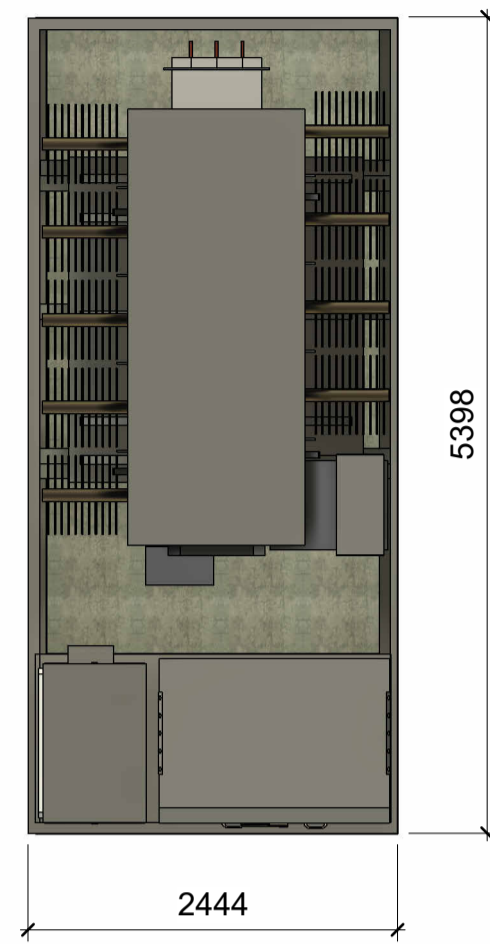
Project Title: **Parc Solar Caenewydd**

Drawing Name: **PCS Plan & Elevations**

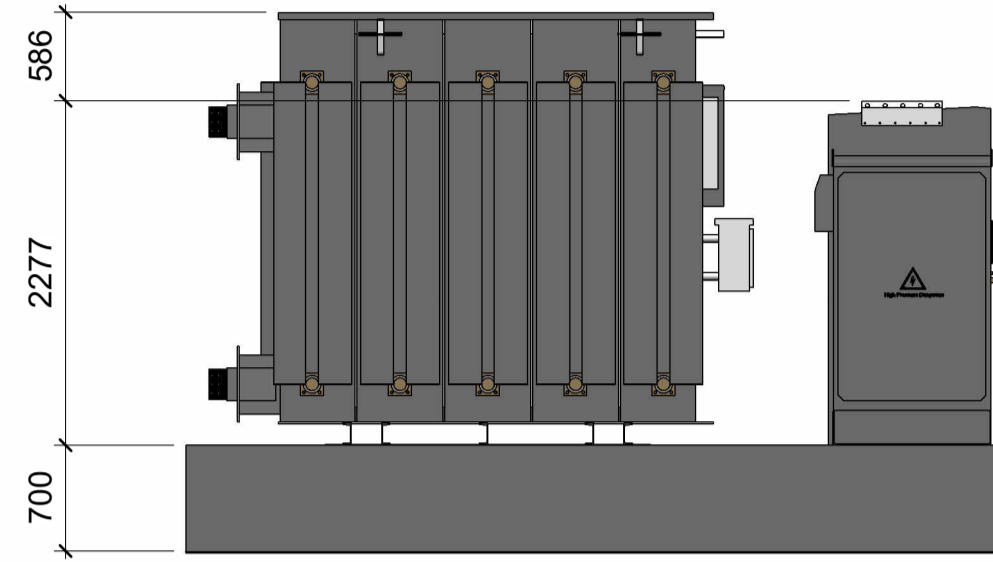
DRAWN	AJ	CHECKED	AJ	APPROVED	AJ	SCALE (@ A1)	SHEET No.
							1 of 1

Drawing Number: **SC PJ 55 02-150-16**

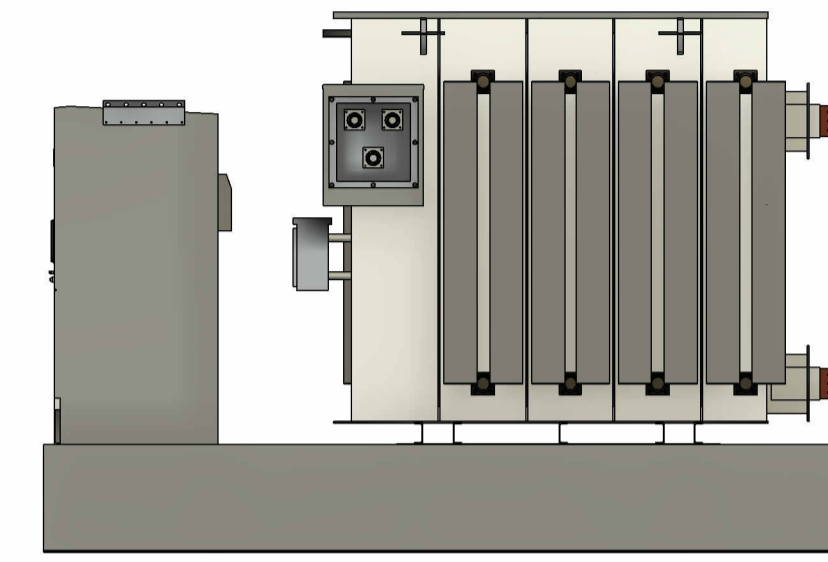
REVISION **0**



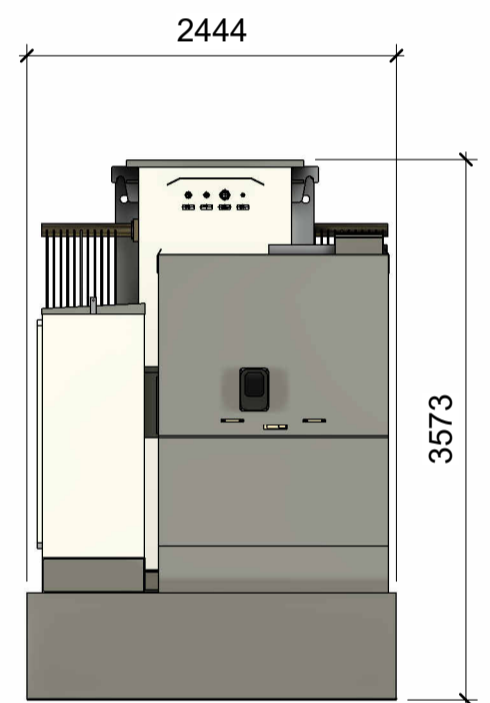
1 Plan View
1 : 50



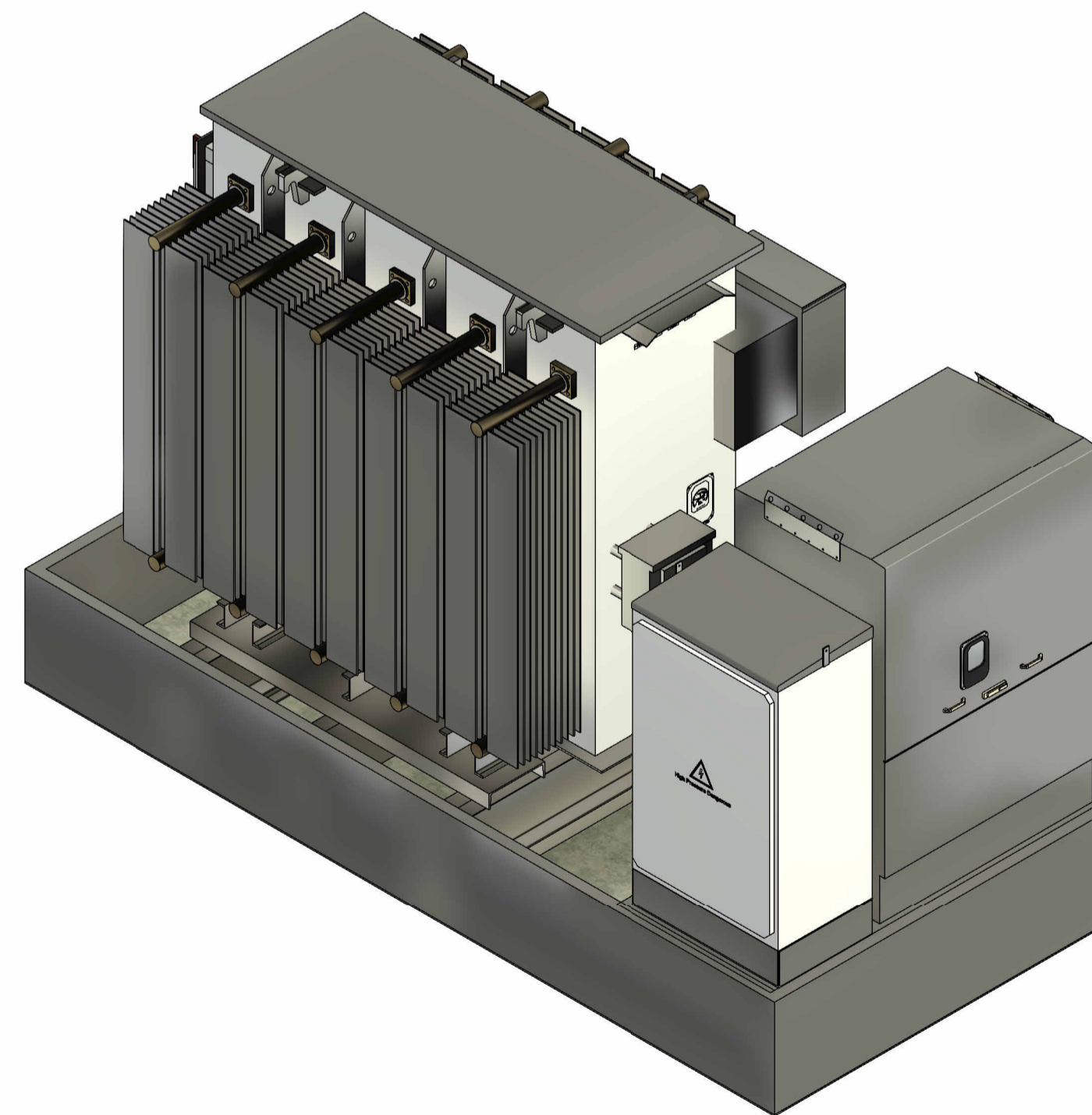
2 Left Elevation
1 : 50



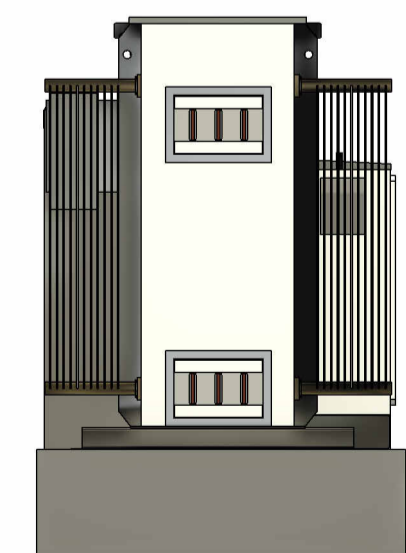
3 Right Elevation
1 : 50



4 Front Elevation
1 : 50



6 3D View



5 Rear Elevation
1 : 50

NOTES:

O	Original	AJ	03.08.23
REV:	DESCRIPTION:	ISS BY:	DATE:

Revision Schedule

Status : **FOR PLANNING**



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Project Number: **SC PJ 55 02**

Client Name: **Low Carbon Alliance**

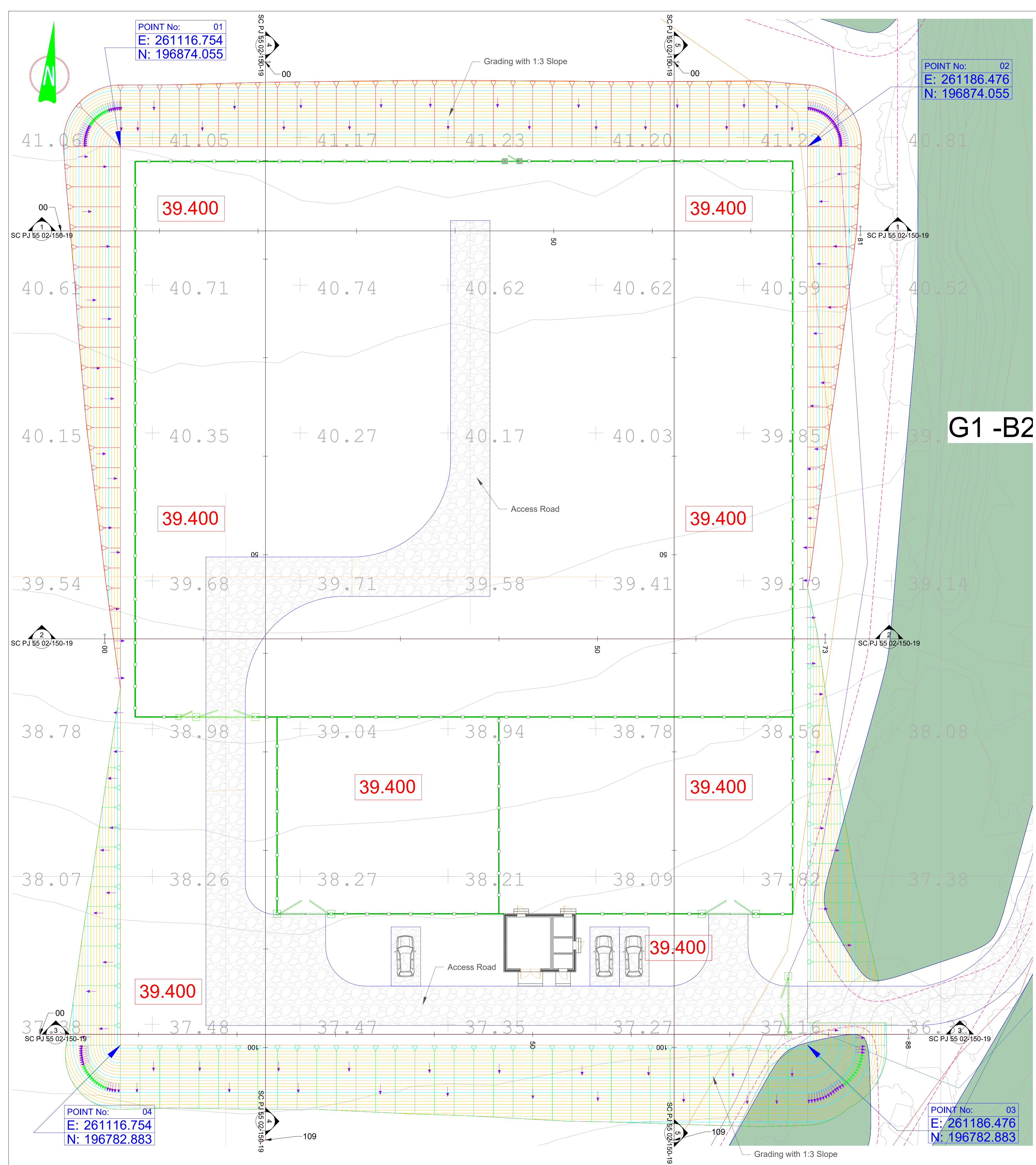
Project Title: **Parc Solar Caenewydd**

Drawing Name: **Transformer & Inverter Plan & Elevations**

DRAWN	AJ	CHK'D	AJ	APP'D	AJ	SCALE (@ A1)	SHEET No.
							1 of 1

Drawing Number: **SC PJ 55 02-150-17**

REVISION **0**



CUT & FILL QUANTITY

SOIL CUT VOLUME = 4695.584 CU.M
 SOIL FILL VOLUME = 3166.217 CU.M
 SUBSOIL LEFT FOR DISPOSAL = 1529.367 CU.M
 GRADED LEVEL REFER PLAN AND SECTIONS.

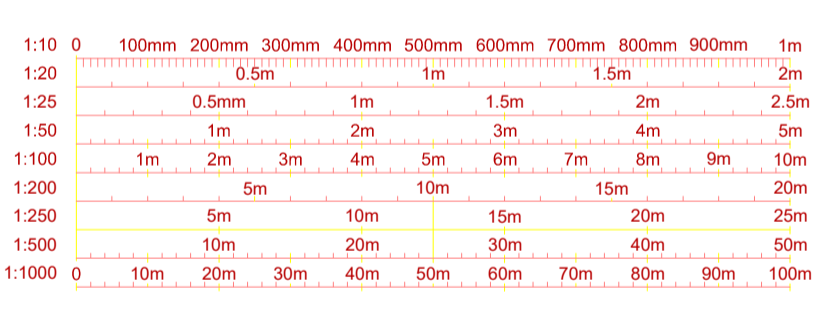
NOTES:

- ALL DIMENSIONS ARE IN METERS UNLESS NOTED OTHERWISE.
- IF IN DOUBT - ASK !!! DO NOT SCALE.
- ALL EXCAVATED TOPSOIL MATERIAL TO BE SPREAD ON SITE TO REMOVE REQUIREMENTS FOR REMOVING FROM SITE.
- ALL WORK TO BE CARRIED OUT IN ACCORDANCE WITH THE RELEVANT BRITISH STANDARDS, CODES OF PRACTICE AND BUILDING PRACTICE.
- ALL DIMENSIONS TO BE CHECKED PRIOR TO STARTING THE WORK ON SITE. ANY DISCREPANCIES TO BE REPORTED TO THE ENGINEER IMMEDIATELY.

LEGEND :

- = Palisade Fence
- = 75mm thick layer of 20-40 mm Granite Chippings
- = 6F5 Recycled Aggregate
- = Finished Level
- = Terram T1000 Geotextile Membrane
- = Tensar TX190L Triaxial Geogrid
- = Tree Root Protection Area
- = Tree Canopies

Site Address : Gowerton Solar PV & BESS,
 Swansea Road, Goreinon,
 Swansea, South Wales
 Site Postcode: SA4 4LE



Issue	Date	Purpose of Issue	Drawn	Checked
4.0	23.11.2023	Access Road amended to avoid trees	SR	SF
3.0	23.11.2023	Amended as per revised site plan	SR	SF
2.0	29.10.2023	Amended as per comments	SR	SF
1.0	02.10.2023	For Information	SR	SF



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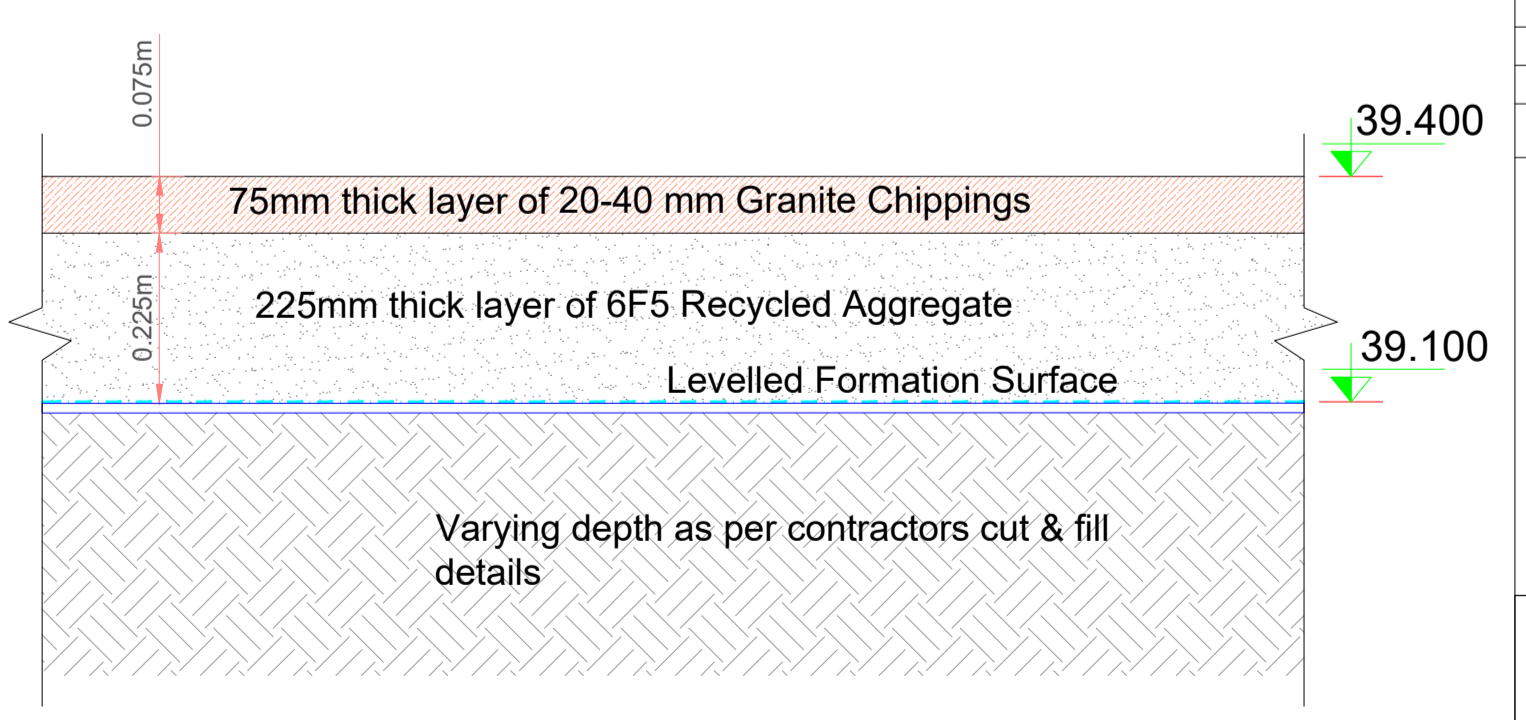
Client:
 Low Carbon Alliance

Drawing Title:
 Proposed Site Levels

Drawn: SR Date: 02.10.2023 Checked: SF Date: 02.10.2023

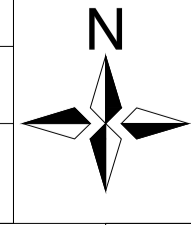
Project Title:
 Gowerton
 Job Ref: SC PJ 55 02-150-18 Scale: As Shown @ A1

Drawing Number: SC PJ 55 02-150-18 Page Number: 1 of 1 Issue: 4.0

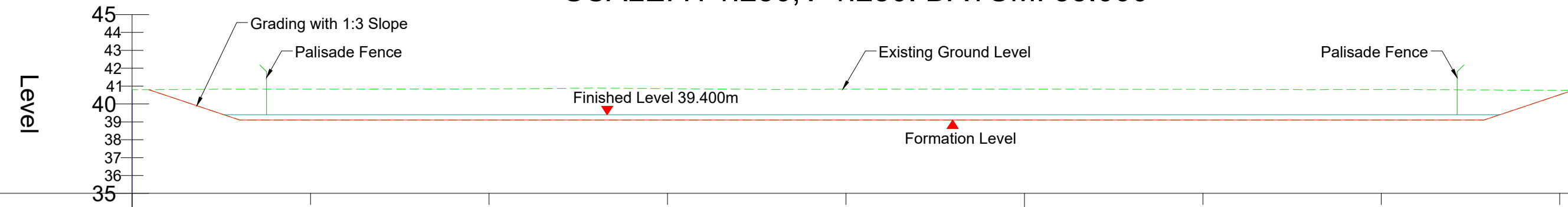


2 TYPICAL SECTION ACROSS SITE Scale: NTS

Reference	Sheet Number	Sheet Name
SC PJ 55 02-150-18	Proposed Site Levels	
SC PJ 55 02-150-19	Proposed Site Sections	

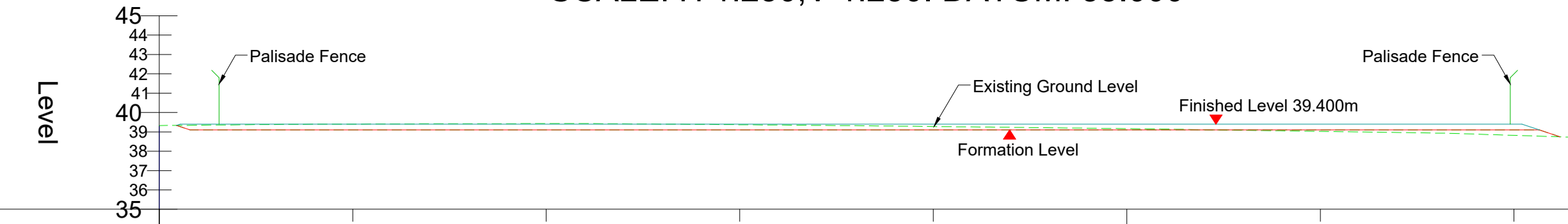


SECTION 1-1 - LONGSECTION
SCALE: H 1:250,V 1:250. DATUM: 35.000



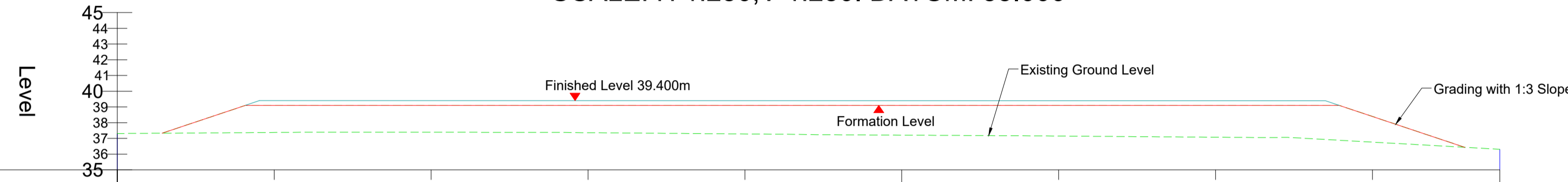
Existing Levels	40.827	40.844	40.855	40.824	40.828	40.810	40.803	40.763
Proposed Levels (Formation)	39.100	39.100	39.100	39.100	39.100	39.100	39.100	40.515
Level Difference	-1.727	-1.744	-1.755	-1.724	-1.728	-1.710	-1.703	-0.248

SECTION 2-2 - LONGSECTION
SCALE: H 1:250,V 1:250. DATUM: 35.000



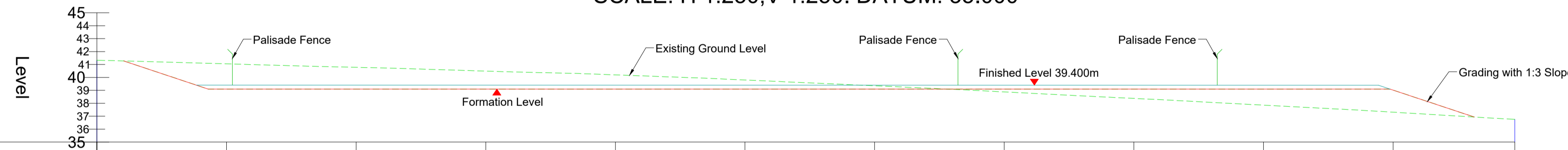
Existing Levels	39.400	39.426	39.370	39.276	39.165	39.024	38.819
Proposed Levels (Formation)	39.100	39.100	39.100	39.100	39.100	39.100	39.100
Level Difference	-0.300	-0.326	-0.270	-0.176	-0.065	0.076	0.281

SECTION 3-3 - LONGSECTION
SCALE: H 1:250,V 1:250. DATUM: 35.000



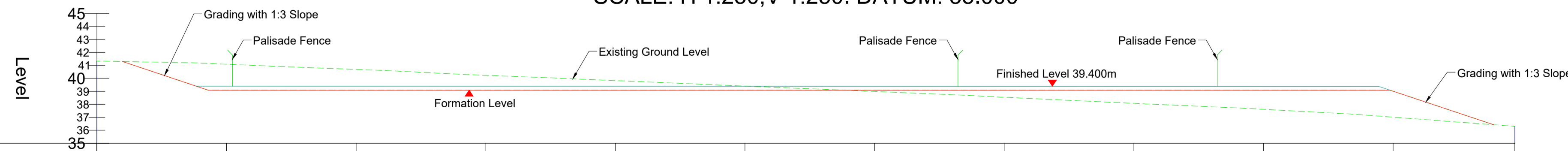
Existing Levels	37.378	37.391	37.364	37.284	37.209	37.150	37.076	36.764
Proposed Levels (Formation)	39.100	39.100	39.100	39.100	39.100	39.100	39.100	38.395
Level Difference	1.722	1.709	1.736	1.816	1.891	1.950	2.024	1.631

SECTION 4-4 - LONGSECTION
SCALE: H 1:250,V 1:250. DATUM: 35.000



Existing Levels	41.049	40.780	40.487	40.196	39.800	39.363	38.878	38.375	37.853	37.309
Proposed Levels (Formation)	39.100	39.100	39.100	39.100	39.100	39.100	39.100	39.100	39.100	39.020
Level Difference	-1.949	-1.680	-1.387	-1.096	-0.700	-0.263	0.222	0.725	1.247	1.711

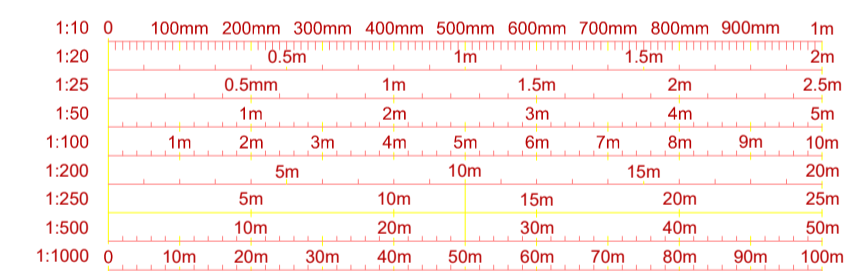
SECTION 5-5 - LONGSECTION
SCALE: H 1:250,V 1:250. DATUM: 35.000



Existing Levels	41.093	40.695	40.242	39.835	39.413	38.994	38.554	38.083	37.621	37.016
Proposed Levels (Formation)	39.100	39.100	39.100	39.100	39.100	39.100	39.100	39.100	39.100	39.020
Level Difference	-1.993	-1.595	-1.142	-0.735	-0.313	0.106	0.546	1.017	1.479	2.004

- LEGEND :**
- = PROPOSED FORMATION LEVEL
 - = PROPOSED FINISHED LEVEL
 - - - = EXISTING GROUND LEVEL

Site Address : Gowerton Solar PV & BESS,
Swansea Road, Goreinon,
Swansea, South Wales
Site Postcode: SA4 4LE



Issue	Date	Purpose of Issue	Drawn	Checked
4.0	24.11.2023	Levels amended	SF	SF
3.0	23.11.2023	Amended as per revised site plan	SR	SF
2.0	29.10.2023	Amended as per comments	SR	SF
1.0	02.10.2023	For Information	SR	SF



Suite 5, Exchange Station, Tithebarn St, Liverpool, L2 2QP

Client:
Low Carbon Alliance

Drawing Title:
Proposed Site Sections

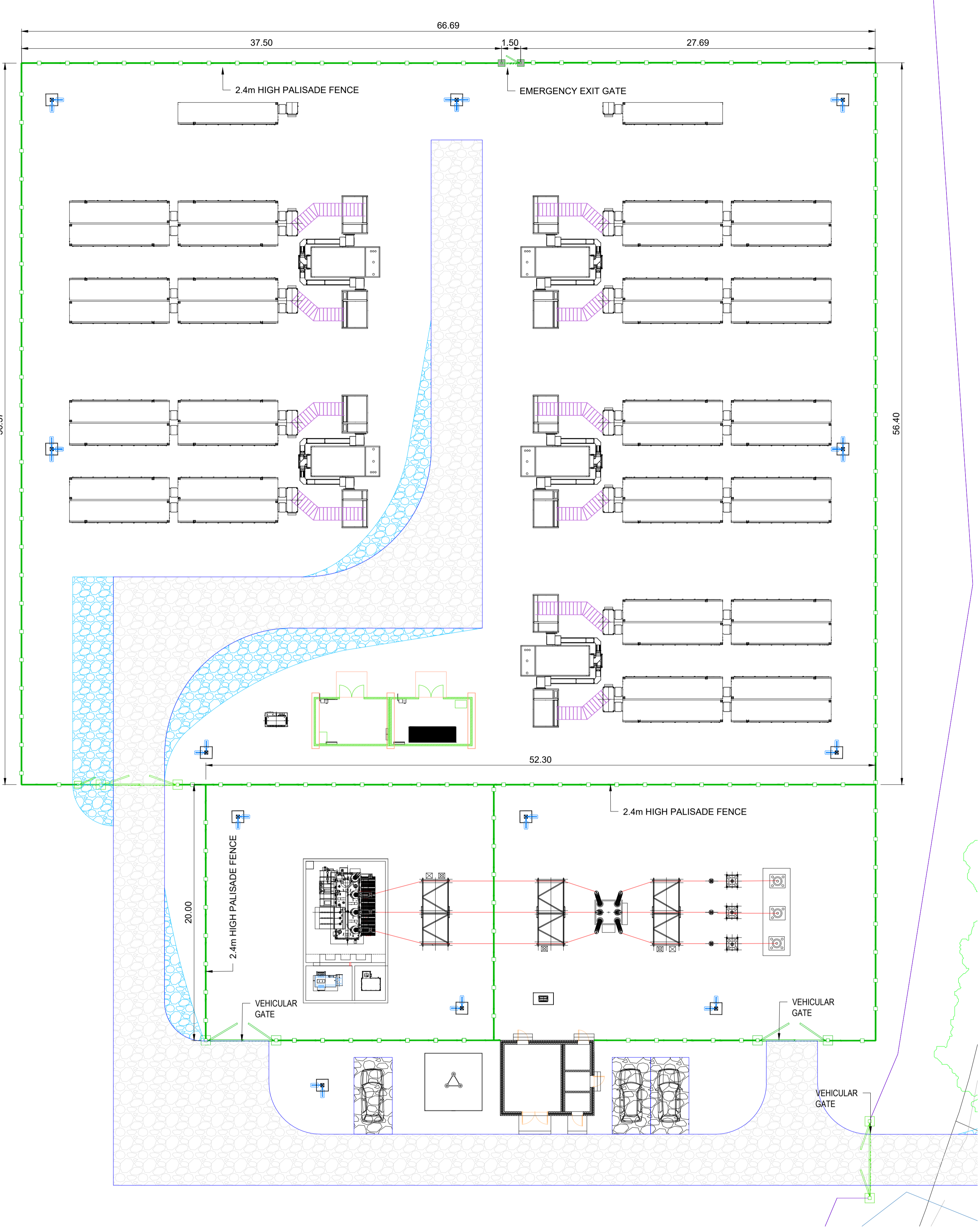
Drawn: SF Date: 02.10.2023 Checked: SF Date: 02.10.2023

Project Title:
Gowerton
Job Ref: SC PJ 55 02 Scale: As Shown @ A1

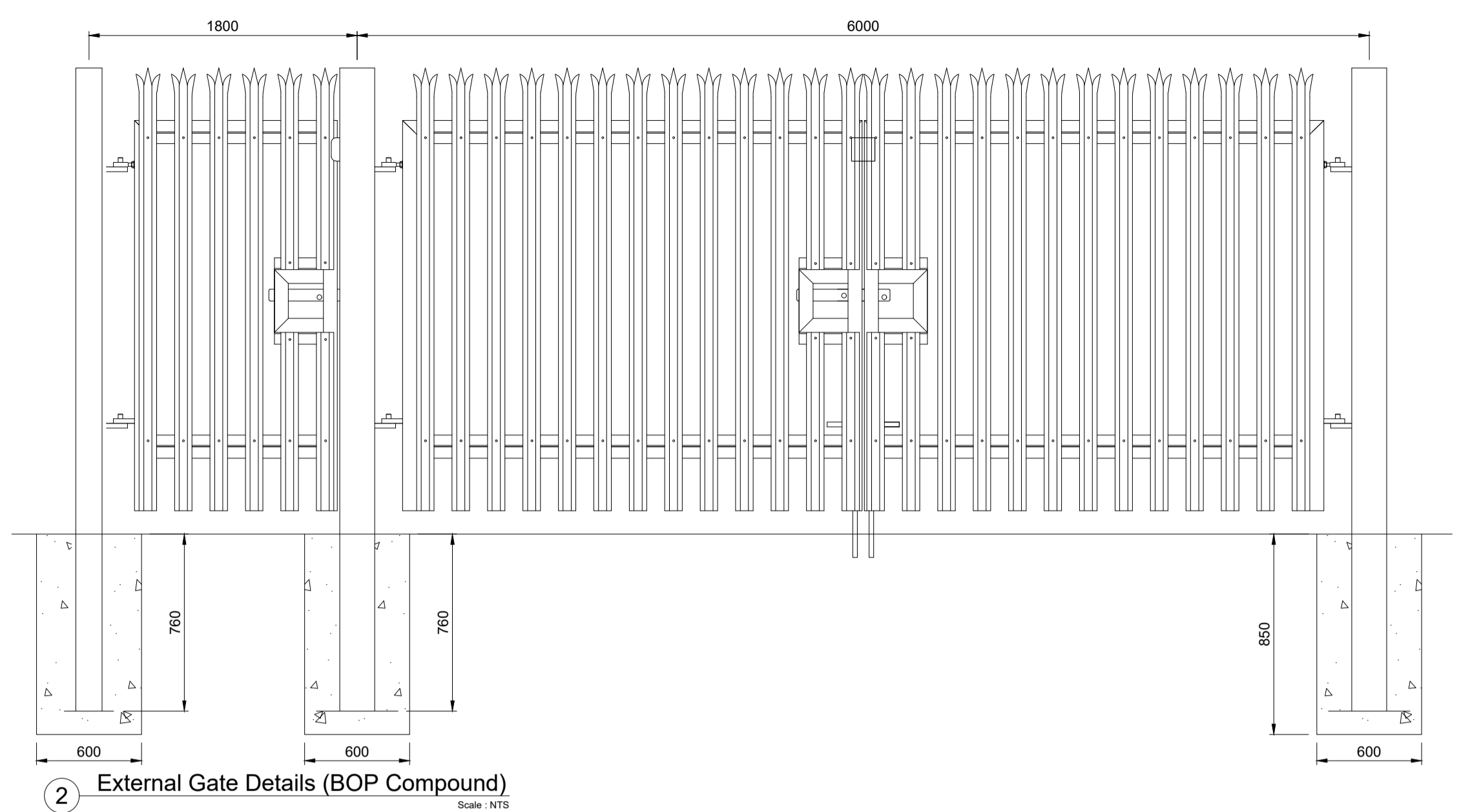
Drawing Number: SC PJ 55 02-150-19 Page Number: 1 of 1 Issue: 4.0

Reference	
Sheet Number	Sheet Name
SC PJ 55 02-150-18	Proposed Site Levels
SC PJ 55 02-150-19	Proposed Site Sections

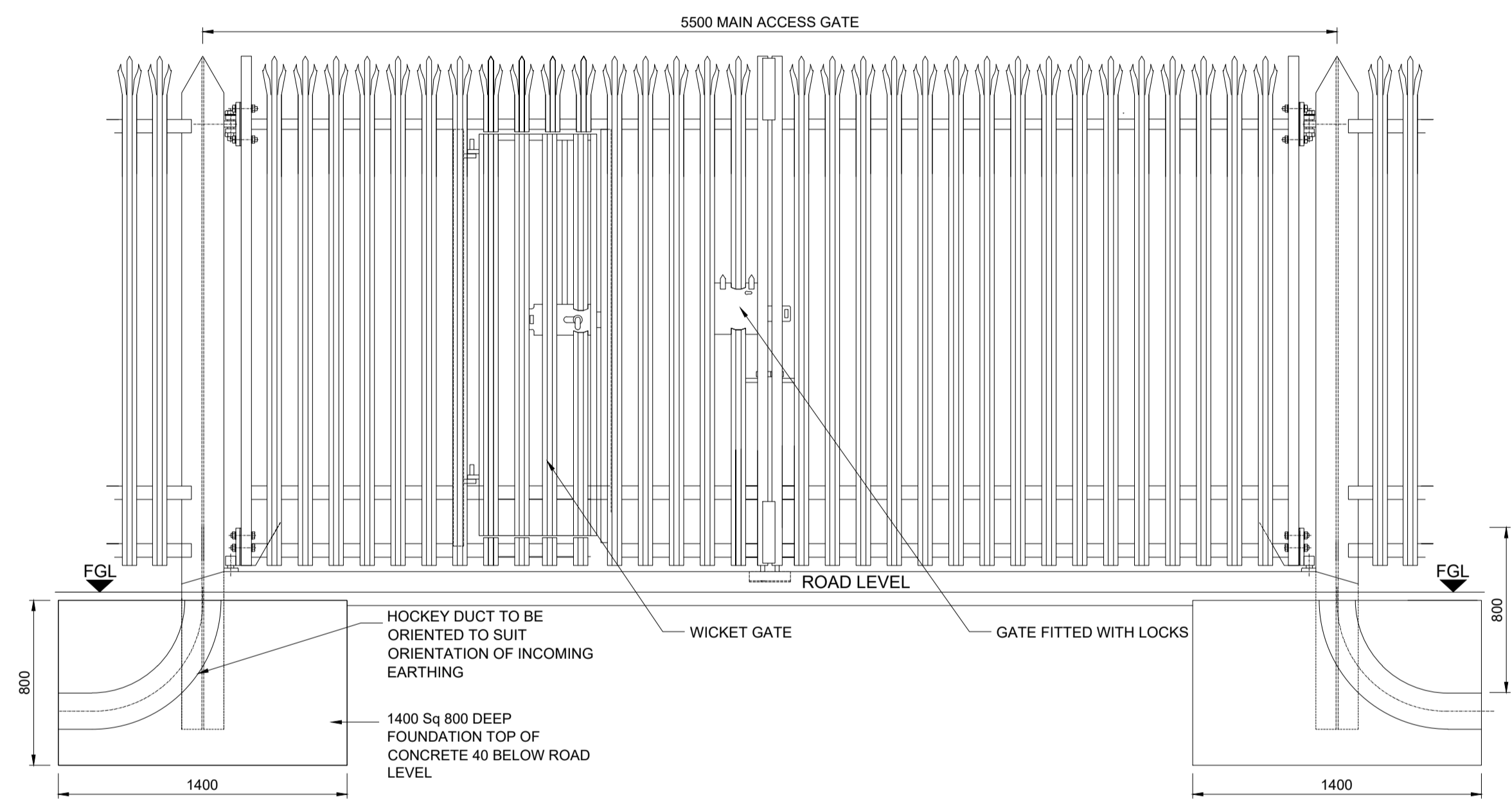




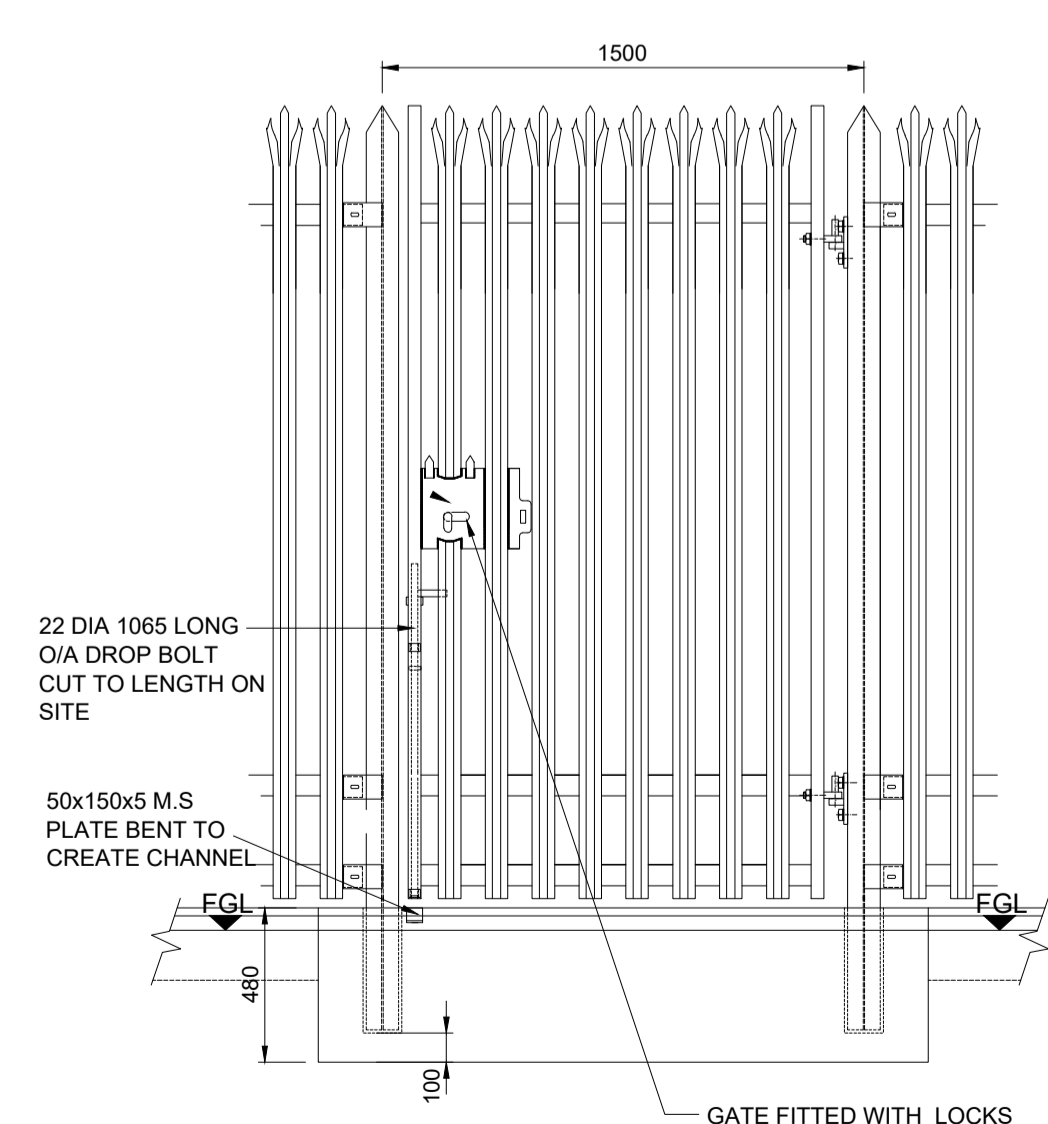
1 BOP & 132kV Compound Fencing Plan
Scale: 1:100 @A1 1:200@A3



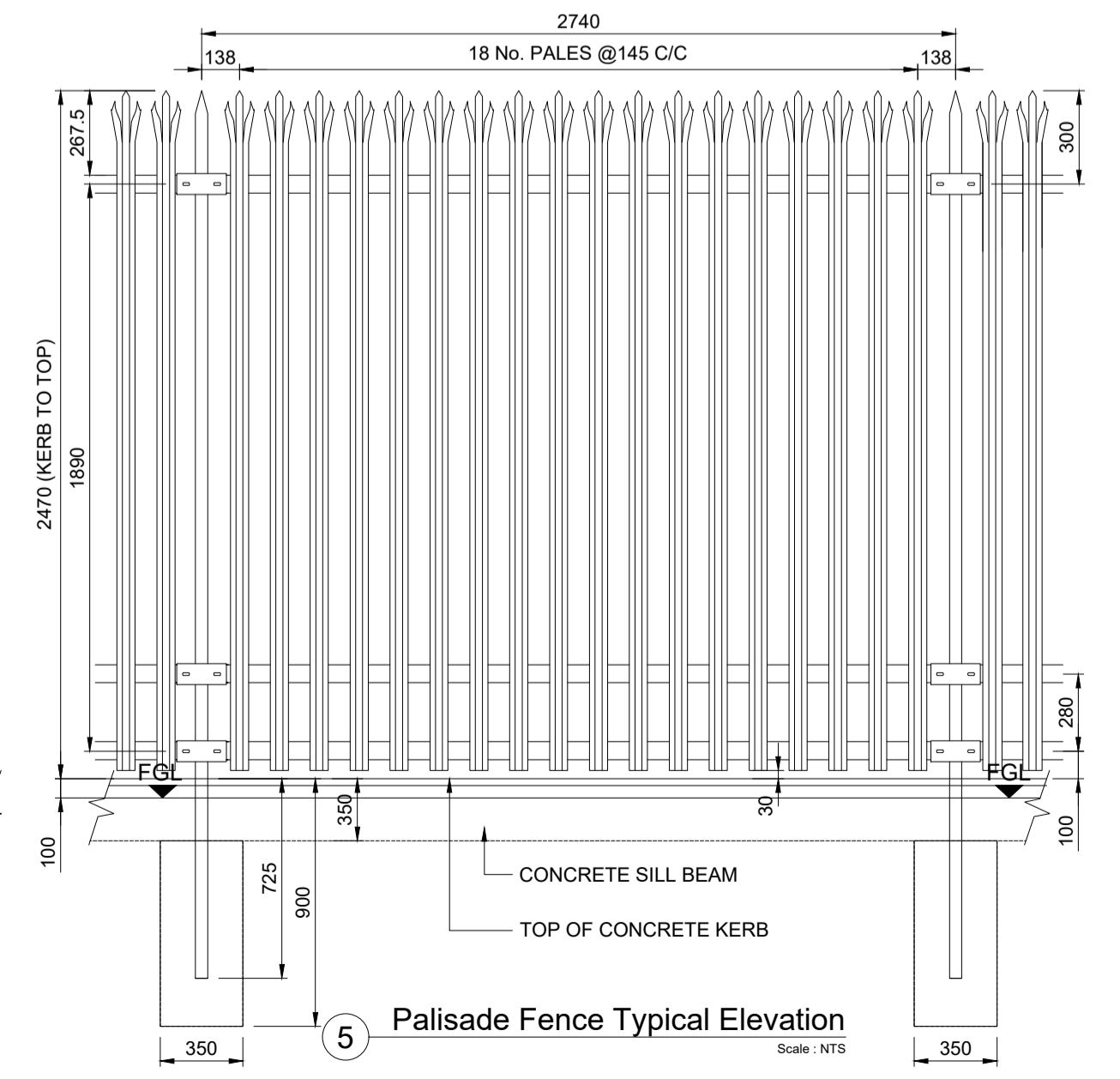
2 External Gate Details (BOP Compound)
Scale: NTS



3 External Gate Details (132kV Compound)
Scale: NTS



4 Pedestrian / Emergency Gate Details
Scale: NTS

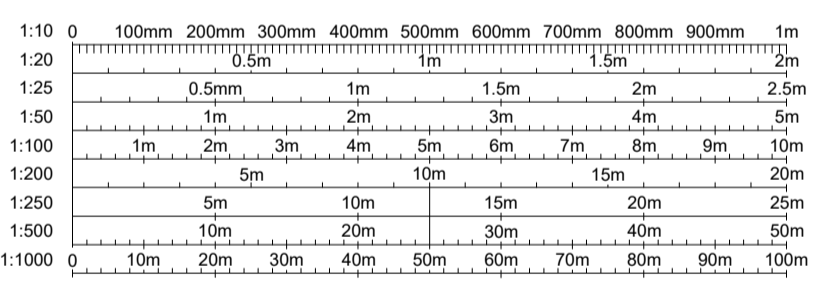


5 Palisade Fence Typical Elevation
Scale: NTS

Legend

- 2.4m High Palisade Fence
- CCTV/Lighting Column

Site Address : Gowerton Solar PV & BESS,
Swansea Road, Goreinon,
Swansea, South Wales
Site Postcode: SA4 4LE



Issue	Date	Purpose of Issue	Drawn	Checked
2.0	29.11.2023	SITE FENCE AND COMPOUND AMENDED	SF	SF
1.0	08.09.2023	ORIGINAL	SF	SF

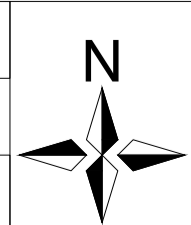


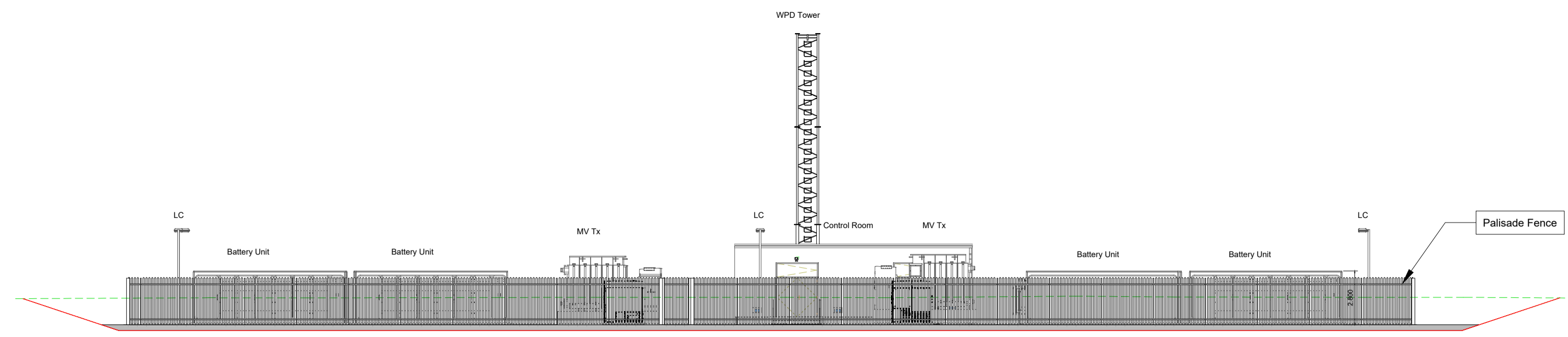
Suite 5, Exchange Station, Tithebarn St, Liverpool, L2 2QP

Client: Low Carbon Alliance

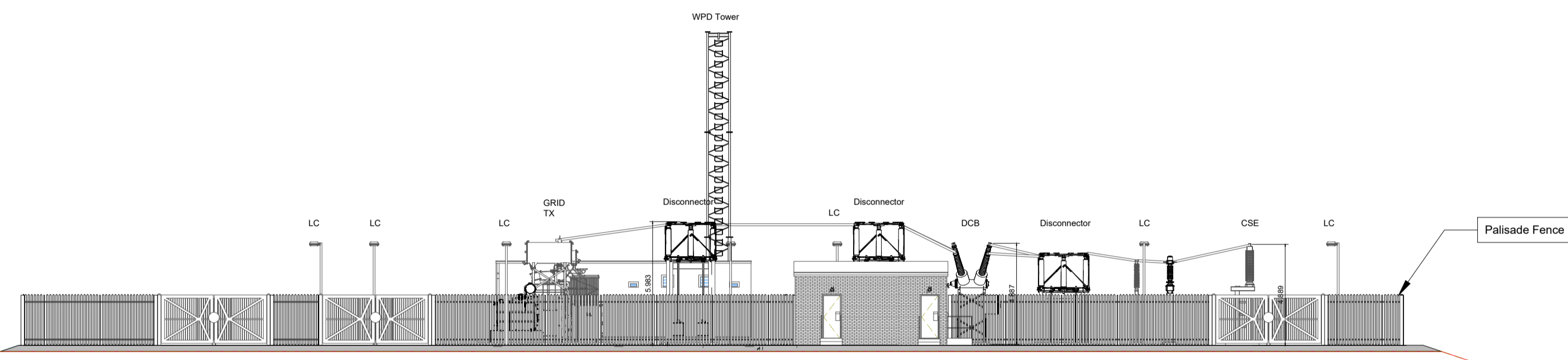
Drawing Title: BOP & 132kV Compound Fencing Details

Drawn: SF	Date: 08.09.2023	Checked: SF	Date: 08.09.2023
Project Title: Gowerton		Scale: As Shown @ A1	
Job Ref: SC PJ 55 02		Page Number: 1 of 1	

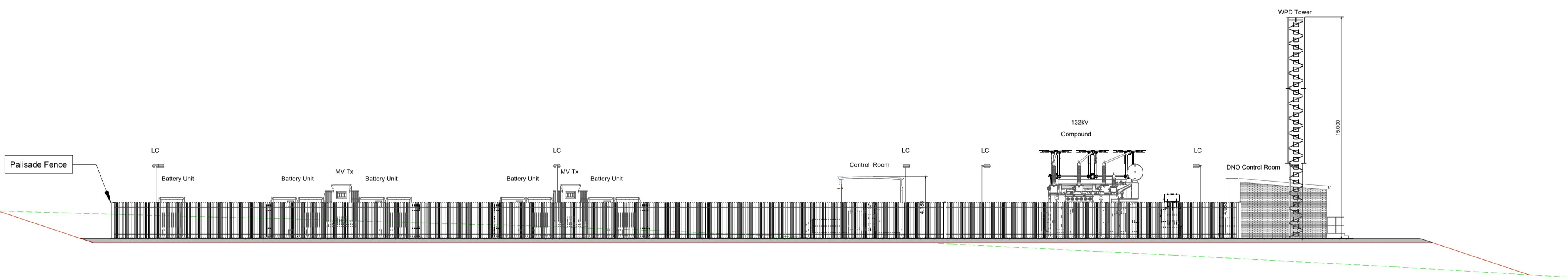




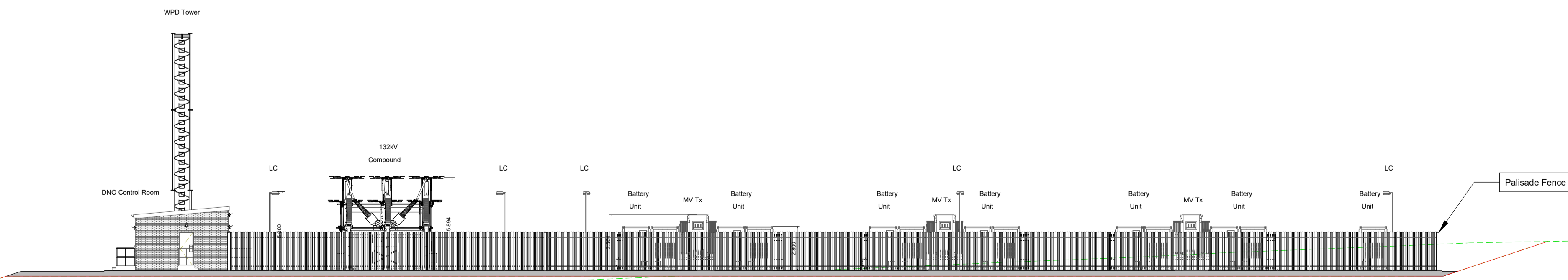
1 NORTH VIEW ELEVATION
Scale : 1:200 @ A1 1:400 @ A3



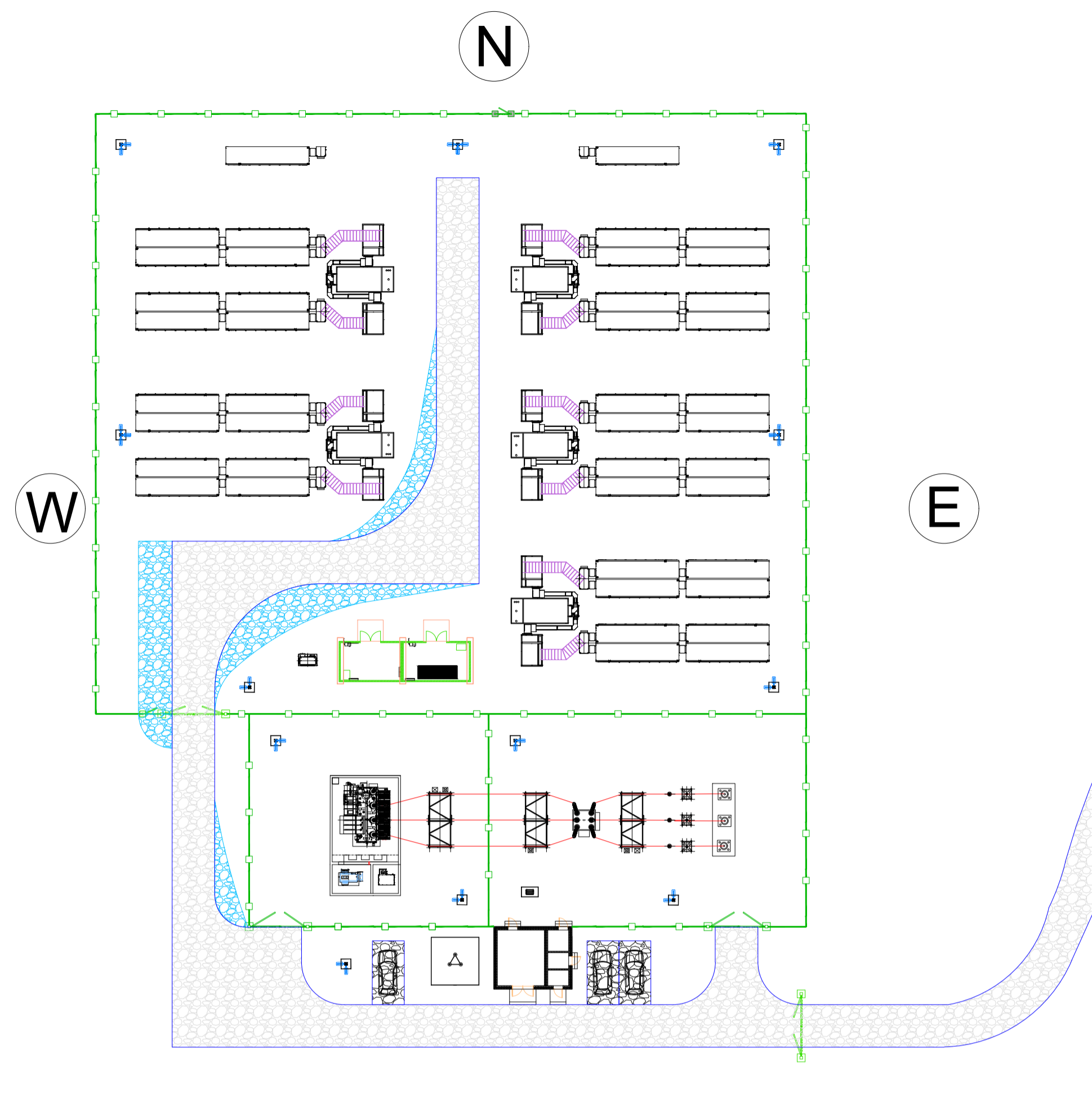
2 SOUTH VIEW ELEVATION
Scale : 1:200 @ A1 1:400 @ A3



3 WEST VIEW ELEVATION
Scale : 1:200 @ A1 1:400 @ A3



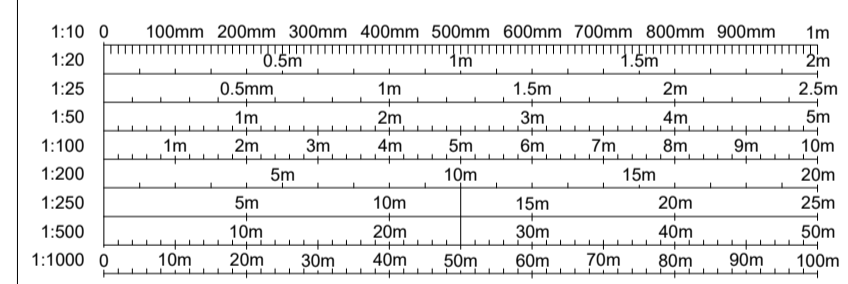
4 EAST VIEW ELEVATION
Scale : 1:200 @ A1 1:400 @ A3



5 SITE PLAN
Scale : 1:400 @ A1 1:800 @ A3

- LEGEND :**
- = PROPOSED FINISHED LEVEL
 - = EXISTING GROUND LEVEL
 - LC = LIGHTING COLUMN

Site Address : Gowerton Solar PV & BESS,
Swansea Road, Goreinon,
Swansea, South Wales
Site Postcode: SA4 4LE



Issue	Date	Purpose of Issue	Drawn	Checked
4.0	27.11.2023	Site Elevations and lighting column Amended	SF	SF
3.0	23.11.2023	Site Elevations and lighting column Amended	SR	SF
2.0	03.11.2023	Site Elevations Amended	SR	SF
1.0	09.10.2023	For Information	SR	SF

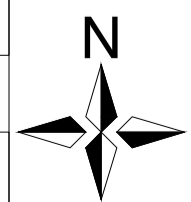


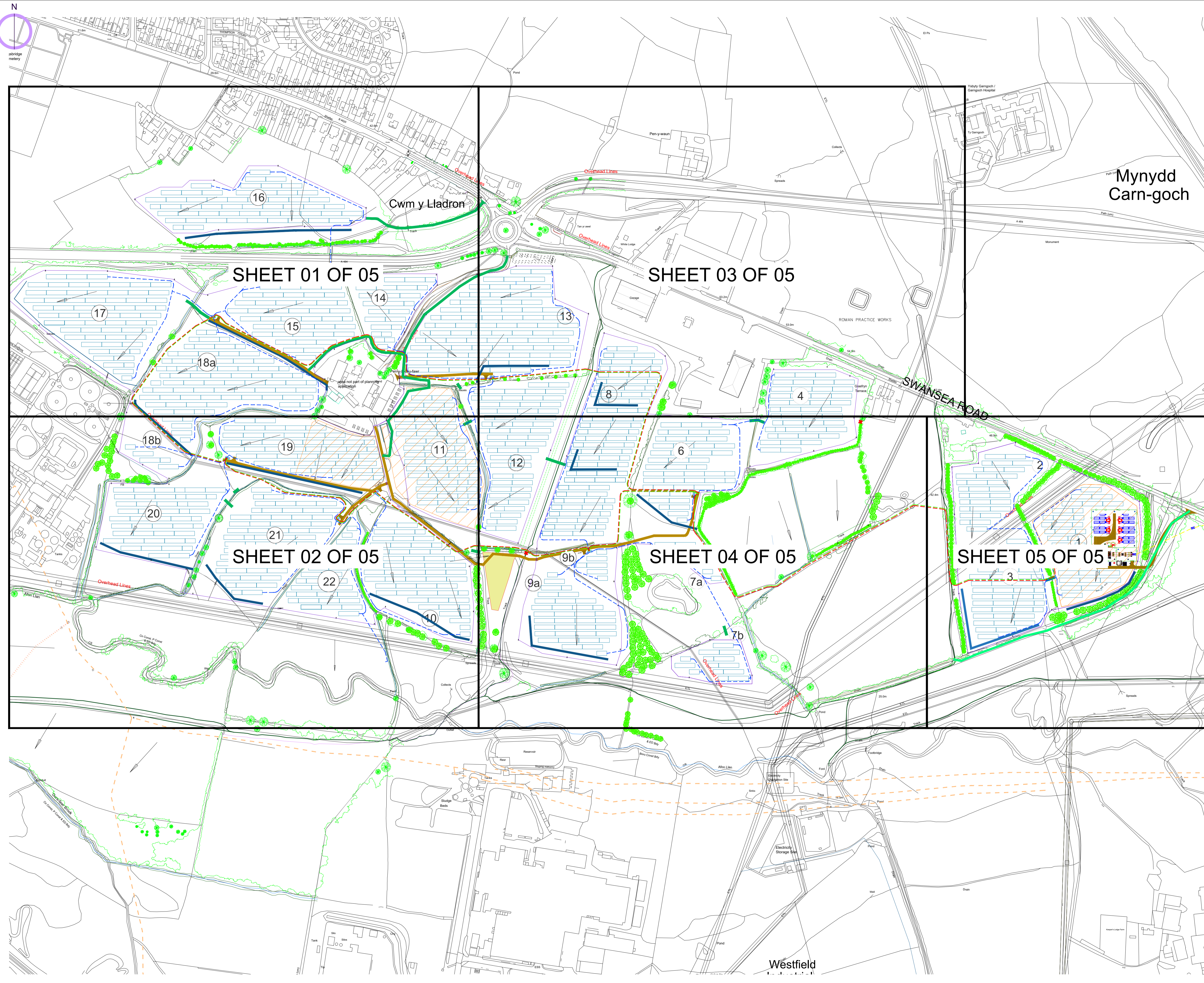
Suite 5, Exchange Station, Tithebarn St, Liverpool, L2 2QP

Client:
Low Carbon Alliance

Drawing Title:
Site Elevation

Drawn: SR	Date: 09.10.2023	Checked: SF	Date: 09.10.2023
Project Title: Gowerton		Scale: As Shown @ A1	
Job Ref: SC PJ 55 02		Page Number: 1 of 1	
Drawing Number: SC PJ 55 02-150-22		Issue 4.0	





- Key:**
- Existing Assets**
- Trunk Sewer
 - Gravity Sewer / Rising Main
 - Public Right of Way
 - Gas Line
 - Hedges & Trees
- Proposed Assets:**
- Planning Application Boundary
 - Swale
 - Fence
 - Cable Route with Jointing
 - Pits
 - Gates
 - Solar Array
 - Transformer
 - Site Road Permanent
 - CCTV
 - Directional Drilling
 - Temporary Construction
 - Track
 - Construction Compound
 - No Crossing
 - BESS Transformer
 - BESS Battery unit
 - Field Number
 - LV Cable
 - MV Cable
 - Fibre Cable

B	12.12.2023	Amended as per Comments	SR	SF
A	10.12.2023	LV Cable Route Added	SR	SF
O	15.11.2023	For Information	SF	SF
Issue	Date	Purpose of Issue	Drawn	Checked

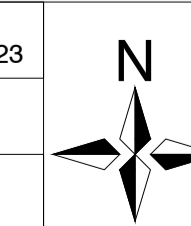


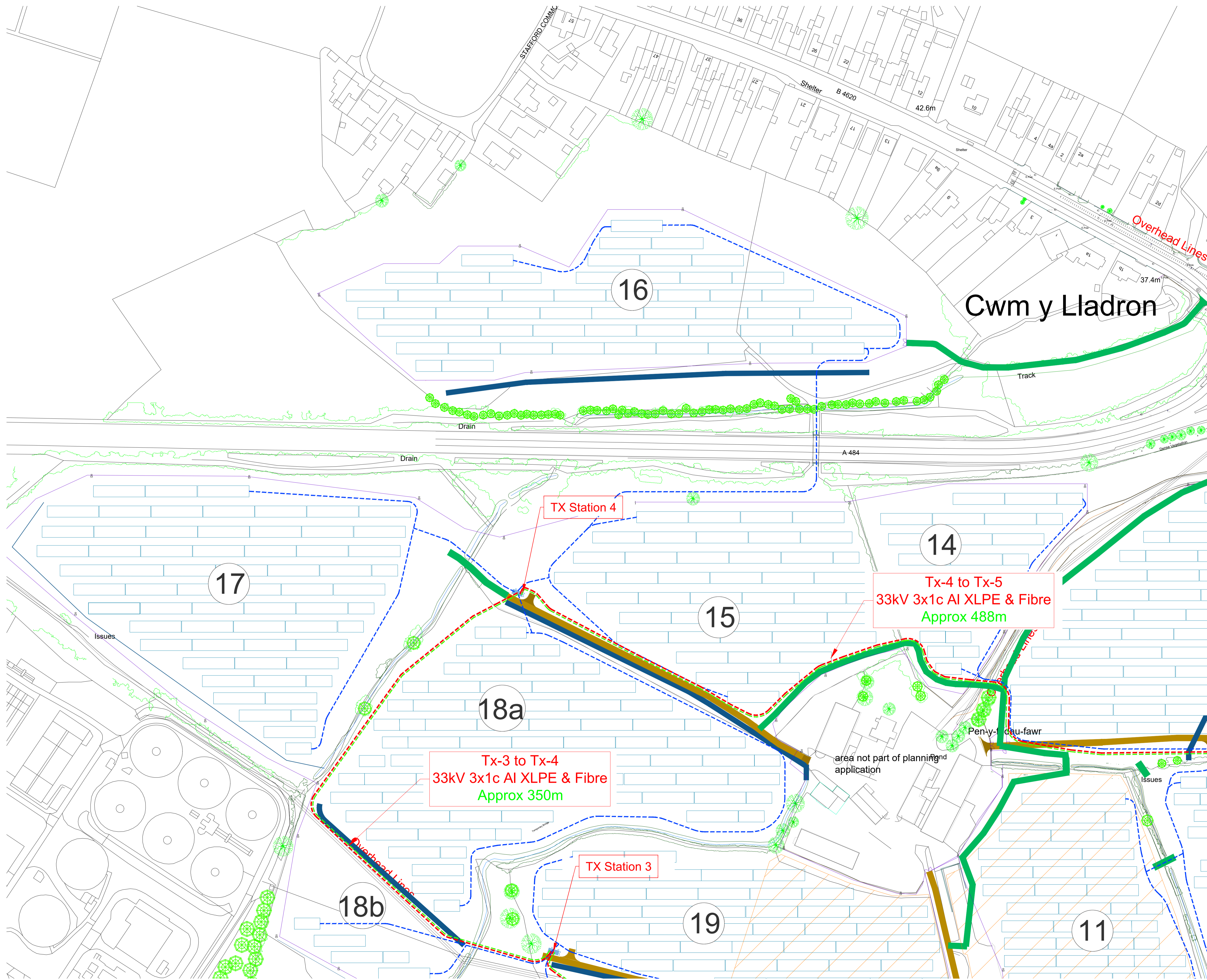
Suite 5, Exchange Station, Tithebarn St, Liverpool, L2 2QP

Client:
Low Carbon Alliance

Drawing Title:
Overall Cable Route Plan

Drawn: SF	Date: 15.11.2023	Checked: SF	Date: 15.11.2023
Project Title: Gowerton		Scale: 1:1000 @ A1	
Job Ref: SC PJ 55 02		Page Number: Issue B	
Drawing Number: SC PJ 55 02-150-23		Page Number: Issue B	





Key:

Existing Assets

- Trunk Sewer
- Gravity Sewer / Rising Main
- Public Right of Way
- Gas Line
- Hedges & Trees

Proposed Assets:

- Planning Application Boundary
- Swale
- Fence
- Cable Route with Jointing
- Pits
- Gates
- Solar Array
- Transformer
- Site Road Permanent
- CCTV
- Directional Drilling
- Temporary Construction Track
- Construction Compound
- No Crossing
- BESS Transformer
- BESS Battery unit
- Field Number
- LV Cable
- MV Cable
- Fibre Cable

B	12.12.2023	Amended as per Comments	SR	SF
A	10.12.2023	LV Cable Route Added	SR	SF
O	15.11.2023	For Information	SF	SF
Issue	Date	Purpose of Issue	Drawn	Checked



Suite 5, Exchange Station, Tithebarn St, Liverpool, L2 2QP

Client:
Low Carbon Alliance

Drawing Title:
Cable Route Plan - 01 of 05

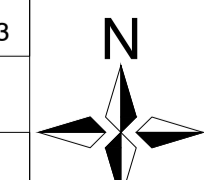
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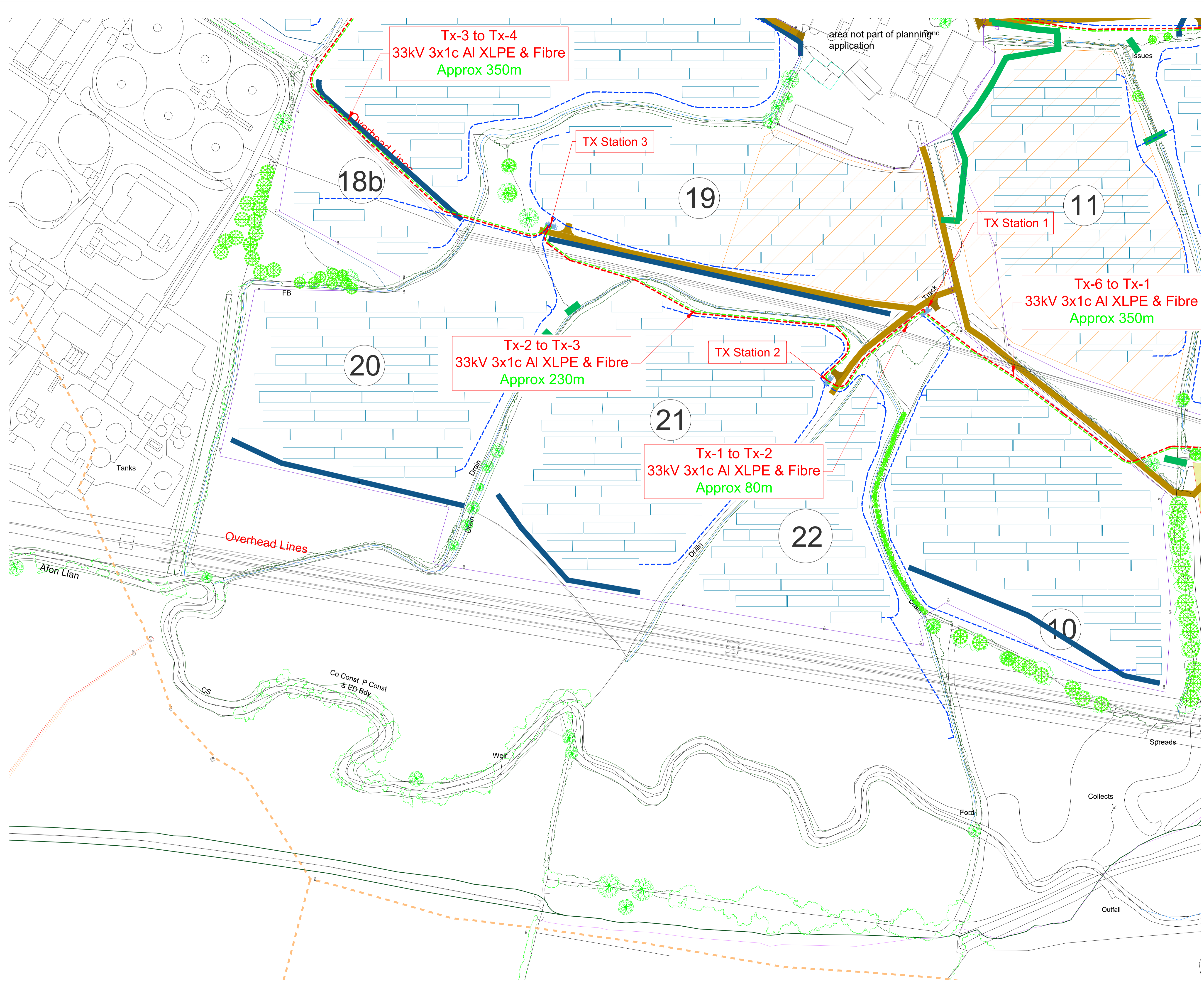
Project Title:
Gowerton

Job Ref:	Scale:
SC PJ 55 02	1:1000 @ A1

Drawing Number:
SC PJ 55 02-150-24

Page Number:
Issue B





- Key:**
- Existing Assets**
- Trunk Sewer
 - Gravity Sewer / Rising Main
 - Public Right of Way
 - Gas Line
 - Hedges & Trees
- Proposed Assets:**
- Planning Application Boundary
 - Swale
 - Fence
 - Cable Route with Jointing Pits
 - Gates
 - Solar Array
 - Transformer
 - Site Road Permanent
 - CCTV
 - Directional Drilling
 - Temporary Construction Track
 - Construction Compound
 - No Crossing
 - BESS Transformer
 - BESS Battery unit
 - Field Number
 - LV Cable
 - MV Cable
 - Fibre Cable

B	12.12.2023	Amended as per Comments	SR	SF
A	10.12.2023	LV Cable Route Added	SR	SF
O	15.11.2023	For Information	SF	SF
Issue	Date	Purpose of Issue	Drawn	Checked

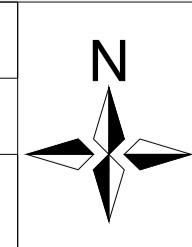


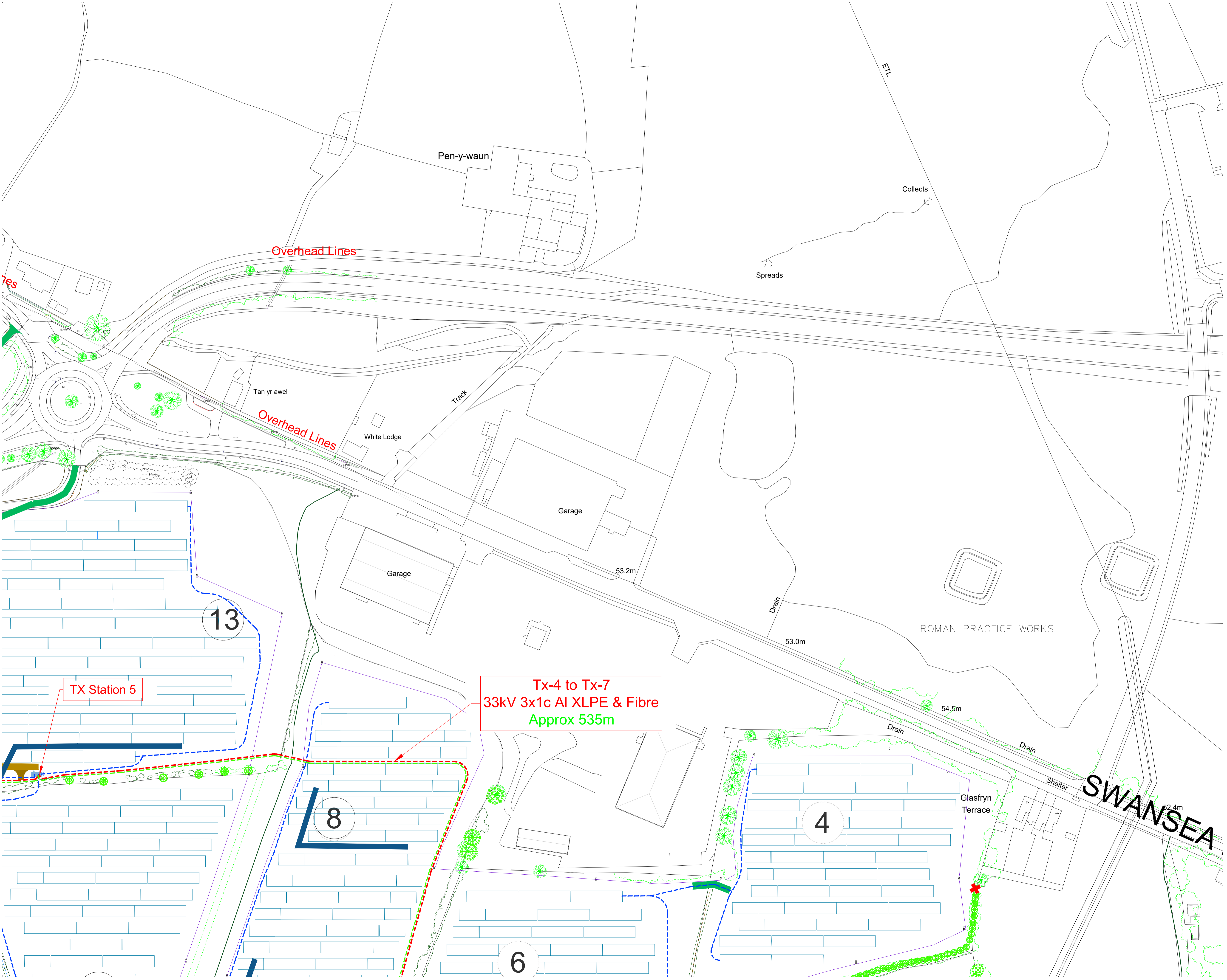
Suite 5, Exchange Station, Tithebarn St, Liverpool, L2 2QP

Low Carbon Alliance

Client Title:
Cable Route Plan - 02 of 05

Drawn: SF	Date: 15.11.2023	Checked: SF	Date: 15.11.2023
Project Title: Gowerton		Scale: 1:1000 @ A1	
Job Ref: SC PJ 55 02		Page Number: Issue B	





- Key:**
- Existing Assets**
- Trunk Sewer
 - Gravity Sewer / Rising Main
 - Public Right of Way
 - Gas Line
 - Hedges & Trees
- Proposed Assets:**
- Planning Application Boundary
 - Swale
 - Fence
 - Cable Route with Jointing
 - Pits
 - Gates
 - Solar Array
 - Transformer
 - Site Road Permanent
 - CCTV
 - Directional Drilling
 - Temporary Construction
 - Track
 - Construction Compound
 - No Crossing
 - BESS Transformer
 - BESS Battery unit
 - Field Number
 - LV Cable
 - MV Cable
 - Fibre Cable

Issue	Date	Purpose of Issue	Drawn	Checked
B	12.12.2023	Amended as per Comments	SR	SF
A	10.12.2023	LV Cable Route Added	SR	SF
O	15.11.2023	For Information	SF	SF



Suite 5, Exchange Station, Tithebarn St, Liverpool, L2 2QP

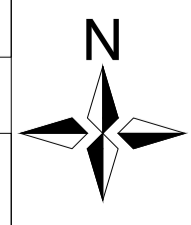
Client:
Low Carbon Alliance

Drawing Title:
Cable Route Plan - 03 of 05

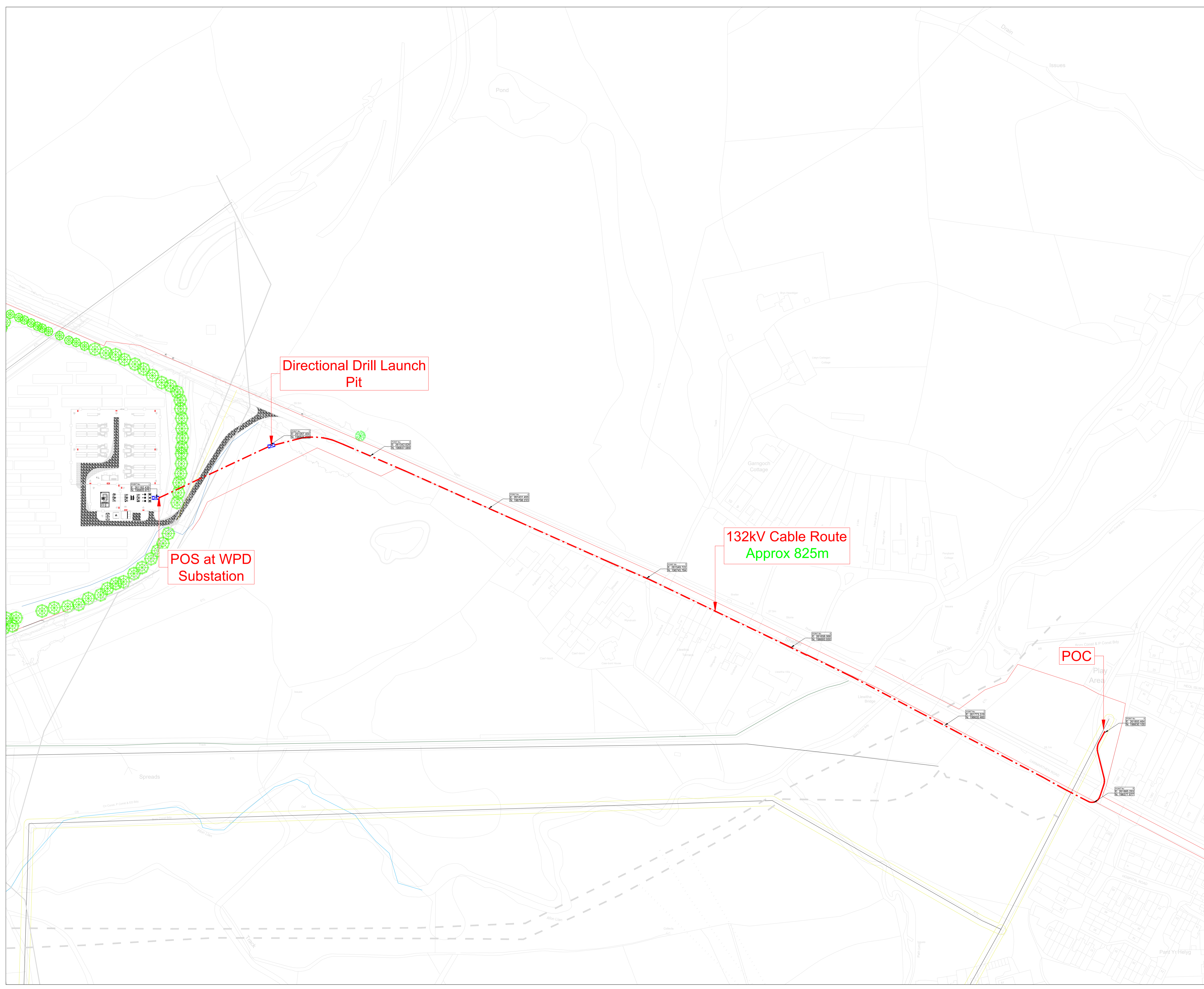
Drawn: SF Date: 15.11.2023 Checked: SF Date: 15.11.2023

Project Title:
Gowerton

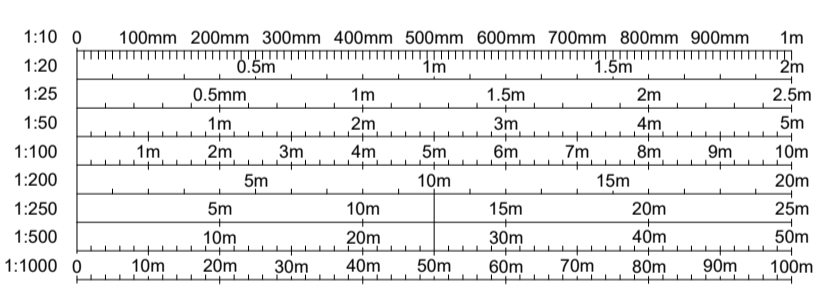
Job Ref: SC PJ 55 02 Scale: 1:1000 @ A1



Drawing Number: SC PJ 55 02-150-26 Page Number: Issue B



Site Address : Gowerton Solar PV & BESS,
Swansea Road, Goreinon,
Swansea, South Wales
Site Postcode: SA4 4LE



Issue	Date	Purpose of Issue	Drawn	Checked
1.0	20.11.2023	For Information	SF	SF

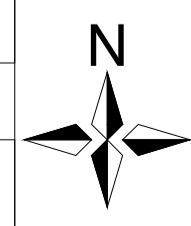


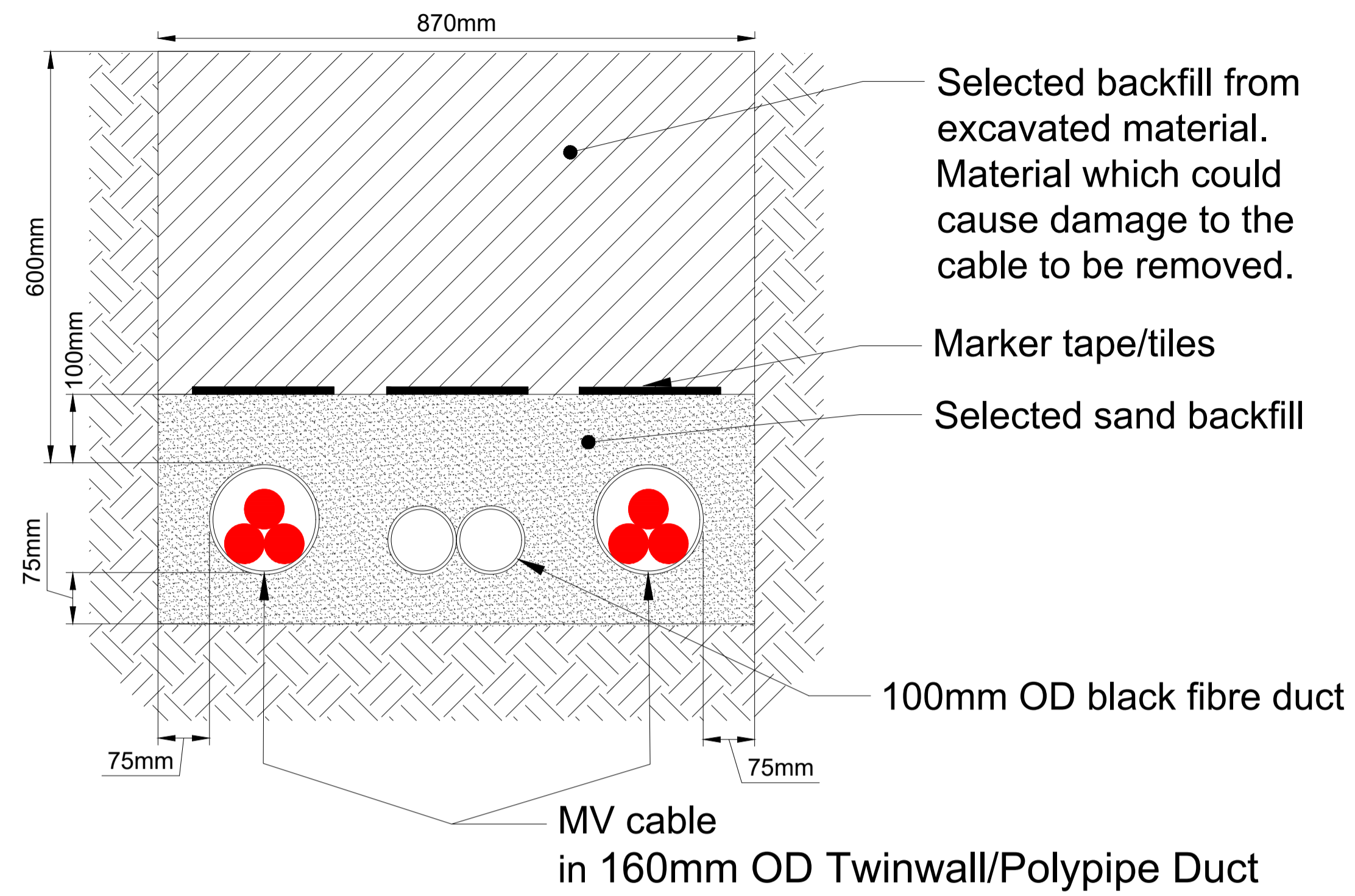
Suite 5, Exchange Station, Tithebarn St, Liverpool, L2 2QP

Client:
Low Carbon Alliance

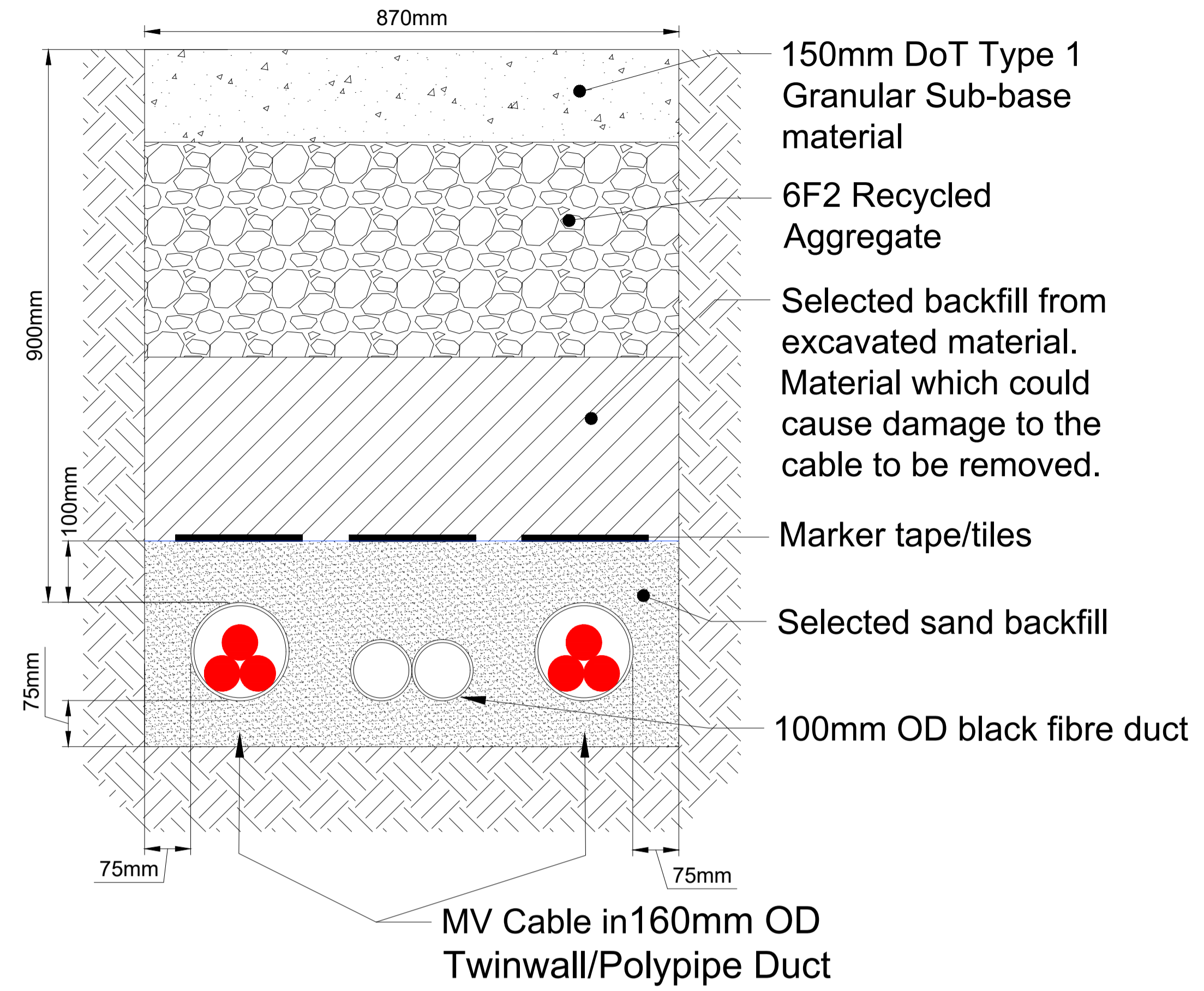
Drawing Title:
132kV Cable Route - Option 2

Drawn: SR	Date: 11.08.2023	Checked: SF	Date: 11.08.2023
Project Title: Gowerton		Scale: As Shown @ A1	
Job Ref: SC PJ 55 02			

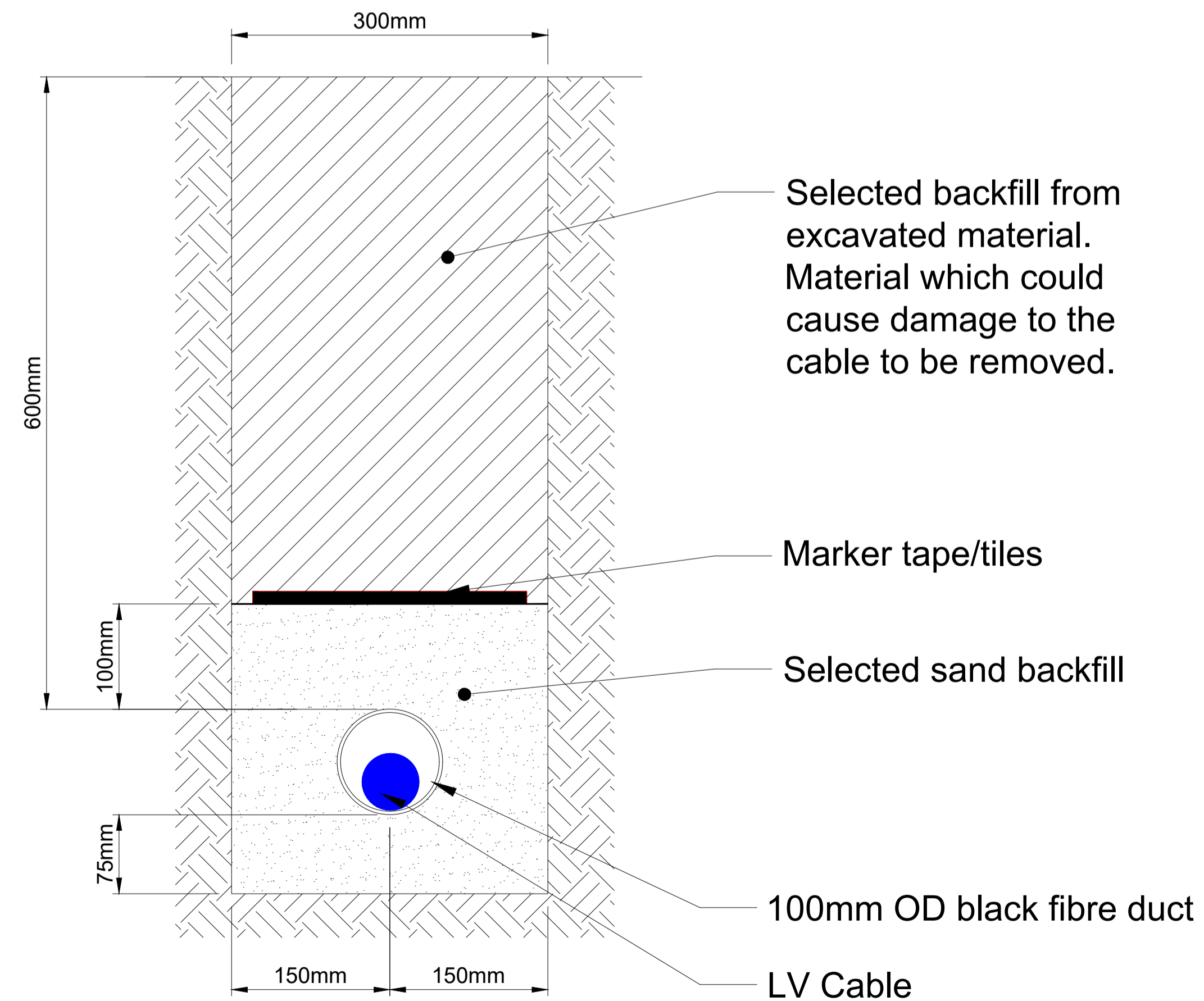




A TRENCH SECTION - UNMADE OR CULTIVATED GROUND
Scale: NTS



B TRENCH SECTION - ACCESS ROAD
Scale: NTS



C TRENCH SECTION - LV CABLE
Scale: NTS

Issue	Date	Purpose of Issue	Drawn	Checked
A	10.12.2023	LV Cable Trench Section Added	SF	SF
O	28.11.2023	For Information	SF	SF



Suite 5, Exchange Station, Tithebarn St, Liverpool, L2 2QP

Client:
Low Carbon Alliance

Drawing Title:
Proposed Trench Sections

Drawn: SF	Date: 28.11.2023	Checked: SF	Date: 28.11.2023
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Project Title:
Gowerton

Job Ref:
SC PJ 55 02

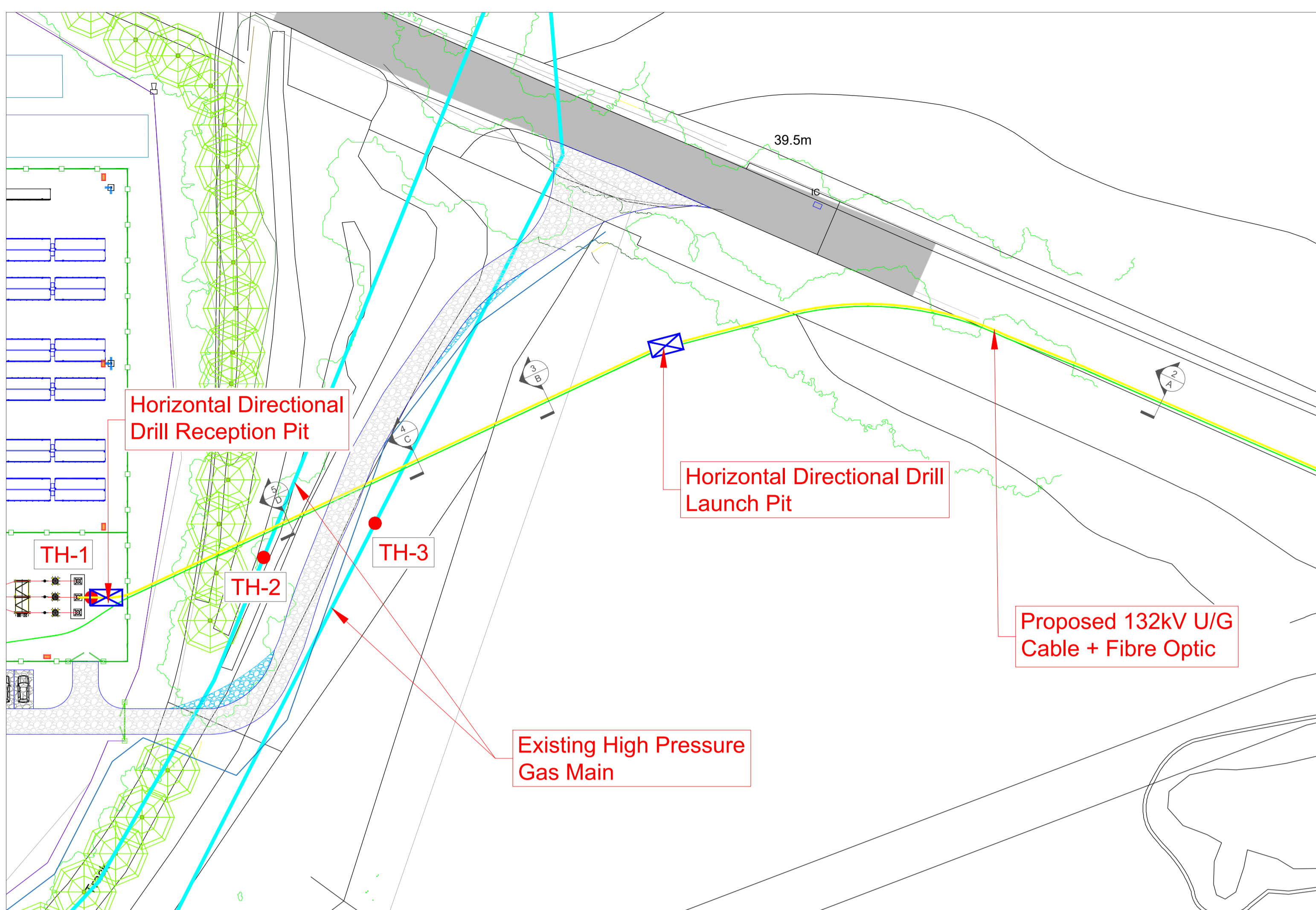
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Drawing Number:
SC PJ 55 02-150-28

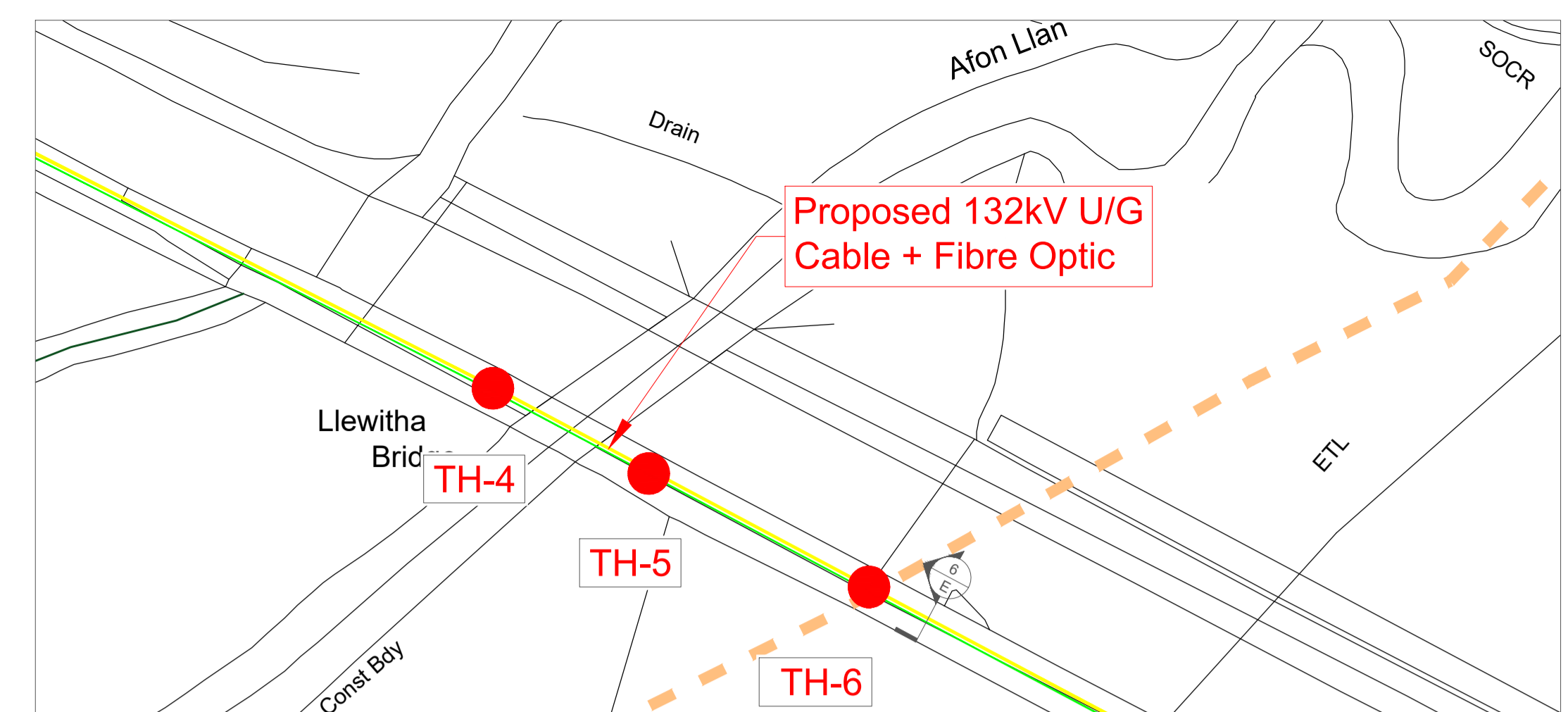
Page Number:
A

Issue
A

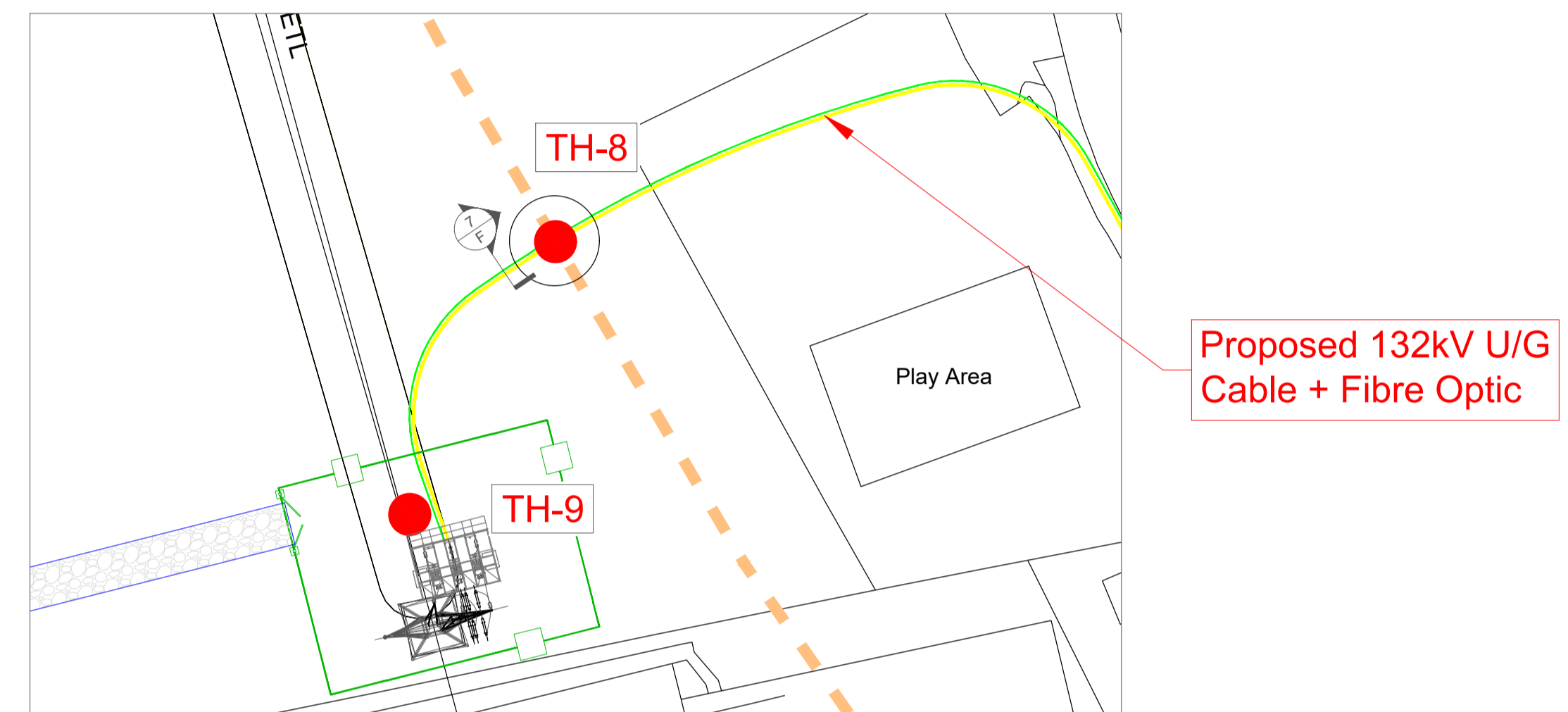




1 132kV CABLE ROUTE AT HDD LOCATION
Scale: 1:500 @ A1 1:1000 @ A3

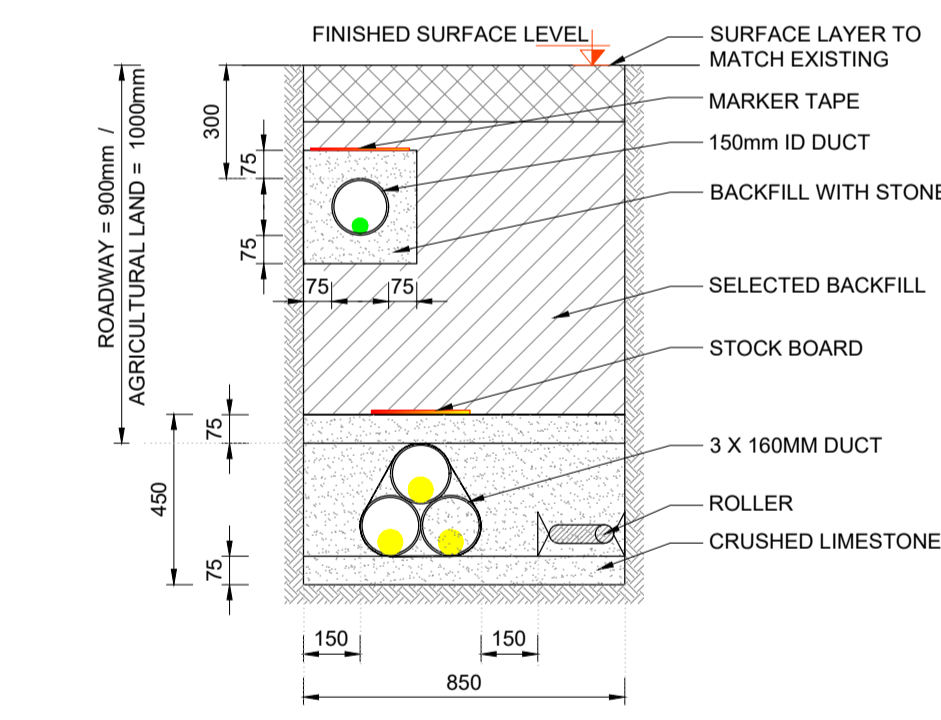


8 132kV CABLE ROUTE
Scale: 1:500 @ A1 1:1000 @ A3

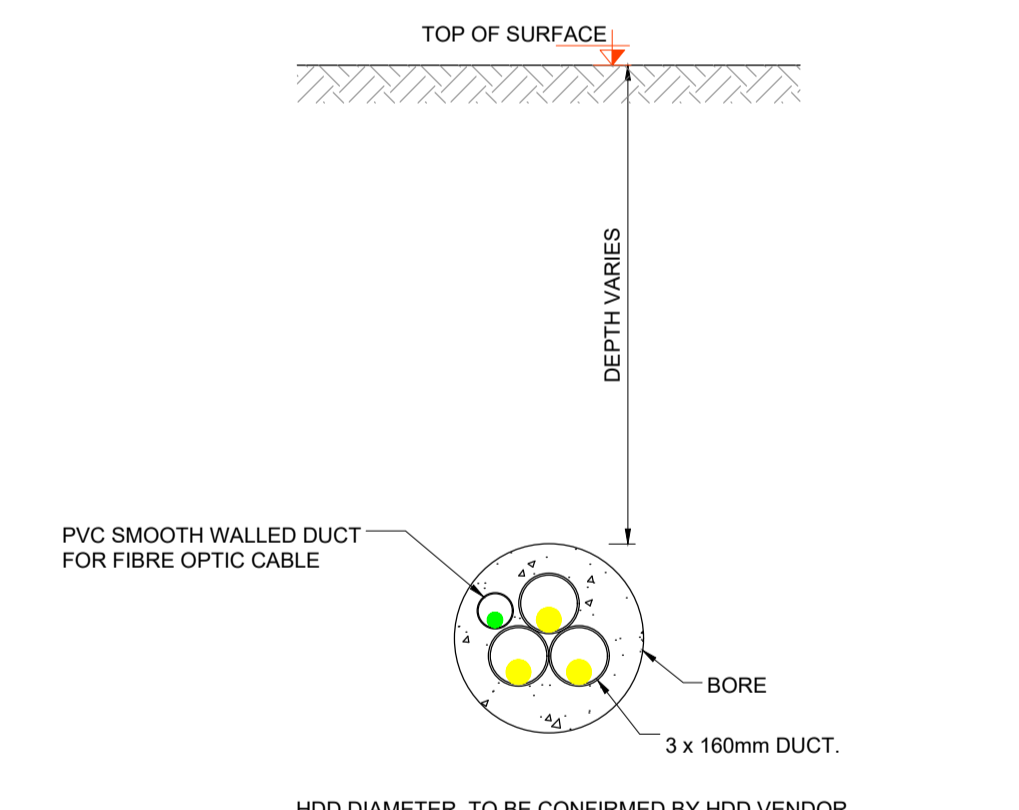


9 132kV CABLE ROUTE
Scale: 1:500 @ A1 1:1000 @ A3

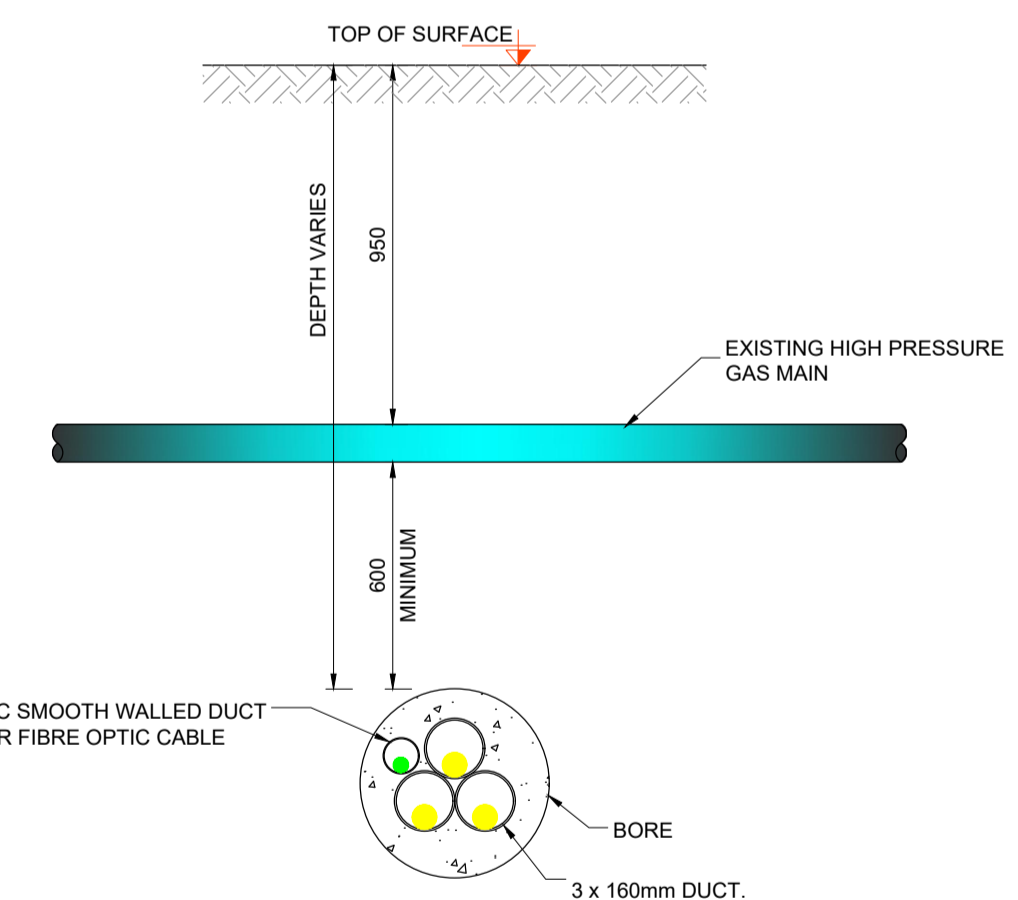
- Key:
- Existing Assets
 - Water Main
 - HP Gas Main
 - Hedges & Trees
 - Proposed Assets:
 - Proposed 132kV Cable
 - Fibre Optic Cable
 - Proposed Trial hole
 - TH-3 Trial Hole 3



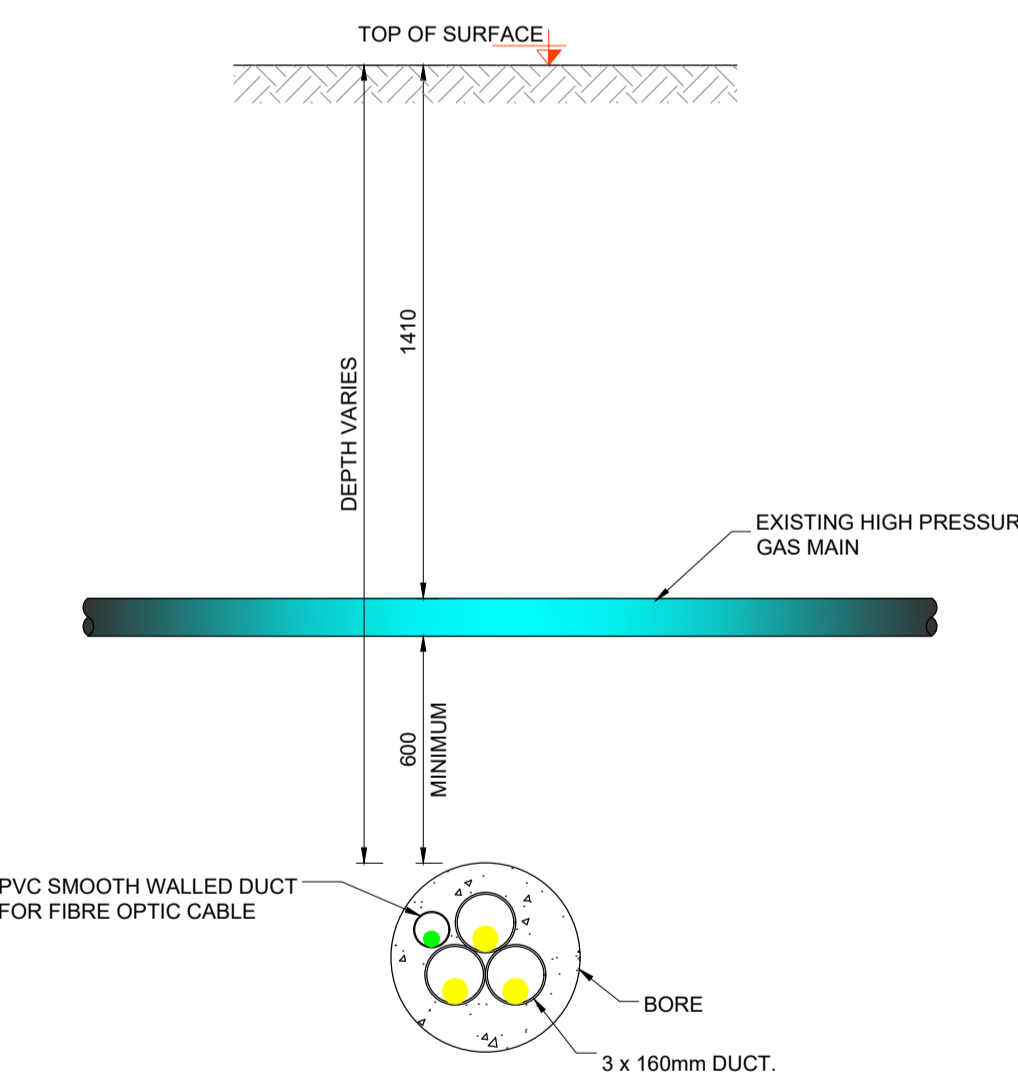
2 132kV CABLE TRENCH SECTION A-A
Scale: 1:20 @ A1 1:40 @ A3



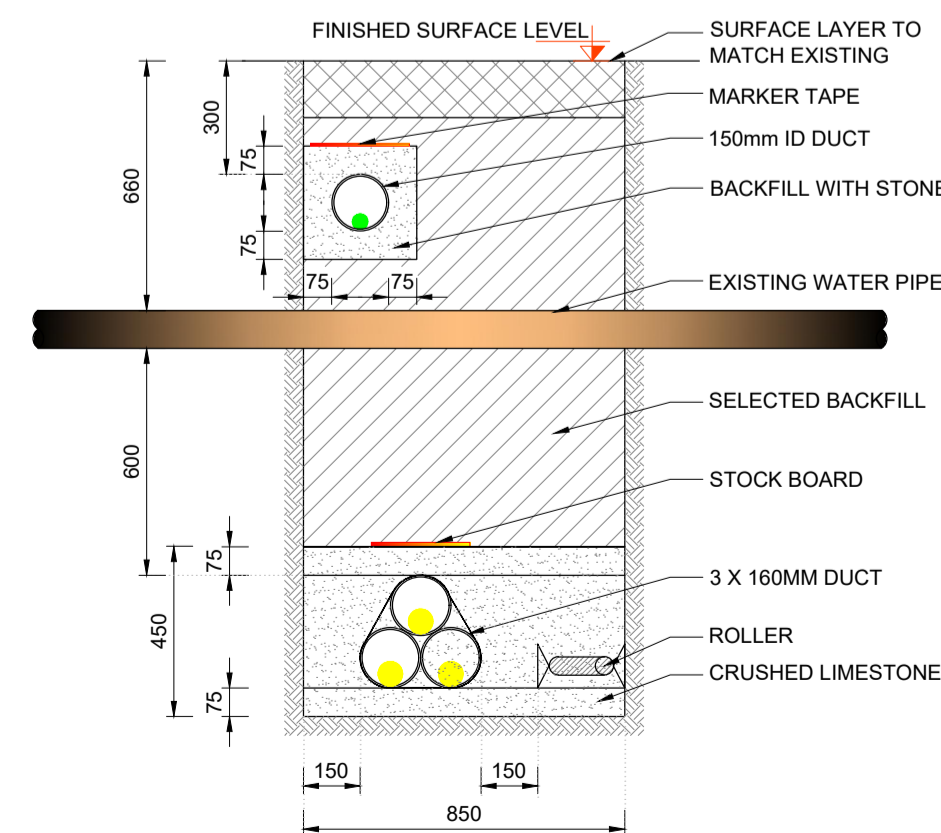
3 SECTION B-B PROPOSED HDD LOCATION
Scale: NTS



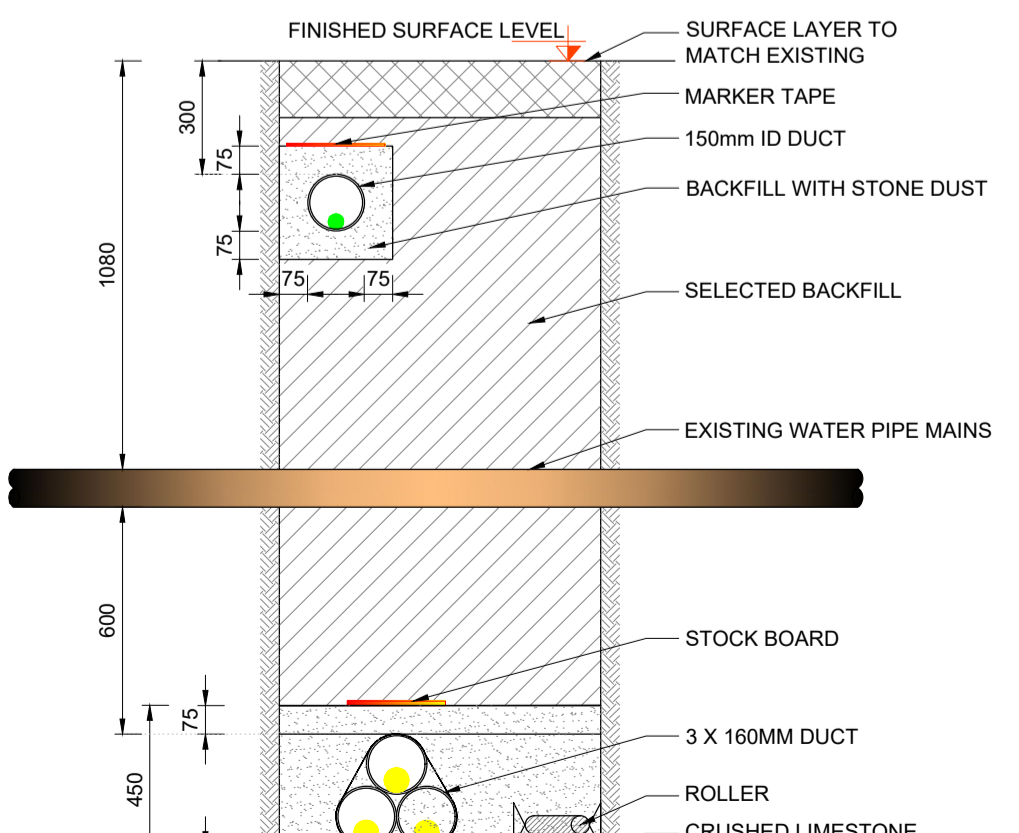
4 SECTION C-C
Scale: NTS



5 SECTION D-D
Scale: NTS

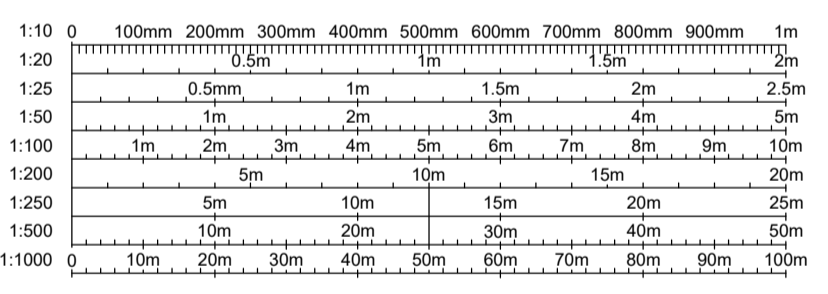


6 TRENCH SECTION E-E
Scale: 1:20 @ A1 1:40 @ A3



7 TRENCH SECTION F-F
Scale: 1:20 @ A1 1:40 @ A3

Site Address : Gowerton Solar PV & BESS,
Swansea Road, Goreinon,
Swansea, South Wales
Site Postcode: SA4 4LE



Issue	Date	Purpose of Issue	Drawn	Checked
3.0	10.12.2023	Trench Sections Amended	SR	SF
2.0	11.12.2023	Amended as per Comments	SR	SF
1.0	06.12.2023	For Information	SR	SF

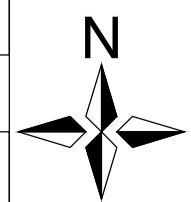


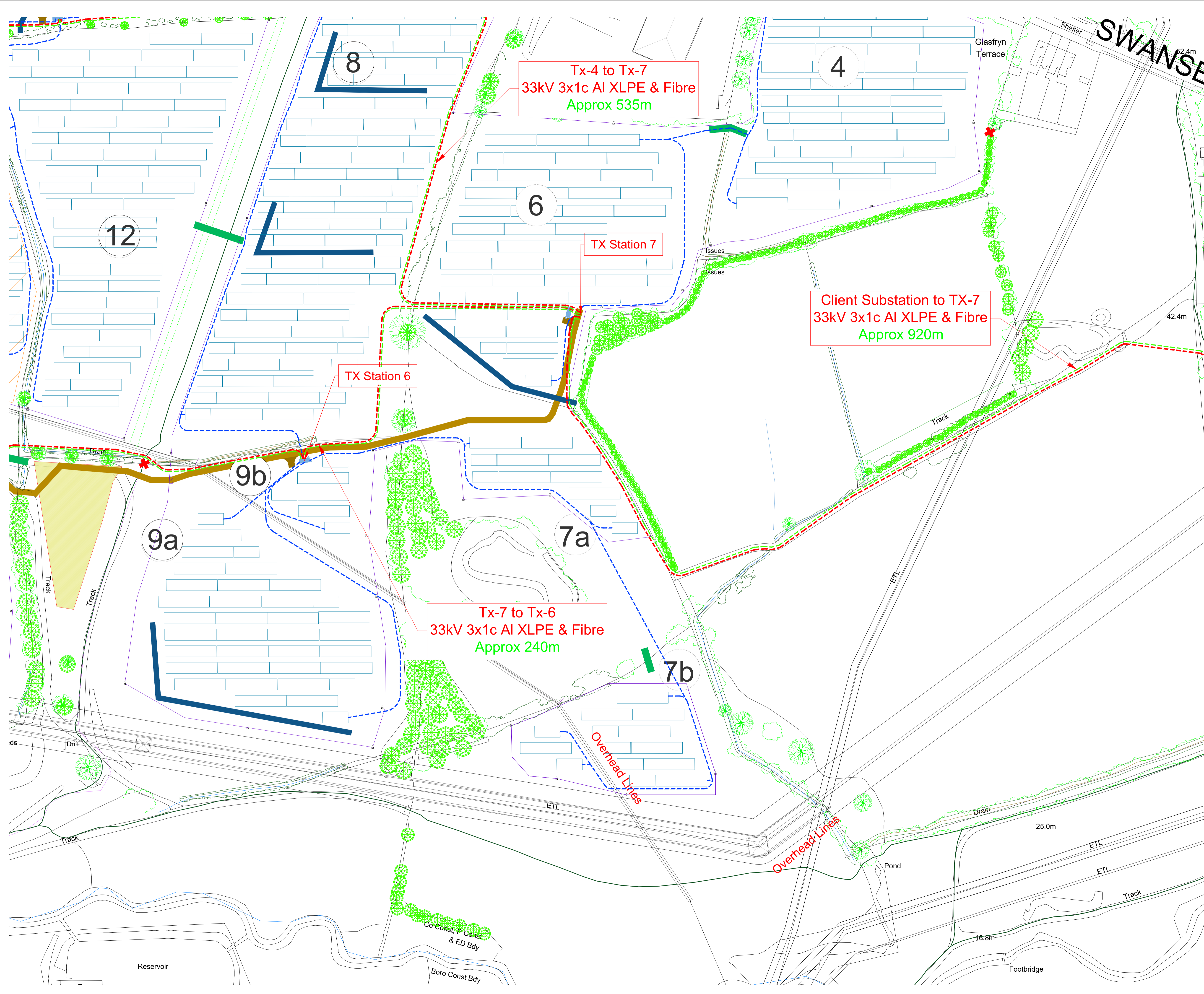
Suite 5, Exchange Station, Tithebarn St, Liverpool, L2 2QP

Client:
Low Carbon Alliance

Drawing Title:
132kV Cable Route Trench Sections

Drawn: SR	Date: 06.12.2023	Checked: SF	Date: 06.12.2023
Project Title: Gowerton		Scale: As Shown @ A1	
Job Ref: SC PJ 55 02		Page Number: 1 of 1	
Drawing Number: SC PJ 55 02-150-31		Issue 3.0	





- Key:**
- Existing Assets**
- Trunk Sewer
 - Gravity Sewer / Rising Main
 - Public Right of Way
 - Gas Line
 - Hedges & Trees
- Proposed Assets:**
- Planning Application Boundary
 - Swale
 - Fence
 - Cable Route with Jointing
 - Pits
 - Gates
 - Solar Array
 - Transformer
 - Site Road Permanent
 - CCTV
 - Directional Drilling
 - Temporary Construction
 - Track
 - Construction Compound
 - No Crossing
 - BESS Transformer
 - BESS Battery unit
 - Field Number
 - LV Cable
 - MV Cable
 - Fibre Cable

B	12.12.2023	Amended as per Comments	SR	SF
A	10.12.2023	LV Cable Route Added	SR	SF
O	15.11.2023	For Information	SF	SF
Issue	Date	Purpose of Issue	Drawn	Checked

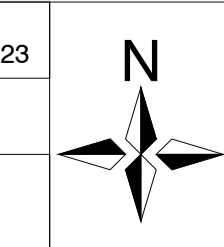


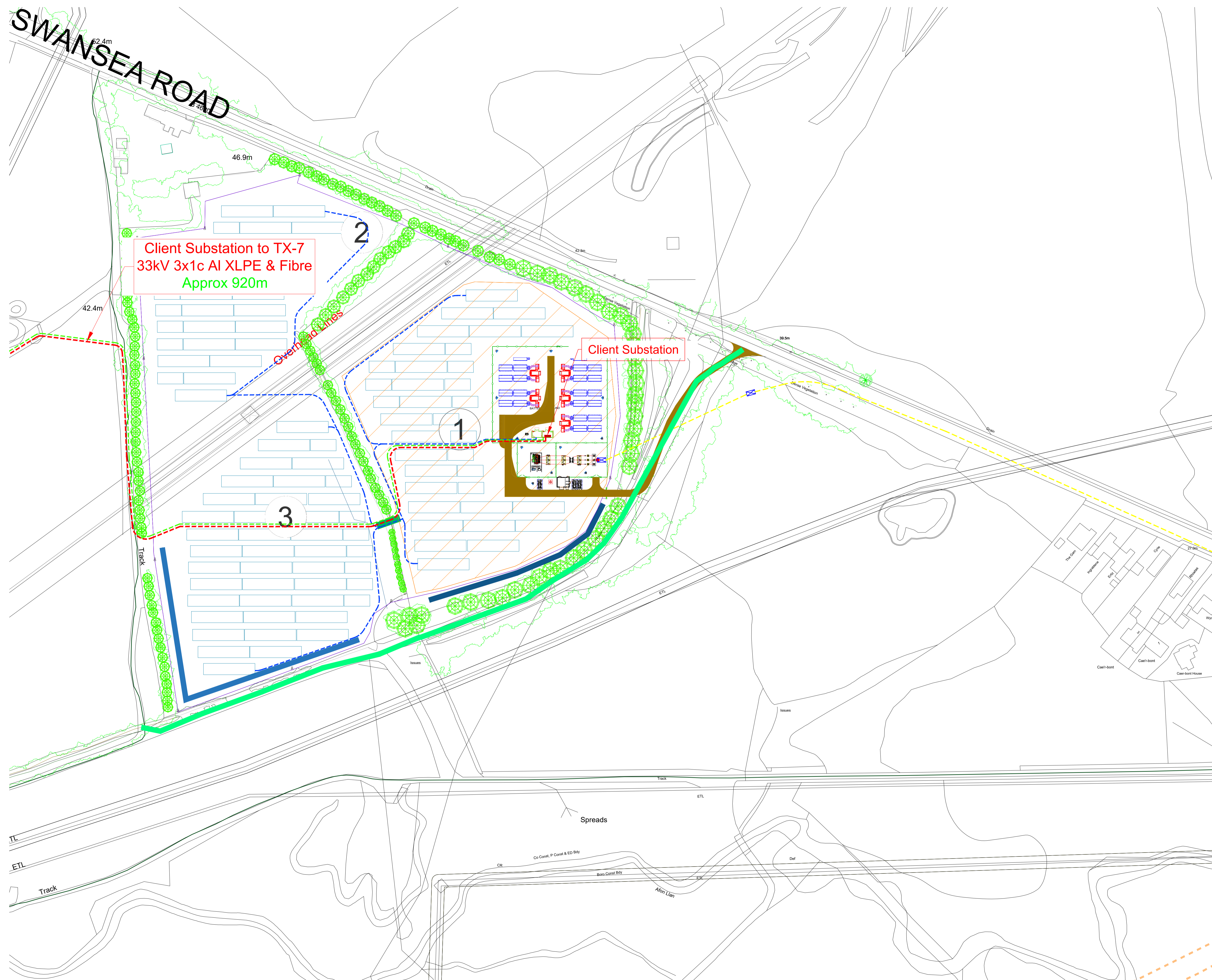
Suite 5, Exchange Station, Tithebarn St, Liverpool, L2 2QP

Client:
Low Carbon Alliance

Drawing Title:
Cable Route Plan - 04 of 05

Drawn: SF	Date: 15.11.2023	Checked: SF	Date: 15.11.2023
Project Title: Gowerton		Scale: 1:1000 @ A1	
Job Ref: SC PJ 55 02		Page Number: Issue B	
Drawing Number: SC PJ 55 02-150-32		Page Number: Issue B	





- Key:**
- Existing Assets**
- Trunk Sewer
 - Gravity Sewer / Rising Main
 - Public Right of Way
 - Gas Line
 - Hedges & Trees
- Proposed Assets:**
- Planning Application Boundary
 - Swale
 - Fence
 - Cable Route with Jointing
 - Pits
 - Gates
 - Solar Array
 - Transformer
 - Site Road Permanent
 - CCTV
 - Directional Drilling
 - Temporary Construction Track
 - Construction Compound
 - No Crossing
 - BESS Transformer
 - BESS Battery unit
 - Field Number
 - LV Cable
 - MV Cable
 - Fibre Cable
 - 132kV Cable

B	12.12.2023	Amended as per Comments	SR	SF
A	10.12.2023	LV Cable Route Added	SR	SF
O	15.11.2023	For Information	SF	SF
Issue	Date	Purpose of Issue	Drawn	Checked

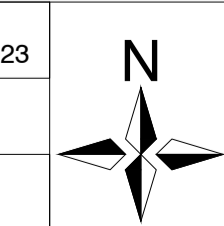


Suite 5, Exchange Station, Tithebarn St, Liverpool, L2 2QP

Client:
Low Carbon Alliance

Drawing Title:
Cable Route Plan - 05 of 05



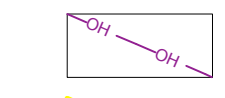


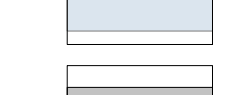
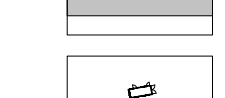
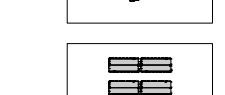

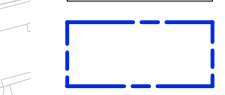
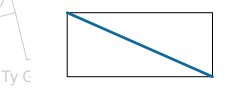


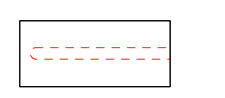
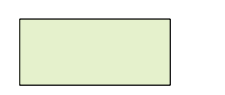

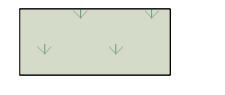

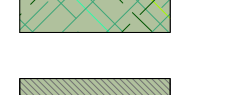
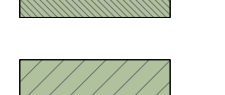
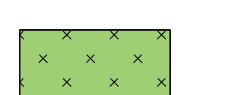
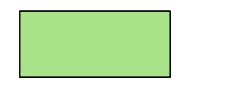
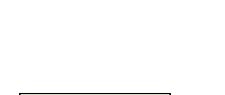

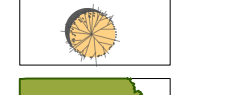

Drawn: SF	Date: 15.11.2023	Checked: SF	Date: 15.11.2023
Project Title: Gowerton		Scale: 1:1000 @ A1	
Job Ref: SC PJ 55 02		Page Number: Issue B	





APPENDIX 3 – GREEN INFRASTRUCTURE MAP

KEY

-  Site Boundary
-  Public Footpaths
-  Overhead Power Line
-  Proposed cable route
-  Directional Drilling of Cable
-  Solar Panel Modules
-  Access tracks
-  Transformer
-  BESS Battery Unit
-  BESS Transformer
-  Security Fence
-  Proposed Swale
-  Existing Woodland and Hedgerow
Gaps in existing hedgerows to be infilled with hedgerow planting (as required) at approx 30% rate. (For further information, refer to Tree Survey and Constraints Plan prepared by Barton Hyett)
-  Existing Vegetation to be removed
-  Grazing Seed Mix to Panel Compounds
- ie. EG26 Old Fashioned Grazing Mixture by Emorsgate
-  Meadow Seed Mix to Field Margin
- ie. EG10 Tussock Grass Mixture by Emorsgate
-  Tussocky Grassland
- ie. EG9 Meadow Grass Mixture for Hedgerows and Woodland by Emorsgate (may be grazed, but maintained suitably short as lapwing breeding habitat)
-  Meadow Grassland
- ie. Wales Meadows Seed Mix by Habitat Aid
-  Arable Bird Mitigation
- Wildflower bird seed mix on arable field margins
-  Reptile Mitigation Area
-  Existing Rush Pasture
- Green hay seeding (potential local donor source)
-  Habitat Mosaic
- ie. Wales Meadows Seed Mix by Habitat Aid in selected areas, managed on rotation to retain mosaic/increase grassland
-  SINC Grassland Enhancement
-  Proposed Hedgerow Planting
-  Proposed Small-Scale Tree Planting
-  Proposed Woodland / Shrub Planting
Tree planting within mix shown indicatively

Note: locations of planting proposals is shown indicatively only at this stage.



- Revisions:
- A - (08/07/2022) IHW amended to client and comments
 - B - (14/08/2022) IHW Proposed pond added, panels simplified
 - C - (31/10/2022) IHW Hedgerow alignments amended to central PRoW corridor following comments received from LPA PRoW officer
 - D - (11/02/2023) IHW Redline amended; landscape adjusted to revised layout; PRoW alignments updated; connecting cable routes added
 - E - (28/02/2023) IHW Redline amended; ecology notes added
 - F - (01/03/2023) IHW Redline amended; ecology notes added
 - G - (04/10/2023) IBD Red line amended to exclude southern fields; solar layout amended site-wide; landscape proposals amended to suit revised solar layout
 - H - (05/10/2023) IBD Reptile Mitigation Area amended
 - J - (11/10/2023) IBD Planting clash corrected
 - K - (08/12/2023) IBD Amended to suit layout PSC 100 001 V13
 - L - (13/12/2023) IBD Key amended to client comments

**Green Infrastructure Plan
Parc Solar, Caenwydd**

Client: Taiyo Power & Storage Ltd
 DRWG No: **P21-2998_13** REV: L
 Drawn by: IBD Approved by: IBD
 Date: 13/12/2023
 Scale: 1:2000 @ A0
Pegasus
 Design





APPENDIX 4 – LLANWERN STEELWORKS DECISION

Lesley Griffiths AC/AM
Ysgrifennydd y Cabinet dros Ynni, Cynllunio a Materion Gwledig
Cabinet Secretary for Energy, Planning and Rural Affairs



Llywodraeth Cymru
Welsh Government

Ein cyf/Our ref qA1364896

Mr Peter Grubb
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8 November 2018

Dear Mr Grubb

**TOWN AND COUNTRY PLANNING ACT 1990 – SECTION 62D AND SECTION 62F.
THE DEVELOPMENTS OF NATIONAL SIGNIFICANCE (WALES) REGULATIONS 2016.
APPLICATION BY GWENT FARMERS' COMMUNITY SOLAR FARM SCHEME Ltd FOR
THE ERECTION OF A SOLAR ENERGY HUB GENERATING 49.9MW NET INSTALLED
GENERATING CAPACITY, COMPRISING GROUND MOUNTED SOLAR PANELS,
BATTERY STORAGE CONTAINER UNITS (200 UNITS), UNDERGROUND CABLING,
GRID CONNECTION HUB, ASSOCIATED INFRASTRUCTURE, LANDSCAPING AND
ENVIRONMENTAL ENHANCEMENTS, FOR A TEMPORARY PERIOD OF 30 YEARS, ON
LAND ON THE CALDICOT LEVELS, TO THE SOUTH OF THE LLANWERN
STEELWORKS SITE.**

1. Consideration has been given to the report of the Inspector, Siân Worden, BA, MCD, DipLH, MRTPI, who dealt with the planning applications.
2. In accordance with sections 62D and 62F of the Town and Country Planning Act 1990 and Regulation 3 of The Developments of National Significance (Specified Criteria and Prescribed Secondary Consents) (Wales) Regulations 2016, the application was made to the Welsh Ministers for determination.

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Rydym yn croesawu derbyn gohebiaeth yn Gymraeg. Byddwn yn ateb gohebiaeth a dderbynnir yn Gymraeg yn Gymraeg ac ni fydd gohebu yn Gymraeg yn arwain at oedi.

We welcome receiving correspondence in Welsh. Any correspondence received in Welsh will be answered in Welsh and corresponding in Welsh will not lead to a delay in responding.

3. In exercising functions, as part of carrying out Sustainable Development in accordance with the Well-being of Future Generations Act ("the FG Act 2015"), section 2 of the Planning (Wales) Act 2015 requires the Welsh Ministers, as a public body, to ensure the development and use of land contributes towards improving the economic, social, environmental and cultural well-being of Wales. In order to act in this manner, the Welsh Ministers have taken into account the ways of working set out in section 4 of 'SPSF1: Core Guidance, Shared Purpose: Shared Future- Statutory Guidance on the Future Generations Act 2015' by dealing with the planning application by way of the Hearings procedure in accordance with Part 7 of The Developments of National Significance (Wales) Regulations 2016.
4. The Inspector held Hearings on 7, 8 and 9 August 2018 and made site visits on 16 May, 8 and 9 August. The Inspector recommends planning permission be granted subject to conditions. A copy of the Inspector's report (IR) is enclosed. All references to paragraph numbers, unless otherwise stated, relate to the IR.

Main Issues

5. I agree the main issues are those listed by the Inspector at IR 232:
 - The ecology of the area, particularly in terms of the special features of the designated SSSIs and protected species.
 - The character and appearance of the surrounding area.
 - The historic landscape.
 - Highway safety in the surrounding area, particularly during the construction phase.
 - Whether the proposed development would be consistent with national and local planning policy on flooding with regard to its location and the management of flooding consequences.

Ecology (IR 233 – 255)

6. The Inspector notes national planning policy in Planning Policy Wales (PPW) sets out a number of objectives for the conservation and improvement of the natural heritage. These include promotion of the conservation of landscape and biodiversity, ensuring statutorily designated sites are properly protected and managed and safeguarding protected species.
7. The application site is located within the Nash and Goldcliff Site of Special Scientific Interest (SSSI) and the Whitson SSSI, designated of national importance for their ecological value. The Inspector notes the statutory duty on public bodies in relation to SSSIs when undertaken their functions. PPW notes there is a presumption against development likely to damage a SSSI.
8. The Inspector describes the listed features of the SSSIs and notes three special features are identified for both SSSIs: the reed and ditch habitat, insects and other invertebrates and the shrill carder bee.
9. The Inspector notes the grassland, on which the solar panels would be located, is not of particular value and is not a special feature of the SSSI.
10. In terms of the reed and ditch system, the Inspector considers the proposed development would not cause any of the reens or ditches within the application site to be obstructed or filled in. The system would continue to look and function much in the way it does now and measures have been designed into the scheme to protect and improve the reens, ditches and hedgerows.

11. A reed and hedgerow management programme, as described in the Landscape and Ecology Management Plan (LEMP) submitted by the Applicant, would be implemented during the operation of the solar farm.
12. The Inspector notes the shrill carder bee forages and nests on open, flower-rich grassland. Measures in the LEMP would improve specific areas of grassland adjacent to the application site for shrill carder bee, these measures would be secured by planning condition.
13. The Inspector considers the proposed maintenance, management and mitigation measures, set out in the LEMP and secured by planning condition, as well as the design of the scheme, mean there would be no harm to the SSSIs in which the proposed development would be located.
14. In terms of protected species, the Inspector notes the initial concerns of Natural Resources Wales regarding survey work have been addressed by additional information and detail in both the LEMP and Construction and Environmental Management Plan (CEMP).
15. The Royal Society for the Protection of Birds' (RSPB) objections relate to the potential effect of the proposal on lapwing and crane. Lapwing is a Red List Species, the highest conservation priority on the Birds of Conservation Concern (BoCC). RSPB note lapwing is a priority species under section 7 of the Environment (Wales) Act 2016. Crane is an Amber List Species and has Annex 1 status under the EU Directive on the Conservation of Wild Birds. For both species, RSPB expressed concern at the impact of disturbance during construction and maintenance, the loss of grassland, the fragmentation of the landscape, reducing foraging habitat and the risk of predation of nests from new vantage points on fences.
16. To address these concerns, the Inspector notes the Applicant proposes the provision of replacement fields for lapwing outside the application site. A lapwing mitigation plan is incorporated in the revised LEMP, which would be secured by planning condition. Mitigation for the common crane is also provided in the LEMP, again secured by planning condition.
17. The CEMP would control all aspects of the construction process, including requirements to avoid works during the bird breeding season. The CEMP would be secured by planning condition.
18. The Inspector notes RSPB maintained its objections in its Hearing Statement. However, the Inspector concludes, having heard the matters discussed at the Hearing, the LEMP and recommended planning conditions would safeguard lapwing and crane on the application site and in the surrounding area. The Inspector also notes NRW has not expressed concerns regarding the proposed crane and lapwing mitigation. I have no reason to disagree with the Inspector and am satisfied the requirements of the Environment (Wales) Act 2016 and the Conservation of Habitats and Species Regulations 2017 are addressed in the Inspector's assessment and consideration of this issue.

19. The Inspector considers the proposed development would avoid, mitigate and compensate negative impacts, ensuring no significant adverse effects on areas of national conservation interest, the SSSIs, or local protected habitats and species. Her view is the scheme would not result in an unacceptable impact on water quality or result in the loss of or harm to trees or hedgerows which have wildlife value. The Inspector considers the proposed development complies with Policy GP5, "General Development Principles", of Newport City Council's Local Development Plan (LDP) and is satisfied the developer has demonstrated the case for development on the application site.

Habitats Regulations Assessment

20. The Inspector notes, under Articles 6(3) and 6(4) of the Habitats Directive which are transposed into UK legislation under Regulation 63 of the Conservation of Habitats and Species Regulations 2017, there is a legal requirement to consider the impacts of development proposals on European sites. The Severn Estuary is located approximately 900m to the south of the application site and is a Special Protection Area (SPA), a Special Area of Conservation (SAC) and a Ramsar site, all European sites for the purposes of the Habitats Regulations.
21. The Applicant has submitted a Habitats Regulation Assessment (HRA) which concluded the proposed scheme was unlikely to have a significant effect on the Severn Estuary European site. Likely significant effects were screened out without the inclusion of any mitigation. The Inspector has no reason to disagree with any part of the HRA. The scheme does not require an Appropriate Assessment.

Character and appearance (IR 256 – 275)

Landscape character

22. The Inspector describes the application site as comprising a rural, agricultural and settled landscape. The characteristic features of the landscape are the reens and ditches, the structure of the fieldscapes and the features demarcating it, and the buildings which would have been used by the local community, including dwellings, churches and farms.
23. The Inspector agrees with the findings of the Landscape and Visual Impact Assessment (LVIA) which states the change from a rural to built landscape could be classified as medium. However, the Inspector notes the enclosing features of the fields would be almost entirely retained with additional planting, hedgerow management and improved water quality in the reens. The Inspector also notes fixing the solar arrays directly in the land rather than on a solid base would mitigate the impact of positioning the solar arrays on the fields.
24. Whilst the Inspector acknowledges the solar panels would be significant constructions covering a wide area, her opinion is they would be apparent as temporary structures and considerably less solid and durable than traditional buildings. This perception of the structures would mitigate against a considerable or permanent change in the character of the landscape.

25. Although the grid connection hub, battery storage container units and telecommunications hub would appear as more substantial features, the Inspector notes these structures would be located in the northernmost part of the site, near the existing electricity sub-station and underneath power lines. These structures would also be well-screened and not conspicuous from public viewpoints. Therefore, the Inspector concludes they would not result in a significant change to the wider character of the area.
26. The Inspector concludes the characteristic features of the landscape would be unaffected by the proposed development apart from the grassland itself which, in some views, would appear to be obscured by panels. The limited visibility of the panels and their temporary appearance would, however, reduce the change to the character of the landscape so, overall, it would not be significant.

Visual Impact

27. The Inspector describes the fairly consistent appearance of the landscape, comprising low-lying, level land in mainly agricultural use and divided into fields of varying shapes by hedgerows and distinctive reens and ditches. The northern part of the site is influenced by views of industrial development and by associated features such as power lines and pylons. The physical design of the proposal is set out in IR 265.
28. The Inspector notes the nature of the landscape, particularly its flatness, field structure and vegetation, means there are no wide ranging public views, either within or outside the application site. The proposed development would be sited to capitalise on these features and make the most of their obscuring properties.
29. The Inspector notes, with a site of this size, it would be almost impossible to avoid all close-up views of the proposed solar panels. The panels would be clearly visible from the footpath at viewpoint 4, however, as they would be sited under and in the vicinity of power lines, pylons and mature trees, the impact would be reduced. Solar panels and fencing would be dominant from viewpoint 8 although the Inspector notes walkers would only have panels to one side and would not be surrounded by them.
30. Viewpoint 11 is on an access route along Hare's Reen. The features which make the route attractive are the reen, its vegetation and hedgerow, none of which would be negatively affected by the proposed development. However, the Inspector notes walkers on the route would notice a significant change and a depletion in its rural, pastoral character.
31. The Inspector notes additional elements of the proposal comprise the grid connection hub, the telecommunications mast, which would be over 16m tall and the 200 battery storage units. However, these structures would be close to the existing electricity sub-station, the connection and battery storage area would be set back from the road, behind hedgerows and the mast would be lower than existing pylons, which have power lines running between them. Also, there would be new hedgerow planting and a condition to ensure the battery units are coloured brown or green to blend in with the landscape.

32. Whilst the solar panels in parcel 4 would be clearly visible from a significant length of Chapel Road, the Applicant has amended the proposed scheme to include native hedgerow screening. The Inspector considers the hedgerow screening would not be an uncharacteristic or obtrusive feature and the existing openness of Chapel Road would be retained along its remaining stretches.
33. On this issue, the Inspector concludes the greatest visual impact would be on users of public footpaths and other access routes which pass through or close to areas where panels are proposed. However, there are comparatively few lengths of affected footpaths and routes, and hedgerows would have a shielding effect. The Inspector considers the effect of the proposed scheme on the visual impact of the landscape would not be significant and there would not be any significant cumulative effect from the proposal when other renewable energy development schemes in the area are considered.
34. The application site is located within the Caldicot Levels Special Landscape Area (SLA). The Inspector concludes, in protecting the landscape attributes which characterise the SLA, the proposed development would contribute positively to the area and demonstrate a clear appreciation of the area's special features. Therefore, the Inspector considers the scheme would comply with Policy SP8 of Newport City Council's Local Development Plan (LDP).
35. The Inspector also considers, by respecting the landscape character of the immediate and surrounding area and being appropriate in scale and design, the proposed development would comply with LDP Policy SP5, a policy designed to ensure any development in the countryside is appropriate. Also, the proposed use and form of development would not be detrimental to the character or appearance of the surrounding area in line with LDP Policy GP2 and there would be no unacceptable impact on landscape quality, consistent with LDP Policy GP5.

Historic Landscape (IR 276 – 292)

36. The Inspector notes the Environmental Statement (ES) sets out the archaeological and historic context of the area which is within the designated Gwent Levels Landscape of Outstanding Historic Interest (LOHI). PPW states it is important the historic environment is protected, managed and conserved and sets out a number of policy objectives for the historic environment which are relevant to the proposal.

Listed buildings and scheduled monuments

37. The Inspector notes there are ten listed buildings within 1km of the application site. The proposed development, therefore, has the potential to be within the setting of some or all of these buildings. The Inspector notes TAN 24 provides guidance on the assessment of setting.
38. The Inspector states the significance of seven of the listed buildings lies in their rural, often agricultural, origins and location within the historic, pastoral landscape which provides their setting. The application site and the nearest solar arrays would not be adjacent to any of the buildings. In most cases they would be separated by a least one undeveloped field. The structure of the field pattern would be unaffected by the proposal and the solar panels would not be clearly visible from the listed buildings. Therefore, the Inspector considers the proposed development would not have a negative effect on the settings of these listed buildings and their significance would not be harmed.

39. In terms of the remaining listed buildings within 1km of the site, the Inspector considers, given the well-screened nature of the proposed development and distance from the buildings, there would not be a harmful impact on the settings of Samson Court, the Church of St Mary Magdalene in Nash, or its churchyard cross which is a scheduled monument. The listed barn at Barn Farm is to the north of the former Llanwern Steel Works where it would be too distant from the proposed development to be adversely by the proposed development. I note, in accordance with the statutory duty in section 66 of the Planning (Listed Buildings and Conservation Areas) Act 1990, in reaching her conclusions regarding the scheme's impact on listed buildings, special regard has been had to the desirability of preserving the buildings, their settings or any features of special architectural or historic interest which they possess.
40. The moated site near Grangefield Farm, a scheduled monument, is visually separated from the application site by the pipeline and track alongside it. The Goldcliff moated house site, also a scheduled monument, is separated from the proposed development by Chapel Road and the vegetation along it. The Inspector considers the surrounding landscape, despite the pipeline, remains part of their settings and the character of the landscape would not be permanently or considerably altered by the proposed solar farm. The Inspector considers the settings of the two moated sites would not be harmed and the significance of these historic assets would not, therefore be reduced.

Archaeology

41. The Inspector notes there are likely to be buried features, remains and artefacts in the area. Technical Advice Note 24: The Historic Environment notes archaeological remains are a finite and non-renewable resource, often highly fragile and vulnerable to damage and destruction. The main potential for any damaging impact in archaeological remains concerns the fixing of the solar panel framework into the ground. The fixings would puncture the ground, disrupting the anaerobic conditions which preserve organic material, and could cause physical contact with remains. The puncturing effect of the fixings would be spread across most of the application area and the impact would not be reversible or temporary.
42. The Inspector states the geophysical survey of the area did not indicate the likelihood of any significant remains. The Applicant acknowledges the limitations of such surveys and considers there is potential for finding archaeological remains. Therefore, the Inspector notes there is a possibility the proposed development may reveal, disturb or destroy archaeological remains which are currently unknown. In such cases, Technical Advice Note 24: The Historic Environment, states "...it is important that the opportunities to record archaeological evidence are taken and that archaeological remains are not needlessly destroyed". To comply with this approach, the Inspector recommends a planning condition to secure a programme of archaeological work.
43. The Inspector concludes the proposed development would not have a harmful effect upon the valued historic landscape of the area and complies with relevant LDP policies.

Traffic and Highway Safety (IR 293 – IR 299)

44. The Inspector notes the majority of traffic movements generated by the proposed development would be during the construction period. The construction period is likely to last twelve weeks. During the most intensive construction activity, there would be up to 20 vehicle movements per day, 120 per week. Heavy Goods Vehicles (HGVs) would use two completely separate routes from the M4 to different parcels of the application site. Traffic movements would, therefore, be distributed around the area. As Chapel Road is particularly narrow, construction materials would be delivered in smaller vehicles.
45. The Inspector notes there are measures designed to limit the number of HGV movements on the public highway in and around the application site. I note details such as access and details of vehicles accessing the site would be contained in the Construction Traffic Management Plan (CTMP), which would be secured by planning condition. The Inspector notes a separate CTMP would be required for the proposed battery storage container units, again this would be secured by condition.
46. The Inspector concludes the proposed development would not be detrimental to highway or pedestrian safety or result in traffic generation exceeding the capacity of the highway network. Therefore, the proposed scheme would comply with LDP Policy GP4, a General Development Principles policy relating to Highways and Accessibility.

Flooding (IR 300 – 310)

47. Technical Advice Note 15: Development and Flood Risk (2004) (TAN 15) provides guidance which supplements policy in Planning Policy Wales in relation to development and flooding and is relevant in the determination of this planning application.
48. The Inspector notes once the scheme is constructed, for most of the time there would be no one present on the site. Maintenance visits can be programmed to avoid potentially hazardous conditions. The panels and infrastructure would not present a risk to people or the environment if the site flooded. Although TAN 15 states power stations are an example of “especially vulnerable industrial development”, the proposed development clearly does not fall into this category and is not highly vulnerable development for the purposes of TAN 15.
49. The Inspector describes the site as a low-lying, coastal location where it is protected from tidal flooding by man-made defences. As such, the site is in a C1 flood zone for the purposes of TAN 15. TAN 15 states new development which is not highly vulnerable should only be permitted in flood zones C1 and C2 if it is justified in that location.

50. The Inspector has considered the proposed scheme against the relevant justification criteria in paragraph 6.2 of TAN 15. Whilst the Inspector acknowledges the proposed development does not meet the justification criteria, paragraph 5.3 of TAN 15 does state some uses are considered to be exceptions to the general rule as they are required in a fluvial, tidal or coastal location by virtue of their nature. Although the examples cited in TAN 15 do not include the proposed development, the Inspector considers the availability and proximity to a grid connection and the high number of hours of sunshine are robust reasons why the proposal needs to be located in this area. The Inspector considers these circumstances present an alternative and strong justification for the location of the proposed development. Where there are exceptions to the general rule, TAN 15 states proposals will not be subject to the first part of the justification test, however, they will be subject to the acceptability of consequences part of the test.
51. The Applicant submitted a Flood Consequences Assessment (FCA) which demonstrates the consequences of flooding can be managed down to a level acceptable for the type of development proposed by raising the base level of structures on site. This can be secured by planning condition.
52. The Inspector concludes the proposed development complies with TAN 15 and relevant LDP policies.
53. I agree with the conclusions of the Inspector on this issue and am satisfied with approach taken by the Inspector, in this application, to the interpretation of guidance in TAN 15.

Other Considerations (IR 311 – 332)

Site location, selection and alternatives

54. The Inspector considers the scheme comprises appropriate development in the countryside and, therefore, complies with relevant LDP policy. The application site is located within the undeveloped coastal zone, as identified in the LDP. Policy CE9 of the LDP does not permit development in the coastal area unless it meets an exceptional need which cannot be reasonably be accommodated elsewhere, the area is not itself at risk and the proposed development would not exacerbate risk from erosion, flooding or land instability. The Inspector is satisfied the proposed scheme meets these policy tests.
55. The Inspector notes Torfaen County Borough Council and Newport City Council produced a document, "Renewable and Low Carbon Energy Assessment", in May 2013. The document examines the potential for development of renewable and low carbon energy within the two local authorities. It discounted land covered by various designations, including SSSIs. However, as the Inspector notes, the document was not intended to be used to assess individual planning applications for standalone renewable energy generating systems and, therefore, carries little weight in the consideration of this case.
56. The application site is not located in a green belt or on best and most versatile land. Therefore, the proposed scheme complies with relevant LDP policy.
57. The Inspector notes the Applicant carried out a search for a brownfield site of sufficient size to accommodate the proposed development, however, no suitable land was available.

58. The Inspector considers the proposed development can be considered favourably, in line with LDP Policy CE10, as there are no over-riding environmental or amenity considerations. The Inspector also notes Policy CE10 states large scale proposals may be more appropriately located outside the defined settlement boundary if no appropriate brownfield sites exist, criteria met by the application proposal.

Residential amenity

59. The Inspector has considered the impact of the proposed scheme on residential amenity and concludes there would not be a significant adverse impact on local amenity including in terms of noise, disturbance, light, or the visual amenities or health of nearby occupiers. The scheme, therefore, accords with relevant LDP policies. The Inspector also notes no evidence has been provided to indicate the proposal would result in a drop in the value of dwellings in the area and, in any event, this is not a planning consideration.

Temporary Development

60. Some concerns were expressed to the Inspector questioning whether the proposed scheme would be temporary. Recommended conditions will ensure the proposed development would be temporary, restricted to a lifetime of 30 years. Conditions will also secure a decommissioning and site restoration scheme.

Cumulative impact with the M4 Corridor around Newport (M4 CaN)

61. The Inspector has considered the cumulative impact with the proposed M4 CaN scheme and finds negligible visual cumulative impact and no cumulative impact in respect of the historic environment. The Inspector finds proposed mitigation measures mean any cumulative impact in terms of habitat loss would be minor.

Public Rights of Way

62. The Inspector notes all footpaths and other public rights of way which pass through the application site would be retained. Also, due to distance, topography and vegetation, the proposed development would not have a detrimental effect on the Coast Path or its users. The scheme, therefore, accords with relevant LDP policies.

The Living Levels Initiative

63. The application site is located within the Living Levels Landscape Partnership area which covers the Gwent Levels. The Inspector does not consider the proposal would be contrary to the broad aims and objectives of the Partnership which seeks to restore, enhance and celebrate the natural heritage of the Levels, and improve connectivity and visitor experiences.

Well-being of Future Generations (Wales) Act 2015

64. The Inspector has considered the duties set out in the Well-being of Future Generations (Wales) Act 2015.

Conditions (IR 333 – 340)

65. I am satisfied the conditions recommended by the Inspector meet the relevant tests in Circular 016/2014.

Summary of Conclusions (IR 341 – 346)

66. The Inspector acknowledges the locational constraints of the application site, being a greenfield site, in a C1 flood zone, within two SSSIs, a SLA and a Landscape of Historic Interest. It is also close to the European designated Severn Estuary and the surrounding area supports several protected species. However, PPW states a key role of the planning system is to ensure society's land requirements are met in ways which do not impose unnecessary constraints on development whilst ensuring all reasonable steps are taken to safeguard or enhance the environment.
67. The Inspector recognises, as set out in PPW, the Welsh Government is committed to using the planning system to optimise renewable energy generation. The Inspector notes the scheme would make a considerable contribution to renewable energy targets, generating sufficient energy to serve the total power needs of approximately 15,000 average UK households per annum, which would offset around 21,208 tonnes of CO₂ per annum and about 636,240 tonnes over the lifetime of the scheme.
68. The Inspector considers the design of the scheme takes account of the significant site constraints. Her overall conclusion is the proposed development would not result in significant harm to the ecological, landscape or historic interests of the site or area. Any minor harm is more than justified by the significant renewable energy benefits which would arise from the proposed scheme.
69. The Inspector recommends planning permission be granted for both the main application and the secondary application, subject to conditions.

Conclusion

70. I agree with the Inspector's conclusions and her reasoning behind them and I accept her recommendation. Accordingly, I hereby grant planning permission, subject to the conditions in the Annex to this decision letter. In reaching this decision I note the duty to carry out sustainable development under section 2 of the Planning (Wales) Act 2015 and I consider the decision accords with the sustainable development principle set out in the FG Act 2015. In accordance with section 3(2) of the FG Act 2015 and the well-being objectives of the Welsh Ministers, the decision will help "Drive sustainable growth and combat climate change".
71. I have taken the Environmental Statement and all other environmental information provided into account in the consideration of this appeal, as required by the Town and Country Planning (Environmental Impact Assessment) (England and Wales) Regulations 2017.
72. A copy of this letter has been sent to Newport City Council and to those persons and organisations appearing at the Hearings.

Regards



Lesley Griffiths AC/AM

Ysgrifennydd y Cabinet dros Ynni, Cynllunio a Materion Gwledig
Cabinet Secretary for Energy, Planning and Rural Affairs

Annex

Conditions attached to the Welsh Ministers' decision to grant planning permission for "Erection of renewable energy hub with a net installed capacity and maximum export to grid of 49.9MW comprising up to 245,000 ground mounted solar panels, battery storage container units (up to 200 units), underground cabling, grid connection hub, associated infrastructure, landscaping and environmental enhancements" on Land on the Caldicot Levels to the south of the Llanwern Steelworks Site. DNS planning application ref: APP/G6935/A/16/3150137.

1. The development shall begin not later than five years from the date of this decision.
2. The development hereby permitted shall be carried out in accordance with the following plans:
 - Drawing 1045592/PL02 – Site Layout Plan, annotated with "new native hedgerow screening" along the western boundary of the site
 - Drawing 1045592/PL04 – Typical Details
3. The permission hereby granted shall expire 30 years from the date when electrical power is first exported ('first export date') from the solar farm to the electricity grid network, excluding electricity exported during initial testing and commissioning. Written confirmation of the first export date shall be provided to the Local Planning Authority no later than one calendar month after the event.
4. Development shall not begin until a Construction and Environmental Management Plan (CEMP) has been submitted to and approved in writing by the Local Planning Authority. The CEMP shall accord with the aims and objectives of the 'Outline Construction & Environmental Management Plan' (January 2018) and shall set out details of all onsite construction works; post-construction reinstatement; drainage; mitigation; and other restoration, together with details of their timetabling. It shall include details of, and measures to secure:
 - the phasing of construction works;
 - the formation and position of the temporary construction compounds;
 - dust management and suppression;
 - cleaning of site entrances, facilities for wheel washing and cleaning of the adjacent public highway;
 - pollution control, including the protection of water courses and ground water; subsoil surface water drainage; bunding and siting of fuel storage areas; sewage and foul water drainage and disposal; and emergency procedures and pollution response plans;
 - temporary site illumination during the construction period;
 - the methods to be adopted to reduce the effects of noise occurring during the construction period to the lowest practicable levels and in accordance with BS 5228: Noise control on construction and open sites;
 - storage of materials and disposal of surplus materials;
 - the construction of the accesses into the site, the erection of any entrance gates and the creation and maintenance of associated visibility splays;
 - details of the construction of access tracks and other areas of hardstanding, including areas of temporary road matting;
 - the carrying out of foundation works for any structures to be installed on the site;

- method of working cable trenches, including soil storage and back-filling; and details of cable boring methodologies below reens / ditches / other water courses and below hedges;
- general soil storage and handling;
- post-construction restoration/reinstatement of the working areas, including cable trenches and areas covered by any matting or other areas where the soil has been disturbed or compressed;
- the sheeting of all heavy goods vehicles carrying construction materials to, or spoil from, the site to prevent spillage or deposit of any materials on the highway;
- details of the vehicles to be used on the site during construction activities;
- details of the control of surface water to prevent it entering the public highway or carrying sediment to the surface water drainage network in the vicinity of the site.
- identification of buffer strips adjacent to water courses and to retained vegetation features such as hedges, trees and sites where birds are nesting;
- means to exclude small animals from excavations;
- details of all permanent and temporary bridges and reen crossings and a method statement for their implementation and, in the cases of temporary crossings required for the construction phase only, removal including a timetable for all proposed works.
- details of any temporary accesses including their locations, formation and the materials to be used and details of restoration (including any hedge restoration) and a timetable for the completion of those works of restoration.

The works shall proceed in full accordance with the agreed CEMP.

5. No operations of any description (this includes all forms of development, tree felling, tree pruning, temporary access construction, soil moving, or operations involving the use of motorised vehicles or construction machinery), shall commence on site in connection with the development until Root Protection Barrier / Buffer Strip Protection fencing has been installed in accordance with details that have been submitted to and approved in writing by the Local Planning Authority. These details shall include information on the constructional details of the fencing with its positioning clearly shown in plan form. No excavation for services, storage of materials or machinery, parking of vehicles, deposits or excavation of soil or rubble, lighting of fires or disposal of liquids shall take place within the areas defined by the fencing. The fencing shall be retained for the full duration of the construction phase of the development, and shall not be removed or repositioned without the prior written approval of the Local Planning Authority.
6. No development, to include demolition, shall take place until the implementation of a programme of archaeological work has been secured in accordance with a written scheme of investigation which has been submitted by the applicant and approved in writing by the Local Planning Authority. Thereafter the works shall be fully carried out in accordance with the requirements of the approved written scheme.
7. The site shall be accessed fully in accordance with the details set out in the 'Construction Traffic Management Plan' (November 2016).
8. There shall be no permanent illumination on the site.

9. Details of the proposed new hedgerow and any strengthening of existing hedgerow planting shall be provided in writing to the Council. Details shall accord with the Landscape & Ecology Management Plan (LEMP) May 2018 and shall include details of ground preparation, species and planting pattern. Thereafter the new planting shall be implemented by the end of the first full planting season (October to March inclusive) available after the first export date. The new hedgerow planting shall be managed in accordance with the Management Specification – New Hedgerows at Paragraph 6.4.2 of the LEMP and Appendix 3 of the same document.
10. The proposed new grassland / wildflower meadow shall be provided as described within the Landscape & Ecology Management Plan (LEMP) May 2018 by the end of the first full planting season (October to March inclusive) available after the first export date. The grassland / wildflower meadow shall be managed in accordance with the Management Specification – grassland for shrill carder bee at Paragraph 6.5.3 of the LEMP and Appendix 3 of the same document.
11. Full details of a finalised Lapwing Mitigation Plan, including a timetable for its implementation, shall be submitted to the Local Planning Authority and approved in writing. The plan shall accord with the principles outlined at Appendix 5 of the Landscape & Ecological Management Plan (LEMP) and shall confirm the land to which the plan relates. No work on the scheme hereby permitted shall commence until the plan is agreed and it shall be carried out fully in accordance with the agreed plan.
12. The ecological mitigation described in Paragraph 5.3 of the Landscape & Ecological Management Plan (LEMP) shall be implemented within 6 months of the first export date.
13. Full details of Hedgerow removal shall be submitted to and approved in writing by the Local Planning Authority. The details shall include:
 - Precise location of hedges to be removed;
 - Removal methodology;
 - Timing of Removal;
 - Mechanism to prevent disturbance to nesting birds and other fauna.

No hedge shall be removed until the details are agreed in writing by the Local Planning Authority. No hedge shall be removed that has not been identified for removal.

14. Prior to the commencement of any works of ecological mitigation/compensation the applicant shall produce an 'Ecological Monitoring & Contingency Plan'. The plan shall set out the principle aims and objectives of the ecological work to be undertaken as part of the development hereby approved and shall identify a monitoring and reporting schedule that shall have regard to the objectives of the plan. Monitoring Reports shall be submitted to the Council within 3 months of their completion. Objectives shall be short term (5 years and less), mid-term (6-10 years) and long term (11-30 years). The plan shall allow for contingency actions to be taken if monitoring shows stated objectives are not being achieved. Any change in the ecological mitigation proposed for the site shall be submitted to and agreed in writing by the Local Planning Authority. Thereafter any contingency shall be carried out fully as agreed.

15. Full details of a plan to mitigate any harm to the interests of Common Crane caused by the scheme hereby approved shall be submitted to and approved in writing by the Local Planning Authority. The plan shall include details of how disturbance to the cranes will be avoided in the main breeding season (Mid-February to July inclusive) and how the cranes will gain access to the proposed grassland buffers and wildflower planting areas. No work on the scheme hereby permitted shall commence until the plan is agreed and it shall be carried out fully in accordance with the agreed plan.
16. Details of all proposed ree crossings either temporary or permanent shall be provided to the Council in writing. Following the Council's written agreement the ree crossings shall be installed as agreed. No other ree crossings shall be installed.
17. The scheme shall be implemented in accordance with the Landscape and Ecology Management Plan (LEMP), dated May 2018.
18. Not later than 12 months before the expiry of this permission, a decommissioning and site restoration scheme shall be submitted for the written approval of the Local Planning Authority. The scheme shall make provision for the removal of the solar panels and all other associated infrastructure, equipment & paraphernalia including any battery storage container units and the subsequent restoration of the site. The scheme shall include details of:
 - the extent of equipment and foundation removal and the site restoration to be carried out;
 - the management and timing of any works;
 - a traffic management plan to address likely traffic impact issues during the decommissioning period;
 - an environmental management plan to include details of measures to be taken during the decommissioning period to protect wildlife, habitats and tree features on the site;
 - identification of access routes;
 - location of material laydown areas; full details of the removal of the solar arrays, associated buildings and plant, any trackways and sub-surface cabling, and all associated works of ground restoration including trench backfilling;
 - full details of all works to restore the land to allow for agricultural production following the removal of structures from the site;
 - a programme of implementation.

The approved scheme shall be implemented within 6 months of the expiry of this permission and shall be carried out fully in accordance with the approved decommissioning scheme.

19. If the solar farm hereby permitted fails to produce electricity for supply to the grid for a continuous period of 6 months, a scheme for the repair or removal of the solar farm, including the battery storage container units, shall be submitted to and approved in writing by the Local Planning Authority within 3 months of the end of that 6 month period. Where repairs or replacements are required the scheme shall include a proposed programme of remedial works. Where removal of the solar farm is required the scheme shall include the same details required under the decommissioning condition of this permission. The repair or removal scheme shall thereafter be implemented in full accordance with the approved details and timetable.

20. The Inverters and Generators hereby approved shall be acoustically treated and tested in accordance with British Standard 3744: 2010 to ensure the overall sound power levels meet the minimum requirements.
21. Prior to the installation of the inverters, generators, grid connection hub and associated infrastructure, details of the platforms they will be sited on, including details of how surface water runoff will be intercepted and discharged at green field rates, shall be submitted to and approved in writing by the Local Planning Authority. The platforms will be built fully in accordance with the approved details and the storage units shall have a finished floor level of 6.025m AOD.
22. Prior to the commencement of any works on the site a Water Quality Monitoring Plan shall be submitted to and approved in writing by the Local Planning Authority. The plan shall establish a pre-development baseline and identify how monitoring shall proceed including a reporting schedule to the Local Planning Authority and the duration of the monitoring regime. All monitoring reports shall have regard to the baseline assessment. In the event that significant reductions in water quality are identified through monitoring then the applicant or any successor in title shall provide to the Local Planning Authority a written contingency plan to address the issue. Any approved contingency plan and/or modified monitoring plan shall be implemented fully in accordance with the approved details.
23. No work on the installation of the battery storage container units shall take place until a Construction Traffic Management Plan for the battery storage area has been submitted to and approved in writing by the Local Planning Authority. The battery storage area shall be constructed in full accordance with the approved plan.
24. Prior to the installation of the battery storage container units details of the platforms they will be sited on, including details of how surface water runoff will be intercepted and discharged at green field rates, shall be submitted to and approved in writing by the Local Planning Authority. The platforms will be built fully in accordance with the approved details and the storage units shall have a finished floor level of 6.025m AOD.
25. The battery storage container units hereby approved shall be finished in a dark green or dark brown colour.

Notification of initiation of development and display of notice

You must comply with your duties in section 71ZB (notification of initiation of development and display of notice: Wales) of the Town and Country Planning Act 1990. The duties include the following:

Notice of initiation of development

Before beginning any development to which this planning permission relates, notice must be given to the local planning authority in the form set out in Schedule 5A to the Town and Country Planning (Development Management Procedure) (Wales) Order 2012 or in a form substantially to the like effect. The form sets out the details which must be given to the local planning authority to comply with this duty.

Display of notice

The person carrying out development to which this planning permission relates must display at or near the place where the development is being carried out, at all times when it is being carried out, a notice of this planning permission in the form set out in Schedule 5B to the

Town and Country Planning (Development Management Procedure) (Wales) Order 2012 or in a form substantially to the like effect. The form sets out the details the person carrying out development must display to comply with this duty.

The person carrying out development must ensure the notice is:

- a) firmly affixed and displayed in a prominent place at or near the place where the development is being carried out;
- b) legible and easily visible to the public without having to enter the site; and
- c) printed on durable material. The person carrying out development should take reasonable steps to protect the notice (against it being removed, obscured or defaced) and, if need be, replace it.



APPENDIX 5 – INSPECTORS REPORT LLANWERN STEELWORKS

Adroddiad

Report

gan Siân Worden BA MCD DipLH
MRTPI

by Siân Worden BA MCD DipLH MRTPI

Arolygydd a benodir gan Weinidogion Cymru

an Inspector appointed by the Welsh Ministers

Dyddiad: 11/10/2018

Date: 11/10/2018

TOWN AND COUNTRY PLANNING ACT 1990

SECTION 62D

The Developments of National Significance (Wales) Regulations 2016

Application by Gwent Farmers' Community Solar Scheme Ltd

Land on the Caldicot Levels to the south of Llanwern Steelworks Site

Cyf ffeil/File ref: APP/G6935/A/16/3150137

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Abbreviations used in this report

AA	Appropriate assessment
ASIDOHL	Assessment of the Impact of Development on Historic Landscape
BoCC	Birds of Conservation Concern
CEMP	Construction and Environmental Management Plan
CTMP	Construction Traffic Management Plan
DNS	Development of National Significance
ES	Environmental Statement
FCA	Flood Consequences Assessment
GGAT	Glamorgan-Gwent Archaeological Trust
HLCA	Historic Landscape Character Area
HRA	Habitats Regulations Assessment
LBAP	Local Biodiversity Action Plan
LDP	Local Development Plan
LEMP	Landscape Environment Management Plan
LOHI	Landscape of Outstanding Historic Interest
LPA	Local Planning Authority
LVIA	Landscape and Visual Impact Assessment
M4CaN	M4 Corridor around Newport
NCC or The Council	Newport City Council
NNR	National Nature Reserve
NRW	Natural Resources Wales
PPE	Pontypool Park Estate
PPW	Planning Policy Wales
PROW	Public Rights of Way
PV	Photovoltaic
RSPB	The Royal Society for the Protection of Birds
SAC	Special Area of Conservation
SAM	Scheduled Ancient Monument

SLA	Special Landscape Area
SPA	Special Protection Area
SSSI	Site of Special Scientific Interest
TAN	Technical Advice Note
WG	Welsh Government
ZTV	Zone of theoretical visibility

DNS Application Ref: APP/G6935/A/16/3150137

Site address: Land on the Caldicot Levels to the south of the Llanwern Steelworks Site.

- The application dated 30 January 2018, was made under section 62D of the Town and Country Planning Act 1990 (as amended by the Planning (Wales) Act 2015).
- The applicant is the Gwent Farmers' Community Solar Scheme Ltd.
- The application was confirmed as valid on 5 March 2018.
- Site visits, all unaccompanied, took place on 16 May, 8 & 9 August 2018.
- Hearings were held on 7, 8 & 9 August 2018.
- The development proposed is the erection of a renewable energy hub with a net installed generation capacity and maximum export to grid of 49.9MW comprising of up to 245,000 ground mounted solar panels, underground cabling, grid connection hub, associated infrastructure, landscaping and environmental enhancements.

Secondary Consent Application:

- The secondary application was made under section 62F of the Town and Country Planning Act 1990 (as amended by the Planning (Wales) Act 2015).
- The development proposed is the erection of battery container storage units (200 units) to support the solar energy hub.

Summary of Recommendation: That planning permission be granted for both applications subject to conditions.

Procedural Matters

1. The battery container storage units are the subject of the secondary consent and I have, therefore, removed that element from the description of the main development in the heading above.
2. A Habitats Regulations Assessment (HRA) report has been undertaken, due to the proximity to European Sites, and is detailed later in this report.
3. A screening direction¹ concluded that, within the meaning of the Town and Country Planning (Environmental Impact Assessment) (Wales) Regulations 2017, the proposed development was EIA development. Under regulation 2(1), therefore, the DNS application had to be accompanied by an Environmental Statement (ES).
4. When first submitted the applicant's ES omitted to provide all the information listed in Schedule 4 of the EIA Regulations and was assessed as not complete². The amended ES was submitted at the end of January 2018 and confirmed as containing the level of information identified in Schedule 4 of the Regulations, and therefore complete, in March³.
5. On the date that the ES was confirmed as complete, the period for determination of the application began. The application was publicised in line with the DNS regulations and interested parties were asked to submit representations. In all, twenty three representations were received, eleven of which were objections.
6. As a result of the consultation responses, in April the applicant notified its intention to vary the proposed development by including an additional section of hedgerow for screening purposes along the western boundary of the site. This would not constitute a substantial

¹ Planning Inspectorate to Savills, 31 August 2017

² *Assessment of Environmental Statement*, Planning Inspectorate, 23 November 2017

³ *Assessment of Environmental Statement*, Planning Inspectorate, 5 March 2018

change in the nature of the development and its submission was thus acceptable. The DNS process was therefore suspended for an eight week period to allow firstly, time for the applicant to provide the amendment and secondly, for a three week consultation period on the submitted variation. The determination period resumed on 21 June 2018.

7. Having considered the representations made on the submitted DNS application, and on the basis of my own reading of the ES and other submitted documents, I decided that it was necessary to hold three hearings on the matters of:
 - i. Protected species and habitat
 - ii. Character and appearance of the landscape including the historic landscape
 - iii. Flood risk, highway safety and conditions
8. I made a formal request for additional information from the applicant, the local planning authority (LPA) and Cadw under regulation 15(2) of the DNS regulations. In addition, those who were taking part in the hearing submissions were invited to provide additional hearing statements. Such statements were submitted by the applicant, Glamorgan-Gwent Archaeological Trust (GGAT), RSPB (Royal Society for the Protection of Birds) Cymru and Gwent Wildlife Trust although, due to staff changes, the latter was unable to attend the relevant hearing.

The Site and Surroundings

9. The application site, which in total covers about 130 ha, is distributed amongst four parcels of land, two of which are themselves in separate parts. The site and surrounding area, which is currently in agricultural use and undeveloped, is close to the coast of the Severn estuary, has been reclaimed over several centuries and, consequently, is low-lying and fairly flat. The site is close to the outer edge of Newport; to its north is the former Llanwern steelworks which has been redeveloped with new industrial and commercial uses.
10. The area is rich in ecology and history and has a distinctive, attractive landscape. It is designated accordingly and falls within:
 - The Nash and Goldcliff, and Whitson Sites of Special Scientific Interest (SSSIs);
 - The Gwent Levels Landscape of Outstanding Historic Interest (LOHI);
 - The Caldicot Level Special Landscape Area (SLA).
11. In the area around the application site there are several listed buildings and scheduled monuments. The Severn Estuary is a Ramsar site, Special Protection Area (SPA), Special Area of Conservation (SAC) and RSPB Important Bird Area. The Newport Wetlands National Nature Reserve (NNR) is located in the estuary and on land around Goldcliff.
12. Several public footpaths and other public access routes run adjacent to the application site, crossing fields where the panels would be located in a couple of instances. The Wales Coastal Path, some circular walks running from it, and the National Cycle Route pass through the surrounding area.

The Proposal

13. The development proposed is a solar farm with arrays of solar panels set out in rows, mounted on frameworks which would be screwed into the ground. It includes supporting infrastructure comprising inverter cabins, transformers, grid connection hub, stock proof fencing, CCTV, underground cabling, temporary vehicle tracks, access and landscaping.
14. A secondary consent is being sought for 200 battery container storage units. The solar panel system and the battery system would, however, be electro-mechanically separated and locked to ensure that the two systems could not both export energy to the grid at the same time. It is not anticipated that the battery storage container units would be installed until after the proposed solar farm development has been completed. As energy storage technology is progressing rapidly, the method to be employed in this case has not yet been selected.

Planning Policy

15. National planning policy is set out in Planning Policy Wales (PPW), the current version of which is edition 9. Consultation on PPW edition 10 closed in May 2018 and the responses received are currently being reviewed.
16. Supplementing PPW are Technical Advice Notes (TANs) which provide additional policy and detail on a variety of topics. Those of particular relevance to this case include:
 - TAN 5, *Nature Conservation and Planning*;
 - TAN 8, *Renewable Energy*;
 - TAN 11, *Noise*;
 - TAN 14, *Coastal Planning*;
 - TAN 15, *Development and Flood Risk*;
 - TAN 24, *The Historic Environment*.
17. The development plan is the Newport Local Development Plan 2011-2026 (LDP) which was adopted in 2015.
18. The LDP policies, and parts of them, most relevant to the proposal are summarised below:

SP1	Sustainability
Requires proposals to make a positive contribution to sustainable development by concentrating development in sustainable locations on brownfield land within the settlement boundary.	
SP3	Flood Risk
Directs development away from areas where flood risk is a constraint; the risk of flooding must not be increased elsewhere.	
SP4	Water Resources
Requires development to minimise water consumption and protect water quality.	

SP5	Countryside
Permits development in the countryside, which is the area outside of the defined settlement boundaries, only where the use is appropriate in the countryside, respects landscape character and biodiversity and is appropriate in scale and design.	
SP8	Special Landscape Areas
Within designated SLAs, which include the Caldicot Levels, proposals are required to contribute positively to the area and demonstrate a clear appreciation of the area's special features.	
SP9	Conservation of the Natural, Historic & Built Environment
Seeks the conservation, enhancement and management of recognised natural, historic and built sites in all proposals.	
GP1	Climate Change
Requires development proposals to be designed to withstand predicted changes in the local climate.	
GP2	General Amenity
Permits development as long as it does not have a significant adverse effect on local amenity, the visual amenities of nearby occupiers, or the character or appearance of the surrounding area.	
GP4	Highways and Accessibility
Proposals should provide suitable and safe access arrangements, not be detrimental to highway or pedestrian safety, or result in traffic generation exceeding the capacity of the highway network.	
GP5	Natural Environment
Permits development subject to a number of criteria which protect and encourage biodiversity and ecological connectivity.	
GP6	Quality of Design
Seeks good quality design in all forms of development with the aim of creating a safe, accessible, attractive and convenient environment.	
CE4	Historic Landscapes, Parks, Gardens & Battlefields
Protects, conserves, enhances and, where appropriate, restores sites included in the register of landscapes, parks and gardens of special historic interest and identified historic battlefields, including their settings.	

CE6	Archaeology
Requires that an archaeological impact assessment is undertaken before a development proposal is determined within the archaeologically sensitive areas including The Levels.	
CE9	Coastal Zone
Does not permit development in the coastal area unless the development is required to be on the coast to meet an exceptional need which cannot reasonably be accommodated elsewhere	
CE10	Renewable Energy
Gives favourable consideration to renewable energy schemes, subject to there being no over-riding environmental and amenity considerations.	
T7	Public Rights of Way & New Development
Any public footpath, bridleway or cycleway affected by development proposals will require retention or the provision of a suitable alternative.	
T8	All Wales Coastal Path
Development proposals should protect and enhance the All Wales Coastal Path.	

Environmental Impact Assessment and Habitats Regulations Assessment

19. The salient information set out in the applicant’s ES is summarised in the following sections.

Site selection and alternatives

20. The applicant assessed potentially suitable and available sites in order to minimise adverse effects on the environment and community⁴. The site’s credentials are as follows:

- Proximity to a grid connection point - Llanwern and the surrounding area benefit from large scale electricity transmission assets which have considerable spare capacity. The ability to connect to the grid represents the foremost benefit of the site; it is not achievable in most other locations within the plan area or even at the national level.
- Topography and landscape - The site is low-level, flat and well-screened. It is also open and un-shaded by landscape features making it highly suitable for solar development.
- Agricultural land classification – The land within the application site is a mixture of grade 3b and 4 and is not, therefore, within the ‘best and most versatile’ classification. Its existing agricultural function would be maintained through being grazed by sheep.

⁴ *Site Selection Sequential Test*

- Solar irradiation - the site is located on the coastal area along the Gwent levels which receives some of the highest amounts of sunshine within the country. This would allow for significantly more electricity generation than other site locations.
21. Other considerations include that the site is in a rural location where there is very little residential development or other land uses which would be incompatible with the proposed development. The villages of Whitson and Goldcliff are well separated from the proposed site areas by agricultural fields.
 22. Policy CE10 (Renewable Energy) of the Newport LDP sets out that previously developed land should be explored first for the siting of solar farm schemes. Therefore, a desktop search of brownfield sites was undertaken. The two criteria were that the site area should be over 100 acres and within 100 miles of Goldcliff. Only two sites met these criteria: Westgate near Bristol which has planning permission for commercial use; and Central Park, Bristol which is a 600 acre warehouse and distribution park. Both sites had an established end-use and were located outside of Wales and the search area. No suitable brownfield sites were, therefore, available through the mainstream property market.
 23. The former Llanwern steelworks is a potential brownfield location. The site no longer manufactures steel and now accommodates various uses including a business park, warehousing and distribution centres and also the Glan Llyn regeneration area which will include around 4,000 new dwellings. The site is close to the urban area of Newport and has good transport links via road and rail. As such it is ideally suited for a range of alternative development against which solar development cannot compete financially.
 24. A solar farm will usually generate a ground rent of between £700 and £900 per acre for the landowner whereas for residential land it is typically between £350,000 per acre and £1,000,000 per acre. Employment development will usually generate about £125,000 for low value office or industrial space, £175,000 per acre for average industrial land and up to £1,500,000 per acre for retail⁵. Where there is alternative development potential offering a higher return, a landowner is unlikely to make land available for a solar farm which will offer a fraction of the return of alternative uses which are usually feasible on previously developed sites.

The need for the development

25. National planning policy makes clear that it is not necessary for the applicant to demonstrate the need for renewable energy projects to help tackle climate change. However, a review of recent energy statistics reveals that there is now an acute need for Wales to increase its delivery of such projects in order to achieve its targets and commitments made at an international level.
26. WG's target is to generate 7 Terawatt hours (TWh) of electricity by 2020. Statistics published by Department of Energy & Climate Change⁶ show that Wales generated just 5.1 TWh in 2015, leaving a significant shortfall to be made up. Wales has consistently generated a lower proportion of its electricity from renewable sources than the UK average⁷. At a regional level the Renewable and Low Carbon Energy Assessment for Newport sets out projections that by the end of the LDP plan period (2026) electricity demand within the NCC plan area will be 863 GWh/yr. The study also identifies the

⁵ *Site Selection Sequential Test*

⁶ DECC (2016) Energy Trends March 2016

⁷ *Site Selection Sequential Test* Figure 5

'Potential accessible resource' for all renewable technologies at 338 GWh/yr, comprising 17 GWh/yr from solar power.

27. Solar power thus has an important role to play as part of the mix of renewable energy sources required to meet national energy targets. Due to its scale, the application scheme has the potential to significantly contribute towards this target and to make a considerable difference in reducing CO₂ emissions.

Traffic and transport

28. The Transport Assessment took the form of a Construction Traffic Management Plan (CTMP) which explained the proposed vehicular access arrangements for the scheme and outlined the proposed mitigation.

Vehicular access arrangements

29. Vehicular access to the two westerly application parcels (described as Area A in the CTMP) would be taken from Broad Street Common or Chapel Road. The existing gateways would be used, some improvements to them being necessary and also the removal of short lengths of existing hedgerow. Where vehicles were required to cross existing culverts temporary bridge structures⁸ would be put in place. In some circumstances it is likely that new internal access points would need to be provided.
30. The large, easternmost parcel (Area B) would be accessed from two existing, private, gated tracks which run south from North Row. The existing access points would need some minor improvements, for example realignment of the kerblines and widening. Vehicular access to the central, northern parcel (Area C) would be from an unnamed road (to the east of Broad Street Common) via an existing field access over a culvert.
31. Swept path analysis demonstrated that a 16.5 m max legal articulated vehicle and 7.5 t box van could safely access the northernmost part of Area A from Broad Street Common, Area B and Area C. The southernmost part of Area A could be safely accessed from Chapel Road by a 10 m rigid vehicle and a 7.5 t box van.

Construction traffic management measures

32. Prior to the construction phase the appointed haulage company would review all proposed routes to ensure that appropriate sized vehicles were used to deliver materials to the sites.
33. The existing weight limit restrictions on the local highway network have been confirmed by NCC not to be in force. To avoid confusion the weight limit signs could be obscured during the construction phase. A Traffic Management Plan would be produced to include details of the construction of the site access junctions and associated infrastructure. Temporary signage would be posted in the vicinity of the proposed site access junctions to advise drivers of the increase in HGV traffic during the construction period.
34. Construction would be likely to take place from Monday to Saturday between 07:00 and 19:00. Outside of these hours, works at the site would be limited to emergency works and dust suppression. The number of staff vehicles on the local road network would be restricted by encouraging car sharing. Information on the movements of construction traffic and the project programme would be provided to local residents and local media.

⁸ CTMP, Appendix D

35. Vehicles would be cleaned by various methods before leaving the site. A road brush would be available should it be necessary to clean the highway. If mud or debris was carried out of the site, a professional road sweeping company would be appointed to keep the carriageway clear.
36. Dust generated during extended periods of dry weather would be suppressed by water bowsers damping down site entrances, access tracks and working areas. Other techniques to control dust include ensuring lorries leaving the site carrying debris were properly covered and not overloaded; and using a dust bag or water suppression where disk cutters were used.
37. If required, a road condition survey of the proposed construction routes would be undertaken. It would identify points where the carriageway is in poor condition and measures to protect those areas from further damage. It would be undertaken before and after construction, to ensure that any damage caused by construction vehicles is recorded allowing any damage to be rectified.

Cultural heritage

38. The ES sets out a large amount of information regarding the assessment of the potential effect on historic assets. This includes the assessment criteria and methodology, legislative context, planning policy and guidance, consultation carried out, and a detailed assessment of the baseline historic environment. The latter describes the historic landscape character of the area around the scheme as including:
 - major reens, both natural and artificial, and grips;
 - inland abandoned sea banks and sea walls;
 - bridges across the reens and roadways on embankments;
 - green lanes, both sinuous and straight; and
 - distinctive field patterns belonging to different phases of enclosure.
39. Statutory and local historic designations include the Gwent Levels Outstanding Landscape of Historic Interest which is divided into a number of Historic Landscape Character Areas (HCLAs), five of which would be directly affected by the scheme. The Historic Environment Record describes the Gwent Levels historic landscape as “the largest and most significant example in Wales of a 'hand-crafted' landscape... entirely the work of man, having been recurrently inundated and reclaimed from the sea from the Roman period onwards.”
40. In the area around the application site there are two grade II* listed buildings, eight grade II listed buildings⁹ and three scheduled monuments at Grangefield Moated Site, Goldcliff Moated Site and the Churchyard Cross, St Mary Magdalene’s Church, Goldcliff.
41. Non-designated heritage assets recorded within the study area include the remains of L-shaped and T-shaped structures, two rectangular features, two footbridges, the site of a former medieval church at Porton, and various features associated with the domestic and agricultural use of the area dating from the medieval period to the present.

⁹ These are listed in Cadw’s representation (paragraph 162 of this document).

Archaeological and historical context

42. This section of the ES Cultural Heritage chapter describes human activity on the Gwent Levels; there is evidence that it has taken place for at least 6000 years. There is also evidence of a complex history of land reclamation from the Roman period onward. In summary the section refers to archaeological remains and historic assets and features including:
- A Mesolithic site at Goldcliff, including late Mesolithic footprints; material from the prehistoric periods including cattle hoof prints, roundhouses and post-settings, flint, bone, pottery scatters, timber fish traps and temporary shelters;
 - Two Iron Age settlements, with wooden buildings, at Goldcliff and a network of Iron Age brushwood trackways;
 - Medieval and post-medieval drainage ditches and channels dug at the time that the landscape on Caldicot Level surrounding the scheme was largely reclaimed;
 - Evidence of the only medieval monastery to be built in the area, the Benedictine priory at Goldcliff. The monks carried out a reclamation scheme by excavating the major reens on the Levels, the names of which indicate their origins - Monks Ditch, Chapel Reen and Monkscroft Reen;
 - The present seawall which is probably a late medieval feature;
 - The common meadows in Nash, Goldcliff and Whitson which, during the medieval and post-medieval periods, were divided into strips, in some cases by ditches;
 - The grade II* listed building at Whitson Court which was built in the grounds of a medieval tithe barn in the late-18th century and attributed to the architect John Nash.
43. Throughout the 20th century historic maps show little change across the landscape, apart from a decline in the number of orchards. Aerial photographs taken during the 1950s and 1960s show the gradual industrialisation of the Gwent Levels such as the development of the Llanwern steelworks and associated electrical infrastructure (substations and power-lines), coupled with the urban sprawl of Newport.

Design Mitigation

44. The inherent elements of the design mitigation for the scheme are:
- Application parcels of land being set back away from roads, cycle routes and footpaths to minimise visual impact for those experiencing the historic landscape;
 - Panels aligned inside field boundaries to prevent the removal of vegetation and to retain the inherent historic landscape field pattern;
 - Panels located within field boundaries and largely screened from designated heritage assets to minimise visual intrusion;
 - Access to field plots via existing field gateways and thus no impact to the existing field pattern or removal of historic hedgerows. Stock-proof fencing offset from hedgerow canopy edges to ensure existing vegetation is not damaged or disturbed;
 - Grid yard and battery storage area screened with additional hedgerow planting to reduce the impact on the setting of the historic landscape;

- Battery storage container units painted green to sit within the landscape, minimising any impacts on the historic landscape and visual intrusion;
- Cabling to be bored under ditches and reens at 1.5m depth below the base of the ditch/reen and under hedgerows to avoid disturbance of sensitive landscape elements and use of cabling bridges.

Potential Environmental Impacts and Effects

Direct impacts

45. Whilst the screws/piles fixing the panel framework to the ground would create a direct adverse impact on buried archaeological deposits, the impact from this method of construction is typically less than 1% of the Scheme area. The battery storage area would be ground mounted and cause little or no disturbance to the present ground level. Inverter cabins and transformers would be set on discrete small concrete slabs to cause minimal disturbance to any archaeological deposits.
46. Any direct impacts to buried archaeological deposits, which would amount to their destruction, would comprise a high magnitude of change (impact) on the basis that the historic environment is an irreplaceable resource. Although this could be mitigated it requires suitable justification for the level of harm.
47. There is moderate potential for prehistoric activity within the application site, which, if discovered, would be likely to be of medium, regional importance. Prehistoric sites at the mouth of the River Usk and Goldcliff have, however, yielded remains of high significance. Any direct impacts to Neolithic, Bronze Age or Iron Age remains would result in a moderate to major adverse significance of effect.
48. There is a moderate potential for encountering Romano-British remains at the site; any such archaeological finds and features would be of medium regional importance and would result in a moderate to major adverse significance of effect.
49. There is a high potential to encounter medieval and post-medieval remains. Any finds or features from these periods are likely to be of medium, regional interest value and historic importance. Therefore any direct impacts would result in a moderate to major adverse significance of effect. If no remains are encountered, the effect of the proposed development would be negligible.
50. Direct impacts to the six HLCAs affected by the proposals have been assessed in terms of the proportion of the surface area that is directly affected. The key elements and characteristics which comprise these HLCAs (such as reens, field patterns, sinuous lanes) would not be removed or destroyed but would be concealed by the panels. The overall magnitude of direct impacts is judged to be moderate based on the three parts of Stage 2 of the ASIDOHL2 process (ie in absolute, relative and landscape terms).
51. The principal direct impacts would be to buried archaeological deposits, which would be moderate to major adverse without mitigation and minor adverse with mitigation, or negligible if no archaeological features are present. There are no scheduled buried archaeological deposits within the application land parcels, and therefore any archaeological remains present are graded as Category B: Sites and Monuments of Regional Importance.
52. The impact to archaeological deposits from the construction of solar arrays is typically less than 1% of the site area, and therefore it has been graded as 'Very Slight' with a 1% permanent loss or removal, as per the ASIDOHL2 methodology.

53. As possible archaeological remains are unknown, and not largely visible, they are considered to make a low contribution to the historic landscape character of the HLCAs affected by the scheme, as it is the upstanding historic character remnants (reens, ditches, hedgerows, footbridges, field pattern, etc) which make the most significant contribution to the landscape value.

Indirect impacts and effects during construction

54. Indirect impacts to the settings of designated earthworks and designated assets within Whitson and the surrounding area during construction will be low-medium, largely arising from the disturbance to tranquillity. There will be changes to their settings as a result of short-term noise, increased vehicle movements and visual intrusion resulting in a temporary minor to moderate adverse significance of effect.
55. The present landscape is of high importance on the basis that it has considerable coherence and time-depth. Its setting is considered to make a high contribution to its importance. However the scheme would have a low-medium magnitude of change (indirect impact) to the overall historic character of the various HLCAs of the Gwent Levels during the construction phase as there would be limited change to the attributes of the setting. The key components characterising this landscape (e.g. field pattern, hedgerow, reens, etc.) would remain intact. There would be some short-term disturbance to the tranquillity of the HLCAs resulting in a temporary minor to moderate adverse significance of effect.
56. Indirect impacts on the existing historic character of the area with regard to the form and appearance of the scheme have been assessed as very slight due to the well-screened nature of the scheme and lack of visibility between the application parcels of land.

Impacts and effects during operation

57. No further direct impacts to buried archaeological remains are anticipated during the operational phase of the scheme, and therefore the significance of effect of the scheme in its operational phase, without mitigation, will be negligible.
58. During the operational phase of the scheme, if there was no mitigation there could be some limited visual intrusion from the proposed development on those designated heritage assets which are potential sensitive receptors and their settings.
59. The only area where visibility of the solar panels will be unimpeded is along Chapel Road. The Scheduled Monument (HA06) to the west of Chapel Road is concealed entirely by the intervening hedgerow and buildings. There is no intervisibility between the asset and the panels nor a shared view containing them both. Despite the close proximity there is not considered to be any impact on the setting or significance of this monument.
60. For the remaining historic assets there will be little or no visibility of the solar panels or shared views of the assets and the development. Overall, there is likely to be negligible impact on the settings of these heritage assets.
61. In terms of operational impacts on the historic landscape character, the score for the overall significance of impact of development on the Historic Landscape Area, as calculated by combining the results of Stages 2, 3 and 4 of the ASIDOHL process, is set out in the table below:

ASIDOHL2	Stage 5 Summary of the overall significance of the impact of development on the landscape of historic interest					
HLCA No.	Name	Value of HLCA (based on Stage 4 results)	Impact of Dev. (based on results of Stages 2 and 3)	Reduction of Value of the HLCA on Register	Total Score	Overall significance of impact
01	Nash/Goldcliff coastal zone	Very High - 9	Low - 2	Low - 2	13	Fairly Severe
02	Christchurch/NashW hitson back fen	Medium - 6	Low - 3	Low - 2	11	Moderate
03	Whitson	High - 8	Medium - 6	Low - 2	16	Fairly Severe
04	Porton	High - 8	Medium - 6	Low - 2	16	Fairly Severe
08	Northern Redwick	Medium - 6	Low - 2	Low - 2	10	Moderate
	Average Score for all HLCAs combined		13.2	Grading	Moderate	

62. In total, during the operational phase of the scheme, without further mitigation, the significance of effect on the historic landscape would be slight, i.e. minor to moderate adverse.

Additional Mitigation, Compensation and Enhancement Measures

63. During construction, an agreed programme of archaeological works can be conditioned as part of the planning consent comprising an archaeological watching brief with contingencies, with all archaeological work carried out in accordance with the standard and guidance laid down by the Chartered Institute for Archaeologists (CIfA). Such measures should reduce the impact of the proposed development on the archaeological resource from 'Major' and 'Minor' to 'None'.
64. When the scheme is in operation the overall effect of the development could be mitigated by the use of screening to limit the visual impact of the development. Additional hedgerow planting is proposed to mitigate visual impacts and strengthen the historic landscape pattern. It would mature over the course of the operational phase, resulting eventually in a minor beneficial effect. Sheep would be grazed between the panels providing an additional income for the landowners and maintaining the grassland to retain the agricultural setting of the landscape.
65. The retention of existing site vegetation and proposed additional planting along the boundaries would integrate the scheme into the wider historic landscape, and as such the

significance of effect on designated heritage assets within close proximity to the site will be negligible.

Cumulative Effects

66. The embanked Relief Road would add a significant built element into the historic landscape which would have a permanent direct and indirect impact on historic landscape character of far greater magnitude than the proposed scheme and its associated infrastructure, all of which is temporary and reversible unlike the new stretch of motorway.
67. Two tidal lagoon projects are currently proposed (Swansea and Cardiff bays), which may impact the visual experience of the Gwent Levels historic landscapes. Given the lack of intervisibility from the coast (Sea Wall) towards the proposed solar scheme, and the lack of any likely shared views of both the solar array and the tidal lagoons, these developments are not considered to result in any cumulative impact. The settings assessment conducted as part of the impact assessment confirmed that intervening vegetation, hedgerows and built environment heavily restricts views from ground level across the area.

Response to Glamorgan-Gwent Archaeological Trust

68. The appellant later responded to GGAT's objections. The technical errors in the ASIDHOL2 assessment were acknowledged although it was noted that there was agreement regarding the levels of impact posed by the scheme. Mitigation measures would be devised in liaison and agreement with Cadw and GGAT. The results of the ASIDHOL2 therefore reflected the impact without mitigation.
69. A series of boreholes excavated in the area immediately to the east of the Scheme in 1993 had determined that the basic geology of the area was uniform. Topsoil was approximately 0.5 m in depth; underlying geology was a slightly silty clay underlain by the dominant strata covering the whole site, a soft silty clay. There was no evidence of a peat layer at 1.2 m.
70. Any direct impacts to buried archaeological deposits were judged to result in a high magnitude of change (impact) on the basis that the historic environment is an irreplaceable resource. Direct impacts to buried archaeological remains involves their destruction, which although it can be mitigated, requires suitable justification for the level of harm to these heritage assets. The principal direct impacts would be to buried archaeological deposits, which would be moderate to major adverse without mitigation and minor adverse with mitigation, or negligible if no archaeological features are present. There are no scheduled buried archaeological deposits within the scheme land parcels, and therefore any archaeological remains present are graded as Category B: Sites and Monuments of Regional Importance.
71. It is likely that any substantial archaeological remains, should they be present, would have been detected by the geophysical survey. The limitations of geophysical survey to identify archaeological deposits have been taken into account and the results of the report provide appropriate additional data to be considered alongside the desk-based work submitted.
72. The methodology for any further archaeological work should be designed in response to the fact that the buried archaeological resource is not fully known. Proposed mitigation has therefore included the minimisation of any intrusive groundwork where feasible. The physical impact on the water and land management system of fen banks, gouts, pills, reens and grips could be mitigated partly by an earthwork survey and recording of the area. There is sufficient understanding of the extant earthworks and water management features in the area not to warrant further survey. Any additional recording required could

be undertaken via condition and pre-commencement of site works. The depth of the peats over the development area would need to be ascertained but boreholes undertaken within the area failed to identify a peat layer.

73. The submitted assessments provide a wealth of information upon which it is possible to make an informed decision regarding mitigation measures prior to and during construction phases. In accordance with standard procedures, following consent being granted a written scheme of investigation would be scoped, prepared and sent for approval prior to any site works commencing. Mitigation strategies including monitoring and recording would be sufficient to balance the impact on the historic environment resource when considered alongside the benefits of the proposed scheme.

Landscape and visual effects

LVIA methodology

74. The applicant submitted a Landscape and Visual Impact Assessment (LVIA) which was prepared in line with best-practice methodology¹⁰. It is illustrated by plans (at 1:35,000 and 1:20,000 scales) and photographs including landscape and heritage designations; biodiversity designations; public access designations; thematic evaluations for the five LANDMAP landscape types; visual appraisal; bare earth zones of theoretical visibility (ZTV) and ZTVs with screening features; viewpoint and assessment photographs; four viewpoint photomontages; a cumulative impact assessment; and landscape masterplan.
75. The LVIA established a baseline environment, a description and analysis of the existing landscape against which the effects of the proposed development were assessed. It was based on the reasons for including the area within various designations and LANDMAP data. In summary, the features/elements/characteristics identified as important or "key" to the landscape character of were:
- The network of reens, banks and surface drainage;
 - The patchwork of small fields; sinuous in the west and rectilinear in the east;
 - Hedgerow vegetation, which includes well cut hedges, scrubby hedges, mature trees and pollards; and
 - Green lanes, sinuous with roadside waste in the west and straight without waste to the east.
76. An LVIA consultation exercise was carried out in accordance with the Statement of Community Consultation and included statutory and non-statutory consultees and members of the public. Feedback received during consultation was considered and incorporated where relevant in the design of the project and its assessment and presentation in the ES.

Landscape character

77. In considering the impact of the proposed development on the site and its context the most sensitive features in the landscape are the reens, hedgerows and the rural character of the area.

¹⁰ *Guidelines for Landscape and Visual Impact Assessment* 3rd Edition published by The Landscape Institute and the Institute of Environmental Management & Assessment, 2013 (GLVIA3).

78. The layout of the development would retain the vast majority of vegetation within the site and around the site boundary. It would not be necessary to remove site boundary and internal vegetation except in minimal areas where access is required. Proposed planting on the eastern edge of the battery storage area would have a minor beneficial impact on the vegetation pattern and ecological connectivity of the site and its setting in the longer term resulting in impacts being not significant. Double hedgerows would be reduced where reens are overshadowed increasing the biodiversity within the reens which would have a long term minor beneficial effect on the vegetation pattern of the area.
79. The vegetation and hedgerows within and around the site boundary would retain the existing landscape pattern. During the operational period this would assist in integrating the development into the surrounding landscape and reduce the potential urbanising influence of the solar array frames, fencing, battery units, grid yard and telecommunications mast on the rural character of the site.
80. The potential indirect impact of the proposed solar farm on the public rights of way (PROW) and roads within the study area may include physical disruption and change to the character of the setting and its visual qualities. The public footpaths within the area surrounding the site would experience a change in outlook in areas of relatively short duration, from an open agricultural landscape to a more enclosed area with additional infrastructure and built form elements.
81. There would be a moderate adverse visual impact on the setting of parts of public footpaths and cycle routes immediately adjacent to the site during and immediately following construction, relating to the dominance of the arrays in relation to the setting of the route. This impact would reduce following construction to minor adverse, and to minor adverse-negligible following the establishment of buffer vegetation.
82. Vehicle travellers would perceive construction activities to a lesser extent than pedestrians. Open views of the panels would be possible from Chapel Road. Views from other roads would be glimpsed and filtered by existing vegetation. Elements of the grid yard and adjacent battery storage container units would be apparent in the middle distance, but would be mostly screened by intervening vegetation. The effect on roads within the study area would be minor adverse - negligible following construction and establishment of buffer vegetation for near routes, and none for more distant routes.
83. The impact on the setting of residential properties is minor adverse or none as the solar panels would be largely screened by existing vegetation and separated from residential properties by distance. The effect of the development on residential amenity would be minor adverse during construction for a very limited number of properties reducing to negligible following the construction period and entering the operational phase. Furthermore, the proposals are fully removable after 30 years, with some minor adverse effects during decommissioning, following which the land would be reinstated resulting in impacts being not significant.
84. Overall the development would have an initial moderate adverse impact on the immediate rural character of the site context, within 100 m. Between 100-500 m away the change would be minor adverse. Views of any part of the development would be limited beyond 500 m away and the impact would be negligible as elements of the development would be absorbed within the overall context of built form across the study area. Within the immediate context the development would have a significant effect on the local character area; however, within the wider context the impacts are reduced and not significant.

85. There would be a change from agricultural land to the built landscape of the solar farm. The landscape already has a number of built forms within it, including wind turbines and the electricity pylons which form dominant features within the landscape. The development proposals are fully reversible and features of the landscape assessed as of high sensitivity would be retained.
86. The proposed development would have a negligible impact on the landscape setting of the LOHI and the corresponding Special Landscape Area as it would not be a widely perceptible element from within the wider landscape. Impacts on listed buildings and scheduled monuments are considered to be negligible-none.

Visual impact

87. With regard to visual amenity, the sensitivity of viewers is affected by their susceptibility to changes in views and visual amenity and the value attached to particular view locations and views. The context of the location contributes to susceptibility; people viewing from residential properties or from a valued landscape are likely to be more susceptible than people viewing from an industrial context.
88. ZTV mapping was generated by computer to identify the geographic extents within which views of the proposed development may be available. The predicted bare earth extent of the ZTV was based on a digital terrain model generated from an Ordnance Survey dataset. The ZTV was calculated to 2.8 m proposed solar panel height, 2.8 m proposed battery storage container units, 16.6 m proposed telecommunications mast and the viewer height of 2 m.
89. An additional ZTV takes into account the screening effect of buildings and woodland. For this buildings were given a height of 7 m and the woodland a mean average height of 10 m but screening effects of other surface features such as individual trees and hedgerows could not be taken into consideration. Potentially sensitive visual receptors include people visiting areas covered by landscape designations, areas or sites of historic interest, public footpaths, bridleways and cycle routes, and visitor attractions.
90. For the viewpoint study a total of 23 views were taken to illustrate the site and its appearance in publicly available views. From the viewpoint studies, a representative selection of five views was taken forward to the visual impact assessment, also having a winter view description. A further four views were developed as photomontages to indicate the change in view between the current and operational status of the development.
91. The visual impact assessment of the five representative views is tabulated in the LVIA¹¹ as follows:

¹¹ ES Chapter 10.0 Landscape and Visual Effects, Table 10.13

Photo ref	Sensitivity of receptors	Location	Magnitude of change	Significance (of effects during construction)	Short-term effects Significance (of effects after construction): Long-term effects
02	Cycle route users – moderate; road users - lesser	View south from minor road to N of study site	Small, construction and operation	Minor adverse Not Significant	Minor adverse-negligible Not Significant
05	Local residents – moderate; road users - lesser	View N-E from Whitson Common Road adjacent to properties	Small – construction; none - operation	Negligible Not Significant	Negligible Not Significant
07*	Road users -lesser	View S-E from minor road adjacent to site boundary	Great – construction; small - operation	Moderate adverse Significant	Moderate adverse Not significant
12	Footpath users - moderate	View N from Wales Coast Path at junction with Llanwern steel works pipeline	Small – construction; none - operation	Minor adverse Not Significant	Negligible Not Significant
16	Footpath users - moderate	View S from public footpath in the Llanwern Hills	None	Negligible Not Significant	Negligible Not Significant
* NB the impact on viewpoint 7 was reassessed ¹² following the amendment to provide screening hedgerow along Chapel Road. The amended assessment is included in this table.					

Mitigation

92. The potential for adverse effects on landscape and visual amenity has been recognised and mitigation measures incorporated into the scheme to avoid or reduce adverse effects or to offset or compensate for unavoidable adverse effects. The measures incorporated in the scheme proposals include:

- Retention of existing vegetation along field boundaries;

¹² LVIA Addendum Statement

- Reduction of hedgerows where doubled on either side of reens to stop overshadowing of reens;
- Additional hedgerow planting to provide screening to the battery storage container units;
- The proposed security fence will be a 2 m high stock fence to reduce its potential visual prominence.

Cumulative impact

93. The LVIA included a cumulative impact assessment which took account of the effects of similar developments and considered the solar farms which were either operational, in planning or with planning permission within the study area and a wider area beyond this. It concluded that these solar farms were located at a too great a distance to have any significant effect when combined with the proposed scheme due to the lack of intervisibility and the lack of sequential effect. The effects were therefore considered to be negligible.
94. There are seven wind turbines within the study area of the site with a further two with planning approval but not yet constructed. The turbines have a 100 m blade tip height and lie to the east and west of the proposed development. Though they are distinct features within the landscape they are not dominant within the majority of views around the site with the exception where the wind turbine is seen as a focal point on the horizon. For the remainder of the views the electricity pylons within the study area are in comparison much more apparent and a prominent part of the overall views within the study area.
95. The potential development of the M4 Relief Road for Newport (M4CaN) has been taken into account in relation to the solar farm. It would be on an embankment, forming a prominent, dominating element within views. The juxtaposition of the solar farm with the road would result in views of the solar farm being available from the new relief road. The extensive constructed element of the relief road would introduce a major infrastructure feature into a mainly rural landscape; being in such close proximity to the solar farm the combined effect would be to increase built form in a sensitive area. The scale of the relief road development however would outweigh the scale of the solar farm and the visual impact of the relief road would be extensive and significant across the Gwent Levels. The cumulative effect of the proposed solar farm with other existing and potential renewable energy and other infrastructure is thus assessed as negligible.
96. The proposed development, therefore, complies with LDP Policies CE10, Renewable Energy; SP5, Countryside; GP6, Quality of Design; and SP8, Special Landscape Areas. There would be no adverse impacts on the setting of scheduled monuments or listed buildings consistent with Policy SP9. The impact on the setting of the LOHI and the corresponding Special Landscape Area is considered to be negligible in line with Policies CE10 and SP8.

Ecology and nature conservation

97. This chapter of the ES sets out the legislative context and national and local planning policy in relation to ecology. The assessment criteria and methodology are described, the first stage being the collection of baseline data. This was derived from the characteristics of designated sites, particularly the two SSSIs, habitats and protected and key species. Records of habitats and species were provided by the South East Wales Biodiversity Records Centre (SEWBReC).

Designated sites

98. The SSSI's are considered to be of importance to nature conservation at a national level particularly for the reen and ditch habitat. The Nash and Goldcliff SSSI citation notes that it is of particular botanical interest as the only area in Wales for the rootless duckweed and that there is an interesting community where two species of hornwort grow together. Shrill carder bee is also a qualifying feature of this SSSI. The Whitson SSSI citation states that is of particular importance for its large number of nationally rare and notable invertebrate species. A total of 65 of these rare invertebrates have been recorded including Shrill carder bee.

Habitats

99. The dominant habitat in the area is Coastal and Floodplain Grazing Marsh which is a Priority Habitat of importance at a regional level. The application site includes approximately 69 ha of Semi-Improved Grassland which is assessed as being of intrinsic importance to nature conservation at a local level. The application areas also include approximately 57 ha of Improved Grassland which is locally important. However, as components of Coastal and Floodplain Grazing Marsh and considered in combination with the reens and ditches, the value of Semi-Improved and Improved Grassland is greater. Field margins are of local importance.
100. The network of reens, ditches and field drains within the application area links to a much larger network across the wider area. Many of the ditches are suffering from a lack of management; hedgerows have been allowed to grow up on both sides shading the watercourses, causing siltation and preventing management¹³.
101. The watercourses are a fundamental component of Coastal and Floodplain Grazing Marsh, a Section 7 and LBAP Priority Habitat. The reen/ditch network as a whole supports a wide variety of aquatic plants and invertebrates and is the primary reason for the designation of the two Gwent Levels SSSIs. Therefore, the reen/ditch network across the application site is of importance to nature conservation at a national level.
102. A total of 94 hedgerows are present within the application area¹⁴, most of which are species-poor. Access routes for farm machinery and gates for livestock are present throughout the hedgerows. The size of hedgerows ranges from 1 m to 6 m tall and 1 m to 4 m wide. Standard trees within the application area are predominantly associated with hedgerows and field boundaries and include mature specimens of willow, oak, ash and horse chestnut. All hedgerows are habitats of principal importance under Section 7 of the Environment (Wales) Act 2016 and LBAP Priority Habitats as they comprise over 80% native species.
103. The hedgerows and trees within the application area form an extensive network with hedgerows in the wider landscape and would normally be considered to be of importance to nature conservation at a regional to national level. However, the double line of hedgerows alongside many field drains is likely to be a disadvantage to nature conservation in the area because they shade important water courses, reducing their value and preventing ditch and reen management. Individual hedgerows and mature trees within the application site are therefore assessed as being of importance to nature conservation at the local level.

¹³ Full details are provided in ES Appendix 11.11

¹⁴ ES Appendix 11.2

Protected and Key Species

104. There are records for several protected and key species on and around the site. The nature conservation value of these species as well as the designated sites and habitats is summarised in the table below.

Ecological feature	Nature Conservation Value (Geographic Scale)
Nash and Goldcliff SSSI	National
Whitson SSSI	National
Other SSSI's associated with Gwent Levels (linked via reën system)	National
Coastal and Floodplain Grazing Marsh	Regional
Semi-improved neutral grassland	Local
Improved grassland	Local
Field margins	Local
Water courses	National
Hedgerows and scattered trees	Local
Dense scrub	Zone of influence
Tall ruderal vegetation	Local
Invertebrate assemblage (terrestrial and freshwater)	National
Shrill carder bee	National
Amphibians	Local
Reptiles	Local
Dormouse	Regional
Badgers	Local
Bats (foraging and commuting)	County
Otter	County
Water vole	County
Brown hare	Local
Hedgehog	Zone of influence
European eel	Regional

Inherent Design Mitigation

105. Features designed into the scheme to protect the ecology of the site would include:
- The use of existing farm access tracks and watercourse crossing points, and minimising loss of hedgerows and vegetation;
 - Anchoring panels to a metal frame fixed to the ground with no substantial areas of concrete;
 - Inclining the panels and having large gaps between rows so that bats do not mistake them for water;
 - Retaining 7m buffers from ditches/field drains, 12.5m buffers from reens to prevent impacts to water vole, otter, reptiles and amphibians;
 - No obstructions to watercourses allowing fauna to commute freely;
 - No lighting adjacent to watercourses to prevent impacts to invertebrates and bats;
 - No land take of field margins;
 - The solar arrays would be partially transparent allowing vegetation to grow beneath;
 - Planting of new native hedgerow providing habitat for terrestrial invertebrates, nesting birds and other terrestrial species;
 - Gaps left under security fencing to allow small mammals to move freely.

Potential Environmental Impacts and Effects

106. Overall, the applicant does not anticipate that the scheme would result in impacts to nature conservation beyond the zone of immediate influence, assuming the proposed mitigation stated is implemented. The value of the affected area in combination with the proposed ecological enhancements, such as the enhanced reen management and planting of species-rich grassland areas, would mean that the scheme has the potential to have a net benefit to biodiversity during the operational phase. It would also be easily reverted to the original habitat after decommissioning with a legacy of improved biodiversity.

Cumulative effects

107. It is not considered that any cumulative impacts would arise in connection with other developments including the M4CaN project. The assessment of ecological impacts has found that there are likely to be no residual effects resulting from the proposed development and that the measures detailed within the Landscape Environment Management Plan (LEMP) would bring about beneficial effects to the two SSSIs. An Environmental Impact Assessment has also been completed in respect of the M4CaN project and appropriate measures have been planned to mitigate the entirely separate impacts of that scheme. The proposed development would not prevent or hinder the proposed mitigation measures of the planned M4CaN scheme and it follows, therefore, that there would be no negative, in-combination impacts with the project.

Monitoring

108. A programme of ecological monitoring would be undertaken during the lifetime of the project to document the effects (positive and/or negative) on ecological features present on site. This would include bats, breeding and winter birds (see Chapter 12), aquatic invertebrates and shrill carder bee. In addition, there would be inspections of mitigation measures e.g. bat boxes and habitat piles. Wildflower meadow areas would be checked to ensure they are developing properly.

Ornithology

109. The ornithology chapter of the ES follows a similar format to the ecology chapter setting out the legislative context and national and local planning policy in relation to birds and their habitat. It also describes the ornithological surveys that were carried out, the assessment methodology and consultation carried out.

Designated sites

110. The designated sites are as described in the Ecology chapter of the ES. Of particular importance for birds are proximal designated sites which include the Severn Estuary Special Protection Site (SPA), Ramsar site and SSSI; the Newport Wetlands SSSI and National Nature Reserve (NNR); and the Nedern Brook Wetlands SSSI. Between them these sites support significant populations of species of European importance; the designated sites are of international and national importance.

111. For the desk study, information provided by SEWBReC showed that 93 priority and protected bird species were recorded within the 5 km search area. Of these, 48 species were considered as having reasonable potential to occur in the application area. The list provided some context for the design of the on-site surveys although it was clear that the presence of all these species on site was highly unlikely.

112. The ornithological baseline of the area is summarised in the table below.

Feature	Conservation Value (Geographic Scale)
Winter	
SPA Qualifying & Assemblage Species	Local
Lapwing	Local
Snipe	Local
Schedule 1 Birds (Cetti’s Warbler/Barn Owl)	Local
Starling, redwing and fieldfare	County
Other Winter Resident and Migratory Species	Local
Breeding	
Breeding Bird Assemblage	Local
Lapwing	National
Common Crane	National
Schedule 1 Birds (Cetti’s Warbler/Barn Owl)	Local

Inherent Design Mitigation

113. Features designed into the scheme to protect the birds of the site would include:

- Construction would take place outside the core breeding season for most species of birds to minimise impacts to breeding birds;

- The use of existing farm access tracks and watercourse crossing points, and minimising loss of hedgerows and vegetation;
- Planting of new native hedgerow providing nesting and foraging habitat for nesting birds;
- Anchoring panels to a metal frame fixed to the ground with no substantial areas of concrete, preventing unnecessary land take and impacts on grassland bird foraging and breeding habitats;
- The solar arrays would be partially transparent allowing vegetation to grow beneath;
- Inclining the panels and having large gaps between rows so that birds do not mistake them for water;
- 7 m buffers from ditches/field drains, 12.5 m buffers from reens would be implemented; no land take of field margins;
- no obstructions to watercourses, therefore allowing any fauna to commute freely;
- no lighting adjacent to any watercourses to prevent impacts to nocturnal fauna.

Potential Environmental Impacts and Effects

114. The potential effects and impacts on the site's ecological features are summarised in a table set out in Appendix 4 of this document.
115. The ornithological assessment shows that a suite of bird species use the site throughout the year, for breeding and winter foraging, shelter and roosting. This includes some species with enhanced statutory protection and species of conservation concern. The application area does not form a core area for any SPA species, with no significant numbers of any individual species identified although large numbers of lapwing have been recorded in adjacent areas and would be considered regionally significant.
116. The construction of the arrays would not impact on the integrity of the SPA/Ramsar site or the component SSSIs. The majority of ornithological interest on the application site is of site or at most local value and the proposed development would not result in effects of greater than local level importance. A number of land management proposals associated with the development can result in positive impacts for both wintering and breeding species.

Cumulative Effects

117. No significant adverse effects have been identified on ornithological features from the proposed solar farm and it is unlikely that any in-combination effects are present, taking account of other existing schemes in the area. Under the new EIA Regulations 2017, projects which are not consented or existing and still within the planning process are not required to be assessed within cumulative effects. Significant projects that are not yet consented are:
- Cardiff Tidal Lagoon
 - Newport Tidal Lagoon
 - M4CaN

118. Nevertheless, the M4CaN has been considered in cumulative impacts in the HRA screening report¹⁵. Through this assessment there were found to be no residual effects identified in relation to the M4CaN any features of the Severn Estuary SPA, SAC, or Ramsar site, provided that the proposed mitigation is implemented.
119. No LDP Allocations have been proposed on the site and the proposals will not influence or affect any nearby allocations for other development. The Shoreline Management Plan is a high level non-statutory policy document designed to assist coastal flood and erosion risk management planning. The proposed development would not conflict with the aims of the plan nor bring about any cumulative impact with any development supported by the plan.

Monitoring

120. To monitor the effects of mitigation measures/compensation and the effects of the solar farm on ecological features including birds, a monitoring plan will be undertaken. This will include breeding lapwing and crane surveys periodically through the life time of the project. This is detailed in the LEMP.

Flood risk and water resources

121. The first step in considering whether the proposed development would comply with TAN 15¹⁶ is to clarify which category it falls within. Especially vulnerable industrial development, including power stations, is categorised as Highly Vulnerable¹⁷. TAN 15 was, however, written in July 2004 predating large-scale solar farm development. The reference to 'power stations' was not, therefore, intended to cover this type of renewable energy installation.
122. TAN 15¹⁸ explains that 'Highly vulnerable' describes development whose occupants have a limited ability to decide whether they wish to accept the risks of flooding, or to manage the consequences of such a risk. It also includes industrial uses where there would be a risk to the public and the water environment should the site be inundated.
123. The proposed development would be unmanned with no occupants. The panels are inert and would not be a safety risk if the site did flood. The development could be easily disconnected from the grid and would not involve the use of toxic or hazardous substances. In addition, solar farms have a proven record of safe operation in flood zone locations and are compatible with them. Given its characteristics, it is thus appropriate to classify the proposed development as a 'Less Vulnerable' or 'Other' form of development. This would be consistent with the 'Less Vulnerable' classification of development such as general industrial and utilities infrastructure.
124. 'Less Vulnerable' or 'Other' forms of development should only be permitted within zones C1 and C2 if they are justified in these areas¹⁹. The submitted 'Site Selection Sequential Test' document provides a thorough explanation as to why the proposed development must be sited in this location. If the proposed development is justified in its location a Flood Consequences Assessment (FCA) must be undertaken to establish whether mitigation

¹⁵ ES Appendix 12.1

¹⁶ TAN 15 paragraph 6.2

¹⁷ TAN 15 Figure 2

¹⁸ TAN 15 paragraph 5.2

¹⁹ TAN 15 paragraph 6

measures can be incorporated to ensure that the proposed development is sufficiently safe²⁰.

125. The submitted FCA²¹ has utilized the most up-to-date climate data and an appropriate methodology agreed with Natural Resources Wales (NRW). It has found that there is unlikely to be flooding in the site area under current or future projections of climatic conditions. The hydrology and runoff from the proposed development will not fall outside of the range expected from its current agricultural use.
126. Furthermore, the FCA found that if the existing, robust flood defences were to be breached sufficient warning could be given to any visitors of the development (for maintenance etc.) to avert potential danger.
127. The applicant's FCA also concludes that the change in use of the fields from arable to a solar farm would have advantages including:
- It would be an important and significant source of renewable energy for the community;
 - Sea level rise is not predicted to be significant during the 30 year lifespan of the solar farm;
 - The site is not predicted to be at risk from tidal flooding in an undefended scenario;
 - Even in the worst scenario the site is only predicted to flood a maximum of 800mm, which is below the level of the arrays;
 - There would be no risk to visitors from flooding or excessive surface water flows;
 - The equipment and associated infrastructure would be robust, resilient to wet weather and will not cause pollution;
 - The high levels of runoff carrying silt, which can arise from ploughed arable fields, would be eliminated;
 - The elimination of intense grazing would allow the soil to improve and absorb more rainwater;
 - The water quality would improve through eliminating the application of pesticides and fertilizers;
 - The creation of a species-rich meadow environment would provide major improvements in soil quality, infiltration and evapotranspiration;
 - The improvement in soil structure through the changed ecology would be beneficial to the hydrology;
 - The flat land prevents channelling and streaming and intense overland surface flows will not occur;
 - Tracks would be permeable and likely to grass over adding to biodiversity;
 - The heavy machinery associated with farming will be eliminated preventing further compaction of the soil and improving its quality.
128. The site would therefore be safe for people and property. The proposed change of use would bring significant overall benefits to the environment and comply with the guidance given in TAN 15 and the Local Biodiversity Action Plan.

Glint and glare

129. The report assessed the potential glint and glare impacts of the proposed solar development on residential amenity and road safety. The report modelled reflections

²⁰ TAN 15 paragraph 7.1 advice on carrying out the assessment is provided in TAN 15 Appendix 1.

²¹ ES Appendix 13.1

throughout the year towards dwellings and road user locations within one kilometre of the proposed panel areas.

130. There is limited formal guidance for the assessment of glint and glare in the UK. The consultant carrying out the survey (Pager Power) had published a recommended methodology based on international guidance, independent studies and consultation with industry stakeholders including aviation authorities.
131. The conclusions of the study were that all potential effects have a 'Low' impact significance which does not require mitigation. Based on computer modelling and a conservative desk-based assessment of available views reflections would possibly be seen at 24 dwelling locations. Residents who observed glare when looking towards a reflecting panel would also be looking towards the sun; direct sunlight is significantly more intense than a reflection from a solar panel.
132. Reflections would also be possible towards three separate stretches of local road running adjacent to the panel areas. Drivers would have to look away from their direction of travel to view a reflecting panel and the effects would be fleeting. In some or all cases, the visibility of panels would be partially obscured by vegetation.
133. The survey did not recommend any mitigation requirement as the potential impacts would be small. Effects could be reduced further through the provision of additional or enhanced screening at the site boundaries.

Noise

134. The noise report assessed the significant effects associated with the proposed solar farm scheme. It included the result of the baseline noise survey, provided noise criteria for the development in accordance with British Standard 4142:2014 and undertook an indicative assessment based on noise from plant at existing solar farms.
135. Modelling based on data gathered from existing solar farms was undertaken to predict the noise impact. The predicted rating sound level from the site at the most exposed residential dwelling was used to assess noise emission in accordance with British Standard 4142:2014. This was based on the predicted cumulative noise level from all items of plant operating simultaneously and constantly.
136. Based on the noise predictions undertaken it was demonstrated that the British Standard 4142:2014 assessment 'difference' can be no more than -4 dB. This was an indication that noise from the plant would be of low impact on the noise-sensitive receivers in the area and the proposals would not have any significant impact on nearby noise sensitive receptors.
137. On the basis of the assessment and with a suitable noise-limiting condition imposed on the scheme, noise can be controlled to acceptable levels and will have no adverse impact upon nearby noise sensitive dwellings.

Additional assessments

Agricultural land quality

138. A combination of local factors, including soil type, depth and surface drainage restricts agricultural production on the site to temporary grass in some fields or permanent pasture for mowing or livestock grazing.

139. Welsh Government's (WG) Soil Research Department conducted a thorough desktop exercise as part of a review of the agricultural land classification grading and the submitted survey report. This determined a 'predictive grade' of land quality finding that the site is likely to comprise a mosaic of agricultural land classification Grades 3b, 4 and 5. The presence of 'Best and Most Versatile' agricultural land was thus determined to be highly unlikely and it was not recommended that any further survey work be undertaken.

Tree survey

140. The Arboricultural Impact Assessment^{22 23} included

- a survey of all trees on the application site;
- an assessment of the impact of the proposed development on the surveyed trees.

It resulted in the production of a Tree Survey Schedule, giving details of trees and proposed remedial works, and an Arboricultural Method Statement providing details of proposed working methods to ensure the protection of retained trees.

141. The assessment found that the proposed development would have a moderate impact on the existing tree resource; there has been little intervention and many trees are in poor condition with poor vitality. Elements of the proposal, such as cabling, fencing and in one case a solar panel, would affect the root protection areas (RPA) of 21 trees and hedges. In these instances the Arboricultural Method Statement requires that infrastructure is installed within RPAs using hand excavation techniques.

142. About sixteen trees would be removed as well as part of a group and a hedge. These removals are necessary due to the poor condition of trees or as a result of development works. The latter include the installation of a power cable, to make room in fields for the solar panels, and for the widening of access points.

143. Most of the features to be removed are in the latter phase of their natural cycle and make a reduced contribution to amenity, the landscape and the environment. Furthermore the resultant debris and cuttings would be stacked on site as habitat piles. The removed trees would be replaced with appropriate species to ensure the continuity of tree cover. The assessment thus concludes that the loss of these features does not constitute a considerable loss in amenity, arboricultural merit or biodiversity.

Population and human health

144. The applicant considers that the following four issues are relevant to this matter:

Potential of increased health and safety risk associated with reens and ditches

145. A stock proof fence would be erected around the edge of each field boundary, separating the panelled areas of the site from the ditches and reens. Access to these watercourses would be via one of the field gates shown on the plan or through an adjacent watercourse only. Therefore the accessibility of the reens and ditches would be reduced.

146. There could be a risk to workers undertaking maintenance by i) restricting access to any injured parties in the event of an emergency, or ii) from a clash between a new built feature and the heavy machinery used to cut the vegetation along the banks. Although

²² In accordance with BS5837 (2012) 'Trees in Relation to Design, Demolition and Construction, Recommendations'

²³ ES Appendix 14.2

this arrangement may cause a slight delay in accessing the reens it is felt that this delay would be minor and would not cause a significant increase in any health and safety risk. It would be possible to reduce the risk by introducing additional gates along the fence line.

147. The proposals allow for a development-free buffer zone of 7 metres either side of all ditches and reens. This would provide ample space for the safe, unhindered use of machinery for maintaining the vegetation around the reens and ditches.

Potential increased health and safety risk caused by heightened flood risk

148. Some respondents to the pre-application consultation were concerned that the proposals would increase localised flood risk resulting in a risk to the safety of local residents and people using the footpaths around the site.
149. The likelihood of flooding being caused by the proposed development has been assessed by the FCA which included projections of flood events over the 30-year duration of the scheme. The assessment notes the modern and robust state of the flood defences and considers that "*there is no risk to visitors from flooding or excessive surface water flows*".

Potential risk of injury caused by electric shock (associated with transmission and storage of electricity)

150. The proposed development has the potential to generate and store a large amount of electricity. Some respondents to consultation queried whether the generation of electricity would be safe in an identified flood risk area.
151. The proposed development would be installed by a qualified contractor in accordance with the appropriate guidance and regulations required for an electrical installation of this scale. The details of the installation itself would be specified within a Construction and Environmental Management Plan (CEMP) to be agreed with the LPA prior to the commencement of any development.
152. Once operational, the development would be set behind the physical boundaries of the surrounding reens and the stock proof fencing in order to prevent unauthorized access. Appropriate warning signage will also be provided to deter any intrusion. The panels themselves are inert and the power generated by each array would be transmitted through insulated cables buried below the ground. The batteries, transformers and inverters would be housed in sealed, safe containers mounted above the ground.
153. In addition to the inherent protection afforded by its design, the scheme could also be controlled remotely so that the transmission of electricity could be quickly disabled if any immediate health and safety concerns should arise.

Potential injuries caused during construction phase – including risks from site traffic

154. The roads around the site are fairly narrow. Concerns have been raised that the additional traffic movements, including the use of the roads by HGVs for the delivery of components, would be unsafe to local road users (including cyclists and pedestrians).
155. A detailed Construction Traffic Management Plan (CTMP) has been prepared which explains how deliveries to the site will be managed. Under this plan there will be four site compounds at different locations around the site. Panels and equipment will be delivered to these compounds and will then be decanted into smaller vehicles and distributed around the site. The management of construction deliveries will be handled within the confines of the site (or land immediately adjacent) and away from the public highway.

156. Deliveries will be spread over the duration of the construction period and the number of HGV's accessing the site at its peak is anticipated to be a total of 20 per day. The deliveries would follow two separate routes, depending on the part of the site to which the deliveries were being made. This means that that the total amount of site traffic is distributed around the road network, significantly reducing any impacts resulting from site traffic.
157. The access points to the site have been robustly modelled. Measures would be put in place to ensure that HGVs could access the site directly without needing to complete complicated manoeuvres in the road. Suitable road signage and a banksman at the point of access would provide an additional degree of safety.

Consultation Responses

158. On confirmation that the application was valid the Planning Inspectorate undertook the required consultation and publicity measures, and eleven letters of objection and twelve other representations were received. The main points are summarised below.

Cadw

159. Cadw was mainly concerned with the adverse impact that it considered the proposed development would be likely to have on the registered Gwent Levels LOHI. Additional mitigation was recommended including additional planting to screen the arrays; a reduction in the number and height of the approximately 60, 5m high CCTV points; and mitigation around the height of the telecommunications tower, inverter cabins and the transformers.
160. Cadw's more detailed observations were that intervening vegetation between two scheduled monuments²⁴ and the proposed development would block all views and prevent damage to their settings. There were some technical errors in the submitted Assessment of the Impact of Development on Historic Landscape (ASIDOHL)²⁵ but Cadw agreed with its conclusions that the proposed development would have a 'fairly severe' impact on two HCLAs, and a 'moderate impact' on a further three. Cadw also considered that the scheme would not be temporary.
161. In response to a request for further information, Cadw provided its assessment of the effect on listed buildings in the area. Due to the large scale of the proposed development and the existing landscape and vegetation of the Gwent Levels, it was considered that the solar arrays and infrastructure would be visible to some of the listed buildings and structures within the area and further afield, having an adverse effect on their setting.
162. It was possible that there would be a significantly adverse impact on the settings of:
- Whitson Church (grade II*)
 - Whitson Court (grade II*)
 - Whitson Lodge (grade II)
 - Whitson Farm (grade II)
 - Little Porton Cottage (grade II)
 - Little Porton Byre (grade II)
- and a moderate effect on:

²⁴ Grangefield Moated Site (MM205) and Goldcliff Moated House Site (MM092).

²⁵ ES Appendices 9.2 and 9.5

- Barn at the Barn Farm (grade II)
- Barns at Great Newra (grade II)
- Church of St Mary Magdalene (grade II)
- Samson Court (grade II)

Campaign for the Protection of Rural Wales (CPRW)

163. CPRW objected to the proposed development on the grounds that it would damage the landscape and wildlife of the Gwent Levels and was incompatible with the statutory designations, particularly the LOHI and the SSSIs.
164. The scheme would only be appropriate in this location if alternative sites on undesignated land, including brownfield sites, were unavailable. Given the amount of land already classified as brownfield surrounding Newport, including several former steel working and other industrial plants, this is not the case. CPRW pointed to Policy GP5 of the Newport Local Development Plan which states that 'The developer must demonstrate the case for development and why it could not be located on a site of less significance for nature conservation'. It considered that the scheme would not meet this test.
165. CPRW noted that the ES admits that the proposal would have a severe impact on the Gwent Levels LOHI. It also considered that comparisons with the Hazel Farm, Langstone solar farm are erroneous and that claims that the footprint of the scheme would be minor were not credible.

Glamorgan-Gwent Archaeological Trust (GGAT)

166. GGAT noted that the submitted documents did not fully take account of the buried archaeological resource particularly the nature of the reclaimed and buried land surfaces, and the impact of the ground screws or piling. As the assessment was not based on details of the depth of the buried land surfaces, or detailed plans of the length and diameter of the ground screws or piles, it had not assessed the impact of the proposals on the historic environment. No written scheme for a desk based assessment was received. Therefore GGAT was not in a position to suggest informed mitigation for the impact of the development.
167. GGAT was also concerned that the significance of impact had been reduced by stating that the scheme would be temporary and reversible at the end of its 30 years' lifetime. The impact, particularly on the buried landscape, would be neither reversible nor temporary. A pincushion effect would be created having a physically wider effect than the width and depth of the screws. It could have a direct impact on the buried archaeological sites and also, by introducing oxygen into the anaerobic conditions that are currently preserving organic material, could cause significant long-term damage. Considering the sealed aspects of the peats it was GGAT's view that there would be a more significant adverse impact.
168. Current Government advice is that archaeological deposits should remain preserved in situ, unless the need for the development outweighs the importance of the archaeological resource. In such cases the requirement will be preservation by record.
169. GGAT was concerned at the use of geophysical survey as, on areas such as the Levels where there is known to be a depth of alluvial deposits, this type of survey is not always accurate. Alluvial deposits can mask archaeological deposits which in this environment are often organically based. There is no acknowledgement in the reports that, due to the depth of alluvial deposits, the results of geophysical survey on the Levels may not be accurate.

170. The depths and level of the peats, and the detailed nature of the ground intrusion works, must be ascertained for any impact to be understood and mitigated. Until this is undertaken GGAT would not be in a position to make an informed decision regarding the impact of the development.
171. The physical impact on the water and land management system of fen banks, gouts, pills, reens and grips could be mitigated partly by an earthwork survey and recording of the area. Detailed analysis of the drainage system and dating would involve sampling of wet peat deposits. If mitigation was by the preservation by record this would have to meet the current professional Standard and Guidance of the Chartered Institute for Archaeologists and be undertaken by a registered organisation or accredited MCIfA level member.

Goldcliff Community Council

172. The Community Council considered that the proposed development would run counter to the significant effort and investment being devoted to maintaining and promoting the local environment. It noted that the scheme would be within SSSIs, as well as close to other designated areas, and that the special interest of the SSSIs was dependent upon the quantity and quality of the water resource. This might be adversely affected by the proposed development with consequent harm to the ditch habitat and flora and fauna of the area.
173. Other matters of concern to the Community Council included the impact on landscape and views, including from footpaths and bridleways; the bird life of the area especially in the light of proximity to the RSPB bird and wildlife sanctuary; traffic with local roads being unsuited to large vehicles; and flood risk. The Community Council drew attention to the Living Levels initiative which had attracted funding in the region of £3m towards conserving, restoring, improving and promoting the unique character of the Gwent Levels. It also considered that a community benefit scheme should be established.

Gwent Ornithological Society, Gwent Wildlife Trust and RSPB Cymru

174. Whilst acknowledging and supporting the use of renewable energy to reduce greenhouse gas emissions, and therefore the threat to biodiversity from climate change, these organisations objected to the scheme on the grounds of the potential harm which would be caused to the rich, and sometimes rare, wildlife resource of the area. Gwent Ornithological Society's overall view was that the proposed development would have negative impacts on breeding cranes, nesting lapwing, barn owl, grey heron, little egret and lesser spotted woodpecker. It would not, therefore, be in harmony with those birds or nature in general, particularly when considered in combination with the potential impacts of the proposed M4CaN and other potential developments affecting the SSSI, the Severn Estuary SPA, the SAC and Ramsar site.
175. Gwent Wildlife Trust took issue with several aspects of the ES including whether the proposed development would be temporary; the effect on ecology, nature conservation and ornithology, which it considered would be harmful; the effect on the Gwent Levels LOHI were again considered to be too great; and considered that there was no demonstration of why the scheme could not be located on a site of less significant ecological value.
176. The Wildlife Trust noted that, as a result of the speed with which solar farms had become widespread there was a lack of research into their environmental impacts on sites. It drew attention to the findings of several research papers and also to the Rampisham Down proposal which was called in and then permitted on an alternative, undesignated site.

177. Gwent Wildlife Trust cited many other grounds for objecting to the scheme including:
- A scheme of this scale is placing the Gwent Levels SSSI at high ecosystem and 'landscape scale' risks from unknown and/or inadequately researched impacts of solar schemes;
 - The scheme would detract from the enjoyment of the Gwent Levels landscape and local environs by local residents, users of the PROW and visitors to the area;
 - It would be a substantial man made intrusion in a largely rural landscape;
 - The proposals should not be located in SSSIs where the priority should be for land management for nature conservation;
 - The development would have a significant impact on habitat availability for a significant number of breeding and wintering birds including Lapwing and Common Crane. The total land area available to bird species with a preference for open grazing marsh and grassland habitats on the Gwent Levels SSSI would be significantly reduced and disproportionately reduced on Whitson SSSI;
 - There would be a risk of pollution impacts from the installations during flood conditions, particularly if the infrastructure was damaged, which could impact on soil, reens, ditches, grazing marsh and associated species. There was also a risk of chemicals and heavy metals leaching from the installations as the scheme aged;
 - The scheme would have local climatic effects which would impact on a wide range of species and the whole ecosystem of the fields and surrounding reen habitats;
 - The construction of the scheme would result in the extensive disturbance of soils across all the fields due to installation of the panels and burying of electrical cables. This would impact on vegetation and drainage and, potentially, favour invasive weed species;
 - References to the solar panels having a 'small footprint' and 'minimal land take' are misleading;
 - No assessment had been made of the impact of the scheme on the 'grips' and their associated ecology;
 - The proposed large scale use of fencing is out of character in the Gwent Levels landscape will have significant impacts on its ecosystems;
 - The consideration of cumulative impacts was inadequate;
 - Otter surveys had been inadequate in terms of survey area coverage and quality;
 - The assessment of negative impacts of the scheme on invertebrates was inadequate such that no balanced conclusion of the overall impacts of the scheme on invertebrates could be made.
178. Overall the perceived inadequacies of the ES led the Wildlife Trust to conclude that the scheme should not proceed.
179. The RSPB response noted that the lapwing is Red listed in the 2015 UK Birds of Conservation Concern (BoCC) 4 and BoCC 3 (Wales) owing to severe short-term and long-term decline of the breeding population and is a priority species under Section 7 of the Environment (Wales) Act 2016. It was not clear how many pairs remained and there was no evidence of the improved breeding success that is needed to bring about population recovery. The Gwent Levels are important at both a regional and national level for the species
180. Lapwings require open habitats to breed and forage, including lack of barriers between nesting and chick-feeding areas and low frequency of potential predator vantage points such as field boundaries with trees. They nest on short grassland and require pasture with short sward, high spring water levels and an open vista, managed by appropriate grazing (preferably cattle). Cattle should be removed or reduced in number during the breeding season, to avoid the risk of nest trampling. Lapwings generally feed in grazed pastures

with abundant invertebrates. Wet grassland is a particularly important source of food. Arable nesting birds often walk their chicks onto grazed pasture to feed. The habitats within the application site are suitable lapwing breeding and foraging habitat.

181. The RSPB had concerns with regard to the adequacy and findings of the applicant's survey work. These were sub-optimal and may have under-recorded the lapwing population using the site and adjacent area. The lack of a 2016 survey represents a missed opportunity to ascertain a more robust population estimate. The ES consistently underestimates the breeding lapwing population dependent on the application site and adjacent land. Based on the applicant's own information, the RSPB concludes the application site and adjacent fields support between 8 pairs and 18 pairs.
182. The potential impacts of the development would be:
- Human disturbance: if construction carried out during the breeding season (mid-March-late-July).
 - Disturbance from scheduled/emergency maintenance of the solar farm.
 - Direct loss of open grassland habitats utilised for breeding and foraging habitat
 - Combination of fencing, the solar farm itself, and the modification of the grassland through reduced grazing, would fragment the landscape used by lapwings and reduce the foraging area available.
 - Increased potential of predation of nests and young in adjacent fields due to additional predator vantage points on ancillary structures including security fences.
183. The RSPB welcomed the commitments set out in Table 2 of the LEMP but noted inconsistency between the timing options. In addition, the timings did not address late broods of lapwing into late July and the crane chick rearing period which extends into mid-September. It proposed a preferred construction period of mid-September to mid-February.
184. The ES accepts that lapwing are unlikely to occupy the solar array site post-construction owing to the enclosed nature of the development but argues that lapwing are likely to find alternative habitat in the area. This fails to consider where the birds will be displaced to and whether it will be sub-optimal habitat, and the loss of foraging habitat for those lapwing nesting in adjacent fields. The ES does not address the significant increase in vantage points for predatory birds created by the security fence network abutting fields occupied by lapwing.
185. The ES states that suitable habitat for lapwing compensation has been identified in the Whitson and Half-Acre areas. These comprise 13 fields in 3 blocks to the west and south, selected by 'suitability' and ownership. These are located within the Nash and Goldcliff SSSI and Whitson SSSI. Section 8 (LEMP) implies that wildlife habitat created will be retained in perpetuity but this is not explicit and needs to be legally secured.
186. The lapwing management measures (LEMP) are satisfactory. However, there is limited information on the suitability of the fields as lapwing compensation:
- no baseline ecological surveys to establish current nature conservation value;
 - incomplete breeding lapwing survey;
 - no assessment of impacts of lapwing management measures on existing nature conservation interest; of fragmented compensation provision; of impassable barriers

between nesting and chick-feeding areas; of presence of man-made/natural predator vantage points;

- whether compensation habitat will be fully functional before construction begins.

187. The RSPB could not, therefore, be confident the proposed lapwing compensation would effectively offset the scheme's impacts.
188. The crane is amber listed in BoCC 4 and has Annex 1 status under EU Directive (2009/147/EC) on the Conservation of Wild Birds. This requires Member States including the UK, 'to take special conservation measures concerning their habitat in order to ensure their survival and reproduction in their area of distribution'. This includes taking appropriate steps to avoid deterioration of habitats or any disturbance affecting the birds. In situ conservation of breeding crane habitat is the best way to achieve this objective.
189. In 2016, a pair of cranes bred at an undisturbed, sensitive location on the Gwent Levels where they fledged a single chick. This site has all the critical habitat elements of a favourable breeding location. They were present in the area until mid-September. This was the first successful breeding by cranes in Wales since at least the 1600s. The pair nested (unsuccessfully) in 2017 and 2018.
190. The Gwent cranes successfully fledged a chick at their first attempt, despite being inexperienced parents. They are part of the larger, but still small, UK crane breeding population of 44 territorial pairs in 2017. Cranes are site faithful and will return to the same nesting site year after year.
191. The overall breeding site needs to offer secure nesting and roosting areas, productive foraging, and an absence of disturbance. Cranes require insect rich-grassland that offers productive foraging. Young cranes are fed by their parents on a range of prey items, notably invertebrates taken from surrounding vegetation, as well as grass seed. As crane chicks get older and stronger, adults take chicks to larger foraging areas further from the nest. It is essential to limit the potential for disturbance from humans and grazing cattle (cranes avoid the latter).
192. A 2017 survey observed cranes in the vicinity of Area C and the winter survey confirmed that one of the breeding pair was present within the application site in March 2017. This corroborates anecdotal observations by RSPB staff who heard cranes calling from fields to the west of the pump station. The lack of survey coverage during the successful 2016 season means there is not a complete picture of how foraging cranes use the area. However, incidental records suggest use of the application site by breeding cranes and their young cannot be ruled out.
193. The potential impacts of the development can be broken down as follows:
- Human disturbance if construction carried out during the breeding season (late February-mid-September);
 - Loss of access to potential foraging areas: the development will be fenced off which will prevent birds walking into or beyond the site to feed chicks;
 - Loss of potential foraging areas;
 - Disturbance: scheduled/emergency maintenance of the solar farm;
 - Fragmentation of foraging habitat.

194. Overall it is the RSPB's view that the scheme alone will result in degradation of the area for breeding/foraging cranes due to a combination of habitat fragmentation, loss of transit/foraging areas and increased risk of disturbance. These cannot reliably be addressed by the (welcome) mitigation measures regarding construction timing and provision of additional foraging habitat. It is difficult to predict the actual response of the breeding cranes to placement of a significant industrial development in proximity to a breeding territory. As a minimum, it is likely to compromise future breeding success.
195. In conjunction with the M4CaN, the solar farm will make a bad situation worse by exacerbating impacts on breeding cranes and lapwings.
196. The RSPB considers the solar scheme does not comply with:
- Regulation 10(3) of the Conservation of Habitats and Species Regulations 2017 (cranes);
 - Section 7(3) of the Environment (Wales) Act 2016 (lapwing);
 - The objectives of the Nature Recovery Plan for Wales (2015) (lapwing/crane);
 - Paras 2.1 and 2.4 of TAN 5 Nature Conservation and Planning (2015) (lapwing/crane);
 - Policy CE10 and para 4.51 of the Newport LDP 2011-2026

Keep Us Rural

197. This organisation objected to the proposed scheme on several grounds. It considered that no overriding need had been demonstrated and that the contribution towards the reduction in greenhouse gases was not sufficient. Additionally, securing the financial viability of the farms involved was not a planning matter. For similar reasons to those cited by others ²⁶ it was concerned at the potential damage that the proposed development could cause to the historic landscape.
198. Keep Us Rural found it hard to believe that such development on SSSIs could be seriously considered. It was inconceivable that the natural habitat of so many and varied species should be threatened. The wrong technology was being proposed in the wrong place; in a coastal region such as this the tidal power of the sea should be harnessed.
199. The organisation raised the matter of flood risk and whether it was sufficient to rely upon the existing protection. It questioned why the temporary period of 25 years, applied to previous development, had been extended to 30 years in this case. Given the scale of the project and the prolonged period of its existence it considered that it would probably be beyond the ability of anyone to restore the site to its previous state. With regard to agricultural land classification this was based on outdated maps and a visual examination of reens and field gate entrances. No soil samples were taken and thus the scientific basis of the survey was questioned.
200. Keep Us Rural stated that ground mounted solar panels were not pleasing to look at and that the scale of the proposal would result in an unending, unvarying, alien presence in a rural patchwork of fields and hedgerows. It would therefore blight the lives of residents and spoil their visual amenity. Finally the organisation considered that the scheme would add intolerably to the cumulative impact of existing solar farms and wind turbines. The

²⁶ Eg Glamorgan-Gwent Archaeological Trust

financial and ecological cost of all these developments would be borne by the energy consumer who had no choice in the matter.

Natural Resources Wales (NRW)

201. NRW's main concerns were with the surveys of protected species. It requested further information on great crested newts, bats, and dormice. In respect of otters and water voles, additional provisions by way of conservation strategies for these mammals were required in the CEMP. To protect surface water a condition testing and monitoring its quality was recommended. For clarification the correct widths of the buffer zones between reens and ditches should be added to the LEMP. NRW recommended that the LEMP should cover the lifetime of the proposed development and be reviewed at periods throughout this. Additional information on planting, crossing points and cattle grazing should also be added to the LEMP.
202. In order to avoid any negative effect on birds, including the common crane and lapwing, mitigation measures for these species were required in the LEMP.
203. On the matter of flood risk NRW referred to the relevant tests and provisions set out in TAN 15. It questioned the length of the development lifetime used when considering the allowance for climate change predictions. Its advice was that, if a 30-year life time of development was acceptable, all site infrastructure should be set at 6.025m AOD to reduce the risk of flooding. This should be secured through a suitably worded planning condition. Concerns with the secondary consent for the battery store could be similarly addressed.
204. NRW also provided a response to the minor amendment and further information provided by the applicant. It found that the possibility of a small population of great crested newts being on site could not be ruled out but that this could be addressed through the inclusion of a method statement in the CEMP. The possible presence of dormice in hedgerows could be dealt with in the LEMP, as could mitigation for common crane and lapwing.
205. Subject to the additions and changes to the CEMP and LEMP, and other measures, NRW did not object to the proposed scheme.

Other representations

206. Dianne and David Roberts, who are residents of the area, have objected on several grounds including as follows:
 - The proposed development would be on an industrial scale within designated SSSIs and an area of ancient and historical significance, and on greenbelt and agricultural land;
 - The erection of lights and high fencing would not be in keeping with moorland and, overall, it would have a considerable detrimental visual impact on the landscape;
 - Drainage within the area is very sensitive and this proposal would increase flooding;
 - The effect on health of electromagnetic fields is unproven to date;
 - Properties would be surrounded by the proposed development which would be totally out of character with the rural environment;
 - Property devaluation;
 - The area is already under threat from the M4CaN;
 - It would devastate a small and increasingly marginalised beautiful area which many visitors from surrounding built-up areas enjoy through various healthy activities;
 - There was no meaningful consultation with the local community as most questions posed were not answered at the time of the consultation;
 - It would be impossible to understand and digest the huge amount of information on solar farms;

- Farmers' need to diversify is understood but this mammoth scheme in this very small part of east Gwent weighed against the benefits in that electricity generated would only be an income-driven scheme for those concerned.

207. Roy, Gwen and Janet Hurford raised similar issues in their objections, providing more information on the matters of flooding and the loss of grazing land, and thus the implications for sustainable food production. They were also concerned with the potential impact on PROW. Finally they stated that the area seemed to provide development and facilities, such as the power station, water treatment works and recreational routes, for the whole of Newport without getting any local benefit.
208. Other residents, including David and Julia Waters, Mr and Mrs Ward, Bryan Cork and John Small repeated these fears and, in some cases, were also concerned with the visual impact on their properties, considering that there would be insufficient screening. In addition Martyn Kellaway was concerned about the battery storage and whether there would be leaks into the surrounding area. He also questioned what assessment had taken place with regard to the cumulative impact of the M4CaN and other developments including a tidal lagoon. Alongside other concerns, Laurence Lowe did not think that the proposal would be in line with the Wellbeing of Future Generations Act.
209. Pontypool Park Estate (PPE) owns and looks after land adjacent to the application site. It is committed to maintaining the unique heritage, ecology and landscape that make the Gwent Levels an environment of national and internationally recognised standard. PPE objected to the application on several grounds, the first being that it did not consider that the applicant had undertaken a meaningful assessment of alternative sites. In particular, this was not consistent with the Renewable and Low Carbon Energy Assessment.
210. PPE thought that the ES offered limited commentary on the historic landscape and was critical of some aspects of the assessment. It agreed with GGAT that the impact of the proposed development, particularly on the buried landscape, would not be reversible or temporary, and shared other concerns such as the cumulative effect with similar developments. PPE also voiced fears with regard to ecology and visual impact as raised by other objectors. Its conclusion was that the site had been promoted without proper consideration of alternative locations or solutions. The only justification for selecting the application site, with the significant landscape, ecology and heritage constraints, appeared to be that it was the only site that the applicants controlled and that there was a potential grid connection. Those reasons did not present 'exceptional justification' for impacts on interests of acknowledged international and national importance.

Local Impact Report (LIR)

211. Newport City Council (NCC) records that the LIR is a factual document, the purpose of which is to assess whether impacts would be positive, negative or neutral. Its LIR does not, therefore, attach weight to evidence or make recommendations.

Local Planning Policy

212. The LIR sets out the wording of the twenty one LDP policies the Council considers to have most relevance for the proposed development. It also refers to four Supplementary Planning Guidance documents which cover wildlife and development; archaeology and archaeologically sensitive areas; trees, woodland and hedgerows; and air quality.

Location of the development

213. The site is a wetland, coastal zone with significant designations including two SSSIs (Whitson and Nash & Goldcliff). It is an archaeologically sensitive area; an SLA; is included on the Register of Historic Landscapes; contains listed buildings; is designated as Natural Accessible Greenspace; and contains important recreational routes such as National Cycle Route 4, the All Wales Coastal Path and other PROW. The site is also adjacent to other statutory designations with significant bird interest, namely the River Severn Estuary (Marine SAC / SPA & Ramsar Site) and Newport Wetlands (NNR).
214. The site is within Flood Risk Zone C1 and its Agricultural Land Classification is 3b.

Landscape and visual impact

215. Consideration should be given to the effects of the proposal on Landmap Character Areas; the users of PROWs of varying importance; views from highways especially National Cycle Route 4; views from nearby dwellings; and the settings of Listed Buildings and Scheduled Ancient Monuments (SAMs).
216. The Council considers that the Landscape & Visual impact of the proposal would be negative and notes the adverse assessments of the submitted LVIA. It also considers the impact on the Caldicot Levels SLA to be negative.

Ecological impact

217. The site lies within the Gwent Levels SSSIs. Its particular interest is the reens system and the assemblages of aquatic plants and animals living in the reens and ditches. The Council is concerned that, during construction and de-commissioning, sediment would be mobilised and increase the risk of pollutants affecting water quality. The operational phase could cause shading of the reens and restrict their maintenance.
218. The proposed development could have impacts on birds associated with the Severn Estuary SPA, SAC and SSSI and the Newport Wetlands SSSI. These will need to be considered as well as the effect on birds that habitually use the site at the current time. Subject to appropriate avoidance, mitigation and/or compensation measures the likely impacts will be neutral / positive. If avoidance, mitigation and/or compensation measures are not secured ecological outcomes will be negative. Conditions are suggested to secure appropriate outcomes.
219. The Council considers that national policy seeks ecological enhancements and such should be secured. In any event the proposed measures appear to fall squarely as avoidance /mitigation and compensation.

Historic landscape

220. The site is entirely within the Gwent Levels LOHI. An assessment of the impact of the development on the historic landscape using the ASIDOHL 2 methodology will be needed. Impacts on the historic landscape may be ephemeral but could be permanent dependent on how the proposal impacts on the field patterns and drainage system.
221. The Council notes that GGAT's Historic Landscape Assessment (March 2015) identifies a severe adverse impact on the Historic Landscape. It further notes the applicants' revised assessment that harm would be moderate. In any event it can be concluded the impact would be negative.

Archaeological impact

222. The site is within an Archaeological Sensitive Area. Impacts on the archaeological resource could be permanent and irreversible depending on the extent of ground intrusion; an assessment of potential impacts should be made. The Archaeological Desk based Assessment (March 2015) identifies some major and minor adverse effects (Paragraph 5) but notes these can be acceptably mitigated under a conditional regime. As such the anticipated impact on the archaeological resource is neutral, subject to conditions requiring a watching brief.

Flooding

223. The site lies within a defended floodplain (C1) as identified in the WG's Development Advice Maps. It will be necessary to show that the effects of tidal flooding can be acceptably managed on the site. TAN 15 requires that location of the development within the flood plain is justified.

224. The LIR quotes the test at paragraph 6.2 of TAN 15 which requires that the scheme is necessary in the proposed location. It implies that no other site is suitable or available and, as such, the site selection process should be clearly demonstrated as part of the submission. The site is not Previously Developed Land for the purposes of PPW and on its face the proposal cannot be justified in the chosen location.

225. The Council notes that the applicant has submitted a 'Flood Risk Justification Test' (September 2017) but this does not seem to engage with the justification tests within TAN 15. If the proposal is unjustified development within a flood plain then the impact would be negative. If the development can be justified then the submitted FCA shows a flood event is manageable but consideration should be given to the impact of power loss from the grid. Loss of storage capacity caused by the battery storage container units being raised is likely to be negligible. Subject to justification the impact of the scheme on flooding is likely to be negative due to the replacement of a less vulnerable use with a more vulnerable use.

Access and highways

226. The increased use of a limited rural road network during construction and de-commissioning is likely to have negative impacts. These could be mitigated by conditions. During the operational phase impacts on the highway system are likely to be neutral / positive given the possible displacement of some agricultural vehicles from the network although local agricultural traffic serving adjacent farmed land will continue.

Rural character/mitigation

227. Consideration should be given to any proposed mitigation to protect the rural character of the area. Proposed planting and use of materials in track ways should be considered. The scale and location of any structures to house switch gear etc. should be assessed and sited sensitively. Proposed lighting and signage should be fully cognisant of the site's rural location as should any work to improve access, for example opening of field gates or the improvement of visibility splays.

228. Mitigation secured under condition is likely to reduce adverse impacts but the proposal would result in a significant and prolonged change in the character of the area. This will be negative in landscape and visual terms. However large solar facilities are not atypical in rural areas and there is no presumption against them.

Agricultural land classification and reversibility

229. There is a policy presumption in favour of retaining the best and most versatile agricultural land. The land on the site has agricultural land values of grades 3b and 4. There is no policy protection for such grades. The impact of the proposal will be negative in terms of agricultural potential over the lifetime of the development as the land would be lost to most forms of agriculture other than low intensity grazing. Long-term impacts are likely to be neutral subject to effective site restoration which should be secured by condition.

Power generation

230. The scheme would generate 49.9MW of electrical power sufficient to power 15,000 homes and prevent the release of 21,000 tonnes of CO2 per year. This would be a positive impact.

Matters not in dispute between the main parties

231. There is no dispute that, in the interests of reducing the effects of climate change, WG has a commitment to facilitating the development of renewable energy sources and such schemes should thus be considered favourably.

Appraisal / Main Issues

232. I consider that the main issues in this case are the effect of the proposed development on:

- the ecology of the area in terms particularly of the special features of the designated SSSIs and protected species;
- the character and appearance of the surrounding area;
- the historic landscape; and on
- highway safety in the surrounding area, particularly during the construction phase.

A further main issue is:

- whether the proposed development would be consistent with national and local policy on flooding with regard to its location and the management of flooding consequences.

Ecology

233. PPW advises that the natural heritage and valued landscapes of Wales are not confined to statutorily designated sites; attractive and ecologically rich environments are important, both for their own sake and for the health and the social and economic well-being of individuals and communities. For those reasons WG's objectives for the conservation and improvement of the natural heritage include the promotion of the conservation of landscape and biodiversity; ensuring that statutorily designated sites are properly protected and managed; and safeguarding protected species²⁷.

234. The application site, which consists of four dispersed parcels of land, is within the Nash and Goldcliff, and Whitson SSSIs. These are designations of national importance for their ecological value. The Wildlife and Countryside Act, as amended by the Countryside and Rights of Way Act 2000, places a duty on all public bodies (including local planning authorities) to take reasonable steps to further the conservation and enhancement of the

²⁷ PPW paragraphs 5.1.1. and 5.1.2.

features by reason of which a SSSI is of special interest. There is a presumption against development likely to damage a SSSI²⁸.

235. The starting point for consideration of the effect of the proposed development on the ecology of the area is, therefore, the listed features of the SSSIs. The citations for both SSSIs state that the Gwent Levels are rich in plant species and communities, many of which are rare, and that the aquatic invertebrate fauna is very diverse with many nationally rare or notable species being present. Three special features are identified for both SSSIs: the reen and ditch habitat; insects and other invertebrates; and the Shrilc carder bee²⁹.
236. The grassland on which the solar panels would be located is not of particular value and not a special feature of the SSSIs. I saw fields in several parts of the application site during my visits and noted that, in contrast to the reens with their lush and varied vegetation, they were generally species poor. This is unlike the position at Rampisham Down where the SSSI is protected for its rare acid grassland.
237. The reen and ditch system, which connects to a wider drainage network, supports and enables the majority of the valuable plant and invertebrate species, and is therefore an essential feature of the SSSIs. Many of the reens and ditches are bordered by hedgerows which contribute to the special wildlife interest of the SSSIs.
238. The proposed development would not cause any of the reens or ditches within the application site to be obstructed or filled in. The system would continue to look and function much in the way it does now. Indeed, various measures have been designed into the proposed scheme to protect and improve the reens, ditches and hedgerows. The solar panels would be set back from them providing buffer zones of 12.5m to the reens and 7m to the ditches and field drains; and ensuring no loss of field margins. New hedgerow, planted to increase screening and renew the existing stock, would be of native species providing additional habitat.
239. In addition a reen and hedgerow management programme, as described in the LEMP³⁰, would be implemented during the operation of the proposed solar farm. Objectives set out in the LEMP include:
- enhancing the biodiversity of the ditch/ reen system;
 - maintaining the favourable status of the notified features of the SSSIs e.g. insects and plants;
 - Managing hedgerows on a regular, rotational basis to promote structural and botanical diversity;
 - Providing on-going management of standard hedgerow trees to promote mature trees, including dead-wood habitat;
 - maintaining the connectivity of the site to facilitate the movement of wildlife through and across it³¹.
240. Management measures would include the periodic weeding and de-silting of the reens and the control of aquatic plants to maintain open water. Hedgerows would be trimmed and

²⁸ PPW paragraph 5.1.3

²⁹ Gwent Levels: Whitson/Nash and Goldcliff SSSI *Your Special Site and its Future* NRW

³⁰ LEMP, May 2018

³¹ Ibid paragraphs 6.3.1 and 6.4.1

cut, competitive weeds such as bramble and nettle would be controlled, and dead plants replaced³². The submitted FCA also describes some ways in which water quality would be improved on the site. Existing arable fields, for example, can cause high levels of silt-carrying runoff. Converting those where the solar panels would be located to pasture would reduce that whilst the move away from intense grazing would allow the soil structure to recover and manage rainwater better. Water quality would also improve through a reduction in the application of pesticides and fertilizers³³.

241. In places hedgerows border both sides of field drains which, through shading, can reduce water quality. Where it would not harm other ecological interests such as dormice or nesting birds, which would be ascertained through surveys on hedgerows proposed for removal³⁴, some of these would be taken out³⁵.
242. The Shrill carder bee, which is another special feature of the SSSIs, forages and nests on open, flower-rich grassland. Measures in the LEMP³⁶ would improve specific areas of grassland adjacent to the application site for Shrill carder bee. A condition would ensure that this mitigation was provided in a timely manner.
243. In ensuring the improvement of the reens, ditches, hedgerows and grassland, these maintenance and management measures would enrich the habitat of the SSSI upon which its special interest plant species and invertebrates rely and thus enable them to thrive. By reason of the design of the proposed development there would be no significant effect on the interest features of the SSSIs. The mitigation and management measures proposed, which are set out in detail in the LEMP and which would be ensured through conditions, would further their conservation and enhancement. There would be no harm, therefore, to the SSSIs in which the proposed development would be located.
244. With regard to protected species, NRW's main concerns were with the survey work on which the ES was originally based. The applicant carried out new surveys or submitted further information on great crested newts, otter, water vole, bats, hedge removal in relation to dormice, and mitigation for common crane³⁷. Together with additional detail on such in the LEMP and CEMP, these measures have satisfactorily addressed matters raised by NRW.
245. The RSPB's objections focussed on the potential effect of the proposed development on lapwing and crane; the former is red listed (BoCC), and the latter amber listed (BoCC) as well as having Annex 1 status under EU Directive on the Conservation of Wild Birds. For both it was concerned at the impact of disturbance, if construction was carried out during the breeding seasons, and during maintenance; the loss of grassland used for breeding and foraging; and the fragmentation of the landscape reducing foraging habitat. In addition, the RSPB considered there was a risk of predation of lapwing nests and young from new vantage points particularly on fences.
246. In order to address these concerns the applicant proposes the provision of replacement fields for lapwing outside the application site³⁸. A lapwing mitigation plan is incorporated

³² Ibid 6.3.2 and 6.4.2

³³ ES Appendix 13.1, section 11

³⁴ Applicant's hearing statement, paragraph 2.4.2

³⁵ LEMP, May 2018, paragraphs 5.1.1 & 6.4.4, LM1.dwg

³⁶ LEMP, May 2018, paragraphs 5.1.3 & 6.5.3

³⁷ Applicant's response to F1 request, Additional Information Schedule

³⁸ LEMP, May 2018, LM1.dwg

into the revised LEMP and provides for the management of those fields, including detail on such matters as grazing, sward, wet features and the discouragement of predators. The lapwing mitigation plan would also be the subject of a condition which would allow additional requirements, such as a timetable for provision of the replacement fields, to be made. Mitigation for the common crane is dealt with similarly through provision in the LEMP and an additional, separate condition.

247. LEMP requirements of particular importance are that management of the replacement fields would be secured as part of the solar contract agreement, the landowner also owning an area within the scheme. The lapwing and crane mitigation fields would be monitored annually by an ecologist to check on breeding success or otherwise and to identify the need for any alterations to the management plan. Furthermore, the LEMP would pertain for the lifetime of the solar farm with, following review of the condition of the site, new management plans being produced every five years. The implementation of the LEMP would be through a condition.
248. A separate condition would require a construction method statement, which would govern all aspects of the construction process, to be approved by the Council prior to any work on the scheme taking place. It would include a timetable for each element of the works, none of which would take place during the bird breeding season. This is also set out in the LEMP which adds that low impact works will commence from mid-July but not in areas used by crane or lapwing; fields used by breeding ground-nesting birds would be avoided until all chicks were fledged³⁹. Prior to such works taking place a check for ground nesting birds would be undertaken⁴⁰.
249. The RSPB maintained its objections in its hearing statement⁴¹ which post-dates the revised LEMP and therefore takes that into account. My conclusion, however, and having heard the matters discussed at the hearing, is that the LEMP and conditions which would be imposed in the event of permission, would safeguard lapwing and crane on the application site and in the surrounding area. The monitoring and adjustment requirements of the LEMP would ensure that such protection continued during the construction, operation and decommissioning periods. I note that NRW have not expressed concerns with the crane and lapwing mitigation.
250. All things considered, the proposed development has been designed and would be managed to protect and encourage biodiversity and ecological connectivity. It would avoid, mitigate and compensate negative impacts, ensuring no significant adverse effects on areas of national conservation interest, the SSSIs, or local protected habitats and species. The proposed development would not result in an unacceptable impact on water quality or the loss of or harm to trees or hedgerows that have wildlife value. In all these respects the proposed development would comply with LDP Policy GP5. The explanatory text to this policy states that the developer must demonstrate the case for development and why it could not be located on a site of less significance for nature conservation. In my view the applicant's site selection case does this. As the requirement is expressed in the explanation and not the policy itself, however, it has limited weight.

³⁹ LEMP, May 2018, Table 2, no. 2.9

⁴⁰ LEMP, May 2018, Table 1, no. 1.5

⁴¹ Written Submission for The Royal Society for the Protection of Birds, 28 June 2018

Habitat Regulations Assessment (HRA)

251. Under Articles 6 (3) and 6 (4) of the Habitats Directive, transposed into UK legislation under Regulation 63 of the Conservation of Habitats and Species Regulations 2017, there is a legal requirement to consider the impacts of a development proposal or plan on European Sites, that is, SPAs, SACs, Ramsar Sites or marine sites. The Severn Estuary is located approximately 900m to the south of the application site and is a SPA, SAC and Ramsar Site. It is designated as such for its large populations of over-wintering birds, particularly waterfowl, and the habitats which support these. It is a Ramsar site for its habitat features, unusual estuarine communities, its fish and birds.
252. The applicant has submitted a HRA⁴² which identifies the potential threats from the proposed development and assesses the likely significant effects of these on the features for which the estuary is designated.
253. The HRA concluded that the proposed development has the potential to affect the conservation objectives of a number of features of the Severn Estuary SPA, through a reduction in the area of supporting habitat and that that had the potential to affect the peak population counts within the SPA. The ornithological surveys found, however, that the site was not important in maintaining the favourable conservation status of the features of European or International Interest.
254. On the basis of the numbers of birds recorded during the 2014/ 2015 and 2016/17 winter and breeding bird surveys, within and around the application area, land take associated with the proposed solar scheme was not considered likely to significantly affect any European designated sites, either alone or in combination with other plans or projects. In line with a recent judgement⁴³ likely significant effects were screened out without the inclusion of any mitigation. The proposed scheme was thus considered unlikely to have a significant effect upon any Severn Estuary Natura 2000 or Ramsar site and no further appropriate assessment (AA) was considered necessary.
255. I have no reason to disagree with any part of the HRA and consider, therefore, that the proposed development would not have a likely significant effect on the Severn Estuary European site. It does not, therefore, require an AA. I note that NRW has no concerns with the HRA.

Character and appearance

256. Landscape considerations are covered together with biodiversity in the PPW chapter *Conserving and Improving Natural Heritage and the Coast*. Attractive environments are important in themselves and for the contribution they make to the social and economic health of individuals and communities. The promotion of the conservation of landscape is one of the chapter's objectives⁴⁴.

Landscape character

257. The landscape within which the proposed development would be located has been reclaimed from the sea and has witnessed human activity over several thousands of years.

⁴² ES, Appendix 12.1

⁴³ People over Wind, Peter Sweetman v Coillte Teoranta.

⁴⁴ PPW paragraphs 5.1.1. and 5.1.2.

It is a rural, agricultural and settled landscape. Its characteristic features are the reens and ditches which keep the land drained and productive; the structure of the fieldscape and the features demarcating it; and the buildings used by the rural community including dwellings, churches, and farms.

258. The field pattern is established by the means of dividing and enclosing the fields, that is to say, the hedgerows, reens, ditches, tracks and lanes. To my mind the open, undeveloped surface of the fields themselves is also an essential component of the overall field pattern and as sensitive as the reens, hedgerows and rural character of the area identified in the LVIA. As the solar panels would be mounted on the surface of the fields they would be more susceptible to change arising from the proposed development.
259. The width of each row of panels from front to back would be in the region of 6m and they would be separated one from another by gaps of slightly less than that⁴⁵. Notwithstanding these open corridors between the rows and the buffers around the boundaries, the fields within the scheme would be quite densely packed with arrays. I thus agree with the findings of the LVIA that the change from a rural to built landscape within the fields could be classified as medium. The enclosing features, however, would be almost entirely retained and, in the main, enhanced by additional planting, hedgerow management and improved water quality in the reens. They would also be protected by the undeveloped buffers left between them and the solar arrays.
260. Whilst the positioning of the solar arrays on the field surfaces would have an impact this would be mitigated by their being fixed directly into the land. There would be no solid base under them and the use of concrete, for the inverter cabinet platforms for example, would be minimal. The erection of the solar arrays would result in a slight loss of grassland although, through management, the quality of this would be generally improved. Using the fields for the grazing of sheep would also ensure no significant reduction in the amount of agricultural land.
261. Where the panels were visible at some distance they would be likely to be seen as a uniform sheet or structure of synthetic material. Because of the flat topography; the screening properties of the many hedgerows and other vegetation; and the position of the proposed panels, there would be very few public places from which such views would be available. At closer quarters however, for example from footpaths passing close to areas of panels, it would be obvious that the panels were fixed above ground level and that the grass remained in situ beneath them. Despite being significant constructions covering a wide area, they would be apparent as temporary structures and considerably less solid and durable than traditional buildings. In my opinion, that perception would mitigate against a considerable or permanent change in the character of the landscape.
262. The grid connection hub, battery storage and telecommunications hub would all be removed at the end of the proposed development's lifetime but would appear as more substantial features. They would, however, be located in the northernmost part of the site, near to the existing electricity sub-station and underneath power lines in close proximity to several pylons. Furthermore, they would be well-screened and not conspicuous in the landscape from public viewpoints, including from National Cycle Route 4 which travels along the roads immediately to the north of the application site. Although located on land which is currently undeveloped and in agricultural use they would not, therefore, result in a significant change to the wider character of the area.

⁴⁵ Submitted plan PL04 Typical Details

263. The characteristic features of the landscape would be unaffected by the proposed development apart from the grassland itself which, in some views, would appear to be obscured by panels. The limited visibility of the panels and their temporary appearance would, however, reduce the change to the character of the landscape such that, overall, it would not be significant.

*Visual impact*⁴⁶

264. The parcels of land making up the application site are spread over a wide area of a landscape which has a fairly consistent appearance. The land is low-lying and level; mainly in agricultural use; and divided into fields of varying shapes by hedgerows and the distinctive reens and ditches. The northern part of the site is closer to the fringes of Newport and associated development, particularly the former steel works at Llanwern and the electricity sub-station where the proposed solar farm would be connected to the grid. As such, and as shown in viewpoint photographs 3 and 4, this part of the site is influenced by views of industrial development and by associated features such as power lines and pylons.

265. The developed areas would be fairly densely packed with solar panels which would be fixed to a metal framework; slightly inclined, they would be about 2.7 m above ground level at the back and about 1m above at the front. Each area of panels would be enclosed within 2m high stock fencing and under the surveillance of CCTV cameras set on 5m high poles. The timber and mesh fencing, however, would of a type appropriate to a rural area, access within in it being gained through double, farm gates. The CCTV poles would be slender and the cameras small and these features would not be clearly apparent except at close quarters. There would be no lighting of the solar arrays once they were installed and in operation.

266. The nature of the landscape, particularly its flatness, field structure and vegetation, is such that wide ranging views are not publically available, either when within the application site or from outside it. The proposed development would be carefully located to capitalise on these features and make the most of their obscuring properties. The most extensive parcel, 2, would mostly be positioned remote from PROW and parcels 1 and 3 would generally be set back from the public highway. Although the slightly-elevated track along the pipeline gives views over parcels 1 and 2, it is not publically accessible. The pipeline itself, which is shown in the viewpoint photograph 01, rises perhaps 2m or more above ground level and acts as an impenetrable screen to any views into the site from the east.

267. In this landscape, the effect of distance is greatly enhanced by the widespread presence of hedgerows of varying heights and density. Viewpoint photographs which illustrate the visual mitigation provided by set-back and vegetation include 6, taken from Whitson Common Road; 9 (left), taken from Parish Reen towards the east; 10, taken from a footpath towards the north-west; 18, taken from Porton Road; and 20, taken from the public footpath south of Broad Street Common.

268. In a site of this size it would be almost impossible to avoid all close-up views of the proposed solar panels. A photomontage created for viewpoint 4, which is on a footpath between the two parts of parcel 3, envisages the view footpath users would have in this location. Although the panels and their frameworks would be clearly visible, being set

⁴⁶ All the viewpoint photographs, assessment photographs and photomontages referred to in this section are included in the LVIA, ES Appendix 10.1

under and in the vicinity of power lines and pylons, and against the line of mature trees on the horizon, their impact would be reduced. Viewpoint 8 (left and right) is on a public footpath within the application site where it would run adjacent to solar panels and fencing. They would be dominant in the view and, whilst pylons might be visible, these would be minor features and not perceived as significant detractors. Walkers would have the panels to one side only, however, and would not be surrounded by them.

269. Viewpoint 11 is on an access route that runs along Hare's Reen. The rows of panels and fencing would be clearly visible on the far side of the reen although, due to the buffer distance from it, they would not be so close as to be over-dominant for those walking along the route. The features which make the route particularly attractive are the reen, with its lush vegetation, and the hedgerow on the outer edge, neither of which would be negatively affected by the proposed development. Nonetheless, walkers along the route would notice a significant change and a depletion in its rural, pastoral character.
270. Additional elements of the proposed scheme would be the grid connection hub, the telecommunications mast, which would be more than 16m tall, and the 200 battery storage container units. This would be located in the northern part of parcel 1 where it would be close to the electricity sub-station. Views south from Bowleaze Common are quite open. The photomontage from viewpoint 2, however, indicates that in setting the connection and battery storage area back from the road, behind hedgerows, it would not be obtrusive in the landscape. Further mitigation features would be the several pylons in the immediate area, which the telecommunications mast would be much lower than, and the power lines running between them. In addition, there would be new native hedgerow screening between the battery units and the public highway; the battery units would be coloured brown or green to blend in with the landscape and vegetation.
271. As viewpoint photographs 7 (left and right) show, the view from Chapel Road across Chapel Reen, which acts as a barrier for grazing animals, is open. As such the solar panels in parcel 4 would be clearly visible from a significant length of Chapel Road. The applicant has amended the proposal to include native hedgerow screening along Chapel Road and the northern edge of the panels. This would take a few seasons to mature to a density sufficient to successfully screen the panels. It would change the nature of that part of Chapel Road, enclosing it between two hedgerows, but would not be an uncharacteristic or obtrusive feature. In addition, the existing pleasant openness of Chapel Road would be retained along its remaining stretches.
272. The greatest visual impact, therefore, would be on users of the public footpaths and other access routes which pass through or close to areas where panels are proposed. There would, however, be comparatively few lengths of these affected footpaths and routes; the hedgerows separating the fields would shield views causing the panels to slip in and out of sight quite suddenly and preventing them from being visible far in advance. Overall, I consider that the effect of the proposed development on the visual appearance of the landscape would not be significant.
273. No other solar development would be visible in views of the proposed development. There are some wind turbines but to my mind these are no more conspicuous than the pylons. I do not consider, therefore, that there would be a significant cumulative effect from the proposal together with other renewable energy development.

274. The application site is within the area protected by the Caldicot Levels SLA. A background paper prepared by NCC, consistent with PPW's requirement for a formal scientific assessment⁴⁷, describes this SLA as forming part of an extensive area of reclaimed marsh and wetlands and characterised by its network of drainage ditches (reens) which vary in form and character. It also notes that the eastern edge of the SLA is characterised by a regular, rectilinear [field] pattern, whereas around Whitson and Caldicot it is more sinuous⁴⁸. In protecting those landscape attributes the proposed development would contribute positively to the area and demonstrate a clear appreciation of its special features. It would thus comply with LDP Policy SP8.
275. In respecting the landscape character of the immediate and surrounding area and being appropriate in scale and design, the proposed development would also comply with LDP Policy SP5. The proposed use and form of development would not be detrimental to the character or appearance of the surrounding area in line with LDP Policy GP2. Neither would there be an unacceptable impact on landscape quality, consistent with LDP Policy GP5.

Historic landscape

276. PPW states that it is important that the historic environment is protected, managed and conserved. Objectives for the historic environment which are particularly relevant to the development proposed here include:
- conserve and enhance the historic environment, which is a finite and non-renewable resource and a vital and integral part of the historical and cultural identity of Wales;
 - recognise its contribution to economic vitality and culture, civic pride, local distinctiveness and the quality of Welsh life, and its importance as a resource to be maintained for future generations;
 - contribute to the knowledge and understanding of the past by making an appropriate record when parts of a historic asset are affected by a proposed change;
 - conserve archaeological remains, both for their own sake and for their role in education, leisure and the economy;
 - safeguard the character of historic buildings;
 - conserve areas on the register of historic landscapes in Wales⁴⁹.
277. The Gwent Levels has a history of human settlement and activity stretching back several thousand years. Existing features including grips, ridge and furrow, the field pattern and drainage system, moated sites, and buildings especially churches, are all evidence of this rich past. The ES sets out the archaeological and historic context of the area which is varied, interesting and of sufficient scale and value for it to be included within the designated Gwent Levels LOHI.

Listed buildings and scheduled monuments

278. TAN 24: *The Historic Environment* advises that the setting of an historic asset includes the surroundings in which it is understood, experienced, and appreciated embracing present

⁴⁷ PPW paragraph 5.3.11

⁴⁸ ES, Chapter 4, paragraphs 4.7.19 – 4.7.21

⁴⁹ PPW paragraph 6.2.1

and past relationships to the surrounding landscape⁵⁰. The ES⁵¹ identifies ten listed buildings within 1 km of the application site; the proposed development has the potential, therefore, to be within the setting of some or all of these buildings.

279. Whitson Court is listed grade II* as a fine example of smaller country house and the value of Whitson Lodge (grade II), lying to its south, is as a picturesque lodge. Whitson Farm, on Whitson Common Road, is listed (grade II) as a well-preserved farmhouse typical of the Gwent Levels. Little Porton Cottage, a small, thatched dwelling, and Little Porton Byre are listed as rare survivals and for their group value. Nearby Whitson Church, is listed grade II* for its large amount of surviving medieval fabric. The two listed buildings at Great Newra are the farmhouse and a lofted barn, the first listed as a well-preserved example and the latter for its group value with the house.
280. The significance of all these buildings lies in their rural, often agricultural, origins and location within this historic, pastoral landscape which thus provides their setting. The application site and nearest solar arrays would not, however, be adjacent to any of the buildings; in most cases they would be separated from the scheme by at least one undeveloped field. The structure of the field pattern, created by features such as the reens, ditches and hedgerows, would be unaffected by the proposal. In addition, the solar panels within the fields themselves would not be clearly visible from the listed buildings. The proposed development would not, therefore, have a negative effect on the settings of the listed buildings around the application site and their significance would not be harmed.
281. Given its well-screened nature and distance from them, the proposed development would not have a harmful impact on the settings of Samson Court, the Church of St Mary Magdalene in Nash, or the latter's churchyard cross which is a scheduled monument. The listed barn at The Barn Farm, which is mentioned by Cadw as potentially being the subject of a moderate effect, is to the north of the former Llanwern Steel Works where it would be too distant from the proposed development to be adversely affected by it. In reaching my conclusion on the effect of the scheme on the listed buildings in the vicinity and their settings, I have had special regard to the desirability of preserving the buildings, their settings and any features of special architectural or historic interest they possess.
282. With regard to scheduled monuments, the moated site near Grangefield Farm, which is of national importance, is visually separated from the application site by the pipeline and track alongside it. Similarly, the Goldcliff moated house site, also of national importance, is separated from the proposed development by Chapel Road and the vegetation along it. In the past the surrounding landscape, including areas which are now within the application site, was clearly related to the moated sites. To my mind it remains part of their settings today despite the intrusion of the modern pipeline across the area to the west of the Grangefield moated site.
283. Both moated sites are well-preserved, their significance being as important relics of the medieval landscape. The character of the surrounding landscape would not be permanently or considerably altered by the proposed solar farm which, additionally, would not be clearly visible from either site. The settings of the two moated sites would not, therefore, be harmed and the significance of these historic assets would not be reduced.

⁵⁰ TAN 24 paragraph 1.25

⁵¹ ES, Appendix 10.1, LVIA drawing LA.09-1

Archaeology

284. The remaining and visible historic features in the landscape indicate that there is a likelihood of buried features, remains and artefacts in the area. TAN 24 notes that archaeological remains are a finite and non-renewable resource, often highly fragile and vulnerable to damage and destruction. They are the only evidence of the prehistoric past and complement historic records from the last 2,000 years⁵².
285. The battery storage container units would be ground mounted and thus would not necessitate any excavation. The inverter cabins in every field, which would have small footprints, would be set on concrete platforms. The main potential for any damaging impact on archaeological remains would therefore be the fixing of the solar panel framework into the ground. As well as the possibility of harmful physical contact, the fixings would puncture the ground, disrupting the anaerobic conditions which preserve organic material.
286. The ground area taken up by each of the legs of the solar panel framework would be negligible; it is quite possible that together they would only amount to a total area of approximately 1% of the application site. The frameworks, however, would be spread over most of the application area such that a large amount of land would be subject to the puncturing effect of the fixings. This impact would not be reversible or temporary and could not be undone when the solar farm was removed and the site restored.
287. A geophysical survey of the area did not indicate the likelihood of any significant archaeological remains. The applicant acknowledges the limitations of such surveys and, on the basis of other evidence, considers there is moderate potential for prehistoric activity within the site, and for encountering Romano-British remains; there is a high potential for finding medieval and post-medieval remains. Were such finds to be discovered during the construction of the proposed solar farm the impact would be adverse and of moderate to major significance.
288. TAN 24 states that when considering development proposals that affect scheduled monuments or other nationally important archaeological remains, there should be a presumption in favour of their physical preservation in situ, that is, a presumption against proposals which would involve significant alteration or cause damage⁵³. This is not the case here, however, where the nearest scheduled monuments are outside of the application site and, as described earlier, unlikely to be affected by the proposed development.
289. Instead there is a possibility that the proposed development might reveal, disturb or destroy archaeological remains which are currently unknown. In such cases TAN 24 stresses that it is important that the opportunities to record archaeological evidence are taken and that archaeological remains are not needlessly destroyed⁵⁴. This is the approach to be taken in this case. A condition will ensure that a programme of archaeological work would be approved by NCC, which is advised on archaeological matters by GGAT, prior to development taking place. In my view this is a suitable and proportionate response to mitigate development in an area which does not contain scheduled monuments but where archaeological remains might exist and be revealed.

⁵² TAN 24 paragraph 4.1

⁵³ TAN24 paragraph 4.2

⁵⁴ TAN24 paragraph 4.3

290. Mitigation measures have been built into the design of the proposed development. These would restrict the visibility of the solar panels and infrastructure so as not to obscure historic elements from those travelling through it. The existing field pattern, drainage features, gateways and hedgerows would largely be retained. Hedgerows would also be strengthened with new planting to maintain the landscape pattern, hide the solar panels from the majority of public viewpoints, and integrate the scheme into its surroundings. The grazing of sheep would continue the historic agricultural use of the land.
291. The Gwent Levels LOHI would be protected, conserved and enhanced such that the proposed scheme would comply with LDP Policy CE4. The proposed development would also conserve, enhance and manage recognised historic sites, in line with LDP Policy SP9. An archaeological assessment has been undertaken in compliance with LDP Policy CE6.
292. All things considered, I conclude that the proposed development would not have a harmful effect upon the valued historic landscape of the area.

Traffic and Highway Safety

293. The great majority of traffic movements generated by the proposed development would be during the construction period. Traffic during the operational period would be limited mostly to the vehicles used by those maintaining the site; such visits are unlikely to be frequent. Concerns are mainly in respect of the amount and movements of traffic and the size of vehicle to be used, information on which is provided in the Construction Traffic Management Plan (CTMP)⁵⁵.
294. Given suitable conditions the construction programme, including test commissioning, would be likely to last twelve weeks. The three distinct tasks, ground works, mounting system construction, and panel fitting, would overlap with the most intensive activity taking place in weeks 8 and 9 and then weeks 10 and 11. At these times it is forecast that there would be up to 20 vehicle movements per day, 120 per week.
295. HGVs would use two completely separate routes, A and B/C, from the M4 to the different parcels of the application site. Traffic movements arising from the proposal would thus be distributed around the area and no one route or access point would bear the brunt of the transport activity. Less than half of all vehicle movements, therefore, would pass the dwellings located along Broadstreet Common⁵⁶, and no construction traffic would pass along Whitson Common Road or through the settlements of Whitson or Goldcliff.
296. Most of the lanes in this area are narrow and twisting but Chapel Road is particularly so. Construction materials and components needed at the the southern part of Area A (elsewhere known as Parcel 4), which is accessible only from Chapel Road, would therefore be delivered in a smaller vehicle as shown in the CTMP⁵⁷.
297. Area B is the largest application parcel generating the greatest number of forecast movements. It would be largely serviced from the wide track alongside the pipeline and another private route which threads through the fields to connect with the track along Parish Reen. With the exception of one to the south of Area B where it is accessed from the pipeline track, all the site yards are to the north of their respective areas. These

⁵⁵ ES Appendix 8.1

⁵⁶ ES Appendix 8.1, Table 2.2, HGV trips to Area A cf trips to Areas B & C

⁵⁷ ES Appendix 8.1, Appendix C *Vehicle Tracking Access Via Chapel Road*

measures would limit the number of HGV movements on the public highway in and around the application site and thus the amount of disturbance associated with them.

298. The CTMP does not include the traffic movements likely to be generated by the installation of the 200 battery units which are the subject of the secondary consent. That proposal is separate from, and not essential to, the construction and operation of the solar farm. If permitted, the secondary consent would be subject to a second CTMP based on the HGV movements likely to arise from the proposed battery storage development. It is not intended that the battery storage would be constructed at the same time as the main solar farm scheme.
299. The proposed development would not be detrimental to highway or pedestrian safety or result in traffic generation exceeding the capacity of the highway network. It would provide suitable and safe access arrangements and, as such, would comply with LDP Policy GP4. Highway safety in the application site and surrounding area would not, therefore, be compromised by the proposed development.

Flooding

300. The applicant argued that since TAN 15 *Development and Flood Risk*, published in 2004, is elderly and predates the wide-spread installation of solar technology it carries less weight. I note also that PPW, the current edition of which was published as recently as November 2016, states that other than onshore wind projects, the most likely form of renewable energy installations to be considered through the planning system will be strategic scale biomass projects⁵⁸; solar farms are not referred to.
301. Nonetheless, PPW, the TANs (and circulars and policy clarification letters) comprise national planning policy. National planning policy may be material to decisions on individual planning applications and will be taken into account by the Welsh Ministers and Planning Inspectors⁵⁹. TAN 15 has not been withdrawn and still carries weight.
302. Once constructed, for the majority of the time there would be no-one present at the proposed solar farm. When personnel were required to carry out maintenance they would be able to program visits to avoid potentially hazardous conditions. In addition, the panels and other infrastructure would not present a risk to people or the environment if the site was flooded. Visitors to the proposed solar farm would, therefore, be able to decide whether they wished to accept the risks to life and property associated with flooding, and be able to manage the consequences of such a risk. There would be no risk to the public or the water environment should the site be inundated. Although power stations are cited as an example of 'especially vulnerable industrial development' the proposed development is clearly not such and not, therefore, highly vulnerable development in the terms of TAN 15⁶⁰.
303. The application site is in a low-lying, coastal location where it is protected from tidal flooding by man-made flood defences. As such, it is a C1 flood zone. PPW advises that development proposals in areas defined as being of high flood hazard should only be considered where new development can be justified in that location, even though it is likely to be at risk from flooding⁶¹. More detail is provided in TAN 15 which states that new

⁵⁸ PPW edition 9 paragraph 12.9.6

⁵⁹ PPW edition 9 paragraph 1.1.4

⁶⁰ TAN15 Figure 2

⁶¹ PPW edition 9 paragraph 13.4.1

development that is not highly vulnerable should only be permitted within zones C1 and C2 if it is justified in that location. Development will only be justified if it can be demonstrated that:

- i. Its location in zone C is necessary to assist, or be part of, a local authority regeneration initiative or a local authority strategy required to sustain an existing settlement; **or**
- ii. Its location in zone C is necessary to contribute to key employment objectives supported by the local authority, and other key partners, to sustain an existing settlement or region;

and,

- iii. It concurs with the aims of PPW and meets the definition of previously developed land (PPW fig 4.4); and,
- iv. The potential consequences of a flooding event for the particular type of development have been considered, and in terms of the criteria contained in sections 5 and 7 and appendix 1 found to be acceptable⁶².

304. The proposed development would not assist a regeneration initiative; it is not a development plan allocation or proposal required to sustain an existing settlement; it will not contribute to key employment objectives; nor is it previously developed land. In these respects the proposed development is not consistent with either criterion i) or criterion iii) and thus, on the basis of this test, not justified in its location.

305. In categorising the vulnerability of types of development, TAN 15 acknowledges that some uses are considered as exceptions to the rule because they are required in a fluvial, tidal or coastal location by virtue of their nature⁶³. The examples cited include boatyards, marinas, work at mooring basins and canal-related development, none of which bear any resemblance to the development proposed in this case.

306. There are, however, robust reasons why the proposal needs to be located in this area. Foremost of these are the availability and proximity to a grid connection, and the high number of hours of sunshine. The former is not present in most other locations in the plan area or even nationally, and the highest and second highest average values for sunshine duration are nearly all in coastal locations⁶⁴. In the absence in TAN 15 of any consideration of renewable energy installations, I consider these circumstances to present an alternative and strong justification for the proposed development's location in this area. Where there are exceptions to the general rule TAN 15 states that these will not be subject to the first part of the justification test but subject to the acceptability of consequences part of the test⁶⁵.

307. The applicant has submitted a full FCA based on site-specific flood data provided by NRW⁶⁶. These predict that there would be a rise in sea level of 195mm by 2047 which would be, approximately, the end date of the proposed solar farm. The maximum elevation of the site is 5.83m AOD. NRW therefore requested that the base level of the structures on the

⁶² TAN 15 paragraph 6.2

⁶³ TAN 15 paragraph 5.3

⁶⁴ Site Selection Sequential Test, sections 5.3 and 5.4

⁶⁵ TAN 15 paragraph 5.3

⁶⁶ ES Appendix 13.1, figures 24, 25 and 26

site⁶⁷ should be raised to 6.025m AOD; at that height they would not be submerged if the site were to flood. This would be the subject of a condition. Since the lifetime of the proposed development would be 30 years it is reasonable and sensible to use a 30 year development lifetime to assess the climate change allowance. Were an extension of the proposed solar farm's life to be sought, a fresh planning permission would be required, supported by up-to-date evidence including on flooding.

308. The FCA demonstrates, therefore, that the consequences of the proposed development flooding would be managed down to a level which would be acceptable for that type of development. It establishes that suitable mitigation measures would be incorporated to ensure that development is as safe as possible with: minimal risk to life; minimal disruption to people living and working in the area, minimal potential damage to property; minimal impact of the proposed development on flood risk generally; and minimal disruption to natural heritage⁶⁸.
309. I have explained above why I consider that the failure to meet the detail of the TAN 15 justification test is not a fundamental deficiency. All things considered, therefore, my conclusion is that the proposed development would be generally consistent with flood risk policy set out in PPW and TAN 15. In that respect it would also be consistent with LDP Policy SP3 which states that development will only be permitted in flood risk areas in accordance with national guidance.
310. In being designed to withstand the predicted changes in the local climate and to reduce the risk of flooding on the site and elsewhere, demonstrating that the risk and consequences of flooding could be acceptably managed, the proposed development would also comply with LDP Policy GP1. The pre-existence of flooding problems in the area does not weigh heavily against the proposal.

Other Considerations

Site location, selection and alternatives

311. The proposed development would lie beyond any settlement boundaries identified in the LDP and thus would be classed as being in the countryside. In being appropriate in the countryside, respecting the landscape character and biodiversity of the immediate and surrounding area, and being appropriate in scale and design, the proposed development would comply with LDP Policy SP5.
312. PPW states that local planning authorities should establish what the coast means for them and apply specific policies which reflect its characteristics⁶⁹. In order to preserve undeveloped coastal areas TAN 14 requires the identification of a coastal zone and the control of development within it. The application site is within the undeveloped coastal zone identified within the LDP and where policy does not generally permit development.
313. The application site has been selected for several reasons including the high number of sunshine hours; that the agricultural land is not classified as 'best and most versatile'; its owners are willing to release land for the proposed development; and the availability of a sufficiently large site to allow the economies of scale which would make a scheme viable. The essential attribute of the site, and the one which ties it to the immediate area, is its

⁶⁷ Not including the supports for the solar panels.

⁶⁸ TAN 15 paragraphs 7.2 and 7.3

⁶⁹ PPW edition 9, paragraph 5.6.3

close proximity to 132 kV power lines with capacity for the electricity which would be generated and to an electricity sub-station where the solar farm could be connected to the grid.

314. Although in a C1 flood zone the proposed development would not be at risk itself nor exacerbate risks from erosion, flooding or land instability. There is no advice in the explanatory text as to what would constitute an exceptional need. To my mind, however, the generation of a significant amount of renewable energy would be a considerable benefit and could be described as such. The proposed development would be required in this coastal location to meet an exceptional need which cannot reasonably be accommodated elsewhere and would thus be consistent with LDP Policy CE9.
315. Torfaen and Newport's 'Renewable and Low Carbon Energy Assessment' was a joint study into the potential for low carbon energy in the two Councils' areas. It was completed in 2013. The assessment's methodology, which follows WG guidance⁷⁰, discounted land covered by various designations including SSSIs. The application site was not, therefore, considered to possess technical potential for a ground mounted photovoltaic system. The study provided an evidence base for development plan policies, its aim being to develop an understanding of local renewable resources, constraints and opportunities and to identify renewable energy opportunities. It was not intended to be used to assess individual planning applications for stand-alone renewable energy generating systems and thus carries little weight in the consideration of this case.
316. The application site is not in the green belt. Neither is it classified as best and most versatile agricultural land. As the scheme would not, therefore, result in the loss of such land it would comply with criterion iv) of LDP Policy GP5.
317. The applicant carried out a search for a brownfield site of sufficient size to accommodate the proposed development but none was available. The site of the former Llanwern steel works, just to the north of the application site, is brownfield and in a location where a connection with the grid could be made. It has, however, been extensively redeveloped and there are further plans including for, in the region of, 4,000 houses. The proposed scheme would not be viable on a site which has value for residential development.
318. As there are no over-riding environmental or amenity considerations the proposed solar farm can be considered favourably, consistent with LDP Policy CE10. This policy also states that large scale proposals may be more appropriately located outside of the defined settlement boundary if no appropriate brownfield sites exist, criteria which are both met by these applications.

Residential amenity

319. It is possible that the proposed solar array would be visible from some of the dwellings closest to it. I consider it unlikely, however, that in this flat area with hedge-enclosed fields, such views would provide little more than glimpses of the panels. Although affected occupiers might prefer their existing views I do not consider that the proposed solar array would impinge on their outlook to the extent that it would be over dominant or have an oppressive effect. There would be few views of the proposed panels available from the surrounding area. I do not consider, therefore, that occupiers would feel surrounded or enclosed by the scheme.

⁷⁰ Planning for Renewable and Low Carbon Energy – A Toolkit for Planners (July 2010)

320. The noise assessment concluded that noise from the proposed development would not have any significant impact on noise sensitive receptors such as the occupiers of nearby dwellings. Noise during the construction period would be controlled and minimised through the CEMP which would be implemented through a condition.
321. The proposed development would not have a significant adverse effect on local amenity including in terms of noise, disturbance or light, and would not be detrimental to the visual amenities of nearby occupiers. Neither would it result in unacceptable harm to health through dust, noise, light pollution, or flooding. In these respects it would comply with LDP Policy GP2 and Policy GP7. There is no evidence that the presence of solar arrays is harmful to the health of nearby occupiers. Neither has any evidence been provided to indicate that the proposed development would result in a drop in the value of dwellings in the area. In any event, that is not a planning consideration.

Temporary

322. Concerns have been raised that the proposed development would not be temporary. The proposal has a lifetime of 30 years which would be enforced through a condition. If, at the end of that period, the landowners wanted the development to continue or be replaced with a new renewable energy installation, a fresh planning application would be necessary. It would be considered against the national and development plan policy in place at that time.
323. If the solar farm was removed at the end of its lifetime this would be in accordance with a detailed decommissioning plan. The site would be restored to a pre-agreed condition; the management regime throughout the solar farm's life time should have resulted in substantial improvements in some aspects of its ecology. The applicant has accepted, however, that changes to the land, soil layers and any archaeological remains therein would not be reversible and not, therefore, temporary.

Cumulative impact with the M4 Corridor around Newport (M4 CaN)

324. At the time of writing WG's decision on the M4CaN had not been published.
325. The proposed route passes close to the northern-most plot of the solar farm site at a distance of 255m and, if permitted, would introduce a major infrastructure feature into the mainly rural landscape. Furthermore, it would be on an embankment and likely to be a prominent, and audible, feature in that landscape. Whilst the proposed solar farm would be contained by the enclosing features of the landscape, retaining the characteristic field pattern, the M4CaN would cut through and disrupt it. Unlike the M4CaN the proposed solar farm would have a lifetime of 30 years, at the end of which it would be removed and the land restored. The proposed solar farm would be likely to be visible from the M4CaN but, from the majority of public viewpoints it would not be clearly apparent. In comparison with the M4CaN it would be an insignificant and temporary development such that the cumulative effect of the two together would, in my opinion, be negligible.
326. The M4CaN would affect previously undisturbed land that has the potential to contain buried archaeological remains of unknown date and nature and therefore of unknown value. This is a similar position to the proposed development although the extent of the excavation for the M4CaN would be vastly greater. The process for monitoring and recording any archaeological remains would avoid a negative impact on the historic landscape and its archaeology. There would not, therefore, be any cumulative impact with the M4 scheme in respect of the historic landscape.

327. Mitigation for the loss of habitat would also be similar to that for the proposed solar farm, namely the management of alternative areas for protected species. As a result of the proposed schemes protected species could be displaced from two separate development areas. There would, therefore, be a cumulative effect but, as a result of the mitigation measures, it would be minor.

Public Rights of Way

328. All footpaths and other PROW which pass through the application site would be retained in compliance with LDP Policy T7. In my opinion, the proposed development would not deter users of these paths, the cycle route, or other access ways in the surrounding area.

329. The Wales Coast Path runs along the flood defences from Chepstow, turning inland at Elm Tree Farm towards Goldcliff before returning to the coast south of Nash. Due to the distance between the path and the nearest sections of the proposed development; the low-lying and level topography of the area; and the hedgerows and other vegetation enclosing the fields, the solar farm would not be clearly or obtrusively visible from the Coast Path. The proposed development would not, therefore, have a detrimental effect upon it or its users and would protect the coast path in line with LDP Policy T8.

The Living Levels initiative

330. The application site would be within the Living Levels Partnership Area which covers the Gwent Levels. The broad aims of the Partnership include: to restore, enhance and celebrate the natural heritage of the Levels; and to improve connectivity of the landscape to enhance community and visitor experiences and develop the Gwent Levels as a destination⁷¹.

331. As explained above, I have found that the landscape, ecology and historic features of the area would not be harmed, and that PROWs would not be reduced. I do not consider, therefore, that the proposed development would be contrary to any of those objectives or that it would be detrimental to the initiative as a whole.

Well-Being of Future Generations (Wales) Act 2015

332. I have considered the duty to improve the economic, social, environmental and cultural well-being of Wales, in accordance with the sustainable development principle, under section 3 of the Well-Being of Future Generations (Wales) Act 2015 ("the WCFG Act"). In reaching my conclusions, I have taken into account the ways of working set out at section 5 of the WCFG Act and I consider that my overall conclusions are in accordance with the sustainable development principle through its contribution towards one or more of the Welsh Ministers well-being objectives set out as required by section 8 of the WCFG Act.

Conditions

333. Following a discussion at the final hearing the suggested conditions were agreed between the applicant and the Council. These meet the tests set out in Circular 16/14 *The Use of Planning Conditions for Development Management* and are listed in Appendix 1 and Appendix 2 of this document. The conditions in Appendix 1 shall apply to both applications

⁷¹ Information about the Living Levels Partnership included with the objection from Goldcliff Community Council.

whilst those in Appendix 2 apply only to the secondary application for the battery storage area.

334. The suggested conditions would ensure that the proposed solar farm was constructed in accordance with the submitted plans and that it would be a temporary development, removed at the end of its 30 year lifespan in accordance with a process required by the decommissioning condition. This is necessary to restore the site satisfactorily in order to enable its agricultural use and maintain the rural appearance of the area. Should the solar farm cease to produce electricity for six months at any time before then, in the interests of the countryside, a condition will require it to be repaired or properly removed and the site restored.
335. The majority of activity at and around the application site would take place during the construction period. The approval and implementation of the CEMP would protect the rural character of the area, highway safety on the local road network, the amenity of residents, ecological interests, and would also enable the site to be used for agriculture afterwards.
336. Those conditions concerning the LEMP, root and buffer strip protection, hedgerow planting and strengthening, hedgerow removal, landscape management, noise, lighting, and the colour of the battery storage container units are necessary to protect the character and visual appearance of the landscape. Several of those conditions are also in the interests of ecology, as are those dealing with the Shril carder bee area; the lapwing management plan; ecological mitigation, monitoring and contingency; crane mitigation; and water quality monitoring and contingency.
337. The LEMP has been revised in response to concerns, particularly with regard to lapwing and crane. The up-to-date version is dated May 2018 and I have amended the relevant conditions to reflect that. The crane mitigation condition should clarify which areas would be managed to provide a foraging resource for crane in addition to the new wildflower planting. Whilst the proposed lapwing mitigation areas, with provisional scrapes, are clearly shown on the plans accompanying the LEMP, the proposed hay management fields are not.
338. The archaeology condition will establish an approved programmed of work and is necessary to preserve or record the valuable archaeological resource of the area. The site access and traffic management plan condition would protect highway safety. The platform levels conditions for the scheme's infrastructure and the battery storage units is as advised by NRW and necessary to prevent any harm or loss in the event that the site is inundated during the lifetime of the proposed development.
339. Noise arising during the construction period would be controlled through the CEMP. A separate condition would ensure that noise arising from the inverters and generators did not exceed recommended levels.

Secondary consent

340. As explained earlier the applicant would not construct the battery storage area until after the main development had been constructed. Energy generated by the proposed solar farm would be distributed via a connection to the grid. The CTMP does not take account of traffic movements which would be generated during the construction of the battery storage area. In order to protect highway safety at that time a condition putting in place a CTMP for the battery storage container units is necessary.

Summary of Conclusions

341. The application site is greenfield, in a C1 flood zone, within two SSSIs, a SLA and a LOHI. It is close to the European-designated Severn Estuary and the site and surrounding area support several protected species. On the face of it, therefore, it would seem that there would be little scope for a development of the scale proposed.
342. A key role of the planning system, however, is to ensure that society's land requirements are met in ways which do not impose unnecessary constraints on development whilst ensuring that all reasonable steps are taken to safeguard or enhance the environment⁷². As is also set out in PPW, WG is committed to using the planning system to optimise renewable energy generation as part of its approach to tackling climate change⁷³. Development management decisions should be consistent with national and international climate change obligations including contributions to renewable energy targets and aspirations⁷⁴.
343. The proposed development would generate sufficient electricity to serve the total power needs of approximately 15,000 average UK households per annum; this would off-set around 21,208 tonnes of CO₂ per annum and about 636,240 tonnes over the lifetime of the scheme. This would be a considerable contribution and benefit of the scheme.
344. In this case, the applicant has designed the proposed scheme in full cognisance of the significant restrictions operating in the area. As a result, and with regard to the main issues, the scheme would not have a negative effect on the SSSIs; would be clearly visible from few public vantage points such that the character and appearance of the landscape, including its historic elements, would not be harmed; and would have no likely significant effect upon the Severn Estuary designations. Through significant and convincing mitigation measures the proposed development would safeguard protected species in the area. A watching brief and professional recording would also protect any remnants of the historic landscape which came to light. Furthermore, the proposed development would not be at risk from flooding and would not increase the risk elsewhere. Neither would it be detrimental to highway safety in and around the application site.
345. All things considered, therefore, the proposed development would not result in significant harm to the ecological, landscape or historic interests of the site or area. Any minor harm is more than justified by the significant renewable energy benefits which would arise from the proposed scheme.

Recommendation

346. That planning permission be granted for both the main application and the secondary application, subject to the conditions attached at Appendix 1.

Siân E Worden
Inspector

⁷² PPW paragraph 5.1.3

⁷³ PPW paragraph 12.8.8

⁷⁴ PPW paragraph 12.8.9

Appendix 1 – Schedule of Suggested Conditions for Both Applications

- 1) The development shall begin not later than five years from the date of this decision.
- 2) The development hereby permitted shall be carried out in accordance with the following plans:
 - Drawing 1045592/PL02 – Site Layout Plan
 - Drawing 1045592/PL04 – Typical Details
- 3) The permission hereby granted shall expire 30 years from the date when electrical power is first exported ('first export date') from the solar farm to the electricity grid network, excluding electricity exported during initial testing and commissioning. Written confirmation of the first export date shall be provided to the Local Planning Authority no later than one calendar month after the event.
- 4) Development shall not begin until a Construction and Environmental Management Plan (CEMP) has been submitted to and approved in writing by the Local Planning Authority. The CEMP shall accord with the aims and objectives of the 'Outline Construction & Environmental Management Plan' (January 2018) and shall set out details of all onsite construction works; post-construction reinstatement; drainage; mitigation; and other restoration, together with details of their timetabling. It shall include details of, and measures to secure:
 - the phasing of construction works;
 - the formation and position of the temporary construction compounds;
 - dust management and suppression;
 - cleaning of site entrances, facilities for wheel washing and cleaning of the adjacent public highway;
 - pollution control, including the protection of water courses and ground water; subsoil surface water drainage; bunding and siting of fuel storage areas; sewage and foul water drainage and disposal; and emergency procedures and pollution response plans;
 - temporary site illumination during the construction period;
 - the methods to be adopted to reduce the effects of noise occurring during the construction period to the lowest practicable levels and in accordance with BS 5228: Noise control on construction and open sites;
 - storage of materials and disposal of surplus materials;
 - the construction of the accesses into the site, the erection of any entrance gates and the creation and maintenance of associated visibility splays;
 - details of the construction of access tracks and other areas of hardstanding, including areas of temporary road matting;
 - the carrying out of foundation works for any structures to be installed on the site;
 - method of working cable trenches, including soil storage and back-filling; and details of cable boring methodologies below reens / ditches / other water courses and below hedges;
 - general soil storage and handling;

- post-construction restoration/reinstatement of the working areas, including cable trenches and areas covered by any matting or other areas where the soil has been disturbed or compressed;
- the sheeting of all heavy goods vehicles carrying construction materials to, or spoil from, the site to prevent spillage or deposit of any materials on the highway;
- details of the vehicles to be used on the site during construction activities;
- details of the control of surface water to prevent it entering the public highway or carrying sediment to the surface water drainage network in the vicinity of the site.
- identification of buffer strips adjacent to water courses and to retained vegetation features such as hedges, trees and sites where birds are nesting;
- means to exclude small animals from excavations;
- details of all permanent and temporary bridges and re-en crossings and a method statement for their implementation and, in the cases of temporary crossings required for the construction phase only, removal including a timetable for all proposed works.
- details of any temporary accesses including their locations, formation and the materials to be used and details of restoration (including any hedge restoration) and a timetable for the completion of those works of restoration.

The works shall proceed in full accordance with the agreed construction method statement.

- 5) No operations of any description (this includes all forms of development, tree felling, tree pruning, temporary access construction, soil moving, or operations involving the use of motorised vehicles or construction machinery), shall commence on site in connection with the development until Root Protection Barrier / Buffer Strip Protection fencing has been installed in accordance with details that have been submitted to and approved in writing by the Local Planning Authority. These details shall include information on the constructional details of the fencing with its positioning clearly shown in plan form. No excavation for services, storage of materials or machinery, parking of vehicles, deposits or excavation of soil or rubble, lighting of fires or disposal of liquids shall take place within the areas defined by the fencing. The fencing shall be retained for the full duration of the construction phase of the development, and shall not be removed or repositioned without the prior written approval of the Local Planning Authority.
- 6) No development, to include demolition, shall take place until the implementation of a programme of archaeological work has been secured in accordance with a written scheme of investigation which has been submitted by the applicant and approved in writing by the Local Planning Authority.
- 7) The site shall be accessed fully in accordance with the details set out in the 'Construction Traffic Management Plan' (November 2016).
- 8) There shall be no permanent illumination on the site unless otherwise agreed in writing by the Local Planning Authority.
- 9) Details of the proposed new hedgerow and any strengthening of existing hedgerow planting shall be provided in writing to the Council. Details shall accord with the

Landscape & Ecology Management Plan (LEMP) May 2018 and shall include details of ground preparation, species and planting pattern. Thereafter the new planting shall be implemented by the end of the first full planting season (October to March inclusive) available after the first export date. The new hedgerow planting shall be managed in accordance with the Management Specification – New Hedgerows at Paragraph 6.4.2 of the LEMP and Appendix 3 of the same document.

- 10) The proposed new grassland / wildflower meadow shall be provided as described within the Landscape & Ecology Management Plan (LEMP) May 2018 by the end of the first full planting season (October to March inclusive) available after the first export date. The grassland / wildflower meadow shall be managed in accordance with the Management Specification – grassland for Shrill carder bee at Paragraph 6.5.3 of the LEMP and Appendix 3 of the same document.
- 11) Full details of a finalised Lapwing Mitigation Plan, including a timetable for its implementation, shall be submitted to the Local Planning Authority and approved in writing. The plan shall accord with the principles outlined at Appendix 5 of the Landscape & Ecological Management Plan (LEMP) and shall confirm the land to which the plan relates. No work on the scheme hereby permitted shall commence until the plan is agreed and it shall be carried out fully in accordance with the agreed plan.
- 12) The ecological mitigation described in Paragraph 5.3 of the Landscape & Ecological Management Plan (LEMP) shall be implemented within 6 months of the first export date.
- 13) Full details of Hedgerow removal shall be submitted to and approved in writing by the Local Planning Authority. The details shall include:
 - Precise location of hedges to be removed;
 - Removal methodology;
 - Timing of Removal;
 - Mechanism to prevent disturbance to nesting birds and other fauna.No hedge shall be removed until the details are agreed in writing. No hedge shall be removed that has not been identified for removal.
- 14) Prior to the commencement of any works of ecological mitigation/compensation the applicant shall produce an 'Ecological Monitoring & Contingency Plan'. The plan shall set out the principle aims and objectives of the ecological work to be undertaken as part of the development hereby approved and shall identify a monitoring and reporting schedule that shall have regard to the objectives of the plan. Monitoring Reports shall be submitted to the Council within 3 months of their completion. Objectives shall be short term (5 years and less), mid-term (6-10 years) and long term (11-30 years). The plan shall allow for contingency actions to be taken if monitoring shows stated objectives are not being achieved. Any change in the ecological mitigation proposed for the site shall be submitted to and agreed in writing by the Local Planning Authority. Thereafter any contingency shall be carried out fully as agreed.
- 15) Full details of a plan to mitigate any harm to the interests of Common Crane caused by the scheme hereby approved shall be submitted to and approved in writing by the Local Planning Authority. The plan shall include details of how disturbance to the cranes will be avoided in the main breeding season (Mid-February to July inclusive) and how the cranes will gain access to the proposed grassland buffers and wildflower

planting areas. No work on the scheme hereby permitted shall commence until the plan is agreed and it shall be carried out fully in accordance with the agreed plan.

- 16) Details of all proposed re-en crossings either temporary or permanent shall be provided to the Council in writing. Following the Council's written agreement the re-en crossings shall be installed as agreed. No other re-en crossings shall be installed.
- 17) All landscape features within the site shall be managed in accordance with the Landscape & Ecological Management Plan (LEMP), May 2018.
- 18) Not later than 12 months before the expiry of this permission, a decommissioning and site restoration scheme shall be submitted for the written approval of the Local Planning Authority. The scheme shall make provision for the removal of the solar panels and all other associated infrastructure, equipment & paraphernalia including the battery storage container units and the subsequent restoration of the site. The scheme shall include details of:
 - the extent of equipment and foundation removal and the site restoration to be carried out;
 - the management and timing of any works;
 - a traffic management plan to address likely traffic impact issues during the decommissioning period;
 - an environmental management plan to include details of measures to be taken during the decommissioning period to protect wildlife, habitats and tree features on the site;
 - identification of access routes;
 - location of material laydown areas; full details of the removal of the solar arrays, associated buildings and plant, any trackways and sub-surface cabling, and all associated works of ground restoration including trench backfilling;
 - full details of all works to restore the land to allow for agricultural production following the removal of structures from the site;
 - a programme of implementation.

The approved scheme shall be implemented within 6 months of the expiry of this permission and shall be carried out fully in accordance with the approved decommissioning scheme.

- 19) If the solar farm hereby permitted fails to produce electricity for supply to the grid for a continuous period of 6 months, a scheme for the repair or removal of the solar farm, including the battery storage container units, shall be submitted to and approved in writing by the Local Planning Authority within 3 months of the end of that 6 month period. Where repairs or replacements are required the scheme shall include a proposed programme of remedial works. Where removal of the solar farm is required the scheme shall include the same details required under the decommissioning condition of this permission. The repair or removal scheme shall thereafter be implemented in full accordance with the approved details and timetable.
- 20) The Inverters and Generators hereby approved shall be acoustically treated and tested in accordance with British Standard 3744: 2010 to ensure the overall sound power levels meet the minimum requirements.

- 21) Prior to the installation of the inverters, generators, grid connection hub and associated infrastructure, details of the platforms they will be sited on, including details of how surface water runoff will be intercepted and discharged at green field rates, shall be submitted to and approved in writing by the Local Planning Authority. The platforms will be built fully in accordance with the approved details and the storage units shall have a finished floor level of 6.025m AOD.
- 22) Prior to the commencement of any works on the site a Water Quality Monitoring Plan shall be submitted to and approved in writing by the Local Planning Authority. The plan shall establish a pre-development baseline and identify how monitoring shall proceed including a reporting schedule to the Local Planning Authority and the duration of the monitoring regime. All monitoring reports shall have regard to the baseline assessment. In the event that significant reductions in water quality are identified through monitoring then the applicant or any successor in title shall provide to the Local Planning Authority a written contingency plan to address the issue. Any approved contingency plan and/or modified monitoring plan shall be implemented fully in accordance with the approved details.

Appendix 2 – Schedule of Additional Conditions for the Battery Storage Container Units

- 23) No work on the installation of the battery storage container units shall take place until a Construction Traffic Management Plan for the battery storage area has been submitted to and approved in writing by the Local Planning Authority. The battery storage area shall be constructed in full accordance with the approved plan.
- 24) Prior to the installation of the battery storage container units details of the platforms they will be sited on, including details of how surface water runoff will be intercepted and discharged at green field rates, shall be submitted to and approved in writing by the Local Planning Authority. The platforms will be built fully in accordance with the approved details and the storage units shall have a finished floor level of 6.025m AOD.
- 25) The battery storage container units hereby approved shall be finished in a dark green or dark brown colour.

APPEARANCES

Hearing 1 Protected species and habitat

For the Applicant:

Peter Grubb BSc MSc MRTPI	Director, Savills
Nick Beddoe BA(Hons) MSc MRTPI	Savills
Faye Midmore BSc MSc ACIEEM	Principle Ecologist, Green Ecology
Mark Witherall BSc MCIEEM	Principle Ecologist, Green Ecology

Other Participants:

James Davies	Senior Development Plan Advisor, NRW
Andrew Dodd	Head of Casework, RSPB
Simon Hugheston-Roberts	Conservation Officer (Casework), RSPB
Geraint Roberts	Principal Planning Officer, Newport City Council

Hearing 2 Character and appearance of the landscape including the historic landscape

For the Applicant:

Peter Grubb BSc MSc MRTPI	Director, Savills
Nick Beddoe BA(Hons) MSc MRTPI	Planning Consultant, Savills
Dr Paula Lutescu-Jones BA MA PhD	Principal Archaeologist and Heritage Consultant, Savills
Mary O'Connor	Landscape Architect WYG
Donna Vinnels	Landscape Architect WYG

Other Participants:

Judith Doyle	Glamorgan-Gwent Archaeological Trust
Lindsay Christian	Senior Planning Policy Officer, Newport City Council

Hearing 3 Flood risk, highway safety and conditions

For the Applicant:

Peter Grubb BSc MSc MRTPI	Director, Savills
Nick Beddoe BA(Hons) MSc MRTPI	Savills
Clive Onions BSc CEng FICE FCIWEM MIStructE MCIHT	Director, Clive Onions Ltd
Peter Evans	Director Transport Team, WSP
James Morgan	Principal Engineer, WSP

Other Participants:

Bryan Cork	Goldcliff Community Council
Anna Harris	Goldcliff Community Council
Geraint Roberts	Principal Planning Officer, Newport City Council

PLANS

1045592/PL01	Location plan
1045592/PL02	Site layout plan
1045592/PL03	Field numbering plan
1045592/PL04	Typical details
1045592/PL05	Parcel 1 – Site layout plan as proposed
1045592/PL06	Parcel 2 – Site layout plan as proposed
1045592/PL07	Parcel 3 – Site layout plan as proposed
1045592/PL08	Parcel 4 – Site layout plan as proposed
1045592/PL09	Detailed location plan

DOCUMENTS SUBMITTED AT HEARING

Living Levels newsletter and newspaper cutting



APPENDIX 6 – WELSH MINISTER DECISION LETTER – WAUNTYSSWG



Ein cyf/Our ref qA1365732

Mr Dafydd Williams
RPS
Park House
Greyfriars Road
Cardiff
CF10 3AF

Dafydd.williams@rpsgroup.com

31 July 2019

Dear Mr Williams

**TOWN AND COUNTRY PLANNING ACT 1990 – SECTION 62D.
THE DEVELOPMENTS ON NATIONAL SIGNIFICANCE (WALES) REGULATIONS 2016.
APPLICATION BY ELGIN ENERGY ESCO LIMITED FOR A 30MW SOLAR PARK,
ACCESS AND ANCILLARY DEVELOPMENT AT WAUNTYSSWG FARM,
ABERTYSSWG, RHYMNEY, TREDEGAR APP REF : DNS/3213639**

1. Consideration has been given to the report of the Inspector, Melissa Hall, BA(Hons), BTP, MSc, MRTPI, who dealt with the planning application.
2. In accordance with section 62D of the Town and Country Planning Act 1990 and Regulation 3 of The Developments of National Significance (Specified Criteria and Prescribed Secondary Consents) (Wales) Regulations 2016, the application was made to the Welsh Ministers for determination.
3. In exercising functions, as part of carrying out Sustainable Development in accordance with the Well-being of Future Generations Act ("the FG Act 2015"), section 2 of the Planning (Wales) Act 2015 requires the Welsh Ministers, as a public body, to ensure the development and use of land contributes towards improving the economic, social, environmental and cultural well-being of Wales. In order to act in this manner, the Welsh Ministers have taken into account the ways of working set out in section 4 of 'SPSF1: Core Guidance, Shared Purpose: Shared Future- Statutory Guidance on the Future Generations Act 2015' by dealing with the planning application by way of written representations and the Hearings procedure in accordance with Part 7 of The Developments of National Significance (Wales) Regulations 2016.

Canolfan Cyswllt Cyntaf / First Point of Contact Centre:
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Rydym yn croesawu derbyn gohebiaeth yn Gymraeg. Byddwn yn ateb gohebiaeth a dderbynnir yn Gymraeg yn Gymraeg ac ni fydd gohebu yn Gymraeg yn arwain at oedi.

We welcome receiving correspondence in Welsh. Any correspondence received in Welsh will be answered in Welsh and corresponding in Welsh will not lead to a delay in responding.

4. The Inspector held a topic specific Hearing session on 30 January 2019, regarding visual and landscape impacts and the effect on the historic environment. The Inspector made site visits on 2 October and 22 November, 2018. The Inspector recommends that planning permission be refused. A copy of the Inspector's report (IR) is enclosed. All references to paragraph numbers, unless otherwise stated, relate to the IR.

Main Issues

5. I agree the main issues are those listed by the Inspector at IR 208:
 - the effect of the proposal on the character and appearance and visual amenity of the area; and
 - whether the development would preserve or enhance heritage assets.

Principle of development

6. The Inspector recognises that Policy SP7 of the Blaenau Gwent Local Development Plan (LDP) encourages more of the County's electricity requirements to be generated by renewable technologies. The Inspector also highlights paragraph 5.7.1 of Planning Policy Wales (PPW) which states, "The planning system plays a key role in delivering clean growth and the decarbonisation of energy, as well as being crucial in building resilience to the impacts of climate change". PPW also sets out the Welsh Government's renewable energy target, which is for Wales to generate 70% of its electricity consumption from renewable energy by 2030 (IR 210 – 213).
7. As the development would increase the installed renewable energy capacity in the County, the Inspector considers it would embrace the FG Act 2015 goals to achieve a globally responsible, prosperous and resilient Wales. However, the Inspector considers a prosperous and globally responsible Wales also values the quality of landscapes and the historic environment. Paragraph 5.7.7 of PPW states, "The planning system should secure an appropriate mix of energy provision, which maximises benefits to our economy and communities whilst minimising potential environmental and social impacts". Paragraph 3.15 of Technical Advice Note 8 states, "Other than in circumstances where visual impact is critically damaging to a listed building, ancient monument or a conservation area vista, proposals for appropriately designed solar thermal and PV systems should be supported" (IR 214 – 216).
8. The Inspector considers planning policies at national and local level are consistent in their aim to achieve energy development that is sustainable and that does not cause any significant adverse environmental impacts. Her summary of the policy context is, overall, development is supported that is appropriate to its context and meets the well-being objectives established within PPW (IR 217).
9. The Inspector considers the development represents a high efficiency method of generating electricity. Therefore, the Inspector attaches significant weight to the contribution the development would make to renewable energy production as part of the Welsh Government's approach to climate change and increasing energy security. However, the Inspector states this significant benefit must be balanced against the potential environmental impacts of the proposal in considering whether the scheme would be inherently sustainable (IR 218).

Landscape and Visual Impact

10. The Inspector acknowledges the application site does not fall within any statutory landscape designation. Reference is made to paragraph 5.9.17 of PPW which states, "In circumstances where protected landscape, biodiversity and historical designations and buildings are considered in the decision making process, only the direct irreversible impacts on statutorily protected sites and buildings and their settings (where appropriate) should be considered" (IR 219).
11. However, the Inspector also refers to paragraph 6.3.3 of PPW which recognises all landscapes in Wales are valued for their intrinsic contribution to a sense of place. Paragraph 6.3.4 of PPW states, "Where adverse effects on landscape character cannot be avoided, it will be necessary to refuse planning permission" (IR 220).
12. Notwithstanding the advice in PPW, the Inspector notes section 38(6) of the Planning and Compulsory Purchase Act 2004 requires determinations under the planning Acts to be made in accordance with the development plan unless material considerations indicate otherwise. The Inspector specifically highlights LDP Policy ENV 2 which states it expects new development to conform to the highest standards of design, siting, layout and materials appropriate to the character of the Special Landscape Area (SLA). The application site is located within the Mynydd Bedwellty, Rhymney Hill and Sirhowy Sides Special Landscape Area (SLA). The Landscape and Visual Appraisal identifies the key features of the site and surroundings as a predominantly agricultural landscape with an extensive length of valley side with no development, pockets of linear settlements and scattered, isolated farm complexes and private residences (IR 221-IR 222).
13. The Inspector also notes, whilst the application site boundary is only partly within the boundaries of Caerphilly County Borough Council to the north-west, the site bounds the Northern Rhymney Valley Visually Important Local Landscape (VILL). A VILL is a non-statutory designation that seeks to protect the distinctive features or characteristics of the visual and sensory landscape. The Council has confirmed the visual character of the VILL is a predominantly upland and open area (IR 223).
14. The Inspector considers although major or substantial adverse effect on landscape character would be restricted to localised areas, this would represent significant components in the valley. Her view is the development would unacceptably alter the existing rural agricultural landscape, including a SLA whose primary landscape features include "secluded farmland, undisturbed by industrialisation..." to a dominant industrial landscape characterised by closely grouped engineered structures (IR 224-227).
15. The Inspector considers, therefore, the proposal realises the concern in the Welsh Government Practice Guidance, "Planning Implications of Renewable and Low Carbon Energy", that a solar array can result in a regular pattern of PV panels, ancillary buildings and security fencing occupying substantial areas of land, leading to creeping urbanisation of the countryside (IR 228). The Practice Guidance describes itself as a tool to support Local Planning Authorities (LPAs) in dealing with applications for renewable and low carbon energy development.

16. The Inspector provides her assessment of the Landscape and Visual Appraisal Addendum (LVAA). The LVAA reassessed viewpoints following a site visit and detailed visual appraisal, which resulted in a lesser magnitude of change than originally thought in respect of certain viewpoints. The Inspector considers there would be good visibility of the development from public vantage points, notwithstanding the reassessment of viewpoint 5 (IR 229-232). Viewpoint 5 provides a view from Cefn Golau Cholera Cemetery SAM.
17. The Inspector notes the predicted change and effect from a number of viewpoints have not been affected by the reassessment undertaken in the LVAA. The overall effect on the view from Mountain Ash Inn is considered to be substantial. There are major to substantial impacts on views to the east and south east of the site where enclosure levels decrease. The predicted effect on the public rights of way which passes through the farm complex and footpath Rhymney FP64 are assessed as substantial. Also, the Inspector considers the development would be highly visible from a number of viewpoints of medium and high sensitivity, adversely affecting the experience of the user. The LVA concludes that in close range views, the presence of wind turbine and solar development in combination would generate a cumulative effect which would change the local landscape character. This further convinces the Inspector of the harmful visual impact of the proposed development in combination with other renewable energy development in the vicinity (IR 233 – 235).
18. In terms of the impact on the Caerphilly County Borough Council's VILL, the LVAA concludes the overall sensitivity is medium and, with a low magnitude of change, the proposed development would have a minor effect on the VILL. Based on her assessment, the Inspector concludes that the development would not have a serious adverse impact on certain viewpoints and that cumulative effect with existing turbines would not be significant. However, the Inspector finds that the proposal would have a harmful effect on the visual quality and extensive upland views characteristic of the VILL which could not be adequately screened (IR 236 – 244).
19. On this issue the Inspector concludes the development would conflict with Policy ENV2 of the Blaenau Gwent LDP which expects proposals to conform to the highest standards of design, siting, layout and materials appropriate to the character of the SLA. Her view is it would also conflict with Policy CW4 of Caerphilly County Borough Council's LDP which supports development that conserves and, where appropriate, enhances the distinctive or characteristic features of the VILL (IR 245).
20. The Inspector recognises renewable energy schemes by their nature are likely to result in some impact on the character and appearance of the countryside. However, in this case her conclusion is the degree of harm inherent in the proposal weighs against the grant of planning permission (IR 246).

Historic Environment

Archaeology

21. The Inspector is satisfied a condition securing a programme of archaeological works and its implementation would adequately protect the archaeological resource (IR 247 – 250).

Setting of Heritage Assets

22. The main area of contention between the parties relates to the effect of the development on the setting of the Tredegar Cholera Cemetery SAM and the affected areas of the extractive industry and Cwm-Tysswg Farm forming part of the Bedwellte Fieldscape (IR 251).
23. The Inspector notes Policy SP11 of the Blaenau Gwent LDP seeks to protect Blaenau Gwent's distinctive built environment, which includes SAMs. Paragraph 5.9.17 of PPW is clear in circumstances where protected historical designations and buildings are considered in the decision making process, only the direct irreversible impacts on statutorily protected sites and buildings and their settings should be considered. Technical Advice Note 8 : renewable energy states, "Other than in circumstances where visual impact is critically damaging to a listed building, ancient monument or a conservation area vista, proposals for appropriately designed solar thermal and PV systems should be supported" (IR 252).
24. In terms of significance of the heritage asset, the Inspector notes part of the historic heritage value of the SAM is as a rare physical reminder of the one of the few known surviving cholera cemeteries. Her view is the isolation and remoteness, together with the sense of bleakness and loneliness, are the overriding qualities of the cemetery as it is experienced today and views to the south are the most evocative (IR 253 - 255).
25. The Inspector notes CADW disagrees with the Heritage Impact Assessment Addendum (HIAA) that the overall impact would be minor adverse tending to negligible. CADW considers the proposed development would have an adverse impact on the setting of the monument as it would alter the sense of isolation and abandonment which is a major factor in how it is understood, experienced and appreciated. Blaenau Gwent County Borough Council also considers the HIAA understates the impact on the setting of the asset and reiterates CADW's view regarding the importance of the sense of isolation (IR 256-260).
26. The HIAA concludes the proposal would result in a negligible impact (no appreciable effect on the setting of any asset) tending to a minor adverse impact (slight visual changes to a few key aspects of historic landscape and the settings of any asset). However, the Inspector is not convinced it would represent a minor change to key historic landscape elements and have little appreciable effect on the setting of the heritage asset. Instead, her view is the proposal would affect the setting of the SAM and, in particular, its evidential, aesthetic and communal value that forms part of its significance. The Inspector considers an appreciable effect on heritage significance would be apparent (IR 261 – 268).
27. The Inspector notes CADW considers it would be possible to mitigate the adverse impacts of the development to a more acceptable level by replacing the existing modern fence with a facsimile of the original. However, her view is whilst a replacement fence of a more sympathetic design would improve its visual impact, and therefore the setting of the SAM, it would not offset the harm caused by the development to the sense of isolation and remoteness of the setting (IR 269).
28. In terms of impact on the Bedwellte Fieldscape historic assets, the Inspector considers the fieldscape is well-preserved and retains some historic value as well as communal and aesthetic value in how it is appreciated today. The construction of the proposed development would have an effect on the appreciation of the heritage asset, however, historic field boundaries would be retained within the proposals. In terms of the

proposed access track, the Inspector agrees this would result in a minor adverse tending to negligible impact on the undesignated assets with appropriate mitigation (IR 270-273).

29. The Inspector's overall conclusion on this issue is there would be a direct and significant adverse impact on the setting of the statutory heritage designation (the SAM) in conflict with the general thrust of PPW. The Inspector considers the proposal would also be contrary to Policy SP11 of the Blaenau Gwent LDP which seeks to safeguard nationally designated sites from inappropriate development (IR 274).

Agricultural Land

30. The land is classed as Grade 4 agricultural land, it is not the best and most versatile as defined in PPW. Therefore, the Inspector recognises its loss over the 30 year lifetime of the proposal is not a factor that would attract significant weight in the consideration of the application (IR 275-277).

Ecology

31. On this issue the Inspector is satisfied, subject to mitigation measures to be secured by condition, there would be no significant harmful impacts on ecological features. Therefore, the proposed development would meet the requirements of Policies SP10, ENV3 and DM14 of the Blaenau Gwent LDP, which require new development to respect and protect the natural environment including protected habitats and species. The Inspector also considers the proposal would be consistent with the objectives of Technical Advice Note 5: nature conservation and planning, to protect nature conservation interests (IR 278 – 285).

Trees and Arboriculture

32. Only two trees would be removed to accommodate the solar park. The Inspector considers, providing compensatory planting is delivered and landscaping is secured by condition, the proposal would not have a harmful adverse effect on trees within the site. Therefore, it would accord with the requirements of Policy DM16 in the Blaenau Gwent LDP, which relates to the protection of trees (IR 286-287).

Glint and Glare

33. The Inspector does not consider there would be an unacceptable impact from the potential residual glint effect from the solar panels and concludes the proposal would comply with relevant LDP policies which require development proposals to have no unacceptable impact on amenity (IR 288-290).

Hydrology and Flood Risk

34. The application site is located in Zone A of the Technical Advice Note 15 (TAN 15) development advice map where there is little or no risk of fluvial or coastal/tidal flooding. NRW's map shows the majority of the site at very low risk of surface water flooding. The Inspector understands the increase in impermeable area is negligible and ordinarily would not require any surface water management. However, the Hydrology Assessment suggests SuDS design could be incorporated into the final design. Given the drainage authority at Blaenau Gwent Borough Council has raised no objection in this regard and the local planning authority has not sought a condition, the Inspector considers a condition to secure a SuDS scheme would not be necessary (IR 291-295).

35. The Inspector concludes the proposal would accord with Policy SP10 of the Blaenau Gwent LDP, which seeks to ensure new development does not have an unacceptable impact on the water environment. It would also meet the objectives of TAN 15 to ensure the risks of flooding are assessed and managed for any new development as it relates to sustainability principles. The matter is, therefore, neutral in the planning balance (IR 296).

Traffic and Highway Safety

36. Based on the evidence before her, including no objections from the highway authorities, the Inspector is satisfied the proposal would not give rise to any significant highway safety concerns either during or post construction. Therefore, the Inspector considers this matter to be neutral in the planning balance (IR 297-302).

Coal Mining

37. The Inspector accepts the development would temporarily sterilise minerals reserves for the duration of its use as a solar park. However, no evidence was presented to the Inspector to suggest the mineral resource would be required within that time period. The Inspector considers this temporary effect would not result in permanent loss of the mineral resource and the coal safeguarding area would not be compromised. Therefore, the development would not prejudice future extraction as required by relevant LDP policies (IR 303 – 305).

The Planning Balance

38. The Inspector places meaningful and significant weight on the contribution the solar park would make to meeting the renewable energy targets in PPW and the principle that the development would support the transition to a low carbon future in a changing climate. The Inspector also notes the proposal would meet the well-being goals insofar as it would contribute to a more prosperous, resilient, healthier and globally responsible Wales (IR 306-311).
39. The Inspector acknowledges the neutral effects of the development in terms of quality of agricultural land, glint and glare, ecology, trees and arboriculture, hydrology and flood risk, traffic and highway safety, and coal mining. The Inspector considers these factors weigh in favour of the development insofar as they are not in conflict with several of the well-being goals outlined in PPW (IR 312).
40. However, the Inspector finds the development would have a significant adverse effect on the SLA and VILL, it would considerably harm the character and distinctiveness of this rural location, and it would cause material harm to users of the public rights of way. The Inspector also finds the proposal would have a significant adverse impact on the setting of the SAM, in conflict with the thrust of national planning policy (IR 313).
41. The Inspector, therefore, considers the proposal would be contrary to relevant LDP Policies to protect the countryside for its own sake, protect the special qualities of the County Borough's landscapes and safeguard the setting of a heritage asset. As such, the Inspector considers the scheme would conflict with the well-being goals in PPW to achieve a Wales of vibrant culture, cohesive communities and resilience (IR 314).
42. The Inspector's conclusion is the benefits of the proposal, in terms of providing supported renewable energy, would not outweigh the harm to landscape character and the heritage asset (IR 315 - 316).

43. The Inspector recognises the solar park would only be in place for a period of 30 years and impacts on the landscape or setting of any heritage asset would be fully reversible. However, her view is this time period represents a generation, during the lifetime of which, the harm to the character and appearance of the area and to the setting of a heritage asset would subsist (IR 317).
44. The Inspector recommends planning permission be refused (IR 342).

Conclusion

45. In determining this application, I have had regard to section 38(6) of the Planning and Compulsory Purchase Act 2004 which, states, "If regard is to be had to the development plan for the purpose of any determination to be made under the planning Acts the determination must be made in accordance with the plan unless material considerations indicate otherwise". In this case the relevant development plans comprise the Blaenau Gwent County Borough Council Local Development Plan, adopted in November 2012, and the Caerphilly County Borough Local Development Plan, adopted in November 2010.
46. In terms of the national planning policy, PPW clearly sets out national planning policy on renewable energy development, supported by Technical Advice Note 8 (TAN 8). Paragraph 5.7.1 of PPW states, "The planning system plays a key role in delivering clean growth and the decarbonisation of energy, as well as being crucial in building resilience to the impacts of climate change". Paragraph 5.7.8 states, "The benefits of renewable and low carbon energy, as part of the overall commitment to tackle climate change and increase energy security, is of paramount importance".
47. The Welsh Government's targets for the generation of renewable energy are set out in paragraph 5.7.16 of PPW and include a target for Wales to generate 70% of its electricity consumption from renewable energy by 2030.
48. Specific advice for determining planning applications for renewable and low carbon technologies is provided in paragraph 5.9.16 of PPW and requires the determination of planning applications to take account of: the contribution a proposal will make to meeting identified Welsh, UK and European targets, the contribution to cutting greenhouse gas emissions and the wider environmental, social and economic benefits and opportunities from renewable and low carbon development.
49. In terms of the Welsh Government's commitment to tackling climate change, "Prosperity for All: A Low Carbon Wales", dated March 2019, recognises that "Climate change is the globally defining challenge of our time". On 29 April, 2019, the Minister for Environment, Energy and Rural Affairs declared a climate emergency in Wales, reiterating the need to deliver a low carbon economy in Wales.
50. I agree with the Inspector that the proposed development would increase installed renewable energy production in the County, contributing to meeting local and national renewable energy targets, reducing reliance on energy generated from fossil fuels and actively facilitating the transition to a low carbon economy. I also agree that, in the determination of this application, significant weight should be given to the contribution the development would make to producing renewable energy, contributing towards meeting Wales' carbon and renewable targets. However, I agree the scheme must be considered against relevant development plan policies and other material

considerations in accordance with section 38(6) of the Planning and Compulsory Purchase Act 2004.

51. I am content with the Inspector's assessment of the neutral effects of the proposed development on the quality of agricultural land, glint and glare, ecology, trees and arboriculture, hydrology and flood risk, traffic and highway safety, and coal mining. I am satisfied and agree with the reasoning and conclusions of the Inspector on these issues. I agree these factors weigh in favour of the development insofar as they are not in conflict with several of the well-being goals outlined in PPW (IR 312). I also agree that any archaeological resources on site can be adequately protected by securing a programme of archaeological works by condition.
52. However, I disagree with the Inspector's assessment of landscape and visual impact, and the setting of heritage assets. In coming to this view, I have considered all the consultation responses and representations, as summarised in the Inspector's report (IR 154 – 206).

Landscape and Visual Impact

53. In terms of landscape and visual impact, the application site does not fall within any statutory landscape designation. Paragraph 5.9.17 of PPW clearly states, "*In circumstances where protected landscape, biodiversity and historical designations and buildings are considered in the decision making process, only the direct irreversible impacts on statutorily protected sites and buildings and their settings (where appropriate) should be considered. In all cases, considerable weight should be attached to the need to produce more energy from renewable and low carbon sources, in order for Wales to meet its carbon and renewable targets*".
54. However, paragraph 6.3.3 of PPW states all landscapes in Wales are valued for their intrinsic contribution to a sense of place. Also, paragraph 6.3.4 of PPW states, "*Where adverse effects on landscape character cannot be avoided, it will be necessary to refuse planning permission*".
55. As technical advice to supplement PPW, I also note the content of Technical Advice Note 8: Planning for Renewable Energy (TAN 8). The Inspector has highlighted paragraph 3.15 of TAN 8 which states, "*Other than in circumstances where visual impact is critically damaging to a listed building, ancient monument or a conservation area vista, proposals for appropriately designed solar thermal and PV systems should be supported*".
56. I have no reason to disagree with the Inspector's evaluation of the impact of the proposed development on the SLA in Blaenau Gwent County Borough Council and the VILL in Caerphilly County Borough Council, which is based on her site visits and the evidence submitted. As such I accept the proposal will result in landscape change which, from some viewpoints identified in the Inspector's conclusions, would result in harmful effects to the SLA and VILL. However, whilst such harmful effects may conflict with relevant LDP policies, as identified in the Inspector's conclusions, national planning guidance in PPW is a material consideration.
57. When determining planning applications for renewable and low carbon energy schemes, paragraph 5.9.17 provides guidance on how the impact on landscape should be assessed. It clearly states only the direct irreversible impacts on statutorily protected sites should be considered. Whilst paragraph 5.9.17 relates to protected landscape, the principle that only direct irreversible impacts should be considered applies equally to non-statutory landscape designations.

58. I note the content of paragraphs 6.3.3 and 6.3.4 of PPW. However, paragraph 1.9 of PPW states PPW should be read as a whole. In this case, whilst the Inspector has identified adverse landscape and visual impacts on the SLA and VILL, these impacts relate to a development proposal for the production of renewable energy. In such cases, PPW states only the direct, irreversible impacts on landscape should be considered. I am satisfied any landscape and visual impact, whether direct or indirect, from this particular proposal would be temporary and fully reversible. Therefore, I am satisfied the proposal accords with national planning policy.

Setting of Heritage Assets

59. The Inspector finds there would be a direct and significant adverse impact on the setting of the SAM which the Inspector considers conflicts with the thrust of PPW and is contrary to Policy SP11 of the Blaenau Gwent LDP.
60. I note CADW, the statutory consultee on this matter, considers, based on the HIAA, the proposed development would have an adverse impact on the setting of the monument as it would alter the sense of isolation and abandonment.
61. However, CADW considers the replacement of the existing, modern fence around the SAM with a facsimile of the original would be beneficial to the setting of the asset and this would, to some degree, offset any adverse impact resulting from the proposed development. If replacement fencing was secured, CADW consider the level of impact would be reduced to an acceptable level and it would withdraw its objection to the application.
62. I disagree that the scheme conflicts with the “general thrust of PPW”. As the Inspector notes, paragraph 5.9.17 of PPW is clear, *“In circumstances where protected landscape, biodiversity and historical designations and buildings are considered in the decision making process, only the direct irreversible impacts on statutorily protected sites and buildings and their settings (where appropriate) should be considered”*.
63. The Inspector, in considering setting of heritage assets, also highlights paragraph 3.15 of Technical Advice Note 8: Planning for Renewable Energy which states, *“Other than in circumstances where visual impact is critically damaging to a listed building, ancient monument or a conservation area vista, proposals for appropriately designed solar thermal and PV systems should be supported”*.
64. Although not directly referred to in the Inspector’s report, I note that Technical Advice Note 24: The Historic Environment (TAN 24) is also relevant to the determination of this application and paragraph 4.2 of TAN 24 states, *“When considering development proposals that affect scheduled monuments or other nationally important archaeological remains, there should be a presumption in favour of their physical preservation in situ, i.e. a presumption against proposals which would involve significant alteration or cause damage, or would have a significant adverse impact causing harm within the setting of the remains”*.
65. Planning Policy Wales (PPW) sets out the land use planning policies of the Welsh Government. Technical Advice Notes provide technical guidance which supplements PPW. Therefore, in terms of national land use policy, the application should be determined against policies in PPW. As discussed above, the key policy in terms of setting of heritage assets is set out in paragraph 5.9.17 of PPW.

66. I accept there will be an adverse impact on the setting of the SAM. Irrespective of whether the impact is considered to be indirect or direct, I am satisfied the impact is temporary and is fully reversible. Therefore, I am satisfied the proposal accords with national planning policy.

Planning Balance

67. For the reasons given, I consider the significant benefits of the proposal, which is anticipated to generate 30MW of electricity per annum from a renewable source, outweighs any harmful landscape or visual impacts or any harm to the setting of the SAM.

Well-being of Future Generations Act

68. In determining this planning application I note the duty to carry out sustainable development under section 2 of the Planning (Wales) Act 2015.
69. I agree with the Inspector that the proposal would meet the well being goals of the FG Act 2015 insofar as it would contribute to a more prosperous, healthier and globally responsible Wales. However, the Inspector concludes the proposal would conflict with the well-being goals to achieve a Wales of vibrant culture, cohesive communities and resilience.
70. In terms of “A resilient Wales” the description of this particular goal in the FG Act 2015 specifically refers to the capacity of the natural environment to adapt to climate change, which I consider would be supported by the proposal. In terms of “A Wales of cohesive communities”, I consider the scheme would have a neutral effect on the creation of “Attractive, viable, safe and well-connected communities”. In terms of FG Act 2015 goal, “A Wales of vibrant culture and thriving Welsh language”, I accept there will be some impact on the setting of the SAM, albeit a temporary and fully reversible impact.
71. Overall I consider the decision accords with the sustainable development principle set out in the FG Act 2015. In accordance with section 3(2) of the FG Act 2015 and the well-being objectives of the Welsh Ministers, the decision will specifically help “Drive sustainable growth and combat climate change”.

Conditions/Unilateral Undertaking

72. I note CADW’s comments regarding replacement facsimile fencing. However, I am satisfied any impact on the SAM would be temporary and fully reversible. Also, I agree with the Inspector that a fence would only serve to improve the setting of the asset itself rather than mitigate any harm caused by the proposed development. Therefore, I do not consider a condition to secure replacement fencing would be necessary. I note the developer has submitted an executed Unilateral Undertaking (UU) which commits the developer to erect replacement fencing around the SAM. I consider a more appropriate, replacement fence around the SAM would be a welcome aesthetic improvement. However, for reasons outlined above, I have not taken account of the UU in my decision as the planning obligation is also not necessary.
73. Subject to these comments, I agree the conditions recommended by the Inspector meet the tests in Welsh Government Circular 016/2014, “The Use of Planning

Conditions for Development Management". The list of conditions is provided in the Annex to this decision letter.

Decision

74. For the reasons given, I hereby grant planning permission, subject to the conditions set out in the Annex to this decision letter, for DNS application reference DNS/3213639.
75. A copy of this letter has been sent to Blaenau Gwent County Borough Council and Caerphilly County Borough Council.

Yours sincerely



Julie James AC/AM
Y Gweinidog Tai a Llywodraeth Leol
Minister for Housing and Local Government

Annex – Conditions Attached to Permission DNS/3213639

1. The development to which this permission relates must be begun not later than the expiration of 5 years beginning with the date on which the permission is granted.
2. The development shall be carried out in accordance with the details of the following approved plans and documents, except where amended by conditions attached to this planning permission:
 - i. Drawing reference: JPW0888-DNS-005 DNS Site Application Plan;
 - ii. Drawing reference: JPW0622-WAU-002 Rev I Site Layout Plan;
 - iii. Drawing reference: 17/611/01 Tree Location and Constraints Plan;
 - iv. Drawing reference: 17/611/02 Rev A Tree Protection Plan;
 - v. Drawing reference: JNY8819-01 Junction Layout and Visibility Splays.
3. This planning permission shall endure for a period of 30 years from the date when electricity is first exported from the solar farm to the electricity grid ('First Export Date'). Written notification of the First Export Date shall be provided by the developer to the Local Planning Authority no later than 1 calendar month after that event.
4. If the solar park hereby permitted ceases to export electricity to the grid for a continuous period of 12 months the developer shall notify the Local Planning Authority in writing. A scheme shall be submitted to the Local Planning Authority for written approval within 3 months of the end of the 12-month period, for the repair or removal of all infrastructure. The scheme shall include, as relevant, a programme of remedial works where repairs to infrastructure is required. Where removal is necessary the scheme shall include a programme for removal of all infrastructure approved under this permission, including details of site restoration measures following the removal of infrastructure. The scheme shall thereafter be implemented in accordance with the approved details and timetable.
5. Not later than 12 months prior to the end of this permission, a Decommissioning Management Plan shall be submitted for the written approval of the Local Planning Authority. The scheme shall make provision for, inter alia, the removal of all infrastructure approved under this permission and the restoration of the site. The approved scheme shall be fully implemented within 6 months of the expiry of this planning permission.
6. Prior to the commencement of any works associated with this development full details of the precise siting, layout and design of the solar arrays, including cross-sections and details of nonreflective finishing materials, shall be submitted to and approved in writing by the Local Planning Authority. The scheme shall be implemented in accordance with the approved details.

7. Notwithstanding the details shown on the plans hereby approved, prior to the commencement of development full details of the proposed invertors, district network operator substation and client substation shall be submitted to and approved in writing by the Local Planning Authority. The scheme shall be implemented in accordance with the approved details.
8. Notwithstanding the details shown on the plans hereby approved, prior to the commencement of development full details of the proposed lattice telecoms tower shall be submitted to and approved in writing by the Local Planning Authority. The scheme shall be implemented in accordance with the approved details.
9. Notwithstanding the details shown on the plans hereby approved, prior to the commencement of development full details of the mounted CCTV cameras and associated poles, including the precise siting thereof, shall be submitted to and approved in writing by the Local Planning Authority. The scheme shall be implemented in accordance with the approved details.
10. All electrical cabling between the solar park and the grid connection shall be installed underground. Prior to the commencement of any works associated with this part of the development, details of the routes of underground cabling shall be submitted to and approved in writing by the Local Planning Authority.
11. No development shall take place until a written scheme of historic environment mitigation has been submitted to and approved in writing by the Local Planning Authority. Thereafter, the programme of work will be carried out in accordance with the requirements and standards of the written scheme.
12. No development or site clearance shall commence until the Local Planning Authority has been informed in writing of the name of a professionally qualified archaeologist who is to be present during the undertaking of any excavations in the development area so that a watching brief can be conducted. No work shall commence until the Local Planning Authority has confirmed in writing that the proposed archaeologist is suitable. A copy of the watching brief report shall be submitted to the Local Planning Authority within two months of the archaeological fieldwork being completed.
13. No development shall take place until an assessment of the stability of the land (and the surrounding area) has been carried out in accordance with a methodology which must first be submitted to and approved in writing by the Local Planning Authority. The results of such an assessment including any intrusive site investigation works identified as being necessary shall be submitted to the Local Planning Authority before works commence on site. If any land instability issues are found during the site investigation, a further report specifying the measures to be taken to remediate the site to render it suitable for the development hereby approved shall also be submitted to and approved in writing by the Local Planning Authority before works commence on site. The development shall not be brought into use until all the measures identified as necessary in any reports that are approved by the Local Planning Authority are implemented and the Local Planning Authority is provided with a validation report, signed by a suitably qualified person that confirms that such measures and/or works have been fully implemented.

14. No development shall take place until there has been submitted to and approved in writing by the Local Planning Authority a scheme of landscaping. The submitted scheme shall include:
 - i. Indications of all existing trees (including spread and species) and hedgerows on the land clearly identifying those to be lost or retained;
 - ii. Measures for the protection of retained trees or hedges throughout the course of development;
 - iii. Details of ground preparation, planting plans, number and details of species;
 - iv. Maintenance details for a minimum period of 5 years; and
 - v. A phased timescale of implementation.

The landscaping scheme shall be carried out as approved.

15. All planting or seeding comprised in the approved details of landscaping shall be carried out in the first planting and seeding season following the completion of the development or any alternative timescale that may be approved in writing by the Local Planning Authority before works commence on site. Any trees, shrubs or plants which within a period of 5 years from implementation of the planting scheme die, are removed or become seriously damaged or diseased, shall be replaced by one of the same species and size in the next available planting season.
16. No development shall take place (including ground works or vegetation clearance) until a Construction Environmental Management Plan (CEMP) has been submitted to and approved in writing by the Local Planning Authority. The CEMP shall include details of the following:-
 - i. A risk assessment of any potentially damaging construction activities;
 - ii. Identification of "biodiversity protection zones";
 - iii. Practical measures (both physical measures and sensitive working practices) to avoid or reduce impacts during construction;
 - iv. The location and timing of sensitive works to avoid harm to biodiversity features;
 - v. The times during construction when specialist ecologists need to be present on site to oversee works;
 - vi. Responsible persons and lines of communication;
 - vii. The role and responsibilities on site of an Ecological Clerk of Works or similarly competent person; and
 - viii. The use of protective fences, exclusion barriers and warning signs.

The CEMP shall be strictly implemented and adhered to throughout the construction period in full accordance with the approved details.

17. Prior to its construction, details of the access road for the development shall be submitted to and agreed in writing by the local planning authority. Those details shall include materials and the method of drainage. The access road shall be constructed in accordance with the agreed details prior to the commencement of any other part of the development.

18. Prior to the first use of the access to the development hereby approved, the first 10 metres shall be surfaced in accordance with the details approved under Condition 17.
19. Prior to their construction, details of the temporary compound, car parking, turning area and wheel washing facilities shall be submitted to and agreed in writing by the local planning authority. The details shall include materials, structures, boundary treatment, means of drainage, surfacing, plant and machinery, lighting, and any storage including liquids. The compound, car parking and turning area shall be constructed in accordance with the agreed details.
20. Prior to the construction of the temporary compound, car parking and turning area, details of the mitigation of the impact of those facilities on the existing habitat and species, and method and timing of restoration following their removal from site shall be submitted to and agreed in writing with the local planning authority. The agreed details shall be complied with and the site restored in accordance with the agreed details.
21. Prior to its construction, details of the bridge crossing the Nant Tysswg shall be submitted to and approved in writing by the local planning authority. The development shall be carried out in accordance with the agreed scheme.
22. Notwithstanding any details indicated within the Ecological Mitigation Plan, no development shall be carried out until a final plan for a Curlew Habitat Enhancement Area has been submitted to and approved in writing by the local planning authority. The plan must include details of future monitoring and management. The Curlew Habitat Enhancement Area will be implemented in accordance with the approved details.
23. Prior to the commencement of development, details of any temporary lighting for the construction period shall be submitted to and approved in writing by the Local Planning Authority. The temporary lighting shall be installed in accordance with the approved details for the duration of the construction period only. With the exception of the temporary lighting, no floodlights or any other form of external lighting shall be installed at the site.

Notification of initiation of development and display of notice

You must comply with your duties in section 71ZB (notification of initiation of development and display of notice: Wales) of the Town and Country Planning Act 1990. The duties include the following:

Notice of initiation of development

Before beginning any development to which this planning permission relates, notice must be given to the local planning authority in the form set out in Schedule 5A to the Town and Country Planning (Development Management Procedure) (Wales) Order 2012 or in a form substantially to the like effect. The form sets out the details which must be given to the local planning authority to comply with this duty.

Display of notice

The person carrying out development to which this planning permission relates must display at or near the place where the development is being carried out, at all times when it is being

carried out, a notice of this planning permission in the form set out in Schedule 5B to the Town and Country Planning (Development Management Procedure) (Wales) Order 2012 or in a form substantially to the like effect. The form sets out the details the person carrying out development must display to comply with this duty.

The person carrying out development must ensure the notice is:

- a) firmly affixed and displayed in a prominent place at or near the place where the development is being carried out;
- b) legible and easily visible to the public without having to enter the site; and
- c) printed on durable material. The person carrying out development should take reasonable steps to protect the notice (against it being removed, obscured or defaced) and, if need be, replace it.



APPENDIX 7 – INSPECTORS REPORT WAUNTYSSWG FARM

Adroddiad

**gan Melissa Hall BA(Hons), BTP,
MSc, MRTPI**

Arolygydd a benodir gan Weinidogion Cymru

Dyddiad: 11.04.2019

Report

**by Melissa Hall BA(Hons), BTP, MSc,
MRTPI**

an Inspector appointed by the Welsh Ministers

Date: 11.04.2019

TOWN AND COUNTRY PLANNING ACT 1990

SECTION 62D

The Developments of National Significance (Wales) Regulations 2016

Application by Elgin Energy EsCO Limited

**Land between B4256 and Charles Street, Wauntysswg Farm, Abertysswg,
Rhymney, Tredegar NP22 5BQ**

Abbreviations used in this report:

ALC	Agricultural Land Classification
BGCBC	Blaenau Gwent County Borough Council
CA	Coal Authority
CCBC	Caerphilly County Borough Council
CEMP	Construction Environmental Management Plan
CMRA	Coal Mining Risk Assessment
CTMP	Construction Traffic Management Plan
DAM	Development Advice Map
DNS	Development of National Significance
EES	Ecological Executive Summary
EIA	Environmental Impact Assessment
GGAT	Glamorgan Gwent Archaeological Trust
HIA	Heritage Impact Assessment
HIAA	Heritage Impact Assessment Addendum
LIR	Local Impact Report
LDP	Local Development Plan
LVA	Landscape and Visual Appraisal
LVAA	Landscape and Visual Appraisal Addendum
MAFF	Ministry of Agriculture Farming and Fisheries
NRW	Natural Resources Wales
PINS (Wales)	The Planning Inspectorate (Wales)
PPW	Planning Policy Wales
ProW	Public Right of Way
PV	Photovoltaic
SAM	Scheduled Ancient Monument
SINC	Site of Important Nature Conservation
SLA	Special Landscape Area
SoCG	Statement of Common Ground

TAN	Technical Advice Note
The CIL Regulations	The Community Infrastructure Levy Regulations 2010
The 1990 Act	The Town and Country Planning Act 1990 (as amended)
The Procedure Order	The Developments of National Significance (Procedure) (Wales) Order 2016
The WBFG Act	The Well-Being of Future Generations (Wales) Act 2015
TSAIA	Tree Survey and Arboricultural Impact Assessment
UU	Unilateral Undertaking
VILL	Visually Important Local Landscape
WG	Welsh Government
ZTV	Zone of Theoretical Visibility

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DNS Application Ref: DNS/3213639

Site address: Land between B4256 and Charles Street, Wauntysswg Farm, Abertysswg, Rhymney, Tredegar NP22 5BQ

- The application, dated 6 July 2018, was made under section 62D of the Town and Country Planning Act 1990 (as amended by the Planning (Wales) Act 2015).
- The application is made by Elgin Energy EsCO Limited.
- The application was confirmed as valid on 2 August 2018
- Site visits were carried out on 2 October 2018 and 22 November 2018.
- The development proposed is described as a 30MW solar park, access and ancillary development.

Secondary Consent Applications

- No secondary consent applications are being made.

Summary of Recommendation: That planning permission be refused.

Procedural Matters

1. In accordance with Article 5 of The Developments of National Significance (Procedure) (Wales) Order 2016, the applicant notified PINS (Wales) on behalf of the Welsh Ministers of the proposed development on 21 December 2017.
2. Further to the applicant's request, made pursuant to regulation 31(1) of the Town and Country Planning (Environmental Impact Assessment) (Wales) Regulations 2017 ("the Regulations"), PINS (Wales) provided a Screening Direction on 2 February 2018 confirming that the development is not "EIA Development"¹.
3. On 6 February 2018, PINS (Wales) wrote to the applicant with a Notice of Acceptance of a proposed application for a DNS under Article 6 of The Procedure Order. The submitted application was subject to appropriate pre-application consultation and publicity ending on 25 June 2018, and was accompanied by a Pre-Application Consultation Report, dated July 2018.
4. On confirmation of the validity of the application on 2 August 2018, PINS (Wales) undertook the specified consultation and publicity measures as required by the Order. Caerphilly County Borough Council ("CCBC") and Blaenau Gwent County Borough Council ("BGCBC") subsequently submitted their Local Impact Reports ("LIR") on 29 August 2018 and 6 September 2018, respectively.
5. The applicant subsequently indicated a wish to submit additional information to respond to matters raised in the LIR's. As a consequence, Notice under Section 62L(5) of the 1990 Act of suspension of the determination period was given on 5 October 2018. The parties were advised that under Regulation 15(2) of the DNS Regulations, the Local Planning Authorities were required to submit clarifications on specific matters in their LIRs. The applicant was required to submit the revised Landscape and Visual Appraisal ("LVA") and Heritage Impact

¹ PINS is authorised by the Cabinet Secretary for Environment and Rural Affairs to provide that screening direction.

- Assessment ("HIA") which were to take the form of addendums to the original versions to make it clear what had been updated.
6. Following the submission of the further information, Cadw and the relevant Local Planning Authorities were consulted. In parallel, the further information was published, and a press notice and correspondence to interested parties confirmed that they had the opportunity to submit representations on the further information.
 7. In December 2018, and after the submission of the application, Planning Policy Wales 10 ("PPW") was published and replaced PPW 9 with immediate effect. Accordingly, the parties were given an opportunity to comment on the implications of PPW 10 for the proposed development. I have taken these comments into account in making my recommendation.
 8. Based on the Application Documents, the Pre-Application Report, the consultation responses and the LIRs, the application was to be considered under the written representations procedure. I carried out an accompanied site visit on 2 October 2018. Due to the onset of inclement weather conditions during that visit, and a request from CCBC in its LIR for an assessment of an additional viewpoint from the Cefn Y Brithdir Beacon along the Rhymney Valley Ridgeway Walk, I re-visited the additional viewpoint unaccompanied on 22 November 2018.
 9. However, in light of the content of the additional information submitted by the applicant and the responses received, a topic specific Hearing session was held on 30 January 2019 in respect of visual and landscape impacts and the effect on the historic environment.
 10. Although the Councils had each provided a set of suggested conditions, those suggested by BGCBC did not include the reasons for imposing the conditions. Additional conditions were also discussed at the Hearing session with the main parties. A complete set of conditions and reasons, agreed between the Councils and the applicant, were submitted after the close of the Hearing session in line with that discussed. This matter is dealt with later in this report.
 11. I had sight of a draft Unilateral Undertaking ("the UU") at the Hearing session, with the executed UU submitted after its close. I have had regard to the obligations in the UU in coming to my recommendation. This matter is dealt with later in this report.
 12. I have structured the documents and plans lists as follows:
 - Prefix A – Documents and plans submitted with the application;
 - Prefix B – Documents submitted since the application was accepted as valid, including consultation responses and the LIR.
 - Prefix C – Documents submitted as additional information under Regulation 15(2) of the DNS Regulations, including the consultation responses to that information.

Site and Surroundings

13. The site comprises the Nant Tysswg upland valley, extending to some 58ha. The majority of the land is a series of fields of agricultural improved grassland with plantation woodland in the southern part of the site where the valley narrows. To the north and west of the site lies an area of open countryside and the B4256. To the east and south-east lies Charles Street and the sloping valley hillside with Mynydd Bedwellte beyond. The Nant Tysswg watercourse runs in the base of the valley from north to south along the western boundary.
14. The site is located to the south-west of Tredegar and Ebbw Vale, to the east of Rhymney and some 0.2km to the north east of Abertysswg. A public house known as the Mountain Ash Inn lies beyond the highway to the east of the site, the Tredegar and Rhymney Golf Club lies to the west accessed via the B4256 and a private dwelling known as Cefn Golau Cottage lies to the north.
15. Access to the site is currently derived from Charles Street through Wauntysswg Farm, albeit a new dedicated access would be formed from the B4256 to the north west of the site. A Public Right of Way ("PRoW") lies within the eastern periphery of the site, running broadly parallel with Charles Street.
16. The extent of the solar farm is wholly within the administrative boundaries of BGCBC. The access to the site and cable route, together with the temporary site compound, car parking and turning area fall within CCBC. The only other aspect of the scheme within CCBC is an area of off-site habitat enhancement for Curlew on the western side of the valley.
17. The site is located within the Mynydd Bedwellty, Rhymney Hill and Sirhowy Sides Special Landscape Area ("SLA") as designated by the adopted Blaenau Gwent LDP 2012. It is bounded to the east by Mynydd Bedwellte Site of Importance for Nature Conservation ("SINC"). The Northern Rhymney Valley Visually Important Local Landscape ("VILL") adjoins the application site to the west and south-west, as defined by the adopted Caerphilly Local Development Plan ("LDP") 2010.
18. There are several identified heritage assets within the site; these are located on the western edge and include the remains of a Post-Medieval barn and some features from the early extractive industry in the area. Cefn Golau Cholera Cemetery, which is a Scheduled Ancient Monument ("SAM"), is located approximately 400 metres to the north of the application site.

Proposed Development

19. The application proposes the installation of free-standing, static solar photovoltaic (PV) panels, anticipated to generate 30,000 KW (30 MW) of electricity per annum², as described in detail in *Document Ref A WAUN-007* and laid out in the indicative arrangement shown in *Document Ref A JPW0622-WAU-002Rev I*.

² Sufficient to power in the order of 9,000 homes.

20. It is made up of three main components:

- Solar panel modules
The dark blue or black coloured solar panels would be mounted in pairs on static aluminium frames, arranged in a series of rows up to a height of 3 metres at the highest point and tilted southwards at an angle of, typically, 10-25 degrees.
- Inverters
Inverters would be required to convert the DC generated by the PV panels to grid compatible alternating current.
- Substation
The substation would consist of a pre-fabricated building containing switchgear to increase the voltage to feed into the National Grid.

21. A 2.4 metre high timber post and wire deer proof fence would also be erected around the site with gates at key access points to the site.

22. During the construction period, up to 100 employees could be present on site. The applicant anticipates that teams of construction staff would commute in vans and cars, resulting in high levels of car sharing with the maximum staff vehicles anticipated on site at peak construction periods amounting to no more than 50 vehicles. Due to the proposed hours of construction, the majority of these trips are expected to take place outside of peak travel periods and would, in any event, be of a temporary nature.

23. Following construction, the site would operate for a period of 30 years, but would not require any permanent staff presence during its lifetime. The installation would be monitored remotely, albeit there would be regular maintenance visits by a team of engineers on two or more occasions per year in addition to regular cleaning and landscape maintenance. The frequency of vehicular trips would be expected to be no more than 3 or 4 visits per year, typically undertaken by a light goods vehicle.

Environmental Assessment (The applicant's case)

Landscape and Visual Impact

24. The applicant submitted an LVA with the original application, which was undertaken with reference to the Guidelines for Landscape and Visual Impact Assessment 3rd Edition 2013 and NRW's LANDMAP guidance (*Document Ref A WAUN-008*). The scheme was assessed in respect of key landscape and visual receptors, the LANDMAP Aspect Areas and relevant planning policy.

25. To assess effects, a Zone of Theoretical Visibility (ZTV) model was developed to identify that a 5 km radius study area was sufficient for the scale of the project. The ZTV also served to identify a range of viewpoints, which include those from closer range at Wautysswg Farm and the SAM, from higher land such as Charles Street / unnamed road and the B4526, and from long range such as those from High Street, Rhymney and the Rhymney Valley Ridgeway Walk. The LVA contains photographic views from each viewpoint and photomontages with the proposed development.

26. The LVA found that an analysis of the LANDMAP Aspect Areas reveals that any potential adverse effects on landscape character within these areas is likely to be very localised. The Cwm Tysswg Visual and Sensory Aspect Area, containing the application site, is of a lower order in terms of the hierarchy of landscape evaluation. The primary landscape qualities of the Aspect Areas would be maintained and respected.
27. Of the twelve representative viewpoints, it found that seven local views would undergo Substantial or Major effects on visual amenity as a result of the proposed development at year 1, with one undergoing Moderate effects. The remaining viewpoints would undergo either a Minor or Negligible effect.
28. The value of local views was considered to be high as the application site is within the locally designated SLA. With the exception of occasional overhead power lines and clusters of turbine development, often visible at distance in good visibility, there are few detractors. Due to the scale of the proposed development, much of the lower-lying agricultural land would be converted to photovoltaic infrastructure, changing the character of the host landscape for the 30-year life of the project.
29. The solar array would be low-lying in close range views, hugging the valley floor thus preserving the open nature of the sensitive, historic landscape. The distinctive open skyline with panoramic views to other ridges would be maintained, as would open views from the minor unnamed road along the Mynydd Bedwellty ridge, cited in the SLA designation as the only example in Blaenau Gwent. The limited inter-visibility with the lower-lying local valley settlements, arising from the topography and landscape components including established blocks and belts of woodland, would limit effects on visual amenity from the surrounding area. The site benefits from a high level of visual containment created by the surrounding landscape. Longer range views demonstrate that the proposed development would have either no effect or a negligible effect on landscape character and would be viewed by few receptors from upland locations to the south west of the site, where successive and sequential views of turbines development are already available.
30. Consequently, the LVA concluded that there are a very limited number of visual receptors that would undergo the highest effects. These are limited to those in the immediate vicinity of the site, namely residents living in nucleated farm complexes and private residences scattered throughout the study area, walkers using the PRoWs and access land and road users. The proposal would appear as a prominent new element within local views but not to such an extent that it would prevent receptors enjoying views to the expansive landscape setting in which the proposal would be seen.
31. In November 2018, and following on from issues raised in the LIRs, the applicant submitted the Landscape and Visual Appraisal Addendum ("LVAA") (*Document Ref JPW0888 HD LVA addendum v0*).
32. Amongst other things, it sought to re-establish its position regarding the assessment of the impact of the development on tranquillity together with the assessment of the visual impact on the East of Rhymney Visual and Sensory Aspect Area even with the addition of a new viewpoint. It clarified that,

contrary to CCBC's claims, assessments of the impacts on the highway surrounding the site and of PRoWs were carried out to inform the LVA.

33. It also provides an assessment of the VILL NH2.1 Northern Rhymney Valley non-statutory designation, as requested by CCBC. It concludes that the proposal would result in a mainly localised effect on this designation, resulting generally in a Low magnitude of change on the characteristics of the wider VILL.
34. An additional viewpoint at Cefn Y Brithdir Beacon along the Rhymey Valley Ridgeway Walk has been provided. In this respect, the LVAA concludes that the proposed development and the three operational turbines Pen Bryn Oer would be seen in succession from this viewpoint and their effects correspondingly reduced particularly given the scale of the proposed development in this expansive landscape.
35. In addition to responding to the points raised in the LIRs, the LVAA incorporates amendments following the applicant's own detailed review of the submitted LVA. Of particular note is a re-assessment of Viewpoint 5. In light of the re-assessment, it is considered that the size of the site has been overstated and, consequently, the impact of the scheme on the Cefn Golau Cemetery. Whilst the overall landscape sensitivity remains High, based on detailed visual assessment utilising the proposed photomontage, the change in the view is not prominent with few visual receptors affected. It is therefore considered that the change is of Negligible magnitude. Consequently, with a High sensitivity and a Negligible magnitude of change, there would be a Minor visual effect from this representative viewpoint with the proposed development in place.

Historic Environment

36. The applicant submitted a Heritage Impact Assessment (HIA) with the original application (*Document Ref A WAUN-009*) The HIA was prepared in accordance with the requirements of PPW and local planning policy. It focusses on the potential of the site and the significance of the unknown archaeological resource in relation to the likely impact of the proposed development on it and on any associated monuments. This study also considers the impact of the proposed development on any above ground heritage assets, including any effect on their settings within 2km of the site boundary.
37. It identifies the presence of several identified heritage assets on the site. These are all located on the western edge of the site area and include the remains of a Post-Medieval barn and some features from the early extractive industry in the area, including an early mine level and workings, a gully, and some small pits.
38. The site also lies within an area of high historic landscape value known as the Bedwellte Fieldscape, including a recorded extractive ironworking industry site. The Tredegar Ironworks Cholera Cemetery SAM is located approximately 400 metres to the north.
39. The HIA has considered the potential for heritage assets with an archaeological interest to be present on the site, based on the known archaeological remains that are presently recorded in the vicinity. The potential has been assessed as Low for the Prehistoric, Roman, Early Medieval and Medieval periods. The potential for non-agricultural Post-medieval features was also assessed as Moderate-High and the potential significance for these periods as High, especially

with regard to assets which may relate to the historic extractive industry in the area.

40. Overall, it concluded that the proposed development would have a Low non-visual impact on the heritage assets within the site area, especially if a mitigation strategy were adopted; that is to not extend the area of development to the western edge of the site which has been identified as the main location for archaeological and historic features.
41. The main impact which would result from the proposals has been identified as an effect on the setting of heritage assets. This would result in a Negligible tending to Minor Adverse impact on the setting of extractive industry area EA072 and a Moderate Adverse unmitigated direct impact on physical remains associated with it, reducing to Negligible with appropriate mitigation. There would be an overall Minor Adverse impact on the setting of the SAM and a Minor Adverse tending to Moderate Adverse impact on the Bedwellte Fieldscape including Cwm-Tysswg Farm. Due to the topography of the site area and the views from the surrounding area, no mitigation is possible, although it is important to note that the photovoltaic scheme would only be in place for 30 years and is fully reversible with regard to settings.
42. In light of the revised advice provided to PINS (Wales) by Glamorgan Gwent Archaeological Trust ("GGAT") which was not incorporated into either LIR, and the request for additional information from BGCBC in its LIR with regard to the location of heritage assets identified within the site and the commitment to mitigation measures, a subsequent Heritage Impact Assessment Addendum ("HIAA") (*Document Ref 1233-A*) has been submitted.
43. The HIAA restates the amendments made in the later iterations of the deskbased assessment following GGAT's revised comments and further considers the potential effects of the proposed development on the setting of heritage assets following a thorough on-site assessment.
44. It has been confirmed that the access road would consist of no more than a farm-track type feature and that suitable mitigation should involve a programme of archaeological monitoring and recording to ensure that any direct effect is reduced to a Negligible impact. A similar programme of monitoring and recording should be implemented where heritage assets have been identified within the area of extractive industry in the southern part of the proposed site area, along with careful placing of panels to minimise the effect on surviving above ground features. Additionally, given the limited below-ground impact resulting from the insertion of photovoltaic arrays, it is the conclusion of the HIAA that the proposed development would result in a Negligible impact to buried heritage assets that are likely to be very robust by their nature.
45. The main outstanding issue revolved around visual impact on the setting of heritage assets. These broadly consist of two elements; the SAM and the affected areas of the extractive industry and Cwm-Tysswg Farm forming part of the Bedwellte Fieldscape.
46. A second site visit undertaken on 30th October 2018 led to the reassessment of the potential effect on views to the south from the cemetery, as supported by the photomontage prepared as part of the LVA. As a consequence of this re-assessment, it is considered that the visual impact likely to be experienced from the cemetery

represents little more than a slight colour change within a very limited area. As such, the proposal would result in a Negligible impact tending to a Minor Adverse impact.

47. Turning to views towards the cemetery. The nature of this heritage asset is such that it comprises dark coloured headstones with a low above ground profile in an area of rough vegetation that are difficult to discern within the landscape. There is the presence of far more dominant existing features within it (including Cefn Golau Cottage and the range of dilapidated agricultural buildings). There are a number of views towards the cemetery where there would be inter-visibility with the proposed development. These include:
- Dynamic views from the road across the panels towards the cemetery, becoming more oblique northwards towards its junction with the higher unnamed road to the east, after which no inter-visibility applies. The cemetery itself can be recognised along this route only through the modern fencing that delineates it and which itself has a detracting effect on the setting of the asset. Given the generally oblique and transitory nature of the inter-visibility and the virtual impossibility of appreciating the monument over these distances, the HIAA concludes that the views towards the cemetery from the south and southeast have no relevance in their ability to affect the significance of the asset and therefore effectively represent amenity views.
 - Views from the east-west of the B4256 to the north of the cemetery have the same limited degree of inter-visibility in that the proposed development would be either not noticeable at all or would represent no more than a slight colour change to the south. As such the effects of the proposed development from this receptor is considered negligible.
48. Nonetheless, some consideration must be given to the effects in regard to communal value, in that knowledge of the cemetery does not necessarily require sight of it. In assessing this communal value, the HIAA considers that the cemetery relates to Tredegar, from which it was almost certainly located to avoid any visibility. Views from the south and east would not either in the past or, broadly speaking, in the present have been relevant and do not consequently result in an appreciable effect on heritage significance. As such the effects of the proposed development from these receptors is considered Negligible tending to Minor Adverse impact.
49. The area of heritage potential (ruined barn, gullies and pits) within the central western part of the site area is not designated but represents a recorded heritage asset. The proposed development would have an undoubted visual effect upon its setting. The use of the area for industrial purposes is long in the past and, while it is difficult to appreciate the asset itself through a general absence of above-ground evidence (evidential value) with the exception of the ruins of a stone barn, a gully, some pits and a number of spoil tips, the fieldscape itself is well-preserved and, in this regard, it retains some historic value, as well as communal and aesthetic value in how it is appreciated today. The construction of the proposed development would have an effect on the appreciation of the asset, despite its general lack of above ground elements, as well as an effect on its associative features, but historic field boundaries will be retained within the proposals. Nonetheless, to a considerable degree, the visual impact will affect the amenity value rather than the heritage significance of the affected areas. As a result, it is considered that the impact on the setting of these features would represent a Minor Adverse tending to Moderate Adverse impact.

50. The access road would appear visually no more than a farm track generally in keeping with the surrounding landscape. Consequently, it is the opinion of the HIAA that such a trackway, which would see very little traffic during the operational phase, would have a Negligible impact on the setting of the undesignated heritage asset recorded as EA072.

Agriculture

51. An Agricultural Land Classification Report has been submitted (*Document Ref A WAUN-010*) which presents a desk top assessment of the quality of the agricultural land. It confirms that the quality of the land is limited to a maximum of Grade 4 according to the Ministry of Agriculture Farming and Fisheries (MAFF) 1998 Agricultural Land Classification ("ALC") Guidelines.
52. It therefore concludes that the site does not comprise any of the "best and most versatile" agricultural land according to PPW and comprises, at best, poor quality Grade 4 land as defined in the MAFF 1988 ALC guidelines due to a climate and soil wetness limitation.

Ecology

53. An Ecological Executive Summary (EES) has been submitted (*Document Ref A WAUN-013*). The baseline of the ESS has been informed by a Preliminary Ecological Appraisal and an Upland Bird Survey carried out in May and June 2017. An Ecological Mitigation Plan proposes measures to minimise potential adverse ecological impacts associated with the development.
54. The EES summarises the habitats present within the survey area. Within the application site, the fields are generally species-poor. Higher value habitats primarily occur outside of the development site, but a few localised areas of unimproved acid grassland, acidic flush and semi-improved acid grassland occur within the development footprint.
55. The Mynydd Bedwellte SINC bounds the application site to the east. Its particular qualifying features include acid grassland, heath, marshy grassland and mire.
56. The upland bird survey found eight bird species which were considered to be breeding within the survey area; seven of which are Species of Principle Importance in Wales or UK Biodiversity Action Plan priority species. A single breeding pair of Curlew is considered to be important at a local level, and possibly up to County level. The numbers of breeding pairs of other species were considered to be important at the level of the site and immediate surroundings.
57. In order to protect habitats, the layout of the solar arrays avoids impacts on high value habitats to the north (outside the application site) and to the south (within the application site). Habitats buffers would be established between the construction working area and the boundary of the Mynydd Bedwellte SINC, with a perimeter fence creating a protective barrier from the SINC and other areas of unimproved acid grassland adjoining the development during both construction and operation.

58. In terms of species protection on site, the layout would retain tussocky, marshy grassland field boundaries. The whole of the solar park development would remain unlit at night to avoid any reduction in the value or use of existing bat flight lines and foraging over the lifetime of the development. The layout has been designed to protect nesting habitats for many bird species with the retention of patches of dense scrub, extensive gorse thicket and scattered larger trees. Habitat of highest potential value for reptiles would be protected within the site design, including densely vegetated banks alongside the stream, piles of stones, exposed rock adjoining rank vegetation and marshy grassland. The stand-off between the solar panels and the field boundaries across the development would maintain an interconnected network of habitat of potential value for reptiles.
59. For compensation and biodiversity gain, in the southern part of the application site, approximately 1,750m² of conifer plantation on peaty soils would be felled and cleared in order to establish new marshy grassland adjacent to the existing species-rich habitat.
60. Off-site habitat enhancement is proposed which takes the form of a Curlew Habitat Enhancement Area on the western side of the valley, which would involve ground manipulation to create localised pooling and adapting management techniques (i.e. grazing) to maintain medium height sward favoured by breeding Curlew.
61. The scheme has been designed to maintain the existing hydrological system and ensure that soils remain waterlogged for the majority of the year to help maintain the value of habitat. The hydrological scheme design would specifically maintain or replicate the natural patterns of drainage and recharge, maintaining the water quality and the total volume of water entering the stream and control the peak flows.
62. All watercourse crossing points would have a low impact bridge design. Task specific ecological method statements would be prepared for works adjacent to streams, which would define the working area, watercourse protection measures, broader environmental protection procedures, and any localised post-work habitat restoration.
63. All tracks and access roads would be made out of permeable material (gravel or reinforced grass) reducing any potential increase in runoff and silt traps would be incorporated into the system so that suspended sediments would not enter the streams. Construction soil compaction would be controlled through restrictions on any vehicle access into marshy grassland.
64. A management and monitoring regime would be established to maintain the system and assess the success of the measures over the lifetime of the development. It would include a monitoring report prepared after each round of monitoring and issued to the Local Planning Authority. In the event of an adverse change, remedial actions would be promptly implemented and proposed modifications to the management regime would be agreed with Natural Resources Wales ("NRW") and the Local Planning Authority.

Glint and Glare

65. Glint and Glare Assessments have been submitted which consider the potential effects of solar glint and glare as a result of the proposed solar panels.
66. The assessment carried out by Charlotte Peacock Associates (*Doc Ref A WAUN-014A*) deals primarily with the potential glint effects. The assessment concludes that existing screening by vegetation, topography and buildings would eliminate glint effects at the majority of the receptor points analysed. Potential residual glint effects on residential properties, amenity receptors, roads and public rights of way are not considered to be significant and therefore no additional mitigation measures are recommended or required.
67. The assessment carried out by RPS (*Doc Ref A WAUN-014B*) deals primarily with glare. The potential effects of the proposed development upon the representative views and landscape character have been assessed. There would be the potential for glare upon 8 of the 25 observation points used for purposes of the assessment. Potential glare upon the transient view from the observation point on Charles Street would be a 'potential for temporary after image' between early March to late October at 17.00 – 18.15, with a possible daily range from 5 to 35 mins per day. This glare would be glimpsed and would require road users to look away from the direction of road to experience it. There would be a Minor Adverse degree of effect upon this view.
68. There would be mostly open views to the proposed development from two of the observation points along the PRow Rhymney FP64 and The Mountain Ash Inn and, as such, the greatest potential for glare would be upon the views from these two receptors of High sensitivity. Upon the view from the PRow, there would be the potential to experience 'potential for temporary after image' between late February to mid-October at 05.50–07.00, with a possible daily range from 3 to 40 mins per day within the right weather conditions. Upon on the view from The Mountain Ash Inn there could be a possible daily range from 5 to 40 mins per day of 'potential for temporary after image' between mid-February to late-October at 16.50 – 18.15. There would be a Low to Negligible magnitude of change upon these High sensitivity observation points by the presence of glare at restricted times, resulting in a Moderate to Minor Adverse degree of effect.
69. Turning to the potential effect on landscape character, there would be potential for glare upon 3 LANDMAP Visual and Sensory character areas within the study area. There would be the possibility of experiencing potential for 'temporary after image' glare from within a restricted area of the Mynydd Bedwellte Visual and Sensory Character Area for a up to duration of 40 mins a day in the early evening (16.50 – 18.00) from mid-February to late-October. Glare would be uncharacteristic within this part of the Visual and Sensory Character Area but would only be experienced for a limited amount of time within the correct weather conditions. Overall, there would be a Negligible magnitude of effect upon this Visual and Sensory Character Area of High sensitivity, resulting in a Minor Adverse degree of effect.

Hydrology and Flood Risk

70. A site-specific Hydrological Assessment has been carried out to assess the potential hydrological impacts as a consequence of the proposed development on identified ecologically sensitive areas along the southern, eastern and western extents of the site (*Document Ref A WAUN-015*).
71. In respect of flood risk, the TAN 15 Development Advice Map ("DAM") indicates that the whole site is located in Zone A, defined as areas considered to be at little or no risk of fluvial or coastal/tidal flooding. NRW surface water flood mapping indicates that the majority of the site is at 'very low' risk of flooding. Localised areas within the application area associated with low lying land and field drains are defined as being at low to high risk of surface water flooding. The susceptibility to groundwater flooding is low. The risk of flooding from reservoir failure has been assessed as low.
72. In terms of the hydrology, the surface water flow pathways are all estimated to flow in a west-southwest direction following the downward slope of the natural contours. The percentage increase in impermeable area would be negligible and ordinarily would not require any surface water management scheme. The incorporation of appropriate management techniques would, however, mitigate potential increase in runoff from the solar park site. The solar park design, as well as the surface water and soil management measures outlined, would ensure that there would be a negligible alteration to local drainage patterns and flow directions.
73. SuDS techniques through design-in prevention would be incorporated into the final design, where required, and would work in conjunction with existing field drainage to manage the discharge of any excess water from the site. Where construction has resulted in soil compaction, the areas between panel rows would be tilled / scarified to an appropriate depth and then re-seeded with an appropriate vegetation cover. Any existing field or tile drainage system would be restored where affected by construction and maintained for the lifetime of the development. Tracks and access road would be constructed out of permeable materials.

Traffic and Highway Safety

74. A Construction Traffic Management Plan ("CTMP") has been submitted (*Document Ref A WAUN-012*) which seeks to ensure that the development works would be organised and delivered in a manner that would mitigate and safeguard the highway impact, highway safety and amenity of the area.
75. It outlines that the construction is scheduled to last for up to 4 months (16 weeks), with up to 100 staff on site at different phases of the construction. The scale and volume of vehicle movements associated with the development construction period is not considered to have any significant impacts on the operation of the local highway network.
76. Construction HGVs would route to the site from the A4048 from the east or the A465 / A469 from the west via the B4256. Access would be taken from the eastern side of the B4256 where the new access junction is proposed.

77. All materials and plant associated with the development process would be stored within the footprint of the application site. A site compound would be provided on the site access road, where loading and unloading areas for plant and materials are provided within the application site to enable construction and to ensure such activities are undertaken off the public highway.
78. It is anticipated that the majority of deliveries would be made via articulated low loader vehicles and rigid HGVs. Deliveries would vary in amount per day during the construction period with an average of approximately three deliveries (three inbound / three outbound movements) per day over the 16 week period.
79. In terms of working hours, all work would be conducted during traditional construction working hours of 07:00 to 18:30 Monday to Friday with limited construction activities on Saturdays between 07:00 and 13:00. No construction activities would take place on a Sunday or Bank Holiday.
80. The CTMP identifies the construction traffic generation, including the estimated volume and type of vehicles that would be generated throughout the construction phase of the development together with a construction vehicle route to and from the A469. A vehicular access design has also been prepared, which demonstrates the ability of low loaders to turn in and out of the site. Temporary signage is proposed in the vicinity of the site access during the construction period to warn drivers of the site entrance.
81. The CTMP also considers environmental impact measures, including air pollution, dust and dirt control, noise control, fuel consumption / emissions and waste management together with a construction travel plan.
82. Development measures to be employed include covering any skips and vehicles to prevent overspill, wheel washing facilities, employing local contractors and the implementation of a waste management strategy.

Coal Mining

83. A Coal Mining Risk Assessment and Minerals Assessment ("CMRA") has been submitted which is based on the information available at the time of production (*Document Ref A WAUN-011*). Geological mapping shows that the site is underlain by superficial deposits of Glacial Till, that overlie bedrock of the Coal Measures. The map shows coal seams 'No. 2 Rhondda' and 'Fochriw' sub-crop within the site boundary. Above the deep seams named in the Coal Authority ("the CA") Coal Mining Consultants Report, there are twenty coal seams of limited thickness shown on the geological sequence for the site. Geological faults are indicated to be present in the northwest and southwest of the site, aligned in a generally north-south orientation. Four abandoned adits are shown on the geological map on or adjacent to the western boundary and these show an easterly direction of entry towards the site.
84. The CMRA concluded that there is a Moderate to High risk from unknown workings, and from known and unknown mine entries. The risk from known workings is considered Low. The site lies within an area designated for protection of minerals and would therefore temporarily sterilise the coal reserves for the duration of its use as a solar photovoltaic park. These effects would be

temporary and would not result in a permanent loss of the mineral resource protected through the coal safeguarding areas.

Trees and Arboriculture

85. A Tree Survey and Arboricultural Impact Assessment ("TSAIA") has been prepared based upon the findings of a tree survey carried out on 15th November 2017 to assess the existing trees in terms of health, condition, form and overall significance within the local environment (*Document Ref A WAUN-016*).
86. It found that the majority of trees surveyed include isolated scrubby vegetation including hawthorn, holly, birch and grey willow or mature spruce plantation with early-mature self-seeded spruce regeneration. These category 'C' trees are considered to be of low arboricultural quality, however they do provide habitat and a degree of wildlife benefit. Where these trees have grown and developed into mature & late-mature specimens, they have been categorised as 'B' trees on account of their material conservation value.
87. There are two mature oaks within the study area that are considered to be of high quality and have been classified as retention 'A' trees.
88. The proposed solar park could be accommodated with the retention of most of the existing trees. The proposed layout would involve the removal of two trees, a category 'C' grey willow and a category 'B' hawthorn. The removal of the spruce plantation has been proposed to compensate for the loss of grassland habitat.
89. The proposed layout would require minor amendments to the setting out of the fencing and solar panels to accommodate 10no. trees together with amendments to the access road adjacent to 2no. trees.
90. The TSAIA also details the methods of protection for trees, including the design of tree protection barriers and ground protection, precautions outside the construction exclusion zone, the design of roads, driveways and paths near trees.

Planning Policy

91. At a national level, PPW and Technical Advice Notes (TANs) set out WG's policies and principles on different aspects of planning. Those of relevance here include:
 - PPW Edition 10 (December 2018)
 - TAN 5: Nature Conservation and Planning (2009)
 - TAN 8: Renewable Energy (2005)
 - TAN 15: Development and Flood Risk (2004)
 - TAN18: Transport (2007)
 - Practice Guidance: *Planning Implications of Renewable and Low Carbon Energy Development* (February 2011)

- Welsh Assembly Government Energy Policy Statement 'A Low Carbon Revolution' (March 2010)

92. At a local level, planning policy is set out in the LDPs for BGCBC and CCBC as follows:

Blaenau Gwent County Borough Council

93. The development plan is the Blaenau Gwent LDP, adopted in November 2012. The Council outlines the relevant policies as:

- Policy SP7 (Climate Change) is an overarching strategic policy which seeks to address climate change and reduce energy demand to improve the sustainability of the valley communities. It encourages more of the County's electricity and heat requirements to be generated by renewable and low / zero carbon technologies.
- Policy SP9 (Active and Healthy Communities) is a strategic policy which aims to encourage active and healthy communities by promoting leisure activities, protecting and improving existing open space and leisure facilities and protecting accessibility to natural greenspaces.
- Policy SP10 (Protection and Enhancement of the Natural Environment) states that Blaenau Gwent's unique, natural environment and designated landscape will be protected, and, where appropriate, enhanced. This will be achieved through ensuring that the locally identified SINC and Local Biodiversity Action Plan species are protected and enhanced alongside those attributes and features which make a significant contribution to the character, quality and amenity of the landscape.
- Policy SP11 (Protection and Enhancement of the Historic Environment) seeks to protect, preserve and enhance Blaenau Gwent's distinctive built environment.
- Policy SP12 (Securing an Adequate Supply of Minerals) ensures that existing mineral reserves are safeguarded.
- Policy SB1 (Settlement Boundaries) defines the settlement boundaries in order to manage spatial growth and prevent inappropriate development in the countryside.
- Policy ENV2 (Special Landscape Areas) defines Blaenau Gwent's SLAs within which new development is expected to conform to the highest standards of design, siting, layout and materials appropriate to the character of the area.
- Policy ENV3 (Sites of Importance for Nature Conservation) designates SINCs.
- Policy DM1 (New Development) is a criteria based policy which requires new development to be of a sustainable design, take into account amenity considerations and be accessible and safe in highway terms.
- Policy DM4 (Low and Zero Carbon Energy) seeks to encourage major development proposals to incorporate schemes which generate energy from renewable and low / zero carbon technologies.

- Policy DM14 (Biodiversity Protection and Enhancement) states that development proposals will only be permitted within, or in close proximity to sites designated as SINCs where it maintains or enhances the ecological importance of the designation.
- Policy DM15 (Protection and Enhancement of the Green Infrastructure) supports new development provided there is no loss in connectivity within the strategic green infrastructure network which comprises an SLA.
- Policy DM16 (Trees, Woodlands and Hedgerow Protection) requires no unacceptable harm to trees, woodland and hedgerows that have heritage value or contribute to the character or amenity of a particular location.
- Policy DM19 (Minerals Safeguarding) makes clear that development proposals will not be permitted where they would permanently sterilise important mineral resources within the aggregate and coal safeguarding areas identified on the proposals map.
- Policy M1 (Safeguarding of Minerals) identifies the mineral resources to be safeguarded on the LDP Proposals Map.
- Policy M3 (Areas where Coal Working will not be Acceptable) refers to the areas on the Proposals Map where coal working will not be acceptable.

Caerphilly County Borough Council

94. The development plan is the Caerphilly LDP, adopted in November 2010, and the following policies are listed as relevant:

- Policy SP1 (Development Strategy) is a strategic policy that requires development proposals to promote the north of the County as a tourist, employment and residential area, provide appropriate forms of growth and serve to address existing problems of deprivation in order to sustain and develop communities consistent with the underlying principles of sustainable development.
- Policy SP8 (Minerals Safeguarding) is a strategic policy which seeks to safeguard known resources of coal, sand, gravel and hard rock and maintain a landbank of aggregate reserves.
- Policy CW2 (Amenity) states that there should be no unacceptable impact on the amenity of adjacent properties or land, overdevelopment of the site and / or its surroundings or constrain the development of neighbouring sites.
- Policy CW3 (Design Considerations: Highways) supports development proposals that have regard for the safe, effective, and efficient use of the transportation network.
- Policy CW15 (General Locational Constraints) resists development that would prejudice the implementation of wider comprehensive redevelopment or constrain the development of any adjacent site for its allocated land-use.

- Policy CW4 (Natural Heritage Protection) supports development that conserves and where appropriate enhances the distinctive or characteristic features of the SLA or VILL.
- Policy NH2 (Visually Important Local Landscapes) identifies VILLs to be protected which, in this case, is the NH2.1 Northern Rhymney Valley.
- Policy MN2 (Minerals Safeguarding) identifies those areas on the Proposals Map that are to be safeguarded for minerals.

Local Impact Reports (*Document Ref's B LIR-BGCBC and LIR-CCBC*)

95. Given that the extent of the solar farm is wholly within BGCBC, with only certain elements falling within CCBC, both Councils have submitted LIRs dealing with their particular areas of concern.

Blaenau Gwent County Borough Council

96. BGCBC's LIR presents its assessment on a number of matters, particularly the principle of development, ecology, glint and glare, highways, flood risk and drainage, minerals and coal mining risk, trees, historic environment, landscape and visual impact and economic benefit. It also includes suggested planning conditions should permission be granted. The main points are summarised below.

Principle of development

97. The solar park would increase the installed renewable energy capacity to 20%, helping to meet local as well national, UK and European renewable energy targets. It is therefore supported in principle by Policy SP7 which, amongst other things, seeks to encourage more of the County Borough's electricity requirements to be generated by renewable technologies.
98. In terms of land use, the application site is located outside the settlement boundary where the aim is to prevent inappropriate development in the countryside. Policy SB1 which relates to settlement boundaries does not specify the types of development that are typically acceptable within countryside locations, but instead defers to national planning policy.
99. Renewable energy is identified as a potentially acceptable farm diversification use and Planning Policy Wales considers only agricultural land with grades of 1, 2 and 3a to be amongst the best and most versatile land that should be conserved as a finite resource for the future. The ALC Report submitted with the planning application concludes that the application site is at most grade 4 in terms of quality and, as such, there is no requirement to demonstrate an overriding need for the proposed development. It is also recognised that sheep can continue to graze the land while the solar park is in operation and the land can be restored to the existing agricultural use at the end of its 30 year operational life.

Ecology

100. There are a few localised areas of higher value habitat within the development footprint and semi-natural marshy grassland in the southern section of the

application site. The latter would not be directly affected by the proposed solar arrays or associated infrastructure.

101. The proposed layout would avoid the higher value habitats to the north (outside the application site) and to the south (within the application site) and a buffer strip (approximately 5 m) would be established between the development area and the boundary of the Mynnyd Bedwellte SINC. A 5 m buffer between the solar arrays and watercourses/hedges would also be established within the development site, where possible, and the perimeter fence would create a protective barrier between the development and both the SINC and other surrounding areas of habitat value during both construction and operation. Further habitat related mitigation measures are included within the Ecological Mitigation Plan and a Construction Environmental Management Plan ("CEMP"), which could be secured via a condition.
102. The solar park would impact upon an area of purple moor-grass and acid flush in the north-western corner of the site. In order to compensate for this loss, the applicant proposes to create new areas of marshy grassland/flush habitat in the southern part of the application site.
103. With regards to birds, the Upland Bird Survey identifies a number of species of conservation interest breeding within the study area. As the potential loss of the single breeding pair of curlew could be significant at a County level, a compensatory offsite breeding habitat is proposed on land west of the Nant Twysswg. However, more detail is considered necessary within the Ecological Mitigation Plan in relation to the curlew habitat enhancement area. The Council's Ecologist also supports NRW's recommendation in their response at pre-application consultation which stated that the curlew habitat enhancement area must have physical boundaries, such as relevant field boundaries.
104. In respect of bats, reptiles, amphibians and invertebrates, no unacceptable impacts are likely to occur provided that the measures set out within the Ecological Mitigation Plan are implemented. The Ecological Mitigation Plan should, however, be revised to address the above matters before the granting of any planning permission. Alternatively, a modified Ecological Mitigation Plan could be secured through an appropriately worded condition.
105. In summary, the proposed solar park would not have an unacceptable effect on the ecological interests of application site, provided that the proposed mitigation and compensation measures were successfully implemented. In this context, the anticipated effect of the proposed development on ecology would be neutral and accordingly, the proposal would be in accordance with Policies SP10, DM1 and DM14.

Glint and Glare

106. The initial glint and glare assessment, prepared by Charlotte Peacock Associates Ltd, indicates that the potential residual glint effects on residential properties, amenity receptors, roads and public rights of way are not considered to be significant. The further report, prepared by RPS, indicates that while there is some potential for glare at some observation points the magnitude of change is either negligible or low. When compared with the sensitivity of the observation

points, the degree of effect is either no effect or moderate to minor adverse. The worst affected observation point within the County Borough is the Mountain Ash Inn, with an anticipated degree of effect of moderate to minor adverse.

107. The Council's Specialist Environmental Health Officer has considered the findings of the Glint and Glare Assessments and has raised no objection to the proposed solar park. However, given that the Mountain Ash Inn would experience minor to moderate adverse effect as a result of glint and glare from the proposed development, the effect is considered to be negative.

Highways

108. The Construction Traffic Management Plan confirms that the primary access to the application site would be taken from a new vehicular access junction the eastern side of the B4256, which is within the jurisdiction of CCBC. As such, there is no requirement to agree highway accommodation works to construct the new access junction with BGCBC as Highway Authority. Furthermore, the submitted CTMP states that access routes for all associated development construction vehicle movements would be via the highway network of CCBC. It is therefore considered that the proposed solar park would have a neutral effect on the safe, efficient and effective use of the highway network of Blaenau Gwent.

Flood Risk and Drainage

109. The NRW DAM indicates that the site is located in Zone A, defined as an area considered to be at little or no risk of flooding. The NRW surface water flooding map also indicates that the majority of the site is at a very low risk with some localized areas at low to high risk of surface water flooding. The latter is associated with localised low lying areas and field drainage where a degree of natural ponding may occur. Surface water is generally conveyed in west/southwesterly direction.
110. The submitted Hydrological Assessment states that the proposed development would result in a negligible increase in impermeable area, no alteration to local drainage patterns and no increase in suspended sediments within drainage channels or surface water. Whilst no specific surface water management is considered necessary, sustainable drainage techniques would be incorporated, where required, into the development, which would work in conjunction with the natural field drainage to manage any potential increases in surface water discharge from the application site.
111. The Council's drainage engineer is satisfied that the proposed solar park would have only a negligible impact upon the surface water regime within the application site and as such, has raised no objection to the proposal. The proposed development would therefore have neutral effect in relation to surface water drainage and flooding and is considered to be in accordance with Policies SP7 and DM1 in respect of this matter.

Minerals and Coal Mining

112. The application site is located entirely within a coal safeguarding area and the north western corner of the site is partially covered by a sandstone

safeguarding area. BGCBC LDP Policy DM19 states that development proposals will not be permitted where they would permanently sterilise important resources within Aggregate and Coal Safeguarding Areas. Criterion D of the Policy does, however, allow temporary development that can be implemented and restored within the timescale the mineral is likely to be required. The proposed solar park is considered to be a temporary development over a 30 year period and the application site would be restored to its current agricultural use at the end of its operational life. Moreover, there is no known current commercial interest in working coal from the application site and two alternative areas of search for the extraction of pennant sandstone are allocated within the LDP. It is also worth noting that coal working would not be supported in a small area within the north eastern corner of the site as it is designated as an area where coal working will not be acceptable. The proposed development would therefore have a neutral effect in relation to the safeguarding of minerals and is considered to be in accordance with Policies M1 and DM19.

113. The submitted Coal Mining Risk and Minerals Assessment concludes that there is a moderate to high risk from unknown workings, and from known and unknown mine entries on the application site. As such, the Assessment recommends intrusive site investigation works to be carried out to determine the presence or otherwise of shallow mine workings to confirm: the depth of the known workings and thickness of overlying rock in association with the four adits shown within or adjacent to the western boundary; and the presence of unrecorded workings and mine entries in the remainder of the site. The Council's Geotechnical Engineer has considered the Coal Mining Risk and Minerals Assessment and has raised no objection to the proposed development subject to the intrusive site investigation (and any recommended remedial works) being secured and undertaken prior to the commencement of development. This can be achieved via an appropriately worded condition and provide one is imposed the proposal would be in accordance with Policy DM1 in respect of this matter.

Trees

114. The proposed solar park can be accommodated on the application site whilst retaining the majority of existing trees. The submitted Tree Survey and Arboricultural Impact Assessment indicates that the proposed layout would require the removal of just two trees: a grey willow (category 'C' – minor value) and a hawthorn (category 'B' – moderate value). The spruce plantation located in the southern part of the site would also be removed to compensate for the loss of purple moor-grass and acid flush habitat. Provided that adequate compensatory planting is secured by condition, the proposed development would have a neutral effect and be in accordance with the requirements of Policy DM16.

Historic Environment

115. In terms of statutory historic environment designations, a Scheduled Ancient Monument (SAM - Cefn Golau Cholera Cemetery) is located approximately 400 metres to the north of the application site. It is acknowledged that the proposed solar park has been revised since pre-application consultation was initially

undertaken with the Local Planning Authority in 2016, which has increased the separation distance between the development proposal and the SAM. However, the HIA, prepared by Foundations Heritage³, states that the revised solar park would result in a Significant Adverse effect on the communal and aesthetic value of the SAM with regard to views to the south, and concludes that the overall impact on the setting of the SAM would be Moderate Adverse. As such, the proposed solar farm is contrary to Policy SP11, which seeks to protect, preserve, and where appropriate, enhance nationally designated sites, such as SAMs. Accordingly, the effect of the proposed development on the historic environment is considered to be negative.

116. The HIA also considers the potential for heritage assets with an archaeological interest to be present on the site. The potential has been assessed as low for the Prehistoric, Roman, Early Medieval and Medieval period features, and moderate-high for non-agricultural Post-medieval features. The Assessment concludes that the proposed development would have a low non-visual impact on the heritage assets within the site area. Concerns have, however, been raised by the Council's Heritage Officer and GGAT who state that the HIA does not meet the Chartered Institute for Archaeologist's standards and guidance for historic environment desk-based assessment, nor does it provide an adequate basis for assessing the balance of impact and mitigation. As such, it considers that there are several matters that need to be addressed through the submission of a revised assessment, including clarification of the extent of the development and details of mitigation measures.
117. Based on the above, the Council's Heritage Officer is of the opinion that proposed development would have range of negative effects (of various levels of significance) on the historic environment.

Landscape and Visual Impact

118. Within the SLA, Cwm Tysswg is identified as one of three main landscape types. Its primary landscape features are of secluded farmland that is undisturbed by industrialisation, with pleasant views into the Rhymney Valley. The approach to land management encourages the continued use as farmland.
119. The LVA⁴ acknowledges that with the exception of the occasional overhead power lines and clusters of turbine development, there are few detractors within the local landscape. It also recognises that much of the lower-lying agricultural land within Cwm Tysswg would be converted to photovoltaic infrastructure, changing the character of the host landscape for the 30 year life of the development. As such, Major or Substantial effects on landscape character have been identified for the following local aspect areas: Cwm Twysswg Visual and Sensory Aspect Area (major effect), Mynydd Bewellite Visual and Sensory

³ BGCBC's comments in respect of the HIA are made on the basis of the original Assessment submitted with the DNS application. The HIAA was subsequently submitted in November 2018, with BGCBC's comments in respect of the same detailed later in this Report.

⁴ BGCBC's comments in respect of the LVA are made on the basis of the original Assessment submitted with the DNS application. The LVAA was subsequently submitted in November 2018, with BGCBC's comments in respect of the same detailed later in this Report.

Aspect Area (substantial effect), Bedwellte Fieldscape Historic Aspect Area (major effect) and Cultural Landscape Aspect Area (substantial effect).

120. Consequently, the proposed solar park within a blind valley would change the local landscape character from one of historical upland farmland characteristics to one of an industrial renewable energy site. As such, the effect on local landscape character is negative.
121. With regards to the impact on visual amenity, the LVA summaries the effects of the proposed solar park on visual receptors and representative viewpoints. The effects on those located within Blaenau Gwent County Borough include two residential properties experiencing Substantial effect, a public highway and PROW experiencing Moderate effect, Charles Street experiencing Moderate to Substantial effect, the unnamed road / junction of public footpath 339/8/1 experiencing a Substantial effect and the SAM experiencing a Major effect.
122. In respect of cumulative impacts, the LVA indicates that, in particular, the blades of the three turbines at Pen Bryn Oer appear as a larger component in the views closer to the site and have the potential to draw attention to the solar arrays in the valley floor (paragraph 11.22). Moreover, it states that " in close range views, the presence of wind turbine and solar development in combination would be heightened by the other in a combined cumulative effect and would change the local landscape character of the upland plateau which is largely unspoilt, with few detractors". The LVA also provides a summary of the potential cumulative effects of the proposed solar park in combination with the operational wind turbine sites from representative viewpoints. Of the five viewpoints within the Blaenau Gwent County Borough, all have potential visibility with wind turbine sites, varying between combined visibility, successive visibility and sequential visibility.
123. The LVA concludes that effects of highest significance are limited to those in the immediate vicinity of the application site, namely local residents living in nucleated farm complexes and private residences, walkers using the public rights of way and access land and road uses. These receptors would experience major landscape change that would have significant negative effects on visual amenity and the local landscape characteristics. It is also argued that there are significant cumulative effects associated with the proposed development in the context of other renewable energy schemes within the surrounding area. Accordingly, the proposed solar park is considered to be contrary to Policies SP10, DM1 and ENV2.

Economic Impacts

124. The proposed solar farm would employ up to 100 staff during the construction period, bringing direct employment benefits and indirect benefits to the local economy in terms of additional money being spent within the local economy. This economic benefit would, however, be temporary with the construction period only expected to last 4 months. During its life time, the solar park does not require any permanent staff presence, with infrequent monitoring, cleaning and general maintenance.

125. There is also the potential for the proposed solar park to have a negative effect on activity and heritage tourism, which contributes to meeting Objective 8 of the LDP. Amongst other things, the latter seeks to diversify the economic base into tourism and leisure industries. The local area in which the development is proposed has a number of popular visitor sites and routes that would be affected by the proposal, namely public rights of way, the Homfray Trail, Tredegar and Rhymney Golf Club, Cefn Golau Cholera Cemetery, Cefn Golau Pond and Mountain Ash Inn with proposed holiday cottages. These local assets are used by both local residents and visitors and both the LVA and HIA indicate that, to varying degrees, they would be negatively affected by the proposed development. In particular, the Mountain Ash Inn would be affected in terms of both visual amenity and glint/glare. There is therefore the potential for the local economic benefits of the proposed solar park to be negated by a negative effect on activity and heritage leisure/tourism.

Caerphilly County Borough Council

126. CCBC's LIR concentrates on the likely impact of the proposed development on the area of the site falling within CCBC and therefore focuses on landscape, glint and glare, highways, residential amenity, historic environment and habitat impacts.

Landscape Impacts

127. The proposed development would represent a sizeable and significant visual impact upon the VILL within CCB, as defined in the Caerphilly County Borough Local Development Plan adopted in 2010. The site is located immediately adjacent to the Caerphilly Borough to the north east of the settlement of Abertysswg. The landscape in general is predominantly agricultural with pockets of linear settlement confined to the northwest-southeast aligned valleys. Isolated and sometimes nucleated farms and private residences are distributed throughout the study area.

128. The LVA states the site is located in a landscape that is of high sensitivity to change due to it being an important Cultural and Historic valued landscape as classified by LANDMAP. The VILL has a distinctive strong visual character which is a predominantly upland and open area with distinctive rock outcrops, upper valley sides and extensive views across the Rhymney valley.

129. The LVA carries out a detailed baseline study and analysis of the Landscape Character Visual and Sensory data, which is limited to Visual and Sensory data within a 2km radius of the site. The LVA assesses the tranquillity as High. However, it is stated that, "It is not considered that the tranquillity levels would change as a result of the Proposed Development." However, views of major infrastructure covering 58ha with its ordered uniform appearance would affect the viewers' perception of tranquillity, as tranquillity is a quality intrinsically associated with the presence of nature, visually pleasing surroundings and relaxing atmosphere, characteristics not generally associated with solar arrays of this magnitude.

130. It is agreed that the visual impact on the Rhoslas aspect area is low and generally screened by topography from this aspect area, but the assessment of

the East of Rhymney aspect area underestimates the impact as views of the site are afforded which would be higher magnitude of medium value with a Moderate Adverse effect on the East of Rhymney Visual and Sensory Aspect Area.

131. However, the LVA omits to assess the VILL NH2.1 Northern Rhymney Valley non statutory designation, which is afforded protection within the LDP due to the overall combined LANDMAP evaluation being either Outstanding, High or Moderate for the five LANDMAP aspect areas.
132. It is also noteworthy that the Visual and Sensory values are frequently only reduced by the adjacent urban development, and LDP VILL designation serves to protect the landscape from further degradation. The LDP acknowledges that the primary landscape qualities and features of the VILL are its predominantly open upland landscape. It contains distinctive rocky hillsides with rock outcrops, upper valley sides and views across the Rhymney valley which give it a strong upland character, which is only occasionally limited by topography or vegetation.
133. With Sensitivity therefore considered High and magnitude High, the overall effect is considered to be Substantial adverse on the quality of this VILL. Therefore the LVA has underestimated the adverse effect that the proposed 58ha solar farm would have on this locally significant landscape and would result in significant and substantial visual impact on the visual quality found in this tranquil open upland landscape.
134. The LPA does not concur with the assessments relating to Landform and Enclosure, Landscape Pattern and Complexity and Settlement Pattern. The proposed solar farm would be seen from sensitive, close and midrange receptors, in context as larger than the adjacent settlement of Abertysswg. It would be seen as out of scale with the landscape dominating the field system, and the rigid gridlines, conflicting in lower lying areas with the more intimate and complex landscape pattern associated with the Abertysswg urban fringe.
135. The LVA assesses Baseline Visual receptors within the ZTV which are generally acceptable, with the exception that it is not agreed that the 58ha solar farm would appear as a very small component in the wider composite view notable from sensitive landscape and visual receptors. The adverse visual effect on residential properties located within CCB is limited to a small number of properties located on the north east and eastern fringes of Abertysswg and would not result in any substantial visual impact as views are generally either oblique or limited to upper floors or generally filtered by existing vegetation.
136. It is accepted that the short time scales for the construction and decommissioning of the proposed development would not give rise to notable Landscape Character or Visual effects above those assessed for the 30 years operational period. The LPA concurs with the assessment of the construction period as Substantial Adverse effect on visual amenity.
137. The LPA generally concurs with the viewpoint selected within the CCB are acceptable with the exception of Viewpoint 10 which required additional assessment and baseline and montage photographs from the adjacent PRow

FP270 Gelligaer. It also considers that the cumulative assessment from Viewpoints 6, 7 and 9 underestimates the impact of views of the operational wind turbines at Pen Bryn Oer with successive and sequential effects for walkers heading north and south on the PRow giving rise to an increased cumulative adverse effect on the receptor.

138. In conclusion, therefore, the proposed solar farm would have a negative impact on the landscape.

Glint and Glare

139. In terms of residential receptors, glint effects would not be experienced by residents within properties where they did not have a direct view of the panels causing the glint. In addition, the glint effects are likely to only come from a few panels on the site at any one time with this area moving across the site for the duration of the glint effects. For these reasons potential glint effects on residential properties are not considered to be significant.
140. One amenity receptor was chosen due to its proximity to the site. Glint effects at this receptor are predicted to occur for no more than 32 minutes during the early morning between 6:03 AM and 6:52 AM. Due to the angle of the property (southwest away from the site) and early morning timing of the potential glint, the effects on this receptor are not considered to be significant.
141. The road points selected are points at which the site is considered to be most visible from vehicles using these roads. Due to the transitory nature of the road-based receptors and early morning timings of the potential glint effects the impacts are not considered to be significant.
142. The points selected along footpaths are points at which the site is expected to be most visible by members of the public, and only 11 may experience glint effects. When intervening vegetation, topography and buildings are taken into account, the potential for glint effects at 7 of these points is eliminated. Due to the transitory nature of the receptors and early morning timings of the potential glint effects the impacts at this receptor are not considered to be significant.
143. Predicted glint effects at the other 3 receptors are predicted to occur for no more than 17 minutes between 5:09 PM and 6:02 PM. Vegetation and topography would slightly reduce these effects. When the transitory nature of any views which would be experienced by people walking or cycling along these public rights of way is considered the potential significance of any glint effects is further reduced.
144. Taking into account the existing screening and worst case predictions for glint effects, glint is not considered to represent a significant impact on pedestrians or cyclists in the vicinity of the site.
145. No significant impacts are predicted as a result of glint effects from the proposal. Infilling of the existing hedgerows around the site would enhance the existing screening and further reduce any potential residual glint effects. It is recommended that new and existing planting surrounding the site is maintained to provide continued screening benefits throughout the operation of the solar farm.

146. The conclusions of the assessment are accepted, and the impacts of the development in respect of glint and glare would be neutral.

Highways

147. The impacts of the development on the highway would be significant but temporary, along roads that already accommodate commercial traffic as well as public service vehicles. Therefore the overall impact would be neutral.

Residential amenity

148. There are no residential properties within Caerphilly Borough whose amenity would be directly affected by the solar farm once built.

149. Construction traffic would be noticeable for the residents of the adjacent properties, and would cause some disturbance. However, that impact would be temporary, lasting only some four months, at the beginning and at the end of the project.

150. Overall, there would be a significant but temporary impact, which would be neutral.

Historic Environment

151. The main impact of the proposals has been identified as having a substantial adverse impact on the setting of extractive industry area EA072. The Southeast Wales Industrial Ironworks Landscapes project describes this site as a small extractive area depicted on 1st edition OS maps consisting of two gravel pits to the west, a trial level and an old ironstone level in the north. The proposed trackway from the site to the B4256 also has the potential to affect upstanding elements of EA072 in which case the impact could be moderate-substantial adverse.

152. The impact of the access road is not wholly known at present, since the mitigation measures have not been set out. Therefore, it is considered that as the scheme stands, the impact would be negative.

Habitat Impact

153. The access and cable route and bridge would if properly mitigated have a minor impact on habitat and species, but there is little evidence about the nature and temporary impacts of the compound, car parking and turning area, and their mitigation and restoration. The land by its nature is wet and would require excavation or consolidation to make it suitable for the proposed use. On that basis, it is considered that the impact would be negative.

Consultation Responses (original application submissions)

Natural Resources Wales (Document Ref B CON-NRW)

154. The applicant's ecological surveys recorded a single breeding pair of curlew within the application site. The Executive Summary suggests the breeding Curlew is important at local level and possibly county level. The proposal would have adverse impacts on this species. As part of the proposals, off-site habitat enhancement is proposed (on the western side of the valley) through ground

manipulation to create localised pooling and adapting management techniques (i.e. grazing) to maintain medium height sward favoured by breeding curlew.

155. NRW reviewed the proposed measures at pre-application stage and advised amendments to the area including that the boundary of the area should be aligned to the relevant field boundary. The rationale is that an area without any boundaries may be difficult to manage appropriately, whereas an easily identifiable area can be managed properly over the medium and long term without ambiguity.
156. The final submission documents refer to the Curlew Habitat Enhancement Area which has been amended to include the introduction of fencing. However, the introduction of fencing to the enhancement area represents an increase in perches for potential predators, potentially undermining the mitigation/compensation measures. It is considered that there are better solutions available.
157. On that basis, it is considered that fencing is not appropriate and further detail on management and monitoring (with a submitted plan) is required to ensure the enhancement area is secured over the lifetime of the development. As such it is advised that, in the event of planning permission being granted, a planning condition is attached to the permission to secure full details, including monitoring and management techniques, for the Curlew Habitat Enhancement Area prior to the development commencing.

Wales and West Utilities (Document Ref B CON-WWU)

158. According to the mains records Wales & West Utilities has no apparatus in the area. However, gas pipes owned by other gas transporters and also privately owned may be present in this area. Information with regard to such pipes should be obtained from the owners. Safe digging practices, in accordance with HS(G)47, must be used to verify and establish the actual position of mains, pipes, services and other apparatus on site before any mechanical plant is used.

Aneurin Bevan University Health Board (Document Ref B CON-ABUHB)

159. The development is not considered to require an environmental impact assessment (EIA) but the applicant has undertaken a detailed hazard and risk appraisal as part of their submission.
160. The proposed development would not produce any emissions to air or water or noise during its operation. There may be some short term increase in noise and traffic during construction but this would be mitigated by controlled working hours, the absence of heavy plant on site and the low number of vehicular movements within and beyond the site.
161. Operations would not involve storage of any hazardous materials on site, or waste disposal, while surface water infiltration and drainage characteristics would not be affected by the development.
162. The development would require provision of a buried cable to connect to the nearest distribution point at Ebbw Vale a condition is suggested to ensure that the developer consults with the relevant statutory undertakers with regard to

location and installation of the cable and with the local authority contaminated land officer to agree controls regards any potential risks from ground contamination within the agreed route.

163. Consequently, the Health Board has no grounds for objection based upon the public health considerations contained within the application and the risk assessment undertaken.

The Coal Authority ("the CA") (Document Ref B CON-CA)

164. The application site falls within the defined Development High Risk Area; within the application site and surrounding area there are coal mining features and hazards which need to be considered. CA records indicate that the site is within an area of thick coal seam outcrops and the presence of a recorded mine entry (adit): 313206-001. In addition, the CA has in the past been called upon to deal with a surface hazard on this site.

165. The applicant has submitted a Coal Mining Risk and Updated Mineral Assessment. Based on this review of existing geological, historical and coal mining information, the assessment considers that the site is at a moderate to high level of risk from unrecorded mine workings and the presence of recorded / unrecorded mine entries. Appropriate recommendations have been made that intrusive site investigations are considered necessary, particularly in the areas of proposed ancillary buildings.

166. The applicant has considered surface coal resources and the likely impact that the proposed development may have on the sterilisation of the coal reserves within this area. However due to the temporary nature of the proposed development, the land can be restored to its previous use. Thus, the proposed development would not result in the permanent loss of this mineral resource and the CA has no concerns in this regard.

167. The CA considers that a thorough assessment of the coal mining risks associated with the proposed development has been undertaken by a suitably qualified and experienced professional and therefore meets the requirements of Planning Policy Wales. In order to ensure that sufficient information is provided by the applicant to demonstrate that the site is, or can be, made safe and stable for the development proposed, it is recommended that a condition be imposed requiring a scheme of intrusive site investigations, the submission of a report of findings arising from the intrusive site investigations, any remedial works and/or mitigation measures considered necessary and the implementation of the remedial works and/or mitigation measures. On this basis, the CA raise no objection to the proposal.

Glamorgan Gwent Archaeological Trust (Document Ref B CON-GGAT)

168. The Heritage Desk Based Assessment meets current professional standards and has gathered information relating to the historic environment from all relevant sources, and has assessed the likely impact of the proposed development

against that information⁵. It concludes that the potential for features from the Prehistoric, Roman, Early Medieval and Medieval is low, and moderate to high potential for post-Medieval; and that with mitigation the impact would be low.

169. Appropriate archaeological work would be needed to ensure that mitigation is undertaken to identify and record the known historic assets, and that such provision extends to mitigation for responding to the discovery of previously unknown historic assets or finds during the development works. It is therefore recommended that a condition requiring the applicant to submit and implement a detailed written scheme of investigation for a programme of archaeological work to protect the archaeological resource should be attached to any grant of planning permission.

Cadw (Document Ref B CON-CADW)

170. Cadw objects to the impact of the proposed development on the nationally important scheduled monument known as Tredegar Ironworks Cholera Cemetery. It is noted that the HIA has focussed almost entirely on the impact of the proposed development on views outwards from the cemetery and has failed to take account of the effect of the scheme on views towards the cemetery.
171. The Cholera Cemetery has evidential, historical, aesthetic and communal heritage values. The evidential values include the remains of the buried individuals, the gravestones and markers. The presence of ornate headstones demonstrates some attempt to mark the passing of the dead, but one of the tragedies of the epidemic was that often entire families were wiped out. This, combined with prevailing social horror of the disease, led to many being buried in unmarked graves. The location of the cemetery and its relationship with its surroundings is itself an evidential value; the deliberate isolation being a physical manifestation of the fear that cholera represented for 19th century industrial communities.
172. The historical value of the cemetery links with the records of the cholera outbreaks at Tredegar. The outbreaks there were not unique but the survival of the cemetery is a rare physical reminder of such dreadful events which can otherwise seem isolated from the wider story of industrial and social progress. Links with families and individuals buried within the cemetery also contribute to its historical values as does the link with improvements in social health which ultimately led to the control of cholera in Britain.
173. The aesthetic values of the cemetery include its isolation and relationship with the landscape. The HIA has suggested that views from the cemetery were probably not uppermost in the minds of those planning it; it was the isolation and separation from the living that mattered. This is probably correct. However, there is no question that it is the isolation and sense of remoteness that is the overriding quality of the cemetery as it is experienced today and that

⁵ BGCBC's LIR concern regarding whether the HIA met the Chartered Institute for Archaeologist's standards and guidance for historic environment desk-based assessment was raised on the basis of earlier correspondence from GGAT in respect of the pre-application submission. In subsequent correspondence to PINS (Wales), GGAT confirmed that it is satisfied with the standard of the HIA.

the views to the south and southwest – the direction of the proposed development – are the most evocative. The bleakness and loneliness of the location is a key part of understanding what it represents historically and today and the sense of separation that was forced upon the victims by the survivors who, fearing for their lives, wished to distance themselves from sources of a terrifying contagion.

174. The communal values of the cemetery include the links with nearby communities and any surviving relatives, as well as a broad link with the industrial story of the South Wales industrial valleys.
175. Even within the limitations of the assessment provided, the proposed development is likely to have a significant adverse impact on the setting of the scheduled monument which would impact directly on its heritage values, as illustrated by the applicant's own analysis accompanying the application. The imposition of the solar farm would substantially alter the landscape setting removing the cemetery's sense of isolation and no actions are proposed that would reduce or mitigate the impact.

Blaenau Gwent County Borough Council (Document Ref B CON-BGCBC)

176. The Council supports the drive towards increasing the Nation's energy supply from renewable energy and fully recognises the benefits in terms of both climate change mitigation and energy security. In doing so, the Council has approved several wind turbines and a solar park within County Borough, which are currently contributing the Nation's supply of renewable electricity.
177. It is, however, essential that the right developments are delivered in the right locations without unacceptable impacts on the local area. Unfortunately, the Council is of the view that the proposed solar park at Wauntysswg Farm does not meet this essential requirement and, for the reasons set out below, formerly objects to the proposed development and respectfully requests that the planning application be refused.
178. The application site is located in an attractive upland rural landscape with pleasant views into the Rhymney Valley. The local landscape has been undisturbed by industrialisation and, with the exception of the occasional overhead power lines and clusters of wind turbine development, has few detractors. The proposed solar park is of such a scale that the local landscape character would be transformed from one of historical upland farmland characteristics to one of an industrial renewable energy plant. Whilst it is recognised that the site would be restored to its agricultural use at the end of the solar park's operational life, the unacceptable level of harm to the local landscape would be experienced for a significant period of time (30 years).
179. There are numerous visual receptors within the local area, including residential properties, businesses and users of the local roads and public rights of way. The applicant's landscape and visual assessment indicates that the proposed solar park would have significant adverse visual effects on numerous receptors and viewpoints within the local area. The proposed development would undoubtedly appear as dominant feature within this blind valley given the topography of the site and its relationship to vantage points in close proximity and at a higher

level. It would also have a cumulative impact with surrounding wind turbines. The Council is therefore of the opinion that the proposed solar park would have an unacceptable visual impact on the character, quality and amenity of the landscape, and accordingly, conflicts with LDP Policies SP10, DM1 and ENV2.

180. In terms of the SAM, the applicant's HIA states that the solar park would result in a significant adverse effect on its communal and aesthetic value with regard to views to the south, and concludes that the overall impact on the setting of the SAM would be Moderate Adverse. Planning permission should only be granted in exceptional circumstances if a development has a significant adverse impact on the setting of a SAM and the proposed development is considered to conflict with LDP Policy SP11.

Tredegar Town Council (Document Ref B CON-TTC)

181. The Town Council supports developments that reduce the impact of climate change and would give a welcomed boost to the area with the use of local contracting firms.
182. However, Members strongly oppose the development, which would be prominent from every direction. A development of this nature raises concerns relating to the visual impact that it would have on a remote, beautiful area of Tredegar. No information had been received on how this would look visually and how the glare would impact on residents and road users.
183. Members are mindful of how the proposal would impact on local business including Tredegar & Rhymney golf course and the Mountain Ash Inn. It also raises concern regarding the impact the development would have on the setting of Cefn Golau Cholera Cemetery SAM, anglers using Cefn Golau Pond, and walkers using PRoWs. There is concern in respect of the removal of so many trees that act as habitat and screening, which raises questions as to whether tree planting would mitigate the loss of habitat and screen the site from key areas. The timing of the ecological survey is questioned as there were a number of species missing.
184. Although the applicant states that the whole scheme can be removed, there are no details of recycling and if a bond would be put in place to make sure that the development would be removed at the end of the life of the project. There are also issues in respect of how damaged panels could be disposed of safely.

Other Interested Parties

185. Although representations have not been received from other interested parties in respect of the application formally submitted, the applicant's Pre-application Consultation Report (*Document Ref A WAUN-005*) details the responses received in respect of their consultation exercises carried out. In summary:
- Two letters of objection were submitted citing visual impact and litter as the main areas of concern.
 - A petition of objection containing 151 was submitted on the grounds that the development would disrupt the protected wildlife, blanketing the surrounding fields of the Abertysswg Mountains and positioned from the

Aber Forest up to Cefn Golau Pond, and would encounter untold HGV traffic.

186. A letter was also received from Mr Nick Smith MP dated 24 January 2018 advising that he had been contacted by constituents who live near to Wauntysswg Farm, who are objecting to the application as they believe the proposed size of this installation would have the effect of industrialising a solely rural valley. In light of the constituents' concerns, full consideration should be given to the environmental impact of the proposal on the valley.

Consultation Responses (amended information)

Caerphilly County Borough Council (Document Ref C ACON-CCBC)

187. The main change is the introduction of viewpoint 13 from Cefn Y Brithdir Beacon along the Rhymney Valley Ridgeway Walk. Whilst the LPA generally concurs with the baseline view information in relation to human influences and detractors both in the foreground, it is worth noting that the only human influence in the middle ground, where the solar farm will be visible, is the existing coniferous woodland. This woodland sits well within the existing landform and is less of a detractor due to its being limited to the steep valley side to the south of the site.
188. The LPA agrees with the assessment at this sensitive viewpoint that the value of the view is considered to be High for both views from the VILL and the long distance Rhymney Valley Ridgeway Walk public right of way (PRoW). However, the LPA would assess the magnitude of change for walkers and the view from the VILL as Medium, as the proposed development would be a new detracting element in the view, being visible in the middle ground. Views are oblique but they are the main views experienced from the PRoW when walking north, with the eye drawn to the east and north/east. Therefore, the LPA does not concur with the assessment on visual amenity, as with a High Sensitivity and Medium Magnitude of change, the effect on Visual Amenity should be increased to Major adverse.
189. With regard to the cumulative effect, the existing communication mast in the foreground and the operational wind turbines in the background are clearly visible in the field of view experienced from this viewpoint for walkers travelling north, as well as in succession for those walking south. The proposals would also present adverse sequential effects for walkers heading both north and south, who would therefore experience an adverse cumulative effect from this sensitive viewpoint.
190. CCBC's original LIR concluded that the proposed solar farm would have a negative impact on the landscape. The additional viewpoint does not change that assessment, but serves to reinforce it.
191. In terms of the HIAA, the main impact of the proposals has been identified as having a substantial adverse impact on the setting of extractive industry area EA072. The proposed trackway from the site to the B4256 also has the potential to affect upstanding elements of EA072 in which case the impact could be moderate-substantial adverse.

192. In terms of the impact of the access road on historic assets, the HIAA confirms that the access road would consist of no more than a farm-track type feature. It therefore identifies suitable mitigation as involving a programme of archaeological monitoring and recording to ensure that any direct effect is reduced to a negligible impact.
193. On the basis of the revised information, it is concluded that the impacts of the development on the historic environment within Caerphilly County Borough would be neutral.

Blaenau Gwent County Borough Council (Document Ref C ACON-BGCBC)

194. The HIAA is considered to be a distinct improvement on the original submission, and it is now considered to be of an acceptable standard. Notwithstanding this general acceptability, the HIAA only appears to suggest measures that would help mitigate the adverse impact of the proposed solar park on archaeological remains and is not clear on whether they would actually be implemented. For instance, the HIAA highlights the potential to avoid identified archaeological remains through the design of the proposal and only recommends a programme of archaeological recording where it is not possible to preserve these remains in situ. It is, however, evident that the development proposal has not been designed in a manner which avoids a number of the identified archaeological remains located on the central western part of the site. It would therefore be of benefit if the applicant were to confirm the exact extent of the impact on the identified archaeological remains and to provide clarity on the anticipated mitigation strategy.
195. With regard to the impact of the proposed solar park on the setting of the Schedule Ancient Monument (SAM) of Tredegar Ironworks Cholera Cemetery and other historic assets, the Council's Heritage Officer is of the opinion that the HAA understates the impact on the settings of these assets and represents a dramatic change of opinion from the original assessment. This is particularly evident in respect of the assessment of the impact on the setting of the Cholera Cemetery SAM, which is recognised within the HIAA as a unique historic asset, due to it being the only known surviving cholera cemetery in Wales whose historic value cannot be undervalued. The Council's Heritage Officer is of the view that the HIAA consistently undervalues the Cholera Cemetery SAM's heritage value in respect of the proposal's impact on its setting.
196. The HIAA states that the setting of the Cholera Cemetery SAM primarily revolves around the sense of isolation and should be considered predominantly in an aesthetic and communal sense. Moreover, open views, particularly to the south and southwest, are identified as integral to how the Cholera Cemetery SAM is experienced today, while Cadw has previously highlighted the relevance of views towards the SAM from the surrounding area. Views outwards from and towards the Cholera Cemetery are considered in turn below.
197. With regard to the views outwards in a south and southwest direction from the Cholera Cemetery SAM, the HIAA recognises that the proposed solar arrays and associated infrastructure are likely to represent a noticeable intrusion in the landscape that would further detract from the setting of the SAM. Moreover, the proposed solar park is likely to result in an adverse effect on the communal and

aesthetic value with regard to views to the south. As such, even though the HAA has downgraded the impact of the proposal on the setting of this historic asset from a Moderate to Minor Adverse impact, the impact of the proposal remains negative.

198. In respect of the views towards the Cholera Cemetery SAM, the HIAA's claim that other views towards the Cemetery would be unaffected by the proposed development is not accepted. Whilst it is acknowledged that the Cholera Cemetery SAM would not be visually prominent when viewed from the surrounding area, it is discernible from the south (as viewed from road) by virtue of the existing perimeter fence that delineates its location, and from the west (as viewed from road) by virtue of the mid-dark grey coloured headstones which contrast with the colour of the surrounding vegetation. The location of the Cholera Cemetery is also familiar to many local people within the surrounding area, irrespective of its visual prominence.
199. The proposed solar park is of such a scale that the local landscape character would be transformed from one of historical upland farmland characteristics (referred to as Bedwellte Fieldscape) to one of an industrial scale renewable energy park. This impact is acknowledged in the HIAA which indicates that the proposal would have a Moderate Adverse impact on the Bedwellte Fieldscape. When viewed from the south and west, the Cholera Cemetery SAM would be seen in juxtaposition to the proposed solar park and, as such, it is considered that the aesthetic value of isolation and remoteness would be adversely affected. This impact would be particularly pronounced for local people who have the greatest awareness of the cemetery and for whom the cemetery is reminiscent of a link to the industrial past. It is agreed that no practicable mitigation for the impact of the proposed solar park on the setting of the Cholera Cemetery SAM is possible.
200. The Council therefore disagrees with the overall conclusions within the HIAA and remains of the view that the proposed solar park and associated infrastructure would have a significant negative effect on the setting of the Cholera Cemetery SAM.

Cadw (Document Ref C ACON-CADW)

201. The HIAA relies heavily on photomontages included in the LVAA which show that the proposed development would not be as visible in views from the scheduled monument as previously thought. It concludes that the visual impact likely to be experienced from the cemetery represents little more than a slight colour change within a very limited area. It concludes, therefore, that the proposals would result in a Negligible Impact (no appreciable effect on the setting of any asset) tending to a Minor Adverse impact (slight visual changes to a few key aspects of historic landscape and the settings of any asset)".
202. The HIAA fails to fully understand that views are only part of the factors which determine the setting of a monument. In this case, a significant element of the setting of the SAM is the isolation and sense of remoteness, which is the overriding quality of the cemetery as it is experienced today. The ruined farm buildings and dilapidated nature of boundary walling rather than detracting from the views actually portray to the modern viewers a sense of abandonment,

isolation and desolation surrounding the cemetery, thus emphasising the banishment of the buried individuals from the community of Tredegar.

203. It is Cadw's opinion that their previous comments overstated the impact of the proposed development on the setting of the SAM particularly due to the then perceived high visual impact of the development in the views from the scheduled monument. However, it does not agree with the HIAA evaluation that the impact would be negligible to minor adverse. It continues to consider that the proposed development would have an adverse impact on the setting of the monument because it would alter the sense of isolation and abandonment which is a major factor in how it is understood, experienced and appreciated. Therefore, without any mitigation the proposed development would have a moderate to high adverse impact on the setting of the scheduled monument.
204. The HIAA suggests that the existing fencing around the cemetery has a negative impact on the asset. It is also suggested that the replacement of this fence with a facsimile of the original fencing would be beneficial to the setting of the asset and that this would, to some degree, offset any adverse impact resulting from the proposed development.
205. It is therefore Cadw's opinion that without any mitigation, the proposed development would be likely to have a significant adverse impact on the setting of the SAM. However, with the introduction of the mitigation identified above, the proposed development would have a moderate adverse impact on the setting of scheduled monument and reduce the impact to a more acceptable level.
206. As such, a replacement fence would be appropriate mitigation and should form part of the proposed development. However, the new fencing should be paid for directly by the developers and not as part of any proposed community fund as suggested in the HIAA. If this were secured, Cadw would withdraw its objection as the level of impact would be reduced to an acceptable level.

Appraisal / Main Issues

207. Although a Statement of Common Ground has not been submitted, it is evident that there is agreement between the main parties in respect of the principle of the development and its impact on agricultural land, ecology, glint and glare, hydrology and flood risk, highway safety, coal mining and trees. It is the effect of the development on landscape and visual impact and on heritage assets that is at issue between the parties.
208. In light of the foregoing, I consider the main issues to be:
- The effect of the proposal on the character and appearance and visual amenity of the area.
 - Whether the development would preserve or enhance heritage assets.
209. I will go on to consider the other matters of the impact of the development on agricultural land, ecology, glint and glare, hydrology and flood risk, highway safety, coal mining and trees.

Principle of Development

210. The application site lies outside the settlement boundaries defined by BGCBC LDP Policy SB1, which aims to manage spatial growth and prevent inappropriate development in the countryside. Nevertheless, this Policy is silent on the types of development that are typically acceptable within countryside locations, deferring instead to national planning policy. Be that as it may, in-principle support for the proposal is afforded by BGCBC LDP Policy SP7, which seeks to encourage more of the County's electricity requirements to be generated by renewable technologies.
211. National Planning Policy on renewable energy developments is set out in PPW and the associated Technical Advice Note (TAN) 8: Renewable Energy. Further guidance is provided in the Practice Guidance: Planning Implications of Renewable and Low Carbon Energy, February 2011.
212. PPW 10 explicitly links the planning system and the provisions of the Well-being of Future Generations Act ("the WCFG Act"). Any statutory body carrying out a planning function must exercise those functions in accordance with the principles of sustainable development as defined in the WCFG Act. A key planning principle as outlined in PPW is achieving the right development in the right places. It sets out National Sustainable Placemaking Outcomes, one of which is to grow our economy in a sustainable manner which can be achieved by *inter alia* generating our own renewable energy⁶.
213. PPW makes it clear that the planning system plays a key role in delivering clean growth and the decarbonisation of energy, as well as being crucial in building resilience to the impacts of climate change⁷. Welsh Government's renewable energy target is for Wales to generate 70% of its electricity consumption from renewable energy by 2030⁸.

⁶ Figure 4 of PPW

⁷ Paragraph 5.7.1 of PPW

⁸ Paragraph 5.7.16 of PPW

214. There is no dispute that the development would increase the installed renewable energy capacity in the County, contributing to meeting local and national, renewable energy targets, reducing reliance on energy generated from fossil fuels and actively facilitating the transition to a low carbon economy. To this end, it would embrace the WBFG Act goals to achieve a globally responsible, prosperous and resilient Wales.
215. Nevertheless, a prosperous and globally responsible Wales also values the quality of landscapes and the historic environment, which should be protected and enhanced for the sake of their special characteristics and nature conservation value as well as the way in which they contribute to wider social, economic and cultural objectives. PPW therefore acknowledges that the planning system should secure an appropriate mix of energy provision, which maximises benefits to our economy and communities whilst minimising potential environmental and social impacts⁹ (*my emphasis*).
216. TAN 8 states that '*Other than in circumstances where visual impact is critically damaging to a listed building, ancient monument or a conservation area vista, proposals for appropriately designed solar thermal and PV systems should be supported*'¹⁰ (*my emphasis*).
217. In summary, therefore, planning policies at national and local level are consistent in their aim to achieve energy development that is sustainable and that does not cause any significant adverse environmental impacts. Overall, development is supported that is appropriate to its context and meets the well-being objectives established within PPW.
218. The development represents a high efficiency method of generating electricity. I therefore attach significant weight to the contribution the development would make to producing energy from a renewable source in order for Wales to meet its carbon and renewable targets, as part of WG's overall approach to tackling climate change and increasing energy security. Nevertheless, I must also balance that significant benefit against the potential environmental impacts of the proposal in considering whether the scheme would be inherently sustainable. This report therefore considers those potential impacts in turn.

Landscape and Visual Impact

219. I acknowledge that the application site does not fall within any statutory landscape designation. PPW advises that in circumstances where protected landscape designations are considered in the decision-making process, only the direct irreversible impacts on statutorily protected sites should be considered¹¹.
220. Nevertheless, PPW also recognises that the landscapes of Wales are valued for their intrinsic contribution to a sense of place, and local authorities should protect and enhance their characteristics, whilst paying due regard to the social, economic, environmental and cultural benefits they provide, and to their role in creating valued places¹². It adds that where adverse effects on landscape character cannot be avoided, it will be necessary to refuse planning permission¹³.

⁹ Paragraph 5.7.7 of PPW

¹⁰ Paragraph 3.15 of TAN 8

¹¹ Paragraph 5.9.17 of PPW

¹² Paragraph 6.3.3 of PPW

¹³ Paragraph 6.3.4 of PPW

221. Notwithstanding the advice in PPW, s38(6) of the Planning and Compulsory Purchase Act 2004 requires determinations under the planning acts to be made in accordance with the Development Plan unless material considerations indicate otherwise. In designating SLAs, BGCBC has considered landscape character at the outset of formulating its LDP Policies. In doing so, it has identified the special qualities that it seeks to protect and enhance. In particular, LDP Policy ENV2 states that it expects new development to conform to the highest standards of design, siting, layout and materials appropriate to the character of the SLA.
222. The LVA identifies the key features of the site and its immediate surroundings as it relates to the SLA designation. Of particular note, is its predominantly agricultural landscape with an extensive length of the valley side with no development, pockets of linear settlements confined to the northwest-southeast aligned valleys and scattered isolated farm complexes and private residences. Human influence is confined to the surrounding highway network, forestry plantation, clusters of renewable energy infrastructure (consisting of wind turbines) and pockets of industry development.
223. Whilst the application site boundary is only partly within the administrative boundaries of CCBC to the north-west, the site bounds the Northern Rhymney Valley VILL, which has two areas separated by the urban development of Abertysswg¹⁴. The Council confirms that the visual character of the VILL is a predominantly upland and open area. Distinctive rocky hillside with rock outcrops, upper valley sides and views across the Rhymney valley give it a strong upland character, limited in places by topography and / or vegetation. The upland sense of place is complicated by urban edges and visual detractors (pylons) but increases with elevation and views out.
224. The applicant observes that as the majority of the rural BGCBC (outside settlement boundaries) falls within an SLA. Consequently, it is the applicant's view that there would be only a localised impact on the landscape. Be that as it may, I note the conclusion of the LVA that the intrinsic qualities of the SLA are such that the site is located in a landscape that has high sensitivity to change.
225. The LVA identified major or substantial effects on landscape character for the following Aspect Areas: Cwm Twysswg Visual and Sensory Aspect Area (Major effect), Mynydd Bewellte Visual and Sensory Aspect Area (Substantial effect), Bedwellte Fieldscape Historic Aspect Area (Major effect) and Cultural Landscape Aspect Area (Substantial effect).
226. The land use of the application site would change from one of agriculture to renewable energy infrastructure, thus altering its character for the lifetime of the development. Its sheer size is such that it would appear as a substantial mass in the landscape. The panels would have a height of up to 3 metres, a flat, dark appearance and would be formed in regimented rows. Its rigid and ordered appearance would be completely at odds with the more organic form of the site. The array of flat, dark

¹⁴ This is a non-statutory designation that seeks to protect the distinctive features or characteristics of the visual and sensory aspects of the landscape. VILLs have been identified using only the visual and sensory layers of LANDMAP; generally, those landscapes of some visual and sensory importance but that did not rate sufficiently in conjunction with other aspects to justify inclusion within the revised CCBC SLAs.

coloured panels spreading out over a significant area of land currently characterised by green, open fields, would have a deadening effect on the landscape.

227. Thus, although major or substantial adverse effect on landscape character would be restricted to localised areas, overall, they would represent significant components in the valley. In these areas, the development would unacceptably alter the existing rural agricultural landscape, including an SLA whose primary landscape features include 'secluded farmland, undisturbed by industrialisation...', to a dominant industrial landscape characterised by closely grouped engineered structures.
228. It would realise the concern outlined in TAN 8's Practice Guidance: *Planning Implications of Renewable and Low Carbon Energy Development* that a solar array can result in a regular pattern of PV panels, ancillary buildings and security fencing occupying substantial areas of land, leading to the creeping urbanisation of the countryside¹⁵.
229. At the hearing session, the applicant's representatives explained that the original drafting of the LVA was carried out on a larger scheme than that which formed the basis of the application. Photomontages / visualizations were introduced quite late in the process. For the purposes of the LVAA, the Viewpoints were re-assessed following a site visit and detailed visual assessment, which resulted in a lesser magnitude of change than originally thought in respect of certain Viewpoints.
230. I accept that Viewpoint 5 in the LVA overstated the size of the site, and based on the revised scheme, the southern edge of the solar park would be in the order of 400 metres from the SAM. Such factors contributed to the conclusion in the LVAA that the change in view from the SAM would not be prominent with few visual receptors affected, resulting in a Negligible magnitude of change and thus a Minor visual effect.
231. I note BGCBC's contention that following its subsequent site visit it became evident that visibility of the solar array would be greater than the photomontages suggest, tending to good visibility from certain viewpoints. Consequently, it considers that the corresponding magnitude of change and likely effect would be greater in some instances.
232. Whilst photomontages are helpful in the LVA process, the assessment of change and effect is subjective to an extent. Although restricted in some views from intervening higher landform, based on the evidence before me and my site visit, I consider that there would be good visibility of the development from public vantage points notwithstanding the re-assessment of Viewpoint 5 in the LVAA.
233. The predicted change and effect from a number of Viewpoints as described in the LVA have not been affected by the re-assessment undertaken in the LVAA; for example, from the Mountain Ash Inn (private residence and public house), the view is considered to be of High value, High susceptibility and High sensitivity, with the overall effect to be Substantial. To the east and south east of the site, where enclosure levels decrease and receptors emerge onto the open access land along Charles Street and the unnamed road, the effect on visual amenity would be Major

¹⁵ Paragraph 8.4.8 of the Practice Guidance

tending to Substantial. The predicted effect on the PRoW which passes through the farm complex¹⁶ and footpath Rhymney FP64 are assessed as Substantial.

234. It seems to me that there are a number of opportunities for resident and members of the public to use the surrounding rural area, relaxing and enjoying their leisure time. For example, from Charles Street and the unnamed road at higher ground, the solar array would dominate the valley floor with its dark coloured, regimented form. Travelling towards the site, a viewer's eye would be drawn to this alien form which would represent a distinctive visual interruption and occupy a large proportion of the overall vista. That is, the development would be conspicuous and highly visible from a number of Viewpoints of Medium and High sensitivity, detracting from the otherwise pleasant rural scene and adversely affecting the experience of the user.
235. Furthermore, the LVA concludes that in close range views, the presence of wind turbine and solar development in combination would be heightened by each other in a combined cumulative effect and would change the local landscape character of the upland plateau which is largely unspoiled with few detractors. This matter further convinces me of the harmful visual impact of the proposed development in combination with other renewable energy development in the vicinity.
236. In terms of the effect of the proposed development on CCBC's VILL, the LVAA finds that the portion of the VILL closest to the application site is considered to be of Medium value and susceptibility as it has been provided with a Moderate evaluation in the Landmap Assessment. It therefore concludes that the overall sensitivity is Medium and, with a Low magnitude of change, the proposed development would have a Minor effect on the VILL.
237. The LVA assesses the likely impact of the development from several Viewpoints along the Rhymney Valley Ridgeway Walk PRoW¹⁷. It concludes that from Viewpoint 9, which is to the south of Pontlloftyn, the sensitivity is considered to be High with a Medium magnitude of change, resulting in a Major effect. From Viewpoint 13 Cefn Y Brithdir Beacon along the Rhymney Valley Ridgeway Walk, the LVAA assesses the sensitivity as High with a Low magnitude of change, resulting in a Moderate visual effect.
238. I heard from CCBC that, from the south-western side of the valley, the rural character of the landscape dominates. It argues that the sensitivity of the VILL and the Rhymney Valley Ridgeway Walk PRoW should be given greater weight given its status and that it is used frequently as a main walking route. Because of the topography, and few detractors in the mid ground, the Council contends that the eye is drawn to the outcrop of rock and the predominantly rural landscape where the solar array is proposed. It therefore agrees with the LVA assessment that the value of the view from both the VILL and the PRoW is high but considers that the magnitude of change should be assessed as Medium owing to the proposed solar park representing a new detracting element in the view being visible in the middle ground. Consequently, it

¹⁶ Whilst Table 3: Summary of Effects on Visual Receptors and Representative Viewpoint shows the Effect on Viewpoint 1 Restricted Byway 339/24/1 (passing through Wauntysswg Farm) as Moderate, the text in paragraph 10.18 of the LVA describes a High magnitude of change as a result of the direct views of the development at close range which, with a High sensitivity, would result in a Substantial effect on visual amenity.

¹⁷ Viewpoint 13 View from Cefn Y Brithdir Beacon along the Rhymney Valley Ridgeway Walk was added following the request of CCBC in its LIR.

does not agree with the assessment of visual effect as with a High sensitivity and Medium magnitude of change, the effect should be increased to Major.

239. At the Hearing session, the applicant argued that as the PRow runs in a north-west south-east direction, users would be walking and looking in the direction of travel rather than towards the application site. The panoramic views and distance would further reduce the impact of the development with moving elements in the landscape drawing the eye. The development would be seen mainly as a colour change from this distance, not dissimilar to the colour of the existing plantation.
240. I do not disagree that the solar park would be discernible from Viewpoint 13, as evidenced by the fact that the existing woodland can clearly be made out at this distance. Neither do I dispute that the value of the view is High given that it is located within CCBC's VILL and contains extensive and open views across the valley towards BGCBC's SLA. Nevertheless, this view has several detractors in the foreground (namely the communications tower and fencing), wind turbines on the horizon and the Tafarnaubach Industrial estate in the distance just below the skyline and directly above the application site. It is these influences, together with the distance from the application site, that would reduce the development to a relatively small component in the landscape that would not have a significant harmful visual impact from this vantage point.
241. However, I consider that the visual effect of the proposal would alter along the length of the Rhymney Valley Ridgeway Walk. As such, from Viewpoint 9 the visibility of the development would increase and its effect would be harmful; a large proportion of the mass of the solar array would be visible in the mid-ground and from a wide panoramic view, changing the local landscape character of the upland plateau which is largely unspoilt. To this end, it would compromise the view from sections of the PRow and the qualities of the VILL, specifically the views across the Rhymney valley which give it a strong upland character and a sense of place increased by long-ranging views out towards the application site.
242. I do not disagree with the LVA assessment that the turbines at Pen Bryn Oer may be visible from the CCBC Viewpoints, but as only the tops of the blades are visible in the distance, the cumulative effect with the proposed development would not be significant.
243. Whilst over time, additional planting has the potential to soften the visual impact of the development, the topography of the site and surrounding area is such that it is not possible to screen the development to any effective extent.
244. Notwithstanding my conclusion that the development would not have a serious adverse impact on certain viewpoints and that the cumulative effect with the existing turbines would not be significant, I nonetheless find that it would have a harmful effect on the visual quality and extensive upland views characteristic of the VILL which could not be adequately screened.
245. Thus, the development would conflict with BGCBC LDP Policy ENV2 which expects proposals to conform to the highest standards of design, siting, layout and materials appropriate to the character of the SLA. It would also conflict with CCBC LDP Policy CW4 which supports development that conserves and where appropriate enhances the distinctive or characteristic features of the VILL.

246. Renewable energy schemes are, by their very nature, likely to result in some impact on the character and appearance of the countryside. However, in this case and for the reasons I have given, I conclude that the degree of harm inherent in the proposal would weigh against the grant of planning permission.

Historic Environment

Archaeology

247. Dealing first with archaeological remains. PPW sets out a presumption in favour of the physical protection *in situ* of nationally important archaeological remains which are likely to be affected by a proposed development¹⁸.
248. The HIA found that the potential for non-agricultural Post-medieval features is moderate to high. The potential significance for these periods is high, especially with regard to assets which may relate to the historic extractive industry in the area.
249. GGAT subsequently advised that a condition should be attached to any planning permission requiring the submission and implementation of a written scheme of investigation for a programme of archaeological work to protect the archaeological resource.
250. At the Hearing session, the parties agreed that the access road would consist of a farm track type surface, that the layout of the solar array could be fine-tuned in the central western part of the site to avoid the remains of the barn and extractive industry features¹⁹, and that a scheme of mitigation could be secured by condition²⁰. I am therefore satisfied that a condition securing the programme of archaeological works and its implementation would adequately protect the archaeological resource.

Setting of Heritage Assets

251. Turning to the other area of disagreement between the parties, that is the impact of the proposed development on identified heritage assets present on the site. The main area of contention relates to the effect of the development on the setting of the Tredegar Cholera Cemetery SAM and the affected areas of the extractive industry and Cwm-Tysswg Farm forming part of the Bedwellte Fieldscape.
252. BGCBC LDP Policy SP11 seeks to protect, preserve and enhance Blaenau Gwent's distinctive built environment, which includes SAMs. PPW is clear that in circumstances where protected historical designations and buildings are considered in the decision making process, only the direct irreversible impacts on statutorily protected sites and buildings and their settings should be considered²¹ (*my emphasis*). TAN 8 adds that in respect of solar thermal and solar photovoltaic systems, other than in circumstances where visual impact is critically damaging to an ancient monument, proposals for appropriately designed schemes should be supported.
253. The scheduling description states that the SAM consists of the remains of a cholera cemetery from the epidemics which swept many emerging industrial communities in

¹⁸ Paragraph 6.1.24 of PPW

¹⁹ Condition 6 of the recommended conditions at Annex A requires details of the precise siting, layout and design of the array

²⁰ Condition 11 of the recommended conditions at Annex A

²¹ Paragraph 5.9.17 of PPW

the 19th century. As in many areas, a separate cemetery was created on a hilltop away from the town, owing to fears of infection from the dead. The cemetery was scheduled in 2000 but remains in an increasingly dilapidated and poorly maintained condition; I observed that it has approximately 25 surviving upright headstones and is enclosed by an unsympathetic modern steel fence.

254. I note the observations in the HIA that the cemetery is located in an isolated position with extensive views of an open landscape and was constructed in this position in response to a single emotional driver, which was fear. It considers that the original purpose of the cemetery, built to take the victims of a stigmatised epidemic, would have involved little consideration of any aspect of the landscape beyond isolation. That is, the cemetery would have fulfilled a pragmatic function in the separating of the dead from the living.
255. In terms of significance of the heritage asset, therefore, part of its historic heritage value lies in it representing a rare physical reminder as one of the few known surviving cholera cemeteries. I also concur with the views of interested parties that a large part of the evidential and aesthetic heritage value of the cemetery is derived from its isolated and remote location and its relationship with its surroundings. Whilst it is accepted that views from the cemetery were unlikely to have been a consideration for the affected families, there is no question that the isolation and remoteness, together with the sense of bleakness and loneliness, are the overriding qualities of the cemetery as it is experienced today and that the views to the south are the most evocative.
256. It was acknowledged in the HIA that the main views to the south and southwest from the cemetery, and from the higher ground to the north and east, all incorporated a wide-angle view of the site area²². It therefore concluded that the impact on the views to the south would be Significant Adverse in that there would be a complete change to landscape character in this direction. The overall impact on the setting of the monument was assessed to be Moderate Adverse in that only some key aspects would be changed²³.
257. Nevertheless, the HIAA re-assessed the potential effects of the development on the heritage assets. Based on a detailed site visit, a review of the LVAA and the proposed photomontage at Figure 33 of the LVA (View from the Cefn Golau Cholera Cemetery), it found that the visual impact likely to be experienced from the cemetery would represent little more than a slight colour change within a very limited area. Hence it concluded that the proposals would result in a Minor Adverse impact (slight visual changes to a few key aspects of historic landscape and the settings of any asset) on views to the south. Also taking into account the limited visual effect with regard to views looking towards the cemetery, the HIAA concludes that the overall impact on the setting of the SAM would be Minor Adverse.
258. At the Hearing session, the applicant's representatives explained that the original HIA assessed the potential impacts of the development on a larger

²² Paragraph 10.3.1 of the HIA

²³ Paragraph 11.4.15 of the HIA

scheme and that the site visit was carried out based on the panels extending up the valley sides (hence the Significant Adverse impact predicted).

259. Nevertheless, Cadw disagrees with the HIAA evaluation that the overall impact would be Minor Adverse tending to Negligible. Rather, it continues to consider that the proposed development would have an adverse impact on the setting of the monument because it would alter the sense of isolation and abandonment which is a major factor in how it is understood, experienced and appreciated.
260. BGCBC is also of the opinion that the HIAA understates the impact of the setting of this asset, which is recognised within the HIAA as a unique historic asset due to it being the only known surviving cholera cemetery in Wales whose historic value cannot be underestimated. It also reiterates Cadw's view regarding the importance of the sense of isolation.
261. Despite its revised position in respect of likely impacts arising from the development, the HIAA recognises that the proposal is likely to represent a 'noticeable' intrusion in the landscape that would further detract from the setting of the SAM²⁴. It also continues to acknowledge that the solar park is likely to result in an adverse effect on the communal and aesthetic value in respect of views to the south²⁵.
262. At the Hearing session, the discussion focussed partly on the downgrading of the perceived impacts with reference to Table 2.2: 'Table of Impacts Criteria' in the HIAA. It identifies that adverse effects caused to archaeological resources, including SAMs and their settings, results in a Substantial Adverse impact (*my emphasis*). The applicant's representatives suggested that the 'Archaeological Resource' column should not include the settings of SAMs (but should relate to direct impacts on archaeological resources only) given that there is another column in the table dealing specifically with setting. As a consequence, and on the basis of the re-assessment that there would be minor changes to key historic landscape elements and only slight changes to the setting of any asset, the finding that the impact would be 'Slight Adverse' tending to 'Negligible' is considered by the applicant to be justified.
263. The applicant has also drawn my attention to the complex of dilapidated agricultural structures between the application site and the SAM, which are considered to provide an intrusion into the landscape. To my mind the condition of these structures merely adds to the sense of melancholy, which is characteristic of the setting of the SAM.
264. Notwithstanding the arguments put to me regarding the criteria for assessing the likely effect of the development, I am satisfied that the assessment did not rely solely on the inclusion of this Table in the HIAA. Be that as it may, there is no doubt that the re-assessment in the HIAA represents a dramatic change in the anticipated effects of the development on the setting of the SAM. I have difficulty aligning the removal of an area of panels from the valley sides with a shift from 'Significant Adverse' to 'Minor Adverse' insofar as a substantial area of land would continue to be covered by the solar array. I have not been

²⁴ Paragraph 11.4.10 of the HIAA

²⁵ Paragraph 11.4.13 of the HIAA

persuaded that the revised scheme would not continue to represent a complete change to landscape character in this direction. Neither am I convinced that it would represent a minor change to key historic landscape elements and have little appreciable effect on the setting of the heritage asset.

265. I also accept that the solar park would be a static development that is not manned. However, the proposal would result in the introduction of modern infrastructure development covering an extensive area of land which would adversely affect the sense of isolation and remoteness that is characteristic of the setting of the SAM and, in particular, its evidential, aesthetic and communal value that forms part of its significance.
266. I have also taken into account the views towards the SAM which were assessed more fully as part of the HIAA. BGCBC considers that the SAM is a visually prominent site which sits at the head of the agricultural valley in a green isolated setting and is discernible from the south by virtue of the existing perimeter fence and from the west by the headstones. In any event, it considers that the cemetery is familiar to local people irrespective of its visual prominence.
267. Based on my own observations, the submitted photomontages and discussions at the Hearing session, relevant views across the panels and towards the cemetery are restricted mainly to dynamic views from the highways which bound the site. In light of the generally transitory nature of the inter-visibility, the limited opportunity to appreciate the SAM over these distances, and other visual detractors (such as the refurbished dwelling and the modern cemetery fencing), the views towards the cemetery from these vantage points have little ability to affect the significance of the asset. Nevertheless, Cadw reiterates that views are only part of the factors that determine the setting of a monument.
268. In considering the communal value (in that knowledge of the cemetery does not necessarily require sight of it), local people know of its location and the SAM is discernible, even if not visually prominent. Given the impact of the proposal on the sense of isolation and remoteness as already described, an appreciable effect on heritage significance would be apparent. I would reiterate the findings in the HIAA that this impact would be particularly pronounced for local people who have the greatest awareness of the cemetery and for whom it is reminiscent of a link to the industrial past and provides a distinct and well-defined sense of place²⁶.
269. I note the views of Cadw that it would be possible to mitigate the adverse impacts of the development to a more acceptable level by replacing the modern fence with a facsimile of the original thereby benefitting the setting of the asset. Whilst a replacement fence of a more sympathetic design would undoubtedly improve its visual impact and thus the setting of the SAM, I do not agree that it would offset the harm caused by the development to the sense of isolation and remoteness of the setting. I will explain later in this report why I do not

²⁶ Paragraph 11.4.12 of the HIAA.

consider that such a benefit should form the basis of a planning condition or a S106 Agreement.

270. The HIA also identified Moderate Adverse impact on the setting of the Bedwellte Fieldscape, including Cwm-Tysswg Farm and a Substantial Adverse impact on the setting of EA072 (extractive industries area) from the construction of the proposed trackway to the degree that much of its setting's value would be lost.
271. The HIAA revised this position and found that the proposal would have a Minor Adverse tending to Moderate Adverse effect on the Bedwellte Fieldscape and a Negligible tending to Minor Adverse impact on the setting of extractive industry area EA072. It identified a Moderate Adverse unmitigated impact on direct physical remains associated with it, reducing to Negligible with appropriate mitigation.
272. Although there is a general absence of above-ground evidence with the exception of the ruins of a stone barn, a gully, some pits and a number of spoil tips, the fieldscape itself is well-preserved and, in this regard, it retains some historic value, as well as communal and aesthetic value in how it is appreciated today.
273. The construction of the proposed development would have an effect on the appreciation of the heritage assets, but historic field boundaries would be retained within the proposals. The access road would be no more than a farm track generally in keeping with the surrounding landscape. Consequently, I concur with the assessment in the HIAA that such a trackway, which would see very little traffic during the operational phase, would have a Minor Adverse tending to Negligible impact on the undesignated heritage assets with appropriate mitigation.
274. Be that as it may, I find that there would be a direct and significant adverse impact on the setting of the statutory heritage designation (the SAM), in conflict with the general thrust of PPW. The proposal would also be contrary to BGCB LDP Policy SP11, which seeks to safeguard nationally designated sites from inappropriate development.

Agricultural Land

275. PPW states that agricultural land of grades 1, 2 and 3a is the best and most versatile land, and should be conserved as a finite resource for the future²⁷.
276. As is evident from the applicant's submissions, the land is classified as Grade 4 land under the ALC criteria. It does not therefore represent the best and most versatile agricultural land as defined in PPW.
277. Consequently, the proposal would not result in the loss of the best and most versatile agricultural land. Therefore, its loss over the 30 year lifetime of the proposal is not a factor that would attract significant weight in the consideration of the application.

²⁷ Paragraph 3.54 of PPW

Ecology

278. The key principle in any new development proposal is to protect and enhance biodiversity. This is supported at national planning policy level within PPW and TAN 5 and at the local level in BGCBC LDP Policies SP10, ENV3 and DM14.
279. The larger fields within the application site are predominantly semi-improved grassland, short grazed and species poor as result of agricultural management and improvement.
280. Whilst the site supports Habitats of Principal Importance²⁸ and UK Biodiversity Action Plan priority habitats, including acid grassland, purple moor grass and rush pastures, the grassland habitats of high conservation value within the site are primarily located in the northern and southern extremities. The layout of the solar array would largely avoid impacts on the high values habitats, with the array located primarily on areas of semi-improved grassland and species-poor rush pasture.
281. In this context, the loss of species poor habitat would not be significant. A new area of marshy grassland / flush habitat in the southern part of the site would compensate for the loss of a localised area of purple moor-grass and acid flush in specific areas which, overall, represent a small percentage of the total extent of this habitat type within the site. A set-back perimeter security fence, together with the incorporation of a buffer between the array and water courses in the design of the scheme, would create a protective barrier and avoid negative impacts on watercourses.
282. Turning to the Mynydd Bedwellte SINC. The working area and development footprint would lie outside of the designated site, and all the features of the SINC lie upslope of the development. It therefore follows that they will not be directly affected by the development proposal.
283. Furthermore, in order to avoid adverse impacts during the construction phase, a condition attached to any planning permission requiring the submission of a CEMP proposing a series of mitigation measures during the construction phase would ensure habitat protection. Relevant measures as outlined in the Ecological Mitigation Plan ("EMP") include a minimum stand-off created by fencing between the development working area and the boundary of the SINC and good environmental working practices across the entire site.
284. Notwithstanding the above, I note the observations of BGCBC and NRW that more detail is considered necessary in relation to the physical boundaries of the off-site Curlew habitat enhancement area proposed on the western side of the valley. I consider that that the outstanding details can be adequately dealt with by condition.
285. Based on the conclusions in the EES and the implementation of the proposed mitigation measures as outlined in the EMP and secured by condition, I am satisfied that there would be no significant harmful impacts on ecological features. The proposed development would meet the requirements of BGCBC

²⁸ Natural Environment and Rural Communities Act 2006

LDP Policies SP10, ENV3 and DM14, which require new development to respect and protect the natural environment including protected habitats and species. It would also be consistent with the objectives of TAN5 to protect nature conservation interests.

Trees and Arboriculture

286. With the exception of the removal of two trees, the proposed solar park could be accommodated with the retention of the remainder of the existing trees. The removal of the spruce plantation has been proposed to compensate for the loss of grassland habitat.
287. Overall, the loss of the two trees is not considered to be significant. Provided that the compensatory planting is delivered and landscaping is secured by condition in the event of planning permission being granted, the proposal would not have a harmful adverse effect on trees within the site. It would therefore accord with the requirements of BGCBC LDP Policy DM16 in this respect.

Glint and Glare

288. The glazing used for the panels is designed to absorb light rather than reflect it. Even so, it is clear from the submitted Glint and Glare Assessments that there is the potential for some reflection of sunlight, producing glint or glare, from several of the observation points at specific times of the day.
289. Nevertheless, I do not consider that the potential residual glint effects on residential properties, amenity receptors, roads and public rights of way are so significant as to have an unacceptable impact.
290. In this context, I consider that the proposal would comply with BGCBC LDP Policy DM1 and CCBC LDP Policy CW2 which require development proposals to have no unacceptable impact on amenity.

Hydrology and Flood Risk

291. As the site is located in Zone A of the TAN 15 DAM map, there would be little or no risk of fluvial or coastal / tidal flooding.
292. In terms of surface water flooding, NRW's map shows the majority of the site at very low risk of flooding with localised areas of low-lying land and field drains being at low to high risk of surface water flooding. It is estimated that the surface water flow pathways flow in a west-southwest direction following the downward slope of the natural contours of the land.
293. As I understand it, the percentage increase in impermeable area is negligible and ordinarily would not require any surface water management. However, the Hydrology Assessment suggests that SuDS design could be incorporated into the final design, where required, to work in conjunction with the existing field drainage.
294. BGCBC's Drainage Authority has raised no objection to the development in this regard. Neither has BGCBC sought a condition in the event of planning permission being granted securing a SuDS scheme.

295. Having regard to the foregoing, I do not consider that the development would raise any flood risk concerns of itself or increase the risk of flooding elsewhere on the site or in the immediate surroundings. Consequently, a condition requiring the incorporation of a SuDS scheme to manage surface water would not be necessary.
296. The proposal would accord with BGCBC Policy SP10 which seeks to ensure that new development does not have an unacceptable adverse impact upon the water environment. It would also meet with the objectives of TAN 15 to ensure the risks of flooding are assessed and managed for any new development as it relates to sustainability principles. This matter is therefore neutral in the planning balance.

Traffic and Highway Safety

297. The construction phase of the development would inevitably result in additional traffic movements associated with deliveries and personnel travelling to and from the site. However, the submitted CTMP explains how the transport impact would be managed and minimised during the construction period.
298. In this context, and whilst it is evident that there would be some increase in demand for parking and storage facilities, together with the use of public roads, these would be short-term impacts only and there is sufficient capacity within the highway network to accommodate the demands.
299. I viewed the position of the proposed access from the B4257 at my site visit. I am satisfied that the proposed construction access would have sufficient forward visibility in both directions and would provide a suitable route for construction vehicles.
300. Once operational, the development would not require any permanent staff presence and only a very low number of personnel on site during regular maintenance visits on one or two occasions per annum. I am also satisfied that the infrequent use of the proposed access for future traffic demands associated with the operational phase would be acceptable.
301. I also note that no objections have been received from the Highway Authorities at CCBC or BGCBC.
302. Consequently, based on the evidence before me, the proposal would not give rise to any significant highway safety concerns either during or post construction. As such, it would accord with CCBC LDP Policy CW3 to have regard for the safe, effective, and efficient use of the transportation network, safely accommodate the scale and nature of traffic and provide appropriate levels of parking. It would also meet with the objectives of TAN 18 in this regard. This matter would be neutral in the planning balance.

Coal Mining

303. The application site falls entirely within a coal safeguarding area, with a small area within the north eastern corner of the site falling within an area identified in the BGCBC LDP where coal working will not be acceptable. In addition, the

north western corner of the site is also covered by a sandstone safeguarding area.

304. It is accepted that the development would have a lifespan of 30 years, and would therefore temporarily sterilise the reserves for the duration of its use as a solar park. I have no evidence before me to suggest that the mineral resource would be required within that time.
305. I consider that this temporary effect would not result in the permanent loss of the mineral resource. Consequently, the coal safeguarding area would not be compromised and the development would not prejudice future extraction as required by BGCBC LDP Policies SP12, M1 and DM19 and CCBC LDP Policies SP8 and MN2.

The Planning Balance

306. Decisions must be made in accordance with the Development Plan unless material considerations indicate otherwise. To this end, I have taken into account the relevant BGCBC and CCBC LDP Policies.
307. The requirement of the WBFG Act to make decisions “in accordance with the sustainable development principle” means acting in a manner which seeks to ensure that the needs of the present are met without compromising the ability of future generations to meet their own needs.
308. In addition to setting out well-being goals, the WBFG Act also states that in undertaking sustainable development public bodies should consider the five ways of working. In coming to my recommendation, I have had regard to the extent to which the proposal contributes to the well-being goals.
309. The weight to be given to energy development in determining planning applications is set out in paragraph 5.9.17 of PPW, which states that “*Planning authorities should give significant weight to the Welsh Government’s targets to increase renewable and low carbon energy generation, as part of our overall approach to tackling climate change and increasing energy security*”.
310. My attention has been drawn to the letter from the Minister for Natural Resources dated 15 March 2016, which reiterates the role of the planning system in helping to tackle climate change and the support that PPW gives to the transition to a low carbon society. The letter emphasises that planning decisions need to be taken in the wider public interest, in a rational way, informed by evidence, where issues are balanced against other factors. The letter also recognises that there are policies in place to protect against unacceptable adverse impacts.
311. I place meaningful and significant weight on the contribution the solar park would make to meeting the renewable energy targets outlined in PPW and the principle that the development would support the transition to a low carbon future in a changing climate. It would meet the well-being goals insofar as it would contribute to a more prosperous, resilient, healthier and globally responsible Wales.

312. I also acknowledge the neutral effects of the development in terms of the quality of agricultural land, glint and glare, ecology, trees and arboriculture, hydrology and flood risk, traffic and highway safety, and coal mining. These factors weigh in favour of the development insofar as they are not in conflict with several of the well-being goals outlined in PPW.
313. On the other hand, and for the reasons identified above, I have found that the development would have a significant adverse effect on the SLA and VILL and that it would considerably harm the character and distinctiveness of this rural location. The proposal would also cause material harm to users of the PRowS. Furthermore, it would have a significant adverse impact on the setting of the SAM in conflict with the thrust of national planning policy.
314. The proposal would thus be contrary to LDP Policies to protect the countryside for its own sake, protect the special qualities of the County Borough's landscapes and safeguard the setting of a heritage asset. To this end, it would conflict with the well-being goals in PPW to achieve a Wales of vibrant culture, cohesive communities and resilience.
315. I do not consider that the impacts could properly be addressed within the landscape. When taken in the round, the harm caused by the proposal to the character and appearance of the area and the setting of an important heritage asset would be substantial.
316. In considering these issues together, I do not consider that the benefits of the proposal, whilst providing supported renewable energy, would outweigh the harm to landscape character and the heritage asset.
317. I note the applicant's contention that the solar park would be in place for a period of 30 years only and would be fully reversible in terms of its visual impact on the landscape or the setting of any heritage asset. However, this time period represents a generation, during the lifetime of which, the harm to the character and appearance of the area and to the setting of a heritage asset would subsist.

Obligations and Conditions

Unilateral Undertaking

318. Regulation 122 of the Community Infrastructure Levy Regulations 2010 ("the CIL Regulations") stipulates that a planning obligation may only constitute a reason for granting planning permission for the development if the obligation is: (a) necessary to make the development acceptable, (b) directly related to the development and (c) fairly and reasonably related in scale and kind to the development.
319. An executed Unilateral Undertaking ("the UU") under Section 106 of the Town and Country Planning Act has been submitted which secures a planning obligation for the erection of a fence around the perimeter of the Tredegar Ironworks Cholera Cemetery.
320. The applicant argues that the mitigation via the planning obligation suggested by Cadw would comply with the statutory tests and case law in respect of the use of planning obligations. In respect of the necessity test, the case of *R (on the*

application of Tesco Stores Ltd) v Forest of Dean District Council [2015] EWCA Civ 800 is cited as establishing the principle that it is a matter of planning judgement as to whether a benefits package could help mitigate harm. My attention is also drawn to *R v Plymouth City Council, ex parte Plymouth & South Devon Co-operative Society Ltd [1993] JPL 1099* in which the Court of Appeal held that planning obligations which included the provision of an art gallery display, birdwatching hide and a contribution towards a creche were lawful and could be taken into account as material considerations.

321. It is also argued that the UU is directly related to the development given Cadw's view that it would mitigate against the impact of the development and that there is a clear geographical link between the fence and the proposed development. The applicant considers that this position is supported by *Tesco Stores Ltd v Secretary of State for the Environment and others [1995] 2 All ER 636* where it was held that the test as to whether a planning obligation was a material consideration was whether it had some connection with the proposed development which was not *de minimis*. The applicant also considers that the replacement of the fence has been recommended by Cadw as mitigation rather than the provision of some extraneous planning benefit that is completely unrelated to the development.
322. I have had regard to the case law cited in considering whether, in this case, the planning obligation in the UU would meet the tests outlined in the CIL Regulations. I accept the principle that it is a matter of planning judgement as to whether a benefits package could help mitigate harm.
323. In these particular circumstances, it is recognised by all parties that the existing fence around the SAM has an adverse visual impact on the heritage asset. I note the close geographical proximity of the SAM to the application site and the opinion of Cadw that the planning obligation would mitigate against the adverse impact of the development. However, in my view a replacement fence would be a benefit that would serve only to improve the setting of the asset itself, rather than alleviate the harm caused by the proposed development. Whilst it would undoubtedly be an aesthetic improvement through the removal of an inappropriate modern addition, it would not directly resolve the problems associated with the impact of the development on the sense of isolation and remoteness which forms a fundamental part of the setting of the SAM.
324. I can take into account off-site benefits of a proposed development provided that such benefits are related to or connected with that development in a real (as opposed to fanciful or remote) way. Whether there is such a relationship or connection in a particular case will be fact-specific. The future of the SAM is not dependent on the replacement of the fence. The whole purpose of the energy development is completely unrelated to the SAM or its setting. In such circumstances, despite their close physical proximity, I am not convinced by the arguments put to me that the two components are linked or that there is a connection that goes beyond *de minimis*.
325. Hence, I do not find that it has been demonstrated that the planning obligation is necessary to make the development acceptable or that it is directly related to the development. It would not therefore meet all three tests outlined in Regulation 122 of the CIL Regulations. Even if I am wrong on this point, I do not consider that the replacement fence would alleviate the harm caused by the development to the sense

of isolation and remoteness of the setting, as already discussed at paragraph 269 of this report.

326. The executed UU can be found at *Document Ref C PLGOB UU* in the event that Welsh Ministers should find to the contrary.
327. It is also important to note that Welsh Office Circular 13/97 '*Planning Obligations*' advises that if there is a choice between imposing conditions and entering into a planning obligation, the imposition of a condition is preferable. Thus, planning obligations should only be used where it is not possible to address unacceptable impacts through a planning condition. The applicant has also suggested a condition requiring the erection and maintenance of a replacement fence prior to energisation, which is detailed later in this report.

Planning Conditions

328. A set of suggested conditions in the event of planning permission being granted were submitted by the Councils in their LIR's (*Document Ref B BGCBC LIR and B CCBC LIR*) and were discussed by the main parties at the Hearing session. Additional conditions were also discussed at the Hearing which, in addition to those submitted in the LIRs, were included in the set of agreed conditions and reasons received thereafter. I have had regard to the suggested conditions and whether they meet the tests outlined in WG Circular 016/2014 '*The Use of Conditions for Development Management*'. The recommended set is now included as an Annex to this report.
329. In accordance with the provisions of Section 91 of the 1990 Act, the standard condition specifying a time limit for the commencement of development is recommended. A condition requiring the development to be completed in accordance with the approved plans would be necessary in the interests of clarity. I have removed the reference to the list of documents as I am not satisfied that their inclusion is sufficiently precise to make the condition enforceable. Any specific issues requiring further consideration are dealt with by condition elsewhere.
330. In light of the temporary nature of the development, a condition requiring the planning permission to endure for a period of 30 years is reasonable. Similarly, conditions requiring removal and remedial works in the event that the solar park ceases to export electricity to the grid for a continuous period of 12 months, together with a Decommissioning Plan, are necessary if the reason for the development can no longer be justified and the environmental effects of the decommissioning process are to be controlled.
331. In the interests of visual amenity and for protecting any buried archaeological remains, conditions requiring full details of the precise siting layout and design of the solar arrays, the invertors and substations, the telecoms tower, the mounted CCTV cameras, routes for underground cabling and a scheme for landscaping are entirely appropriate.
332. In order to protect heritage assets, conditions relating to historic environment mitigation and an archaeological watching brief are necessary.

333. To give due regard to ground stability issues, and as the CMRA concluded that there is a moderate to high risk from unknown mine workings and from known and unknown mine entries, a condition is recommended requiring an assessment of the stability of the land.
334. Conditions requiring details of the access, temporary compound, parking and turning areas are not only required in the interest of highway safety and visual amenity but also to protect habitat and any affected heritage assets.
335. Requirement relating to the submission and agreement of a CEMP, the construction details of the bridge crossing and a final plan for the Curlew Enhancement Area are necessary in the interests of biodiversity and to ensure that existing habitat and species are protected during construction and that the suggested mitigation measures are implemented.
336. At the Hearing session, the main parties agreed that a restriction on lighting would be appropriate to control light spillage and ensure that disturbance to wildlife and residents is minimised.
337. The additional condition suggested by the applicant in relation to securing replacement fencing around the SAM reads as follows:
- "Prior to energisation a replacement fence to the satisfaction of Cadw shall be erected at the Tredegar Ironworks Cholera Cemetery Scheduled Ancient Monument. Thereafter the fence shall be maintained for the duration of the life of the development.*
- Reason: To ensure that the setting of the Scheduled Ancient Monument is protected and mitigates the impact of the development."*
338. It would be *ultra vires* to require work to land over which the development has no control, or which requires the consent of a third party. Nevertheless, the 'Grampian' condition suggested is worded in a negative form providing that the development is not functional until the works have been completed on land that is not in the applicant's control i.e. the replacement fencing works around the SAM. The applicant asserts that there is a reasonable prospect that the fence could be erected within the time limit for development commencing as the determining authority (Cadw) and relevant parties (landowners and applicant) are all willing.
339. Having regard to paragraph 3.47 of Welsh Government Circular 016/2014 'The Use of Planning Conditions for Development Management', and by amending the wording of the condition in the interest of precision, I see no reason why, in theory, such a condition could not be imposed in the event that Welsh Ministers are minded to grant planning permission for the development. However, as I have found that the replacement fence around the SAM would not make the development acceptable, such a condition would be unreasonable and unnecessary.
340. Even so, if Welsh Ministers are minded to grant planning permission with such a condition, the following is recommended:
- "Prior to energisation, a replacement fence shall be erected at the Tredegar Ironworks Cholera Cemetery Scheduled Ancient Monument in accordance with details which have first been submitted to and approved by the Local Planning*

Authority. Thereafter the fence shall be maintained by the applicant (or successor) for the duration of the life of the development.

Summary of Conclusions

341. My overall conclusion is that the proposed development would have a significant harmful effect on the character and appearance of the area and on a designated heritage asset that would not be outweighed by the benefits of the proposed renewable energy development. In this context, I find that the development would not satisfactorily reflect the principles of sustainable development promoted through PPW and the WCFG Act, nor would it comply overall with the Development Plans.

Recommendation

342. I recommend that planning permission be refused. However, if Welsh Ministers are minded to grant planning permission, Annex A lists the conditions that I consider should be attached to any permission granted. A copy of the executed UU can also be found at *Document Ref C PLGOB UU* in the event that Welsh Ministers consider it to be directly related and necessary to make the development acceptable.

Melissa Hall

Inspector

Documents

WAUN-006	Planning Statement
WAUN-007	Design and Access Statement
WAUN-008	Landscape & Visual Appraisal
WAUN-009	Heritage Impact Assessment
WAUN-010	Agricultural Land Classification Report
WAUN-011	Coal Mining Risk Assessment and Updated Mineral Assessment
WAUN-012	Construction Traffic Management Plan
WAUN-013	Ecological Appraisal
WAUN-014A	Glint and Glare Assessment
WAUN-014B	Glint and Glare Assessment
WAUN-015	Hydrological Assessment
WAUN-016	Tree Survey and Arboricultural Impact Assessment
1233-A	Heritage Impact Assessment Addendum
1233-B	Heritage Impact Assessment Addendum Sheet
1233-C	Addendum to Heritage Impact Assessment Summary Note
JPW0888 HD LVA addendum v0	Landscape and Visual Appraisal Addendum

Plans

Drawing reference: JPW0888-DNS- 005	DNS Site Application Plan
Drawing reference: JPW0622-WAU-002 Rev I	Proposed Site Layout Plan
Drawing reference: 17/611/01	Tree Location and Constraints Plan
Drawing reference: 17/611/02 Rev A	Tree Protection Plan
Drawing reference: JNY8819-01	Junction Layout and Visibility Splays

Annex A

Recommended conditions in the event of planning permission being granted:

1. The development to which this permission relates must be begun not later than the expiration of 5 years beginning with the date on which the permission is granted.
2. The development shall be carried out in accordance with the details of the following approved plans and documents, except where amended by conditions attached to this planning permission:
 - i. Drawing reference: JPW0888-DNS-005 DNS Site Application Plan;
 - ii. Drawing reference: JPW0622-WAU-002 Rev1 Proposed Site Layout Plan;
 - iii. Drawing reference: 17/611/01 Tree Location and Constraints Plan;
 - iv. Drawing reference: 17/611/02 Rev A Tree Protection Plan;
 - v. Drawing reference: JNY8819-01 Junction Layout and Visibility Splays.
3. This planning permission shall endure for a period of 30 years from the date when electricity is first exported from the solar farm to the electricity grid ('First Export Date'). Written notification of the First Export Date shall be provided by the developer to the Local Planning Authority no later than 1 calendar month after that event.
4. If the solar park hereby permitted ceases to export electricity to the grid for a continuous period of 12 months the developer shall notify the Local Planning Authority in writing. A scheme shall be submitted to the Local Planning Authority for written approval within 3 months of the end of the 12-month period, for the repair or removal of all infrastructure. The scheme shall include, as relevant, a programme of remedial works where repairs to infrastructure is required. Where removal is necessary the scheme shall include a programme for removal of all infrastructure approved under this permission, including details of site restoration measures following the removal of infrastructure. The scheme shall thereafter be implemented in accordance with the approved details and timetable.
5. Not later than 12 months prior to the end of this permission, a Decommissioning Management Plan shall be submitted for the written approval of the Local Planning Authority. The scheme shall make provision for, inter alia, the removal of all infrastructure approved under this permission and the restoration of the site. The approved scheme shall be fully implemented within 6 months of the expiry of this planning permission, unless otherwise agreed in writing by the Local Planning Authority.
6. Prior to the commencement of any works associated with this development full details of the precise siting, layout and design of the solar arrays, including cross-sections and details of nonreflective finishing materials, shall be submitted to and approved in writing by the Local Planning Authority. The scheme shall be implemented in accordance with the approved details.

7. Notwithstanding the details shown on the plans hereby approved, prior to the commencement of development full details of the proposed invertors, district network operator substation and client substation shall be submitted to and approved in writing by the Local Planning Authority. The scheme shall be implemented in accordance with the approved details.
8. Notwithstanding the details shown on the plans hereby approved, prior to the commencement of development full details of the proposed lattice telecoms tower shall be submitted to and approved in writing by the Local Planning Authority. The scheme shall be implemented in accordance with the approved details.
9. Notwithstanding the details shown on the plans hereby approved, prior to the commencement of development full details of the mounted CCTV cameras and associated poles, including the precise siting thereof, shall be submitted to and approved in writing by the Local Planning Authority. The scheme shall be implemented in accordance with the approved details.
10. All electrical cabling between the solar park and the grid connection shall be installed underground. Prior to the commencement of any works associated with this part of the development, details of the routes of underground cabling shall be submitted to and approved in writing by the Local Planning Authority.
11. No development shall take place until a written scheme of historic environment mitigation has been submitted to and approved in writing by the Local Planning Authority. Thereafter, the programme of work will be carried out in accordance with the requirements and standards of the written scheme.
12. No development or site clearance shall commence until the Local Planning Authority has been informed in writing of the name of a professionally qualified archaeologist who is to be present during the undertaking of any excavations in the development area so that a watching brief can be conducted. No work shall commence until the Local Planning Authority has confirmed in writing that the proposed archaeologist is suitable. A copy of the watching brief report shall be submitted to the Local Planning Authority within two months of the archaeological fieldwork being completed.
13. No development shall take place until an assessment of the stability of the land (and the surrounding area) has been carried out in accordance with a methodology which must first be submitted to and approved in writing by the Local Planning Authority. The results of such an assessment including any intrusive site investigation works identified as being necessary shall be submitted to the Local Planning Authority before works commence on site. If any land instability issues are found during the site investigation, a further report specifying the measures to be taken to remediate the site to render it suitable for the development hereby approved shall also be submitted to and approved in writing by the Local Planning Authority before works commence on site. The development shall not be brought into use until all the measures identified as necessary in any reports that are approved by the Local Planning Authority are implemented and the Local Planning Authority is provided with a validation

report, signed by a suitably qualified person that confirms that such measures and/or works have been fully implemented.

14. No development shall take place until there has been submitted to and approved in writing by the Local Planning Authority a scheme of landscaping. The submitted scheme shall include:-

- i. Indications of all existing trees (including spread and species) and hedgerows on the land clearly identifying those to be lost or retained;
- ii. Measures for the protection of retained trees or hedges throughout the course of development;
- iii. Details of ground preparation, planting plans, number and details of species;
- iv. Maintenance details for a minimum period of 5 years; and
- v. A phased timescale of implementation.

15. All planting or seeding comprised in the approved details of landscaping shall be carried out in the first planting and seeding season following the completion of the development or any alternative timescale that may be approved in writing by the Local Planning Authority before works commence on site. Any trees, shrubs or plants which within a period of 5 years from implementation of the planting scheme die, are removed or become seriously damaged or diseased, shall be replaced by one of the same species and size in the next available planting season.

16. No development shall take place (including ground works or vegetation clearance) until a Construction Environmental Management Plan (CEMP) has been submitted to and approved in writing by the Local Planning Authority. The CEMP shall include details of the following:-

- i. A risk assessment of any potentially damaging construction activities;
- ii. Identification of "biodiversity protection zones";
- iii. Practical measures (both physical measures and sensitive working practices) to avoid or reduce impacts during construction;
- iv. The location and timing of sensitive works to avoid harm to biodiversity features;
- v. The times during construction when specialist ecologist need to be present on site to oversee works;
- vi. Responsible persons and lines of communication;
- vii. The role and responsibilities on site of an Ecological Clerk of Works or similarly competent person; and
- viii. The use of protective fences, exclusion barriers and warning signs.

The CEMP shall be strictly implemented and adhered to throughout the construction period in full accordance with the approved details.

17. Prior to its construction, details of the access road for the development shall be submitted to and agreed in writing with the local planning authority. Those details shall include materials and the method of drainage. The access road shall be constructed in accordance with the agreed details prior to the commencement of any other part of the development.

18. Prior to the first use of the access to the development hereby approved, the first 10 metres shall be surfaced in accordance with the details approved under Condition 17.
19. Prior to their construction, details of the temporary compound, car parking, turning area and wheel washing facilities shall be submitted to and agreed in writing with the local planning authority. The details shall include materials, structures, boundary treatment, means of drainage, surfacing, plant and machinery, lighting, and any storage including liquids. The compound, car parking and turning area shall be constructed in accordance with the agreed details.
20. Prior to the construction of the temporary compound, car parking and turning area, details of the mitigation of the impact of those facilities on the existing habitat and species, and method and timing of restoration following their removal from site shall be submitted to and agreed in writing with the local planning authority. The agreed details shall be complied with and the site restored in accordance with the agreed details.
21. Prior to its construction details of the bridge crossing the Nant Tysswg shall be submitted to and approved in writing by the local planning authority. The development shall be carried out in accordance with the agreed scheme.
22. Notwithstanding any details indicated within the Ecological Mitigation Plan, no development shall be carried out until a final plan for a Curlew Habitat Enhancement Area has been submitted to and approved in writing by the local planning authority. The plan must include details of future monitoring and management. The Curlew Habitat Enhancement Area will be implemented in accordance with the approved details.
23. Prior to the commencement of development, details of any temporary lighting for the construction period shall be submitted to and approved in writing by the Local Planning Authority. The temporary lighting shall be installed in accordance with the approved details for the duration of the construction period only. With the exception of the temporary lighting, no floodlights or any other form of external lighting shall be installed at the site.



APPENDIX 8 – WELSH MINISTER DECISION LETTER – TY CROES

Julie James AS/MS
Y Gweinidog Newid Hinsawdd
Minister for Climate Change



Llywodraeth Cymru
Welsh Government

Ein cyf/Our ref qA1441786

Mr Ben Lewis
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E-mail: ben.lewis@renplan.co.uk

12 August 2021

Dear Mr Lewis

**TOWN AND COUNTRY PLANNING ACT 1990 – SECTION 62D.
THE DEVELOPMENTS OF NATIONAL SIGNIFICANCE (WALES) REGULATIONS 2016.
APPLICATION BY SPRING DEV 02 LTD FOR INSTALLATION OF A GROUND
MOUNTED PHOTO VOLTAIC (PV) SOLAR FARM DEVELOPMENT, INCLUDING
PROPOSED CABLE ROUTE. LAND TO THE EAST OF THE A48 (COORDINATES
E257386, N 209389) AND LAND TO THE SOUTH WEST OF TYCROES (COORDINATES
E259219, N209551; & E259904, N209590), CARMARTHENSHIRE.
APPLICATION REF: DNS/3227364**

1. Consideration has been given to the report of the Planning Inspector who dealt with the Developments of National Significance planning application.
2. In accordance with section 62D of the Town and Country Planning Act 1990 and Regulation 3 of the Developments of National Significance (Specified Criteria and Prescribed Secondary Consents) (Wales) Regulations 2016, the application was made to the Welsh Ministers for determination.
3. In exercising functions, as part of carrying out Sustainable Development in accordance with the Well-being of Future Generations (Wales) Act 2015 ("the FG Act 2015"), section 2 of the Planning (Wales) Act 2015 requires the Welsh Ministers, as a public body, to ensure the development and use of land contributes towards improving the economic, social, environmental and cultural well-being of Wales. In order to act in this manner, the Welsh Ministers have taken into account the ways of working set out in section 4 of 'SPSF1: Core Guidance, Shared Purpose: Shared Future- Statutory Guidance on the

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Rydym yn croesawu derbyn gohebiaeth yn Gymraeg. Byddwn yn ateb gohebiaeth a dderbynnir yn Gymraeg yn Gymraeg ac ni fydd gohebu yn Gymraeg yn arwain at oedi.

We welcome receiving correspondence in Welsh. Any correspondence received in Welsh will be answered in Welsh and corresponding in Welsh will not lead to a delay in responding.

FG Act 2015' by dealing with the planning application by way of written representations in accordance with Part 6 of The Developments of National Significance (Wales) Regulations 2016.

4. The Inspector made a site visit on 25 November 2020. The Inspector recommends that planning permission be granted. A copy of the Inspector's report ("IR") is enclosed. All references to paragraph numbers, unless otherwise stated, relate to the IR.

Main Issues

5. The Inspector notes there is agreement between the parties on a number of issues and the main consideration is the effect of the development on the character of the landscape, visual impact, and residential amenity – with particular reference to glint and glare. (IR 177)
6. The Inspector considers the main issue to be whether any harmful impacts of the proposed development would outweigh the benefits of the scheme, including the production of electricity from a renewable source. (IR 178)

Appraisal

Policy

7. The Inspector sets out the statutory requirement that, if regard is to be had to the development plan for the purpose of any determination to be made under the planning Acts the determination must be made in accordance with the plan unless material considerations indicate otherwise. (IR 180)
8. The Inspector recognises that Future Wales ("FW") is the highest tier of the development plan and notes the relevant policies in the Carmarthenshire Local Development Plan ("LDP"). (IR 180-183)
9. The strong national policy support in both FW and Planning Policy Wales ("PPW") for the development of renewable energy sources is noted by the Inspector. Whilst the Inspector attaches significant weight to the contribution the development would make to producing energy from a renewable source, the Inspector states this must be balanced against the potential environmental impacts of the proposal. (IR 184-185)

Landscape Character

10. The Inspector recognises the importance of landscape in terms of contributing to a sense of place and makes reference to PPW in this context. (IR 186-187)
11. The application site is identified as within the Gwendraeth Vales National Landscape Area, an area of rolling hills, ridges and minor valleys. (IR 188 -189)
12. The Inspector's site visit confirmed that the application site lies on gentle sloping ground amid undulating agricultural land. Well-established boundary vegetation runs along the site boundaries, consisting of native hedgerow and tree species. (IR 189 - 191)
13. Within the 5km study area identified in the applicant's Landscape and Visual Impact Assessment ("LVIA") there are two further National Landscape Character Areas. These landscapes are described in the LVIA and the Inspector notes the Carmarthenshire Solar PV Development: Landscape Sensitivity and Capacity Study describes the application sites as having a similar landscape character, "...rolling hills and small

valleys with a strong network of field boundary hedgerows and some small patches of woodland....". (IR 192-193)

14. The Inspector notes there are four Special Landscape Areas within 5km of the application areas. (IR 194)
15. The Inspector considers the impact of the proposed development on landscape character in IR 195-202. The proposed development would cover three distinct parcels of land, known as Areas 1, 2 and 3. The impact on each of these application areas is addressed. The Inspector considers the proposal, alongside the existing solar array to the southwest of Area 1, would alter the rural landscape character of the immediate area. However, the impact would be partially mitigated as existing hedgerows between fields would be maintained and allowed to grow. Also, surrounding woodlands would help to break up and screen the development. The Inspector notes that the retention of hedgerows and new planting would ensure the field pattern, which is one of the main characteristics of the area, was retained.
16. On this issue, the Inspector concludes the proposal, combined with the existing array, would result in a limited adverse impact on the local landscape and the character of the rural fields in which it would be located. The Inspector considers the proposal would conflict with relevant LDP policies, however, the conflict would not amount to an unacceptable adverse impact in terms of FW Policy 18(1). (IR 203)

Visual Amenity

17. In terms of visual impact, the Inspector has assessed the effect of the development when seen from a number of public viewpoints and from ground level outside a number of residential properties in the area (IR 204-215). The assessment takes account of the existing Clawdd Ddu Solar Farm. (IR 210). The assessments also take account of any cumulative effects from other operational solar schemes within 5km of the application site (IR 215).
18. In Areas 1 and 2, the Inspector is satisfied close proximity (0-200m) views of the sites would largely be screened by trees and views from properties and roads in and around Tycroes would be limited. For users of the public rights of way, which crosses Area 1, the proposed development would appear overbearing, a major adverse impact on visual amenity. However, the Inspector notes users of the footway would be moving so any impact would be limited and temporary. (IR 205-206)
19. Medium distance (200m – 1km) views of Areas 1 and 2 would be from scattered farmsteads and residential properties. However, the Inspector is satisfied these views would be restricted due to vegetation, other developments and local topography. For footpath users, intervening vegetation means any views of the solar panels would be intermittent and not likely to be a dominant feature. (IR 207-208)
20. In terms of long distance views (over 1km) from Areas 1 and 2, the proposed development would be effectively screened from Ammanford and Pontarddulais, however, the site would be visible from scattered residential properties and open access land, particularly from the south east. (IR 209)
21. The Inspector considers, due to topography, it is not possible to screen the development from long-distance views from the south east. In these views, the application sites would be seen alongside the existing Clawdd Ddu solar farm. Whilst the visual receptors are sensitive, the Inspector agrees with the applicant the combined sites would not dominate the views. (IR 210)

22. From Area 3, close-proximity views would be largely screened by vegetation. A residential property, identified as an involved property (properties owned by landowners involved in the development), "Ty Isaf", would have views of the development from its first floor. The Inspector considers this equates to a medium impact and a moderate adverse effect on this receptor. (IR 211)
23. Medium distance views of Area 3 would be limited due to existing landscaping. The Inspector considers the magnitude of impact to be medium-low and the level of effect to be minor adverse. (IR 212)
24. The Inspector is satisfied any long distance views from Area 3 would be very restricted. (IR 213)
25. The proposed development would be enclosed by a 2.4m high deer fence and monitored by CCTV. The Inspector is satisfied, given existing vegetation and proposed additional planting/management, any impact on views from outside the appeal site would be very limited. (IR 214)
26. In terms of potential cumulative effects from other solar farms, the Inspector is satisfied the proposal would not contribute to any harmful cumulative impacts on landscape character or visual impact. (IR 215-216)
27. On the issue of visual amenity, the Inspector is satisfied the adverse visual impacts will be limited and localised, and largely confined to views from the footpath alongside the appeal site. After mitigation, the development would only have a significant effect when seen from a limited number of viewpoints and these effects would be typically minor and only moderate to major in a few locations. The Inspector is also satisfied, given the proposed design and mitigation measures, the development would have a limited adverse impact on views into and out of the Llŵchwr Valley SLA. (IR 217-218)
28. The Inspector concludes, whilst the proposed scheme would have a detrimental visual impact on the rural character of the local area, there would be little effect on the overall tranquil, open and expansive aspects of the character and appearance of the wider area. Although the proposals would conflict with relevant LDP Policies, the conflict would not amount to an unacceptable adverse impact for the purposes of FW Policy 18(1). (IR 219)

Glint and Glare

29. The applicant's Solar Glint and Glare Study assessed 20 dwelling receptors, which could potentially experience a solar reflection from the proposed development. The Inspector notes the study indicates 10 receptors could experience a negative impact, however, given the existing screening and the proposed "managed growth" of the hedgerows, the maximum impact is anticipated to be low. (IR 220 - 221)
30. Regarding road users on the A483, only two locations do not benefit from screening. However, as the reflection would not originate in front of the driver only a low impact is anticipated. In terms of road users on the A48 no impact is anticipated. (IR 222-223)
31. Whilst the Inspector does not disagree with the conclusions of the applicant's study, the Inspector notes dwellings located on the higher ground to the southeast of Area 1 have not been assessed. However, having considered the intervening distance, duration and angle of impact, the Inspector considers any glint or glare observed is likely to be

negligible and would not cause unacceptable harm to local residents or road users. (IR 224-225)

Other residential amenity impacts

32. The Inspector considers other residential impacts in IR 226-228 and does not consider the dwellings in the surrounding area would experience such an adverse impact from the proposed development that would be significantly detrimental to living conditions. Regarding these matters the scheme would accord with development plan policies.

Biodiversity

33. The need to protect and enhance biodiversity in new development proposals, and the support for this principle in FW, national and local planning policy is recognised by the Inspector (IR 229).
34. The applicant's Phase 1 Habitat Survey states all three application areas comprise improved grassland managed for its agricultural value and of negligible value for biodiversity. However, the boundaries comprise species-rich managed hedgerows with diverse native woody scrubs. Hedgerows are listed under section 7 of the Environment (Wales) Act 2016 and are a Local Biodiversity Action Plan priority habitat. The Inspector also notes Area 1 contains running water, a small stream with vegetated banks, which is of site value for biodiversity, and Area 3 borders semi-natural broadleaved woodland which is also of local value for biodiversity. (IR 230)
35. The Inspector states the cable route would pass through habitats which would qualify as a Local Biodiversity Action Plan Priority Habitat and a Habitat of Principal Importance. (IR 231)
36. The Inspector notes analysis of the biological records indicates a number of notable species are present within 1km of the application areas. However, it is only likely that the boundary features would be used for foraging by bats and Dormice, nesting birds, hedgehogs, reptiles and badger. Otters would also use the River Gwili for feeding. (IR 232)
37. There are ten Sites of Special Scientific Interest ("SSSI") within 4km of the application areas and the Caeau Mynydd Mawr Special Area of Conservation ("SAC") is approximately 1.3km to the north of the application site, at its closest point. The Inspector notes the SAC was designated for the presence of Marsh Fritillary butterfly. Habitats in all three application areas would not support suitable plant communities for the Marsh Fritillary, although habitats to the immediate south of Area 2 comprise damp, Molina grasslands with potential. (IR 233)
38. The Inspector is satisfied the solar array layout would avoid impacts on high value habitats, with the panels located primarily on areas of semi-improved grassland. Therefore, the loss of this species poor habitat would not be significant although 3m of hedgerow would need to be removed and replanted in order to create an access into Area 2. (IR 234)
39. The Landscape and Ecology Management Plan ("LEMP"), which would be secured by condition, describes how the application areas would be managed to ensure hedgerows are maintained, including additional planting, and addresses the management of grassland. (IR 235)

40. The LEMP indicates a bat and breeding box scheme would be introduced to provide additional habitats around the boundaries of the application site. Badger gates would be installed to facilitate continued access and Devil's-Bit Scabious plugs (a foodplant for the Marsh Fritillary butterfly) would be planted following completion of construction. (IR 236)
41. During construction, operations buffers would be in place to ensure the woodland and species rich hedgerows are not damaged. (IR 237)
42. The Inspector notes a suitable planning condition can secure decommissioning of the site, including a formal decommissioning strategy for biodiversity. (IR 238)
43. The Inspector considers the measures set out by the applicant would protect and enhance local biodiversity on the application sites. The Inspector notes, following consultation with Natural Resources Wales ("NRW") the applicant revised its approach to the laying of cables and has adopted Horizontal Directional Drilling ("HDD"). The Inspector notes NRW has confirmed this approach is acceptable. (IR 239-240)
44. The Inspector is satisfied, based on the implementation of the proposed mitigation measures, to be secured by condition, there would be no significant harmful impacts on ecological features. The Inspector is also satisfied the proposed development would provide biodiversity enhancement measures to provide a net benefit for biodiversity. Therefore, in relation to this issue, the proposal accords with FW, Technical Advice Note 5: Nature Conservation and Planning, and relevant LDP policies. (IR 241)
45. I note the Inspector has considered the requirements of the Conservation of Habitats and Species Regulations 2017 in IR 278-292.

Heritage Assets

46. The Inspector sets out the relevant statutory duty and policy requirements, regarding listed buildings and Scheduled Ancient Monuments, respectively. (IR 242-243)
47. Whilst none of the heritage assets identified in Cadw's consultation response would be physically altered by the development proposal, the Inspector notes it is the impact on setting which requires consideration. (IR 244)
48. The Inspector finds the proposed development would not significantly harm the setting or significance of the identified heritage assets, it complies with FW and relevant LDP policies. This finding is supported by Cadw. (IR 245 - 247)

Transport and Access

49. The majority of vehicle movements connected with the proposal are associated with the construction period. The Inspector has considered the transport and access proposals for all the application sites, noting a Construction Traffic Management Plan ("CTMP") would be secured by condition, and concludes the proposal would not give rise to any significant highway safety concerns either during or post construction. The Inspector is satisfied the proposed transport and access arrangements comply with FW, Technical Advice Note 18: Transport and the relevant LDP Policy TR3 "Highways in Developments – Design Considerations". (IR 248 - 255)

Flood Risk

50. The application areas are located in Zone A of Technical Advice Note 15 – Development and Flood Risk (“TAN 15”), sites at little or no risk of fluvial or coastal/tidal flooding. (IR 256)
51. The Inspector does not consider the development would raise any flood concerns in itself or increase the risk of flooding elsewhere on the site or in the immediate surroundings. The Inspector is satisfied the proposal accords with relevant development plan policies and TAN 15. (IR 256 – 260)

Land Use

52. The Welsh Government’s Land, Nature and Forestry Division has confirmed that a detailed Agricultural Land Use Classification survey is not required to support the application as the site is unlikely to include Best and Most Versatile (“BMV”) land. Therefore, the proposal would comply with LDP Policy SP14. (IR 261-262)

Coal Mining

53. The Inspector notes the Coal Authority identifies the site as being located within a Development High Risk Area. It is satisfied with the proposal, subject to a number of recommended planning conditions. (IR 263-264)

Benefits

54. The Inspector notes the Welsh Government, in PPW and its Policy Statement, “Local ownership of energy generation in Wales – benefitting Wales today and for future generations” sets out an expectation that all new development projects in Wales include an element of local ownership. Also, PPW supports the principle of securing financial contributions for host communities through voluntary arrangements. However, the Inspector notes that such benefits or contributions are not planning considerations (IR 265), this is confirmed in the supporting text to FW Policy 18.
55. The Inspector considers, whilst there would be no direct financial support or local ownership proposed, there would be some benefits to the landowner including an element of farm diversification and some economic benefit during the commissioning and construction phase. (IR 267)
56. The Inspector considers the proposed development would have wider community benefits in terms of increasing sustainability and energy resilience. Also, the Inspector notes the proposal would contribute to national and international objectives to increase renewable energy production, which also benefits reliability of supply. The Inspector is satisfied the development delivers positive social, environmental, cultural and economic benefits. (IR 268-270)

Other Matters

57. The Inspector is satisfied a planning condition is sufficient to secure appropriate decommissioning of the site and a planning obligation is not required. (IR 271)

Planning Balance and Preliminary Conclusion

58. The Inspector has considered the concerns expressed by objectors and these have been weighed in the planning balance. (IR 272)
59. Substantial weight is placed by the Inspector on the benefits of the proposal, noting FW and PPW support the development of renewable energy. The Inspector considers the scheme would meet the wellbeing goals of the FG Act 2015 as it would assist towards building a stronger, greener economy, facilitate decarbonisation and make cities, towns and villages even better places in which to live and work. (IR 273)
60. With appropriate mitigation, the Inspector considers any impacts on the living conditions of nearby residential occupiers, biodiversity and land stability are neutral in the overall balance. No other matters considered by the Inspector weigh against the proposal. (IR 274)
61. The Inspector notes FW Policies 17 and 18 set out the Welsh Government's approach to promoting increased production of renewable energy in a way which seeks to strike an appropriate balance with the protection of other relevant interests. The Inspector concludes the proposal complies with the development plan when considered as a whole. (IR 275)

Conditions/Obligations

62. I am satisfied, subject to minor amendments, the conditions recommended by the Inspector meet the relevant tests in Welsh Government Circular 016/2014: The Use of Planning Conditions for Development Management. I have included a requirement for the decommissioning scheme to include proposals for effective recycling and disposal of the decommissioned elements. (IR 276-277)

Habitats Regulations Assessment (IR 278 - 292)

63. The Inspector has considered the requirements of the Conservation of Habitats and Species Regulations 2017 ("Habitats Regulations") and identifies a likely significant effect on the Caeau Mynydd Mawr SAC, which the Inspector considers can only be overcome by mitigation measures. Therefore, in accordance with Regulation 63 of the Habitats Regulations the Inspector has carried out an Appropriate Assessment ("AA").
64. The Inspector notes that NRW, based on the applicant's updated Landscape and Ecology Management Plan (February 2021) and the draft Habitats Regulations Assessment ("HRA"), is in agreement with the conclusion that a Likely Significant Effect, alone or in combination, on Caeau Mynydd Mawr SAC can be screened out.
65. The AA acknowledges the applicant intends to use a number of mitigation methods, in particular Horizontal Directional Drilling, to avoid any harm to the SAC. The Inspector is satisfied the use of planning conditions to control these factors would ensure the adverse effect on habitats can be sufficiently reduced so the integrity of the site is not adversely affected by the proposal.
66. The Inspector concludes it is beyond reasonable scientific doubt that this development and associated construction activities, either alone or in combination with other projects, would not have an adverse effect on the integrity of a European Site, namely the Caeau Mynydd Mawr SAC.

67. The Inspector states this conclusion is predicated on the circumstances of the case based on the site's unique context and situation, and on the basis of securing those elements of the identified mitigation and avoidance measures the Inspector found to be reasonable and necessary.

Recommendation

68. The Inspector recommends planning permission be granted, subject to conditions.

Conclusion and Decision

69. I agree with the Inspector's appraisal of the main considerations, the conclusions of the IR and the reasoning behind them, and I accept the recommendation. Therefore, I hereby grant planning permission for DNS/3227364, subject to the conditions in the Annex to this decision letter.

70. In reaching this decision I note the duty to carry out sustainable development under section 2 of the Planning (Wales) Act 2015 and I consider the decision accords with the sustainable development principle set out in the FG Act 2015. In accordance with section 3(2) of the FG Act 2015 and the well-being objectives of the Welsh Ministers, the decision will help "Build a stronger, greener economy as we make maximum progress towards decarbonisation".

71. I accept the findings and conclusions of the AA, set out in IR 278-292. I am content the Welsh Ministers' duties under the Habitats Directive have been discharged and Regulation 63(5) of the Conservation of Habitats and Species Regulations 2017 has been satisfied.

72. A copy of this letter has been sent to Carmarthenshire County Council.

Yours sincerely



Julie James AS/MS
Y Gweinidog Newid Hinsawdd
Minister for Climate Change

ANNEX - CONDITIONS

CONDITIONS ATTACHED TO THE WELSH MINISTERS' DECISION TO GRANT PLANNING PERMISSION FOR DNS/3227364

1. The development hereby permitted shall be commenced before the expiration of five years from the date of this permission.

Reason – Required to be imposed pursuant to Section 91 of the Town and Country Planning Act 1990.

2. The development shall be carried out in accordance with the details of the following approved plans and documents, except where amended by conditions attached to this planning permission:

- Site Location Plan ref. SPLP-D02-PL
- Site Plan Existing 1 of 3 ref. SP-EP1.D02-PL
- Site Plan Existing 2 of 3 ref. SP-EP2.D02-PL
- Site Plan Existing 3 of 3 ref. SP-EP3.D02-PL
- Site Plan Proposed 1 of 3 ref. SP-SL1-D02-PL
- Site Plan Proposed 2 of 3 ref. SP-SL2-D02-PL
- Site Plan Proposed 3 of 3 ref. SP-SL3-D02-PL R06
- Site Plan Gas pipeline layout ref. SP-PI-D02-PL R06
- Elevations Plan ref. SP-ELD2-PL
- Transformer Housing Plan ref. SP-IND2-PL
- Substation Plan ref. SP-SSD2-PL
- CCTV Plan ref. SP-CTD2-PL
- Site Clearances Plan ref. SP-SCD2-PL
- Fence Plan ref. SP-SFD2-PL
- Landscape and Ecology Management Plan (LEMP) Version 4; produced by Western Ecology
- Transport Statement; produced by Acstro
- Coal Mining Risk Assessment; produced by Yellow Sub Geo
- Coal Mining Risk Assessment Technical Note; produced by Yellow Sub Geo
- Construction and Environmental Management Plan (CEMP); produced by Spring
- Arboricultural Impact Assessment & Method Statement [AIA&MS] Report + Appendices; prepared by Woodland and Countryside Management Ltd
- AIA&MS Supplementary Report - Underground Cables + Appendices; prepared by Woodland and Countryside Management Ltd.

Reason – Required to be imposed pursuant to Section 91 of the Town and Country Planning Act 1990.

3. This planning permission shall endure for a period of 40 years from the date when electricity is first exported from the solar farm to the electricity grid ('First Export Date'). Written notification of the completion of construction operations and First Export Date shall be provided by the developer to the Local Planning Authority no later than 1 calendar month after that event.

Reason – Permission is sought for a limited time period.

4. No later than 12 months before the expiry of the permission the following schemes shall be submitted to and approved in writing by the Local Planning Authority:
 - i. a decommissioning scheme for the removal of all surface elements of the photovoltaic solar farm and associated development and any foundations or anchor systems to a depth of 1m below ground level;
 - ii, proposals for the effective recycling and disposal of decommissioned elements;
 - iii. a restoration and aftercare scheme; and
 - iv. ecological surveys to inform the decommissioning.

The approved decommissioning/restoration/aftercare scheme shall be fully implemented within 12 months of the expiry date of the permission.

Reason – To ensure that, upon the expiry of the lifespan of the development, the development is removed, and the land restored to its former condition. (LDP Policy GP1).

5. If the solar farm fails to produce electricity for supply to the grid for a continuous period of 6 months a scheme shall be submitted to the Local Planning Authority for its written approval within 3 months of the end of that 6 month period for the repair or removal of the solar farm.

Where repairs or replacements of more than 500 panels in a 90 day period are to be undertaken, the scheme shall include a proposed programme/timetable of remedial or replacement works to be agreed in writing with the Local Planning Authority. Where removal of the solar farm is required the scheme shall include the same details required under the decommissioning condition 4 of this permission and a timetable for decommissioning. The relevant scheme shall thereafter be implemented in accordance with the approved details and timetable.

Reason – To ensure that, upon the expiry of the lifespan of the development, the development is removed, and the land restored to its former condition. (LDP Policy GP1).

6. No development shall take place until a detailed layout plan of the site has been submitted to and approved in writing by the Local Planning Authority. This shall include the precise location of the arrays, transformer buildings, sub-station, fencing, CCTV, lighting and the landscape and ecological mitigation. The development shall only be carried out in accordance with the approved details.

Reason – In the interests of visual amenity and in compliance with LDP Policy GP1.

7. No development shall take place until a scheme has been submitted to and approved in writing by the Local Planning Authority which specifies the provisions to be made for the control of any noise emanating from any electrical equipment to be installed, such that the rating level (as defined in BS4142) will not exceed the existing background noise level at the nearest non financially involved residential property lawfully existing at the time of this planning permission. The development shall only be operated in accordance with the approved scheme.

Reason – To protect the amenities of third parties and in compliance with LDP Policy GP1.

8. No development hereby approved shall be commenced until a Construction Traffic Management Plan (“CTMP”) has been submitted to and approved in writing by the Local Planning Authority. The CTMP shall provide details of the measures set out in Section 5 of the Transport Statement. Thereafter, the development shall be implemented in accordance with the approved CTMP.

Reason – In the interests of highway safety and in compliance with LDP Policy TR3.

9. There shall at no time be any means of construction vehicular access to the development from the road numbered C2134.

Reason – In the interests of highway safety and in compliance with LDP Policy TR3

10. No development or site clearance shall take place until a Landscape Design Scheme (“LDS”) has been submitted to and approved in writing by the Local Planning Authority.

The LDS shall specifically provide plant stock and planting specifications for additional new native species tree planting to the immediate inside of existing hedge lines in locations where there are:

- no existing hedge line trees; and
- there would be no potential shading of PV arrays by expected 40 year future canopy growth.

The LDS shall include sufficient information to enable effective compliance monitoring or enforcement to include:

i. Plant specification:

- Plant species, varieties and cultivars
- Planting stock specification (stock size, form, root condition etc.)

ii. Planting specification:

- Depths of topsoil and subsoil;
- Ground preparation and cultivation;
- Dimensions of planting pits or trenches and proposed backfill material;
- Planting densities/spacing or numbers;
- Methods of weed control, plant protection and support;
- Seed mix specifications and sowing rates; and/or turf specification; and

iii. Hedgerow maintenance/management scheme to ensure that highway users, including HGV drivers, are protected from glint/glare.

Reason – In the interests of biodiversity, highway safety and visual amenity and in compliance with LDP Policy EQ4 and GP1.

11. The approved Landscape Design Scheme (“LDS”), as submitted to discharge condition 10, shall be fully implemented in the first planting season following the commencement of development. Any new landscape elements constructed, planted or seeded, or existing landscape elements retained, in accordance with the approved LDS which, within the lifetime of the proposed development are removed, die, become diseased, damaged or otherwise defective, to such extent that, in the opinion of the Local Planning Authority, the function of the landscape elements in relation to this planning approval is no longer delivered, shall be replaced in the next planting or seeding season with replacement elements of similar size and specification.

Reason – In the interests of visual amenity and in compliance with LDP Policy GP1.

12. No development hereby approved shall take place until additional land control (“LC”) information has been submitted to and approved in writing by the Local Planning Authority. The LC information shall include the following:

i. Land Management Responsibility Plan which provides clear definition of the land control status of all areas within and forming the application boundary including:

- The extent of land subject to lease agreements to PV operator(s)
- The extent of land subject to other ownership and details of the constituent landowners.

ii. Details of the management agent (individual, body or organisation) responsible for implementation of each area of distinct control.

iii. Details of the legal agreements by which delivery of the LC scheme will be secured and continued through any changes to land control responsibility.

All landscape maintenance and management operations shall be fully implemented as approved.

Reason – In the interests of visual amenity and in compliance with LDP Policy GP1.

13. The scheme hereby approved shall be carried out strictly in accordance with the submitted Arboricultural Impact Assessment and Method Statement and associated plans.

Reason – In the interests of biodiversity and visual amenity and in compliance with LDP Policy EQ5 and GP1

14. The proposed solar scheme hereby approved shall be carried out strictly in accordance with the approved Construction Environmental Management Plan.

Reason – In the interests of biodiversity and in compliance with LDP Policy EQ4.

15. No development hereby approved shall take place until an updated Landscape and Ecological Management Plan (“LEMP”) has been submitted to and approved in writing by the Local Planning Authority. The updated LEMP shall address monitoring of hedgerows and floristic diversity, and details of sowing mixtures. The LEMP shall be subject to 5 yearly review to be approved in writing by the Local Planning Authority. The development shall be implemented in accordance with the approved LEMP or any other iterations approved by the Local Planning Authority.

Reason – In the interests of visual amenity and in compliance with LDP Policy GP1.

16. No development shall take place until a suitably qualified archaeologist has submitted a written scheme of investigation for approval in writing by the Local Planning Authority. The development shall be implemented in accordance with the requirements and standards of the written scheme.

Reason – To protect historic environment interests whilst enabling development and in compliance with LDP Policy SP13 and EQ1.

17. No development hereby approved shall take place until an appropriate scheme of intrusive site investigations for the Mine Shaft 257209-001 and 258209-004 has been submitted to and approved in writing by the Local Planning Authority.

Reason – In the interests of public safety and in compliance with LDP Policy EP6.

18. No development hereby approved shall take place until the submission of a report of findings arising from the intrusive site investigations, set out in Condition 17, has been submitted to and approved in writing by the Local Planning Authority. The report shall include:

- i. The submission of a report of findings arising from the intrusive site investigations; and

- ii. The submission of a scheme detailing any remedial works required.

Reason – In the interests of public safety and in compliance with LDP Policy EP6.

19. No development hereby approved shall take place until any remedial works approved by condition 18 have been fully implemented. A signed statement or declaration prepared by a suitably competent person confirming that the site is, or has been made, safe and stable for the approved development shall be submitted to the Local Planning Authority for approval in writing. This document shall confirm the methods and findings of the intrusive site investigations and the completion of any remedial works and/or mitigation necessary to address the risks posed by past coal mining activity.

Reason – In the interests of public safety and in compliance with LDP Policy EP6

Notification of initiation of development and display of notice

You must comply with your duties in section 71ZB (notification of initiation of development and display of notice: Wales) of the Town and Country Planning Act 1990. The duties include the following:

Notice of initiation of development

Before beginning any development to which this planning permission relates, notice must be given to the Local Planning Authority in the form set out in Schedule 5A to the Town and Country Planning (Development Management Procedure) (Wales) Order 2012 or in a form substantially to the like effect. The form sets out the details which must be given to the Local Planning Authority to comply with this duty.

Display of notice

The person carrying out development to which this planning permission relates must display at or near the place where the development is being carried out, at all times when it is being carried out, a notice of this planning permission in the form set out in Schedule 5B to the Town and Country Planning (Development Management Procedure) (Wales) Order 2012 or in a form substantially to the like effect. The form sets out the details the person carrying out development must display to comply with this duty.

The person carrying out development must ensure the notice is:

- (a) firmly affixed and displayed in a prominent place at or near the place where the development is being carried out;
- (b) legible and easily visible to the public without having to enter the site; and
- (c) printed on durable material. The person carrying out development should take reasonable steps to protect the notice (against it being removed, obscured or defaced) and, if need be, replace it.



APPENDIX 9 – INSPECTORS REPORT TY CROES

Adroddiad

**gan J Burston BSc(Hons), MA, MRTPI,
AIPROW**

Arolygydd a benodir gan Weinidogion Cymru

Dyddiad: 08.06.2021

Report

**by J Burston BSc(Hons), MA, MRTPI,
AIPROW**

an Inspector appointed by the Welsh Ministers

Date: 08.06.2021

TOWN AND COUNTRY PLANNING ACT 1990

SECTION 62D

THE DEVELOPMENTS OF NATIONAL SIGNIFICANCE (WALES) REGULATIONS 2016

APPLICATION BY SPRING DEVELOPMENT 02 LIMITED

**LAND TO THE EAST OF THE A48 (COORDINATES E257386, N 209389) AND LAND
TO THE SOUTH WEST OF TYCROES (COORDINATES E259219, N209551; &
E259904, N209590)**

Cyf ffeil/File ref: DNS/3227364

Abbreviations used in this report:

AA	Appropriate Assessment
BMV	Best and Most Versatile
CCC	Carmarthenshire County Council
CEMP	Construction Environmental Management Plan
CTMP	Construction Traffic Management Plan
DAM	Development Advice Map
DNS	Development of National Significance
EIA	Environmental Impact Assessment
FRA	Flood Risk Assessment
HDD	Horizontal Directional Drilling
HGV	Heavy Goods Vehicle
HIA	Heritage Impact Assessment
HRA	Habitats Regulations Assessment
LDP	Local Development Plan
LEMP	Landscape and Ecological Management Plan
LIR	Local Impact Report
LPA	Local Planning Authority
LSCS	Landscape Sensitivity Capacity Study
LSE	Likely Significant Effects
LVIA	Landscape and Visual Impact Assessment
FW	Future Wales: The National Plan 2040
NLCA	National Landscape Character Assessment
NRW	Natural Resources Wales
PEA	Preliminary Ecological Assessment
PPW	Planning Policy Wales 11
PRoW	Public Right of Way
PV	Photo Voltaic
SAC	Special Area of Conservation

SAM	Scheduled Ancient Monument
SLA	Special Landscape Area
SPG	Supplementary Planning Guidance
SSSI	Site of Special Scientific Interest
SUDS	Sustainable Drainage Scheme
TAN	Technical Advice Note
'The 1990 Act'	The Town and Country Planning Act 1990 (as amended)
'The 2015 Act'	The Planning (Wales) Act 2015
'The DNS Regulations'	The Developments of National Significance (Wales) Regulations 2016
'The EIA Regulations'	The Town and Country Planning (Environmental Impact Assessment) (Wales) Regulations 2016
'The Habitats Regulations'	The Conservation of Habitats and Species Regulations 2017
'The Procedure Order'	The Developments of National Significance (Procedure) (Wales) Order 2016
'The Secondary Consents Regulations'	The Developments of National Significance (Specified Criteria and Secondary Consents (Wales) Regulations 2016
WFGA	Wellbeing of Future Generation Act (Wales) 2015
WG	Welsh Government

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DNS Application Ref: APP/3227364

Site address: Land to the east of the A48 (Coordinates E257386, N 209389) and Land to the south west of Tycroes (coordinates E259219, N209551; & E259904, N209590)

- The application, dated 07 May 2020, was made under section 62D of the Town and Country Planning Act 1990 (as amended by the Planning (Wales) Act 2015).
- The applicant is Spring Dev 02 Ltd.
- The application was confirmed as valid on 02 September 2020.
- A site visit was made on 25 November 2020.
- The development proposed is the installation of a ground mounted Photo Voltaic (PV) solar farm development, including proposed cable route.

Secondary Consent Applications (Where applicable):

- No secondary consent applications are being made.

Summary of Recommendation: That planning permission be granted.

Procedural Matters

1. In accordance with Article 5 of The Developments of National Significance (Procedure) (Wales) Order 2016, the applicant notified PINS (Wales) on behalf of the Welsh Ministers of the proposed development on 20 December 2019.
2. Further to the applicant's request, made pursuant to regulation 31(1) of the Town and Country Planning (Environmental Impact Assessment) (Wales) Regulations 2017 ("the Regulations"), PINS (Wales) provided an Updated Screening Direction on 20 December 2019 confirming that the development is not "EIA Development"¹.
3. On 23 December 2019, PINS (Wales) wrote to the applicant with a Notice of Acceptance of a proposed application for a DNS under Article 6 of The Procedure Order. The submitted application was subject to appropriate pre-application consultation and publicity ending on 2 March 2020, and was accompanied by a Pre-Application Consultation Report, dated 29 April 2020.
4. On confirmation of the validity of the application on 2 September 2020, PINS (Wales) undertook the specified consultation and publicity measures as required by the Order. Carmarthenshire County Council ("CCC") subsequently submitted its Local Impact Report ("LIR") on 21 October 2020.
5. Based on the Application Documents, the Pre-Application Report, the consultation responses and the LIR, the application was to be considered under the written representations' procedure. I carried out an unaccompanied site visit on 25 November 2020.

¹ PINS is authorised by the Welsh Ministers to provide that screening direction.

6. The application sites are 3 distinct parcels of land and are referred to as Area 1 (eastern site coordinates E257386, N 209389), Area 2 (central site coordinates E259219, N209551) and Area 3 (western site coordinates E259904, N209590) throughout this report.
7. Although the Council provided a set of suggested conditions, they did not include the reasons for imposing the conditions. A complete set of conditions and reasons were received on 18 December 2020. This matter is dealt with later in this report.
8. On the 15 January 2021 the DNS process was formally suspended to allow the applicant to provide further information relating to biodiversity and infrastructure. The additional information was submitted on the 22 March 2021 and a formal consultation on this material commenced on 26 March 2021 until 30 April 2021 and 5 representations were received. I have taken account of these representations in the consideration of this application.
9. On the 24 February 2021 Future Wales: the national plan 2040 (FW) and Planning Policy Wales Edition 11 (PPW) were published. On publication of the FW, Technical Advice Note 8 and its supporting guidance were revoked. The applicant and LPA were asked for comments on these publications. These comments were also included in the formal consultation process set out in paragraph 8 above.
10. I have set out at the end of this Report three tables, namely:
 - Documents and plans submitted with the application;
 - Documents submitted since the application was accepted as valid, including consultation responses and the LIR; and
 - Documents submitted as additional information under Regulation 15(2) of the DNS Regulations, including the consultation responses to that information.

The Site and Surroundings

11. The area surrounding the appeal sites comprise undulating fields, mainly set to grass, and encompassed by well-maintained mature hedgerows. Tree copse and parcels of woodland are also prominent features in the landscape. Major arterial roads traverse the broader area including the A48 and A483. The settlement of Tycroes is located to the north east of Area 1, however isolated farmsteads and cottages are scattered throughout. An operational solar array, Clawdd Ddu, lies directly to the southwest of Area 1. This is an approximately 28ha site, with a capacity of 12MW.
12. The development sites are located within the 'Gwendraeth Vales' National Landscape Character Area (NLCA) 33, which Natural Resources Wales (NRW) describes as:
 - *"An area of rolling hills, ridges and minor valleys, comprising the area between the coastal and valley parts of the Tywi, the South Wales Valleys and the Black Mountain part of the Brecon Beacons.*
 - *Unified through its geology.*
 - *Heavily mined for coal and quarried for limestone. In consequence, this part of the area has developed a distinctive linear or ribbon pattern of settlement along roads.*

- *Today, modern residential and industrial estate development breaks the ribbon pattern but nevertheless focuses new development around existing settlements and road crossings.*
 - *The countryside setting contrasts entirely, being a complex network of small geometric fields surrounded by lush, high hedgerows and small copses.*
 - *Seasonally waterlogged soils in the valleys support rushy grazing of poor agricultural quality while well drained coarse loamy and sandy soils across much of the character area are used for sheep and dairy pasture.*
 - *Significant areas have now been reclaimed from former quarries and mines and the somewhat simpler and less mature restoration field layouts can be picked out, despite the inclusion of new woodland planting belts.”*
13. The application sites are not directly washed over by any statutory designations. However, four Special Landscape Areas (SLA), ten Sites of Special Scientific Interest (SSSI) and a Special Area of Conservation (SAC) are located within a 5km radius. The surrounding area also contains numerous Scheduled Ancient Monuments (SAM), listed buildings and ancient woodlands.
14. Area 1: Covering approximately 24ha of farmland, the area is characterised by enclosed fields and mature hedgerows. Small areas of woodland are located to the north and farm buildings to the west. A public footpath bisects the area, broadly following the field boundaries. The operational Clawdd Ddu solar scheme is located close to the south and west boundaries.
15. Area 2: Covering approximately 1.8ha of farmland, which slopes from north to south and is enclosed by fields. The A483 is close to the northwestern boundary and the operational Clawdd Ddu solar scheme site is a short distance to the southeast.
16. Area 3: Covering approximately 21ha of farmland this site abuts the A48, but separated from it by a wide tree belt. A waste transfer facility and other commercial businesses are located to the north. Mature hedgerows surround the site and a farm track runs through the site linking the A48 to Ty Isaf. The Ty Isaf farmhouse and agricultural buildings adjoin the south eastern boundary.

Planning Policy

17. At a national level, the FW, PPW and Technical Advice Notes (TANs) set out WG’s policies and principles on different aspects of planning. Those of relevance here include:
- FW (February 2021)
 - PPW Edition 11 (February 2021)
 - TAN 5: Nature Conservation and Planning (2009)
 - TAN 15: Development and Flood Risk (2004)
 - TAN18: Transport (2007)
 - Practice Guidance: *Planning Implications of Renewable and Low Carbon Energy Development* (February 2011)

- Welsh Assembly Government Energy Policy Statement '*A Low Carbon Revolution*' (March 2010)

18. At a local level, planning policy is set out in the adopted² LDP for CCC as follows:

- SP1(i) Sustainable Places and Spaces

Proposals for development will be supported where they reflect sustainable development design principles.

- SP2 Climate Change

Development proposals which respond to, are resilient to, adapt to and minimize for the causes and impacts of climate change will be supported.

- SP11 Renewable Energy & Energy Efficiency

Development proposals which incorporate energy efficiency measures and renewable energy production technologies will be supported in areas where the environmental and cumulative impacts can be addressed satisfactorily. Such developments will not cause demonstrable harm to residential amenity and will be acceptable within the landscape. Each proposal will be assessed on a case by case basis.

Large scale wind farms will only be permitted within Strategic Search Areas.

- SP13 Protection and Enhancement of the Built and Historic Environment

Development proposals should preserve or enhance the built and historic environment of the County, its cultural, townscape and landscape assets and, where appropriate, their setting. Proposals relating to the following will be considered in accordance with national guidance and legislation.

- SP14 Protection and Enhancement of the Natural Environment

Development should reflect the need to protect, and wherever possible enhance the County's natural environment. All development proposals should be considered in accordance with national guidance/legislation and the policies and proposals of this Plan, with due consideration given to areas of nature conservation value, the countryside, landscapes and coastal areas

- GP1 Sustainability and High Quality Design

² Adopted in December 2014, the Carmarthenshire Local Development Plan (LDP) sets out the Council's policies and proposals for future development and use of land.

Development proposals will be permitted where they accord with a number of criteria relating to, amongst other matters, character and appearance, impact on amenity, incorporation of important local features, landscaping, appropriate access and the historic environment.

- TR3 Highways in Developments- Design Considerations

The design and layout of all development proposals will, where appropriate, be required to include, amongst other matters, appropriate parking and where applicable, servicing space in accordance with required standards; and required access standards reflective of the relevant Class of road and speed restrictions including visibility splays and design features and calming measures necessary to ensure highway safety and the ease of movement is maintained, and where required enhanced.

- EQ1 Protection of Buildings, Landscapes and Features of Historic Importance

Proposals for development affecting landscapes, townscapes buildings and sites or features of historic or archaeological interest which by virtue of their historic importance, character or significance within a group of features make an important contribution to the local character and the interests of the area will only be permitted where it preserves or enhances the built and historic environment.

- EQ4 Biodiversity

Proposals for development which have an adverse impact on priority species, habitats and features of recognised principal importance to the conservation of biodiversity and nature conservation, (namely those protected by Section 42 of the Natural Environment and Rural Communities (NERC) Act 2006 and UK and Local BAP habitats and species and other than sites and species protected under European or UK legislation) will not be permitted, except where it can be demonstrated that:

- a) The impacts can be satisfactorily mitigated, acceptably minimised or appropriately managed to include net enhancements;
- b) There are exceptional circumstances where the reasons for the development or land use change clearly outweighs the need to safeguard the biodiversity and nature conservation interests of the site and where alternative habitat provision can be made in order to maintain and enhance local biodiversity.

- EQ5 Corridors, Networks and Features of Distinctiveness

Proposals for development which would not adversely affect those features which contribute local distinctiveness/qualities of the County, and to the management and/or development of ecological networks (wildlife corridor networks), accessible green corridors and their continuity and integrity will be permitted.

Proposals which include provision for the retention and appropriate management of such features will be supported (provided they conform to the policies and proposals of this Plan).

- EQ7 Development within the Caeau Mynydd Mawr SPG Area

Proposals will be permitted where they accord with the Council's commitment to promote and contribute to the delivery of the Conservation Objectives of the Caeau Mynydd Mawr SAC in line with the Habitats Directive. Where applicable, proposals in the SPG area will be required to contribute towards increasing the quality and amount of suitable habitat for Marsh Fritillary butterfly available within the SPG Area. The SPG Area is defined on the Proposals Map.

- RE3 Non-Wind Renewable Energy Installations

Large scale schemes located outside defined Development Limits may be permitted in exceptional circumstances, where there is an overriding need for the scheme which can be satisfactorily justified, and the development will not cause demonstrable harm to the landscape. Proposals that would cause demonstrable harm to the landscape, visual impact, noise, ecology, or ground and surface water as a result of the cumulative effect of renewable energy installations will not be permitted

- EP3 Sustainable Drainage

Proposals for development will be required to demonstrate that the impact of surface water drainage, including the effectiveness of incorporating Sustainable Drainage Systems (SUDs), has been fully investigated, in accordance with TAN 15.

- EP6 Unstable Land

Development proposals in areas where land instability is known will be dealt with on a case-by-case basis. A preliminary scoping report should identify the nature of the (potential) instability.

19. The following Supplementary Planning Guidance (SPG) is also relevant:

- Wind and Solar Energy SPG - Adopted in 2019, the Wind and Solar Energy SPG sets out the policy and site selection consideration for a range of renewable energy proposals including solar.
- Caeau Mynydd Mawr SPG – Adopted in 2014, the SPG relates to the Marsh Fritillary Butterfly, a mobile species associated with the Caeau Mynydd Mawr SAC.
- Planning Obligations SPG – Adopted in 2014, the SPG was prepared within the context of the LDP to provide a clear picture of what types of obligations developers may be expected to contribute towards, the likely amounts of these

- obligations and the trigger at which different obligations will be sought by the Council.
- Nature Conservation and Biodiversity SPG - The SPG draws together the requirements of local and national policy and helps developers identify the nature conservation implications of their developments
 - Archaeology and Development SPG - This SPG elaborates and develops on the policies and provisions of the LDP. In so doing it seeks to protect the archaeological heritage of the County, and its setting, by advising how development proposals can best take account of archaeological issues.

The Proposal

20. The application proposes the installation of ground mounted photovoltaic (PV) solar panels, which would operate for a time period of 40 years. The three areas should generate 40MW, which would meet the demand of 15,290 average UK households³.
21. The proposed layout for each of the 3 areas are shown in:
 - Site Plan Proposed 1 of 3 ref. SP-SL1-D02-PL
 - Site Plan Proposed 2 of 3 ref. SP-SL2-D02-PL
 - Site Plan Proposed 3 of 3 ref. SP-SL3-D02-PL (rev 6)
22. As set out in the applicant's 'Design and Access Statement' dated 1 May 2020, the proposal is made up of the following components:
 - PV panels mounted on fixed metal frames with support posts driven into the ground to a depth of approximately 1.5m, avoiding the use of concrete foundations.
 - The panels are laid out in east-west orientated rows in order to optimise solar gain. The lowest edge of the panels would be approximately 0.8m above ground level with the highest edge being approximately 3.5 m above ground. The rows are spaced approximately 4-5m apart to avoid one row of panels shading the next. The panels are non-reflective and angled at approximately 20-25° to horizontal.
 - Inverter technology, which converts direct current (DC) into alternating current (AC). These are likely to be string inverter (800mm x 1000m x 500m) fixed beneath the PV panels to the PV mounting system.
 - Approximately 24 cabinets containing electrical equipment such as switchgear and transformers housed within flat roofed pre-fabricated units no higher than 3m and with a footprint of approximately 5m x 2.5m.

³ Based on Ofgem's Typical Domestic Consumption Value of 3,100 kWh of electricity for a house.

- An on-site sub-station.
 - Security fencing to a height of 2.4m along with infra-red security cameras which will feature around the perimeter of the development; directed inward only. There will be no external lighting.
 - Each of the three areas of land benefit from an established vehicular access directly from both the A48 and the A483 suitable for the delivery vehicles required to deliver the equipment proposed to be installed at the site. Existing gateways and tracks will be used to access the site itself, the surfaces of which would be improved by way of providing additional gravel.
 - Cable route linking each of the 3 x solar sites the subject of the proposal. The cable is laid within a shallow and narrow trench measuring approximately 1.4m depth and 0.6m wide. The route utilises existing tracks including the A483 road verge and gated entrances between fields.
23. The construction period for the installation of the solar panels is approximated to be an 18-week period. On completion the site would require infrequent visits for maintenance, by van/4x4-type vehicle until such time as it needs to be decommissioned.
24. In respect of the potential traffic generation, peak traffic generation will occur during the initial construction period, which would generate some 10 to 11 HGV deliveries per day to areas 1 and 3 (40 vehicle movements) or some 2 to 3 HGV movements per hour on the A48 and a similar volume of traffic on the A483.

The Applicant's Case

25. The application areas have been carefully selected having regard for the need to ensure the development is well concealed from local views and residential locations whilst also ensuring minimal installation impacts to wildlife and presenting longer-term opportunities for ecology and landscaping.
26. The application confirms that the location is determined by the rare opportunity to complete an economically viable connection to the local substation at Heol Ddu to the north of the site and to the south of Tycroes. This substation enables a strategically important opportunity for Wales to connect 40MW of clean energy generation that, without subsidy support, is an economically viable renewable energy development.
27. On 20 December 2019, a Screening Direction was issued to confirm that Welsh Ministers direct that the development is not EIA development within the meaning of the Regulations.
28. Nevertheless, whilst a formal Environmental Statement did not accompany the application, it is accompanied by a number of assessments to consider the impact of the proposal in relation to specific environmental considerations.

Planning Policy

29. **The WFGA:** The proposal helps to secure a sustainable future for coming generations by introducing a renewable energy generation facility that will ensure a future supply of clean power for local communities and businesses. The proposal actively contributes to many of the well-being goals of the Act and contravenes none.

30. **FW:** FW sets out strategic and spatial choices which make up the Future Wales' spatial strategy. In particular, Policy 17 (Renewable and Low Carbon Energy and Associated Infrastructure) includes the following:

"The Welsh Government strongly supports the principle of developing renewable and low carbon energy from all technologies and at all scales to meet our future energy needs.

In determining planning applications for renewable and low carbon energy development, decision-makers must give significant weight to the need to meet Wales' international commitments and our target to generate 70% of consumed electricity by renewable means by 2030 in order to combat the climate emergency.

In Pre-Assessed Areas for Wind Energy the Welsh Government has already modelled the likely impact on the landscape and has found them to be capable of accommodating development in an acceptable way. There is a presumption in favour of large-scale wind energy development (including repowering) in these areas, subject to the criteria in policy 18.

Applications for large-scale wind and solar will not be permitted in National Parks and Areas of Outstanding Natural Beauty and all proposals should demonstrate that they will not have an unacceptable adverse impact on the environment.

Proposals should describe the net benefits the scheme will bring in terms of social, economic, environmental and cultural improvements to local communities.

New strategic grid infrastructure for the transmission and distribution of energy should be designed to minimise visual impact on nearby communities. The Welsh Government will work with stakeholders, including National Grid and Distribution Network Operators, to transition to a multi-vector grid network and reduce the barriers to the implementation of new grid infrastructure."

31. To be permitted, FW Policy 18 also sets out 10 criteria that have to be met. The applicant states that it is confident that the submitted application promotes the stated objectives.

32. **PPW** takes forward those already positively worded statements of PPW10 towards renewable energy proposals and directly refers to the seven goals of the Well-Being of Future Generations Act (2015).

33. Prior to the discussions directly relating to renewable energy developments, Paragraph 5.6.13 covers rural diversification and states that: "*Diversification can also include renewable energy proposals such as anaerobic digestion facilities or solar and wind installations, which will help to increase the viability of rural enterprises by reducing their operating costs. These schemes should be supported where there is no detrimental impact on the environment and local amenity*".

34. Support for Renewable Energy is set out in Paragraph 5.7.1 and highlights the Welsh Government's commitment to renewable energy, stating the following: "*The Welsh Government's highest priority is to reduce demand wherever possible and affordable, low carbon electricity must become the main source of energy in Wales*".
35. Paragraph 5.7.7 follows to explain that: "*the benefits of renewable and low carbon energy, as part of the overall commitment to tackle the climate emergency and increase energy security, is of paramount importance. The continued extraction of fossil fuels will hinder progress towards achieving overall commitments to tackling climate change*".
36. Paragraph 5.9.15 states that: "*Outside identified areas, planning applications for renewable and low carbon energy developments should be determined based on the merits of the individual proposal.*"
37. Paragraph 5.9.19 sets out how authorities determining applications for renewable energy developments should approach their decision-making process: "*In determining applications for the range of renewable and low carbon energy technologies, planning authorities should take into account: the contribution a proposal will make to meeting identified Welsh, UK and European targets; the contribution to cutting greenhouse gas emissions; and the wider environmental, social and economic benefits and opportunities from renewable and low carbon energy development.*"
38. Paragraph 5.9.21 states that: "*Prior to an application being submitted, developers for renewable and low carbon energy developments should, wherever possible, consider how to avoid, or otherwise minimise, adverse impacts through careful consideration of location, scale, design and other measures*".
39. The proposal, the subject of this application, is very much supported by the statements of PPW, and the applicant welcomes its adoption and its positive steps towards encouraging such proposals to be brought forward, where sensitively sited, and where the impacts can be shown to be acceptable. The submitted Tycroes solar application documents the site selection and the design evolution process. The application also sets out significant opportunities for ecological enhancements and mitigation measures to accommodate temporary ecological impacts where necessary.
40. Paragraph 5.9.26 discusses the importance for such proposals to consider opportunities for community benefits: "*Experience has shown that there are significant opportunities to achieve local benefits through renewable energy developments. Some benefits can be justified as mitigation of development impacts through the planning process. In addition, developers may offer benefits not directly related to the planning process. Local authorities, where practical, should facilitate and encourage such proposals.*"
41. The applicant considers it appropriate for new developments, which are also new businesses that have joined the local community, to contribute to suitable causes that enhance the community. The applicant has engaged with aid organisations local to the project to discuss contributions if planning permission is forthcoming and once the project is built and operational. The applicant considers renewable energy projects are a positive entity in the community and can contribute accordingly.
42. In response to the above, the application has an approximate 40MW design capacity and the proposed solar installation would generate approximately 47,400,000kWh per

annum. The proposal therefore represents an important contribution towards the nation's efforts on tackling climate change. It would contribute significantly to Carmarthenshire County's contribution to achieving carbon emission targets and crucially make a significant contribution towards the nation's target of securing 70% of electricity generation from renewable sources.

43. Further, 40MW of clean renewable power would also provide sufficient electricity to meet the demand of 15,290 average UK households (based on Ofgem's Typical Domestic Consumption Value of 3,100 kWh of electricity for a house).
44. The annual carbon saving would be approximately 10,665 tonnes. This is the equivalent of taking 2,318 cars off the road; assuming the average vehicle on the road has a fuel economy of about 22.0 miles per gallon and drives around 11,500 miles per year.
45. The application confirms that local impacts will be minimised where possible, including a Construction and Environmental Management Plan (CEMP?) that details measures that would be taken to minimise impacts from installation.
46. **Technical Advice Notes (TANs) and Guidance documents:** The Planning Statement sets out that TAN 5 (Nature Conservation and Planning), TAN 6 (Planning for Sustainable Rural Communities), TAN 11 (Noise), TAN 12 (Design), TAN 15 (Development and Flood Risk), TAN 18 (Transport), TAN 23 (Economic Development), and TAN 24 (The Historic Environment), have been taken into consideration when preparing the application, in addition to the 'Welsh Government Practice Guidance: Planning Implications of Renewable and Low Carbon Energy, published February 2011'.
47. **Local Development Plan:** The applicant considers the previously documented policies of the CCC LDP and SPG's are applicable to the proposal.

Review of Potential Impacts

48. **Agricultural Land:** During pre-application discussions with CCC and WG it was confirmed that an ALC survey is not required as it is unlikely to include BMV agricultural land. Accordingly, BMV Agricultural Land Policy (PPW paragraph 3.54 & 3.55) does not apply to this application. Therefore, an ALC Survey has not been undertaken as part of this DNS application.
49. **Landscape and Visual Impact:** The landscape and visual considerations of the proposal are detailed in a Landscape and Visual Impact Assessment (LVIA) undertaken in accordance with the Landscape Institute's guidance for such proposals.
50. The purpose of the LVIA is to identify and outline the existing landscape character and visual amenity receptors within the study area and to assess the potential impact. Impacts and effects are assessed at significant stages in the life of the proposed development, including construction, operation and decommissioning. The assessment also considers the cumulative effects of the proposed development when perceived with others that are operational, under construction, consented and 'In Planning' within the study area.
51. The LVIA, in summary, states that the proposed development will:
 - Add a relatively contained built element to the landscape;

- Avoid and will not have a direct and limited indirect influence on any designated landscapes;
 - Be set within the regular landscape pattern within mainly mature and well-vegetated field boundaries, which will be protected and enhanced through additional planting, including in-fill planting to the existing boundaries, where necessary;
 - Only be partly overlooked from very close proximity from gaps in the hedgerows. This influence dramatically reduces over time and swiftly with distance from the proposed development. Although it would be initially perceived, the proposed development will be a contained built element, set within a well-vegetated landscape, notwithstanding it is temporary and reversible;
 - Will be perceived from selected open and elevated locations to the south-east, where it will be viewed in combination with the adjacent Clawdd Du operational solar scheme. The addition of the proposed development will not significantly increase the perception of numerous solar schemes on either the landscape or views and therefore there will be limited additional cumulative effects as a result of the proposed development; and
 - Overall, will have limited impacts on landscape relevant designations, landscape character and visual amenity receptors and their views.
52. The LVIA also makes reference to the Carmarthenshire Solar PV Development: Landscape Sensitivity and Capacity Study, which provides guidance to inform the design and siting of solar PV development through setting out a baseline assessment of landscape and visual sensitivity and capacity in relation to different development classifications. The proposed development site is within Area 47: Mynydd Sylen, Llanelli Hills and Pembrey Coastal Hills – East, that has a medium sensitivity to large scale solar schemes, particularly in areas with fewer receptors and where landform and strong field boundaries provide some degree of enclosure. ‘Medium’ sensitivity is defined as *“the key characteristics of the Landscape Unit may be vulnerable to change but could accommodate some field-scale solar PV development of the specified typology, if sensitively designed and sited.”*
53. The indicative overall capacity of Area 47: Mynydd Sylen, Llanelli Hills and Pembrey Coastal Hills – East is *“there is some capacity for small to large scale development in areas where there will be no effect upon the special qualities of the Registered Historic Landscape and the SLAs. Detailed field survey work has identified some areas where enclosure provided by the rolling landform and landcover, particularly in combination with existing infrastructure, may provide opportunities to locate solar PV development.”*
54. The proposed development will therefore be acceptable, with reference to the Landscape Sensitivity and Capacity Study, and is:
- Within a ‘medium’ sensitivity landscape unit;
 - Will have no effect on the registered historic landscape or SLAs;
 - Will be largely enclosed by the surrounding rolling landform and landcover; and

- Will be sensitively designed to retain and enhance landscape features, within the existing landscape pattern.
55. **Residential Amenity:** The LVIA document identifies the closest residential properties to the site and concludes that properties that are not 'involved' (as a landowner) in the project would experience either a 'low impact' or 'neutral impact'. Of those properties that are involved, one property (Ty-Isaf - immediately to the south and east of Area 3) would be expected to experience a 'medium impact'.
 56. In relation to noise, the relevant test for assessing commercial noise on nearest noise-sensitive receptors is contained within the BS4142:2014+A1-2019 guidance. Small amounts of noise are created by transformer / inverter / substation switch gear. However, this is inaudible after a very short distance. Furthermore, these units of electrical equipment within the site have been intentionally sited a considerable distance from local noise receptors.
 57. During operation the only noises are from the inverters (50dB(A) @1m) and transformers (58dB(A)@3m) on site. Accordingly, there would be no adverse impacts associated with noise from proposed solar farm electrical equipment and therefore the operation of the solar farm would comply with the BS4142:2014+A1-2019 Standard
 58. The submitted Construction and Environmental Management Plan (CEMP) confirms in Paragraph 4.1 that construction of the development will be undertaken 7 days a week. Nevertheless, no activities audible from the boundary of the nearest noise sensitive receptor shall take place on Sundays during the construction period or at times outside 07:30 and 19:30 (or dusk if earlier). Vehicular deliveries including all HGV movements shall arrive, be received or dispatched from the site between the hours of 07:30 and 19:30 (or dusk if earlier) Monday to Friday and 07:30 to 12:00 on Saturdays.
 59. The Glint and Glare Assessment reviewed anticipated impacts on residential receptors as well as road users and concludes that the proposal would not result in significant glint or glare impacts.
 60. **Heritage:** A detailed Historical Impact Assessment (HIA) was carried out by Archaeology Wales and accompanied the application. The HIA has examined the impact of the proposed installation of a ground mounted PV solar farm development and associated infrastructure over three separate but neighbouring sites, on the sites themselves and the surrounding landscape. It also considered the impact of the development on designated heritage assets within the wider historic environment.
 61. With reference to the potential of a solar installation impacting on buried archaeology, the PV panels would be mounted on fixed metal frames with support posts driven into the ground to a depth of approximately 1.5m, avoiding the use of concrete foundations and causing negligible ground disturbance to a depth of 1.5m and absolutely no ground disturbance beyond a depth of 1.5m.
 62. The HIA also sets out the impact of the proposal on the setting of heritage assets. With regard to these matters the HIA concludes that harm to buried archaeology may be mitigated against by an appropriate level of archaeological recording to add in a positive way to the existing evidential value, a process utilised at the nearby Clawdd Ddu solar farm site where a programme of archaeological work was included as a condition in the planning approval. This work comprised a geophysical survey before

- groundworks commenced, and an archaeological watching brief during the groundworks, a similar scheme on the proposed development could help to better understand and record the potential archaeological resource.
63. Turning to the setting of heritage assets, these impacts could be partially offset by enhancing the hedgerows and designing the solar farm so that it fits in to the existing pattern of enclosed fields and blends into the mature trees in front and behind to more reflect the character of the surrounding field scape. Other than the views from Graig Fawr, the communal value of the site is low and will not be significantly impacted by the development, especially if sympathetic design features are incorporated.
 64. **Ecology:** The application areas are approximately 0.5km north of the SSSI designation Caeau Afon Gwili and approximately 0.5km south of Felin Fach Meadows Cwmgwili SSSI. Both are grassland SSSI designations. The proposed solar array when commissioned and operational will offer ecological enhancement opportunities for species rich grassland corridors and therefore is unlikely to have an adverse impact on these SSSI's.
 65. All hedgerows surrounding the solar site areas would be retained as part of the installation of the solar panels and these would also be protected with an adequate buffer from the installation.
 66. An Ecological Assessment accompanies the application. The desk study and field surveys undertaken have enabled the ecological baseline of the site and wider area to be identified and the features/resources which are present, or potentially present to be identified and evaluated. Where potentially adverse effects may arise, impact avoidance by design and/or reduction through suitable mitigation measures has been identified and will be implemented.
 67. The proposal presents the opportunity to introduce and manage new habitats, most notably species-rich grassland, rough grassland, and species-rich hedgerows which will improve habitat connectivity and diversity locally, and result in secondary benefits to the wider area by improving ecological function, and foraging opportunity in particular for a range of local fauna.
 68. The ecology surveys confirm that the development can be installed without unacceptable adverse environmental impacts. The Preliminary Ecological Assessment (PEA) and Landscape and Ecological Management Plan (LEMP) acknowledge the potential for impacts on protected species of otter and dormice and therefore sets out a detailed mitigation for avoiding these impacts.
 69. Enclosed within Appendix 3 of the PEA is a matrix assessment of the anticipated net ecological impacts of the proposal. The matrix used is that which is being developed by Natural England and which NRW have adopted until such time as they develop their own calculation method. The calculations show that the proposal would have a net gain of 34.10% in habitat units and a net gain of 22.95% in hedgerow units based on the proposed management given in the submitted LEMP.
 70. As a result of the further information requested, the applicant states that to avoid any negative impact a change to the installation methodology is required - from an open cut trench to Horizontal Directional Drilling (HDD). This will avoid impacts on sensitive habitat in area F8 and therefore a Likely Significant Effect (LSE) can be

screened out. The Cable Route PEA, the LEMP and the shadow HRA have been updated accordingly.

71. **Flood Risk and Surface Water Drainage:** A Flood Consequences Assessment (FCA) accompanied the application. This included a surface water drainage strategy for the site. NRW has been consulted on the proposal and the proposed arrays have been located outside all the areas identified to be at high and medium risk of flooding.
72. Nonetheless, the solar panel equipment is resilient to wet weather, and is designed to operate in all predicted weathers, subject to normal maintenance. The materials from which the panels, supporting structure, cabling and transformers are manufactured are all durable and will not cause any level of pollution in the ground. The solar farm infrastructure will be set back from watercourses.
73. The FCA states that the proposed development will provide a real contribution to soil improvement and biodiversity, will improve runoff/infiltration water quality and result in a significant reduction in the occasions of runoff, runoff rate and volume, bringing significant overall benefits to the local environment and downstream. The site would be safe and durable, is not at risk of flooding, would reduce flood risk off-site and improve the receiving waters, and therefore is appropriate in terms of the TAN 15 advice on flood risk.
74. **Trees:** A BS5837 (2012) Tree Survey was conducted in November 2019 and an Arboricultural Impact Assessment and Method Statement was provided with the DNS application to reflect the proposed project layout and cable route.
75. The Impact Assessment confirms that the proposed works can be carried out without adverse impacts to trees providing the advice is followed in respect of the protection of trees during construction.
76. **Transport and Access:** The application is accompanied by a Transport Statement that reviews the various transport and access related considerations. It also details the number of vehicle deliveries across the 3 site areas. It is anticipated that the construction of the solar farm will take some 18 weeks. Peak traffic generation will occur during the initial weeks when materials to fabricate the compound areas and access roads are brought to site.
77. Appropriate traffic management would be in place during the construction period. At the A48 access to Area 3, arriving construction traffic would not be permitted to turn right and cross the southbound carriageway. Instead traffic would continue north for some 5km and U-turn at the Cross Hands Business Park grade-separated junction. Appropriate temporary signage would be deployed during the construction period.
78. During the operational phases, the application areas would only experience very infrequent visits for maintenance, by van/4x4-type vehicle.
79. The Transport Statement demonstrates that the construction traffic associated with the development would be modest in volume and would have no significant impact on the operation of the surrounding highway network. It also demonstrates that safe access to the areas would be provided from the public highway.
80. **Coal Mining Risk Assessment:** The Coal Authority were consulted during pre-application discussions with CCC. Their response stated that "*in considering the*

nature of the development proposed, and on the basis that parts of the site are within the defined Development High Risk Area, the planning application should be supported by a Coal Mining Risk Assessment, or equivalent, which will assess the risk to the development from coal mining legacy."

81. A Coal Mining Risk Assessment Report was submitted with the application. The Report advises in Section 7 that *"The risk posed to the proposed development by known or potential shallow coal mining is generally assessed to be of a LOW to NEGLIGIBLE order, with no further assessment work required, with the exception of the presence of three historic shafts"*. The Report also details the risks associated with the three historic shafts and provides a mitigation strategy for development. It is anticipated that these mitigation works can also be prescribed through the use of a pre-commencement planning condition to any grant of planning permission.

Lifespan of the development / decommissioning

82. The proposed development would be installed for a 40-year period after which all panels and associated equipment can be removed from the site. The development contains mostly recyclable materials including non-reflective recyclable glass, copper, aluminium, steel, and silicon in semi-conductors. However, since 2012, solar PV modules have fallen within the remit of the Waste Electrical and Electronic Equipment Regulations (The WEEE Directive). This regulates the appropriate treatment of end-of-life products and requires that manufacturers and importers of electronic and electrical equipment ensure the take-back and recycling of their discarded end-of-life products in Europe.
83. As and when the decommissioning of this development is required to take place, the applicant will take full advantage of such schemes which are available. A company will be contracted to collect the materials and take them to be recycled.

Conclusions

84. The application is in compliance with the strategy and policies of the adopted LDP as well as FW and PPW all of which support large scale solar renewable energy developments where appropriately sited and where the environmental impacts of a proposal are acceptable.

Consultation Responses (Original application submissions)

NRW (REP09)

85. In Summary, NRW have identified sensitive receptors (European and UK protected sites) within 2 kilometres of the application areas. The local area supports/has the potential to support European Protected Species (Otter, Dormice, bats and Marsh Fritillary butterfly) which could be adversely affected during the construction phase.
86. Protected sites - The European and UK protected sites identified within 2km include:
- Caeau Mynydd Mawr SAC
 - Caeau Afon Gwili SSSI
 - Felin Fach Meadows Cwmgwili SSSI

87. The Habitats Regulations require the Competent Authority, before authorising a project likely to have a significant effect on a European site, to undertake an appropriate assessment of the implications for that site in view of that sites' conservation objectives. The applicant for development consent for Developments of National Significance must provide the Competent Authority with such information as may reasonably be required for the purposes of the assessment or to enable them to determine whether an appropriate assessment is required.
88. Protected Species - Further to our pre-application response letter of 28th February 2020, revisions have been made to the 'PEA, Land to the east of the A48 and Land to the south west of Tycroes, April 2020' and 'PEA, Proposed cable route: Land to the east of the A48 and Land to the south west of Tycroes, April 2020'. NRW support these revisions.
89. Construction Environment Management Plan (CEMP) - The general approach and principles within the CEMP, produced by 'SPRING' and dated April 2020 appear reasonable. The recommendations from the PEA for the cable route and application site should be included in the CEMP.
90. Flood Risk - The proposed cable route crosses the River Gwili, which is classed as a main river;. it is likely that this activity requires a Flood Risk Activity Permit.

Carmarthenshire County Council (REP08)

91. I write further to the consultation on DNS/3227364. The details of the submission have been reported to Carmarthenshire's Planning Committee as an information item and as a result the following two queries have been identified which are hereby being formally submitted as a representation for consideration.
92. That any approval of planning application DNS/3227364 should contain a condition for the provision of a detailed de-commissioning plan to incorporate:
 - The requirement for payment of a bond to ensure sufficient money was available to undertake the decommissioning works at the end of the 40 year life span in the event of the developer having ceased trading.
 - The safe removal/treatment/disposal of the solar panels to prevent any leakage and subsequent ground contamination to protect the land for future generations.
93. Consideration should be afforded to the issue of the payment of community benefits to the three local community council areas affected by the proposed development.

Cadw (REP07)

94. Cadw has no objections to the proposal.
95. SAMs in the vicinity of the application sites include:
 - CM192 Bryn Maen Standing Stone
 - CM193 Bryn-y-Rhyd Standing Stone
 - GM386 Earthwork on Graig Fawr
 - GM513 Two Burial Chambers on Graig Fawr

96. Listed Buildings in the vicinity of the application sites include:

- 14812 Pantyffynnon Station
- 14813 Pantyffynnon Signal Box
- 19449 Church of Saint Edi
- 19451 Plas-Newydd Mill
- 19453 Plas Mawr (formerly known as Cwrt y Ceidrim)
- 22211 Capel Hendre and Vestry
- 81059 Circular pigsty at Craig Fawr Farm

97. A HIA prepared by Archaeology Wales is included with the documents forming the application. The assessment considers the impact of the proposed development on the above designated historic assets. The conclusions of this work indicate that the proposed development will have a low to moderate impact on the settings of scheduled monuments GM386 Earthwork on Graig Fawr and GM513 Two Burial Chambers on Graig Fawr, with a lesser impact on the settings on Listed Buildings 18453 Plas Mawr and LB19451 Plas-Newydd Mill but none of these impacts will cause significant harm. Cadw concurs with these conclusions.

98. Finally, there may be undesignated historic assets that could be affected by the proposed development and Cadw would advise consultation with the Historic Environment Record held by the Dyfed Archaeological Trust.

Hywel Dda University Health Board (REP10)

99. We have no grounds for objection based upon the public health considerations contained within the application and provided the site is developed and operated in accordance with proposed management conditions.

100. There appears to be no assessment of noise impacts from transformer or plant operation on any sensitive receptors. This would be advised if sensitive receptors are identified with any mitigation measures required implemented.

101. Finally, electricity generation and transmission infrastructure can sometimes lead to concerns regarding health effects from EMF (electromagnetic fields). The current Public Health England position on this, as adopted by Public Health Wales, has been appended to the consultation response.

Dyfed Archaeological Trust Ltd (REP03)

102. First consultation response: We are the archaeological advisers to Carmarthenshire Planning Authority. We have checked the details of the proposed development on land to the East of the A48 and land to the South West of Tycroes, Carmarthenshire against the regional Historic Environment Record. This indicates that the proposed development areas are located within an archaeologically sensitive landscape, with numerous historic assets, both designated and undesignated, recorded within close proximity. These include several Bronze Age sites, with two round barrows (PRNs 1193 and 7389), a standing stone (PRN 676/CM93) and a cist burial (PRN 681) within an approximate 1km radius.

103. We recommend that the potential impact, both directly and visually, of the development on the historic environment should be considered through the preparation of a desk-based assessment, to be submitted before determination of the application. Such a document would consider both designated and undesignated sites and include a walkover of the proposed development area by a qualified, experienced archaeologist to assess the potential for archaeological deposits/features to be preserved.
104. This work should adhere to the *Standard and Guidance for Historic Environment Desk-Based Assessment* published by the Chartered Institute for Archaeologists (December 2014, Updated January 2017).
105. Second consultation response: Having discussed in detail the applicant's submitted Archaeology Wales report we are now satisfied that matters relating to the historic environment have been sufficiently addressed.
106. This report concludes that two of the three areas of the proposed development will potentially have an adverse visual impact on the setting of several designated historic assets including the scheduled monuments (GM386 and GM513) on Graig Fawr. We advise that further consultation with Cadw is required over this issue.
107. Furthermore, the report considers that the proposed development of the solar farms and associated structures will undoubtedly impact upon the evidential and historical value of the site itself, by removing archaeological potential. It is suggested that this may be mitigated through implementing an appropriate level of archaeological recording, as occurred at the near-by Clawdd Ddu solar farm, where an archaeological condition was attached to the consent. This comprised a geophysical survey before commencement of the development and an archaeological watching brief during the groundworks. We concur with these findings.

Land, Nature and Forestry Division of Welsh Government (REP01)

108. The Department has not previously surveyed the site. According to the Predictive ALC Map for Wales (2019), the land East of the A48 (*co-ordinates E257386, N209389*) is ALC Subgrade 3b and the land South West of Ty Croes (*co-ordinates E259219, N209551; & E259904, N209590*) is ALC Grade 4 and 5.
109. A detailed ALC survey is not recommended for this site as it is unlikely to include Best and Most Versatile (BMV) agricultural land. Therefore, BMV Agricultural Land Policy (PPW paragraph 3.58 & 3.59) will not apply to this application.

Network Management Division of Welsh Government (REP05)

110. Access to Area 1 has been previously improved and used for the purpose of solar park construction delivery. In order to operate effectively via the contraflow, we require further details of where vehicles will lay-up prior to exiting the A483 trunk road. Any banksman referred for all areas are for internal site/flow management and such persons should not be used to stop or direct trunk road traffic.
111. Access to Area 2. We accept the principle of improvement at this location which shall be subject to detailed design and a Section 184 Agreement. There are footway works at this location starting within the next month and although construction periods are unlikely to overlap, works would not be permitted concurrently.

112. Access to Area 3 works on a no right turn for delivery vehicles, which would be directed to the grade separated junction in order to make a left turn into the site. Swept paths show that it is critical for deliveries to be coordinated as two articulated trucks cannot access and egress the A48(T) at the same time. There is also no identified place to lay-up vehicles. It is not acceptable to have any significant slowing or stopping on the A48 carriageway and further information regarding mitigation of this issue is therefore required.
113. With regard to glint/glare, there is reference to vegetation mitigating this to a height of 1.2 metres. This should be revisited to consider highway users that are at an elevated position e.g. drivers of HGVs.

The Coal Authority (REP04)

114. The application areas fall within the defined 'Development High Risk Area'. The Coal Authority information indicates that within the site and surrounding area there are coal mining features and hazards, which will need to be considered in relation to the determination of any planning application, specifically probable shallow coal mine workings associated with thick coal seam outcrops and recorded mine entries.
115. The applicant has submitted a Technical Note (dated 25 March 2020) in support of the development proposals. The content of the Technical Note seeks to address our previous concerns in relation to the recorded mine entries, as we confirmed previously that the supporting desk-based Coal Mining Risk Assessment was able to discount any significant risks to ground stability posed by potential shallow coalmine workings.
116. In reference to shaft 257209-001, we note that the proposed panel layout now takes into account the conjectured position of the shaft, its departure for plotting area and its respective zone of influence. Whilst no investigation of the shaft is proposed, the Coal Authority is satisfied that such appropriate mitigatory measures could be ensured by way of a suitable condition on any planning permission to prevent access and to safeguard public safety.
117. In terms of the two shafts along the cable route (258209-003 & 258209-004), we note that the content of the Technical Note is able to confirm that the proposed cable run lies completely outside the zone of influence of shaft 258209-003, but that the only viable position for the cable run is within proximity of shaft 258209-004. Consequently, and having considered both the justification made and that the investigation/remediation of the shaft is now proposed, the Coal Authority is satisfied there would be no harm, subject to the imposition of a suitable planning condition.
118. In the event that the site investigations confirm the need for remedial works to treat the mine entry to ensure the safety and stability of the proposed development, this should also be conditioned to ensure that any remedial works identified by the site investigation are undertaken prior to commencement of the development.
119. A condition should therefore require that prior to the commencement of development:
- The undertaking of an appropriate scheme of intrusive site investigations for the mine entry;
 - The submission of a report of findings arising from the intrusive site investigations;

- The submission of a scheme of remedial works for approval; and
- Implementation of those remedial works.

National Grid (REP06)

120. We would like further information regarding the proposed Solar Farm, if possible. What is the cable transmitting? AC or DC? This particular pipeline has AC Mitigation installed which is susceptible to picking up additional current. What are the proposed access points to the construction area and the types of vehicles to be used/how often these will pass over the pipe? The easement on this section of pipe is a total of 24.4m. We will require a Deed of Consent for the cable to pass over the pipeline, which will also require National Grid supervision for trial holing and installation. We would also require an Earthing Report prior to any cabling being installed.

Dwr Cymru (REP11)

121. We have no comments to make on the Planning Application

Cadent (REP02)

122. Searches based on your enquiry have identified that there is apparatus in the vicinity of your enquiry which may be affected by the activities specified. Due to the presence of Cadent and/or National Grid apparatus in proximity to the specified area, the contractor should contact 'Plant Protection' before any works are carried out to ensure the apparatus is not affected by any of the proposed works.

123. The apparatus that has been identified as being in the vicinity of the proposed works is:

- National Gas Transmission Pipelines and associated equipment

124. As your proposal is in proximity to apparatus, it has been referred to the

- Land and Development Asset Protection Team (High Pressure Gas Transmission and Electricity Transmission Apparatus)

Other interested parties

125. Name Withheld (OBJ01): *"Following an application made to extend the already extensive Clwadd-Ddu Solar Farm at Tycroes, I wish to register our objection.*

126. *The basis of my complaint stems from the comments made in application of the site being "naturally well concealed". My first question is, from which location was this considered to be "naturally well concealed"? Clearly not from our property, as we can see this site in all its glory! Additionally, there was obviously no consideration made for properties at our location when the 'landscape and visual' nor the 'glint and glare' assessments were carried out, otherwise it would not be considered a viable application, as we are impacted by both.*

127. *Having not been consulted or considered during the initial application, planning and construction of the original installation, we feel strongly about this already monstrous development being extended further. In addition to the original Clwadd-Ddu development, there have already been a further two solar farms erected in close proximity. Our property overlooks this area, and it's certainly not in keeping with the*

natural and rural surroundings. To lose agricultural farms and to watch our original view of green fields being transformed into a sea of glass is incredibly sad and truly distressing, considerably affecting our well being.

128. *Furthermore, we have also had, even more, wind turbines installed behind our property, which emit a considerable amount of noise. We fully understand the need for climate control and, as a family, we do all we possibly can to help. However, we feel we have already endured enough and made sufficient personal sacrifice in the name of sustainable energy regeneration, in our particular location. All these developments will also, no doubt, have a negative impact on the value of our property, for which we have worked hard to achieve – who will compensate us for that?*
129. *The second question we have is, I wonder if Mr Phill Owen, who is quoted in the South Wales Guardian on 23rd September 2020 as saying "looking at glass instead of grass as we pass, is a small price to pay", would hold the same view if it was what he was looking at 24 hours a day , every day? Having to keep his curtains closed on a sunny day to deflect the substantial glare, or having a 'floodlight' area in front of him, at times, when the moon is full. I very much doubt it.*
130. *In conclusion, I wish to reiterate our very strong objection to this application on the basis of fairness and equity, or more accurately, unfairness and inequity. Enough is enough!"*
131. *OBJ02: "Following an application made to extend the already extensive Clwadd-Ddu Solar Farm at Tycroes, I wish to register our objection.*
132. *We wish to complain about:*
- The comments made in application of the site being "naturally well concealed". My question is, from which location was this considered to be 'naturally well concealed'? Clearly not from our property, as we can see this site in all its glory and at no point did anyone contact us to view the intended site from the 'other side'! Additionally, there was obviously no consideration made for properties at our location when the 'landscape and visual' nor the 'glint and glare' assessments were carried out, otherwise it would not be considered a viable application, as we are impacted by both and no attempt has been made to create any sort of screening!*
 - Having not been made aware of, consulted or considered during the initial application, planning and construction of the original installation, we feel strongly about this additional application to extend what is an already large solar farm. We also feel that not enough publicity has been given to the application - an article in the local newspaper alerted us and then we had to hunt for it!*
 - We also feel that in view of the UK Government's most recent stance on protecting landscape and habitat an extension (to the existing site) would impact negatively and permission should not be considered especially as the length of the scheme is 40 years. Reinstating habitat after that length of time is somewhat akin to closing the stable door after the horse has bolted.*
 - This small corner of Wales already has two gas pipelines, lines of pylons and existing solar farms. Surely new sites should now be looked at."*

Consultation Responses (amended information)

NRW (REP09 II)

133. We are now in agreement with the conclusion that a Likely Significant Effect, alone or in combination, on Caeau Mynydd Mawr SAC can be screened out. We have reviewed the updated LEMP (February 2021) and the draft HRA (February 2021) and our concerns regarding the Marsh Grassland fields and the cabling have been addressed. The method for laying cable is Horizontal Directional Drilling (HDD) for all sensitive habitats including the fields of marshy grassland that we raised in our previous response.

CCC

134. Marshy Grassland - We note that it is now proposed to that HDD is utilised below the Marshy Grassland in Field 8 and the submitted documents have been amended to reflect this change. The LEMP still proposes that 200 Devil's-bit Scabious plugs will be planted into the Field F8. These mitigation and enhancement measures are described in the submitted revised documents which we can confirm we are happy with. HDD under Field F13 and Field 8 will ensure the proposed cable route will have no significant effect on any areas of marshy grassland habitat. On the basis of the revised information we are satisfied that the proposals would have no significant impacts on marshy grassland habitats, we consider that during the operational phase neutral - minor beneficial effects will be delivered via the proposed plug planting as specified in the LEMP.

135. Breeding birds - We note that the Cable PEA has been revised to remove any specific mitigation measures that relate to Field 8 as all impacts to this area will be avoided by HDD beneath the field. In relation to the wider proposals, we have no additional comments to make and refer to those made at LIR Stage.

136. Reptiles - We note that the Cable PEA has been revised to remove any specific mitigation measures that relate to Field 8 as all impacts to this area will be avoided by HDD drilling beneath the field. In relation to the wider proposals, we have no additional comments to make and refer to those made at LIR Stage.

137. It has been brought to the attention of the Council that its comments in respect of Future Wales Policy 18 are potentially seen as contradictory to the LIR in respect of Criteria 2. The Council refers to the visual impact as being "significant", however this is not to say that it would be "unacceptable" in terms of the Policy. For clarity, to avoid potential confusion, the word "significant" should be disregarded as the magnitude of impact is down to the decision maker to assess. The LIR refers to the impact being Neutral / Negative, and this stance has not changed.

National Grid

138. National Grid wrote to the applicant⁴ following the PINS (Wales) request for further information. National Grid confirmed that it has no objection, subject to a number of conditions being met.

⁴ Letter dated 15 March 2021

Local Impact Report (LIR)

139. CCC's LIR bases its assessment on a number of matters, including: climate change, landscape and visual impact, landscape and ecological management plan, residential amenity, noise, glint and glare, ecology, trees and hedgerows, access and transportation, socio-economic, built heritage, public rights of way and flooding. It also includes suggested planning conditions and obligations should permission be granted. The main points are summarised below.
140. **Climate change:** The Welsh Government has a target of 70% energy production by renewable means by 2030. Carmarthenshire set a target of being a carbon neutral authority by 2030 when it declared a climate emergency in 2019. It is estimated that the proposal would generate renewable electricity for over 15,290 average homes per year based on Ofgem typical consumption figures. This is which is equivalent to displacement of 10,665 tonnes of CO₂ per year or 426,600 tonnes over the 40 year operational lifespan of the scheme. The scheme would therefore have a positive impact on climate change.
141. **Landscape and visual impact:** The Landscape and Visual Impact Assessment methodology is considered to be acceptable. Overall the local impact is considered likely to be neutral / negative and this is based on the following assessment of the different aspects:
- Effects on Existing Landscape Elements – NEUTRAL
 - Effects on Landscape Character – NEUTRAL to NEGATIVE
 - Effects on Visual Amenity – NEUTRAL to NEGATIVE
 - Cumulative Effects – NEUTRAL / NEGATIVE
142. Subject to further information or appropriate requirements as set out in paragraph 21.4 of the LIR, the scheme would have a neutral to positive impact on the local landscape through the implementation of the LEMP.
143. **LEMP:** This does not provide sufficient detail of the long-term management responsibilities and agreements to enable approval or to ensure a framework for effective compliance monitoring and enforcement. An appropriate requirement is suggested by CCC paragraph 21.4 of the LIR⁵.
144. **Residential amenity:** The site being split into three areas will have varying degrees of impact. It is noted that a specific Residential Visual Amenity Assessment, which addresses individual properties has not been provided. However, it is noted elsewhere that the glint and glare assessment has highlighted some impact on neighbouring properties for parts of the year. It is further noted that an assessment has not been carried out in respect of properties in the village of Garnswllt on high ground to the East beyond the

⁵ In order to implement the provisions of the Landscape Environmental Management Plan (LEMP) an appropriate legal agreement with any associated landowners may be required.

county boundary in the City and County of Swansea, at a distance of approximately 2km.

145. View is not a material planning consideration, however the presence of development within a landscape can have an impact on residential amenity albeit for a temporary period during the lifetime of the proposal. It is noted that there are relatively few properties affected but for those that are, the impact could be significant.
146. Given the cumulative impact of the proposal seen alongside the existing Clawdd Ddu solar park, and in the absence of an assessment that demonstrates otherwise, it is considered likely that the scheme would have a neutral impact in respect of Areas 2 and 3 and potentially negative impact on residential amenity in respect of Area 1.
147. **Noise:** It is noted that a noise impact assessment has not been submitted with the application. However, it is noted that there are no residential properties immediately contiguous with the site that are not financially linked. Noise is therefore likely to be neutral. However, given the lack of information to the contrary it is suggested that requirements be imposed to ensure that noise at third party properties does not exceed background noise levels.
148. **Glint and glare:** A glint and glare assessment has been submitted. The assessment concludes that it would be geometrically possible for glint and glare to occur at seven locations on the A48 and eight locations on the A483 however given existing intervening vegetation there is not likely to be an impact. At two locations, the impact is considered low so no mitigation is said to be required.
149. The assessment includes analysis of twenty residential properties immediately around the sites, however it is noted that properties further afield on higher ground approximately 2km to the East of Area 1 have not been assessed. The properties to the east are on higher ground so would potentially have a different perspective albeit at a further distance. Ten properties would have potential impacts, of which four would have no impact due to intervening vegetation. Six properties would have a 'low' impact due to effects being limited to less than three months of the year. The report concludes that there would be a low impact and does not therefore recommend mitigation.
150. It is noted that some properties would be affected from the area surrounding the site and those at a further distance to the east have not been assessed, so whilst the numbers of affected properties identified is relatively low, for those properties affected there would be a negative impact during those three months.
151. **Ecology:** After an assessment of issues within the remit of CCC, ecology is considered to be neutral / positive overall. This is based on the following assessment of the different aspects:
 - Improved and Semi improved Grassland habitats – Positive
 - Marshy Grassland – neutral.
 - Streams and rivers – neutral

- Woodland – neutral.
 - Breeding birds – neutral / positive
 - Reptiles – neutral / positive
 - Trees and hedgerows – positive
152. **Transport and access:** The sites are accessed off the main trunk roads, the A48 and A483 which are under the remit of the South Wales Trunk Roads Agency (SWTRA) so they have a minimal impact on the County road network. Area 1 is proposed to be accessed via the Clawdd Ddu access that is proven to be fit for purpose through the development of the existing solar park. Area 2 is an existing access off the trunk road that serves two properties and an agricultural field access. There is sufficient visibility to access Area 2 from the trunk road. Area 3 has an existing access off an unclassified road U2310 which has a junction onto the A48 trunk road. It is proposed to have a 'left in left out' arrangement so vehicles do not have to cross the A48 dual carriageway and management of the deliveries so they are coordinated on the unclassified road. The applicant states that a construction traffic management plan will be submitted and therefore a suitable Grampian requirement is suggested.
153. To the South East of Area 1 is an unclassified road which would not be suitable for construction traffic and a requirement is suggested to preclude use of this road at any stage during construction.
154. On balance, the close proximity of all three sites to the trunk road network is likely to have a neutral local impact overall in terms of additional traffic generation and access.
155. **Socio-economic:** No economic benefit analysis has been submitted, however the transport assessment suggests that there would be between 60 and 120 people employed in the 18 week construction phase. Temporary workers both local and from further afield would spend in the local area during construction. The site is also in multiple ownership so the landowners would have a direct income from leasing the land. There would also be maintenance and management contracts for the operational phase. On balance there is likely to be a positive impact on the local economy.
156. Whilst not a material planning consideration (hence there is no comment) it is good practice to provide a contribution to benefit the local community.
157. **Historic environment:** The application has been accompanied by a HIA. It is noted that the proposal has no direct impact on recorded built heritage assets, however there is evidence to suggest that there are potential unrecorded assets present when cartographical and Lidar evidence is reviewed. The assessment identified several SAMs at Bryn Maen Standing Stone (CM192); Bryn Y Rhyd Standing Stone (CM193); The Earthwork on Graig Fawr (GM386); and Two Burial Chambers on Graig Fawr (GM513) that are situated on high ground to the south east. The site is also relatively close to two Listed Buildings at Plas Mawr LB18453 and Plas Newydd Mill LB19451.

158. The site, in particular Area 1 is considered to be visible from the higher ground to the south east which is home to the burial chambers and earthwork referenced above, so there is likely to be an impact when viewed from their setting. However, it is noted that this would be at a distance of approx. 2.7km so the impact on heritage assets is considered to be neutral.
159. Taking a precautionary approach consistent with the adjacent Clawdd Ddu solar site and based on the advice of CCC's historic advisors, a requirement for a written scheme of investigation is a suggested condition.
160. **Public Rights of Way:** The proposed Area 1 is crossed by footpath 34/27 and 34/28. The transport assessment states that the routes are safeguarded with a separate application proposed to temporarily divert the route during construction. It is noted that an application to divert the footpath has been submitted to CCC and is under consideration. Subject to successful diversion, the proposal would have a neutral impact on public rights of way.
161. **Flood risk:** The application has been accompanied by a FRA. It is noted that none of the sites are classified as being at a high risk of flooding in terms of TAN15. The sites would be permeable in that arrays and fencing will not form a physical barrier to water. The river to the east of Area 3 is proposed to be unaffected by the cable route as directional drilling is proposed to lay the cables underneath. Overall, the scheme is likely to have a neutral impact on flood risk. The scheme will also be subject to sustainable drainage approval so any localised impacts can be addressed.

Local Planning Policies

162. Adopted in December 2014, the LDP sets out CCC's policies and proposals for future development and use of land. Whilst the Plan should be read as a whole, there are a number of specific policies that apply to renewable energy proposals and more specific issues such as the natural and historic environment. These are:
- RE3 – Non-wind renewable energy
 - SP11 – Renewable energy and energy efficiency
 - GP1 - Sustainability and High Quality Design
 - SP13 Protection and Enhancement of the Built and Historic Environment
 - Policy EQ1 Protection of Buildings, Landscapes and Features of Historic Importance
 - SP14 Protection and Enhancement of the Natural Environment
 - Policy EQ4 Biodiversity
 - Policy EQ5 Corridors, Networks and Features of Distinctiveness
 - EQ7 Development within the Caeau Mynydd Mawr SPG Area
 - Policy TR3 Highways in Developments - Design Considerations

163. The following SPG documents are of relevance to the proposed scheme:

- Wind and Solar Energy
- Nature Conservation and Biodiversity
- Caeau Mynydd Mawr

National Policy (including update following publication of FW and PPW 11)

164. All Planning Policy is set within the over-arching WFGA which seeks to establish Wales as a sustainable country as described above with the following underlying goals:

- A prosperous Wales
- A resilient Wales
- A healthier Wales
- A more equal Wales
- A Wales of cohesive communities
- A Wales of vibrant culture and thriving Welsh language
- A globally responsive Wales

165. **The Habitat Regulations:** Areas 2, 3 and part of Area 1 are within an area affected by a mobile feature of the SAC. Given the significant amount of the site within the SPG area a HRA needs to be carefully considered under the Habitat Regulations, however this is a matter for comment by NRW as it is outside the remit of this authority. Further details are found in the Caeau Mynydd Mawr SPG referenced above.

166. **FW:** The introduction to FW is clear that the 'Development Plan' in Wales comprises three tiers, so in respect of the proposal, Future Wales being the upper tier provides specific policies for DNS. The legislation relating to planning is clear that DNS must be determined in accordance with the national policies as set out in FW. The following appraisal picks out relevant background statements and then provides a commentary on Policies 17 and 18 which specifically refer to renewable energy and DNS applications.

167. In terms of Carmarthenshire, the Local Development Plan is the lowest tier and was adopted in December 2014, so in decision making, Future Wales would be the primary source of policy where there is any conflict.

168. Policy 17 states that the Welsh Government 'strongly supports' renewable energy at all scales. The scheme is broadly in line with the policies and supporting text as it would help meet the renewable energy targets set out in Policy 17.

169. Policy 18 sets out a criteria based framework to assess schemes. The Tycroes proposal would not have a significant impact on landscape features such as trees, hedges, woodland and water courses as the structural landscape features would remain in place surrounding the built form of the arrays. The scheme

includes the necessary environmental safeguards and will need to be implemented in compliance with the mitigation measures as submitted.

170. However, the local authority in the Local Impact Report has highlighted the fact that the scheme has two main areas of concern. Firstly, the scheme would have a neutral/negative landscape and visual amenity impact on the Loughor valley which includes a Special Landscape Area, on its own and when seen cumulatively with the existing Solar farm at Clawdd Ddu. Secondly the scheme would potentially have an adverse impact in terms of 'Glint and Glare' on the properties which view the site from the east.
171. Further, a representation was submitted by the local authority outside the LIR highlighting the need for a comprehensive decommissioning strategy and the need for appropriate community benefits. Carmarthenshire County Council has not been party to any discussions in respect of community benefits but highlights that given the scale of the development and lifetime of some 40 years, the level of the community benefit needs to be appropriate and it is imperative that the Community Councils are engaged in securing an appropriate contribution so that compliance with Policy 17 can be clearly demonstrated.
172. **PPW 11:** Provides general policies for development in Wales, within the framework of the 2015 Act and the WFGA.
173. PPW Chapter 5 'Productive and Enterprising Places' has been amended in respect of Renewable Energy. The emphasis of PPW11 is to achieve ambitious targets of 70% of its electricity consumption by 2030 and for local authorities to be proactive to 'facilitate' renewable energy as follows. Paragraph 5.9.1 states "*Local authorities should facilitate all forms of renewable and low carbon energy development and should seek cross-department co-operation to achieve this. In doing so, planning authorities should seek to ensure their area's full potential for renewable and low carbon energy generation is maximised and renewable energy targets are achieved.*"
174. Nonetheless, PPW does however have comments regarding community benefits at paragraph 5.9.24 which states, "*The Welsh Government supports renewable and low carbon energy projects which are developed by wholly Wales based organisations, including community groups, or provide proportionate benefit to the host community or Wales as a whole*". Furthermore, in relation to decommissioning, Paragraph 5.9.30 states "*Energy-related developments should be decommissioned and sites remediated as soon as their use ceases. Planning authorities should use planning conditions or legal agreements to secure the decommissioning of developments and associated infrastructure, and remediation of the site. Planning authorities should consider including appropriate conditions for the decommissioning of energy generating developments and site restoration when they reach the end of their design life, taking into account any proposed afteruse of the site. In addition, operators should ensure that sufficient finance is set aside to enable them to meet restoration obligations. An authority may require financial guarantees by way of a Section 106 planning obligation/ agreement, as part of the approval of planning permission to ensure that restoration will be fully achieved.*"

175. The Council concludes that PPW and the FW are more positive in respect of supporting and facilitating renewable energy than the local LDP which is in the process of review and will need to be amended to be in line with the higher tier plan. Ambitious targets are set out in the policy and guidance. The proposal would contribute significantly to meeting these targets. The scheme is considered to be broadly in line with PPW. There are however specific concerns that remain, which the decision taker would assess as part of the examination process and make a balanced decision.

Main Issues

176. Although a Statement of Common Ground has not been submitted, it is evident that there is agreement between the main parties in respect of the: principle of the development; impact on climate change; socio-economic matters; agricultural land; flood risk; highway safety and Public Rights of Way; heritage assets; coal mining; ecology; and trees and hedgerows.

177. It is, therefore, the effect of the development on: the character of the landscape; visual impact; and residential amenity with particular reference to glint and glare, that is at issue between the parties. However, for completeness all the matters set out above will be addressed in this report.

178. In light of the foregoing, I consider the main issue to be whether any harmful impacts of the proposed development would outweigh the benefits of the scheme, including the production of electricity from a renewable source.

179. If I were minded to recommend that planning permission be granted on the basis of the above considerations, I would then have to go on to undertake a HRA namely:

- i. whether the proposed development would adversely affect the integrity of the Caeau Mynydd Mawr European site, having regard to the conservation objectives of that site; and, if it would have an adverse effect; and
- ii. whether, there being no alternative solutions, the development must be carried out for imperative reasons of overriding public interest⁶.

Appraisal

Policy

180. Statute provides that this application is to be determined in accordance with the provisions of the development plan unless material considerations indicate otherwise. The FW is the highest tier of development plan and is focused on solutions to issues and challenges at a national scale. It states that *“Wales can become a world leader in renewable energy technologies. Our wind and tidal resources, our potential for solar generation, our support for both large and community scaled projects and our commitment to ensuring the planning system provides a strong lead for renewable energy development, mean we are well placed to support the renewable sector, attract new investment and reduce*

⁶ Regulation 64 of the Habitats Regs.

carbon emissions." This is supported by FW Policies 17 and 18. These provide a criteria based approach to enable decision makers to balance the benefits of renewable energy against harm to people and the environment.

181. At a local level LDP Policy RE3 is the most relevant policy. Among other things it supports standalone renewable energy schemes subject to satisfactory assessment of impact on the landscape. However, it sets out that large scale schemes located outside defined Development Limits may be permitted in exceptional circumstances, where there is an overriding need for the scheme which can be satisfactorily justified, and the development will not cause demonstrable harm to the landscape.
182. The supporting text to LDP Policy RE3 elaborates that "*It is anticipated that an increasing number of proposals will come forward for large schemes to be located outside defined development limits, for example Solar Parks. Such schemes can play an important role in assisting WG achieve its renewable energy generation targets, and for this reason, the need for the scheme will be weighed up against the need to protect the landscape from inappropriate development. Such schemes will be assessed against other policies contained within this Plan primarily relating to the impact on the landscape and biodiversity of the proposal and the cumulative impact of renewable energy installations.*" Further guidance is also provided in the Wind and Solar Energy SPG.
183. While LDP Policy RE3 generally seeks to protect landscape character, any but the smallest standalone renewable energy scheme in the countryside is likely to have some negative effect on landscape character and visual amenity. Nevertheless, the policy seeks to balance any harmful effects against the benefits that may arise in meeting renewable energy generation targets.
184. The policies of the LDP that have been brought to my attention are broadly consistent with PPW which is an important material consideration. The primary objective of PPW is to ensure that the planning system contributes towards the delivery of sustainable development and improves the social, economic, environmental and cultural well-being of Wales. In this regard PPW at Paragraph 5.7.14 sets out the targets for the generation of renewable energy and paragraph 5.7.15 that the planning system has an active role to help ensure the delivery of these targets.
185. The provision of renewable and low carbon energy is central to the economic, social and environmental dimensions of sustainable development set out in the FW and PPW. There is strong national policy support for the development of renewable energy sources, including solar power, to ensure the country has a secure energy supply, and to reduce greenhouse gas emissions. Whilst I attach significant weight to the contribution the development would make to producing energy from a renewable source, this must also be balanced against the potential environmental impacts of the proposal as required by the Development Plan.

Landscape Character

186. Landscape character can be broadly defined as the distinct, recognisable and consistent pattern of elements in the landscape. It is these patterns that give each locality its 'sense of place', making one landscape different from another, rather than better or worse.
187. In this respect PPW recognises that the landscapes of Wales are valued for their intrinsic contribution to a sense of place, and local authorities should protect and enhance their characteristics, whilst paying due regard to the social, economic, environmental and cultural benefits they provide, and to their role in creating valued places⁷. Additionally, where adverse effects on landscape character cannot be avoided, it will be necessary to refuse planning permission⁸.
188. NRW has defined 48 broad National Landscape Character Areas (NLCA) which are described in LANDMAP 'The Welsh Landscape Baseline' using five datasets:
- Geological Landscape
 - Landscape Habitats
 - Visual and Sensory
 - Historic Landscape
 - Cultural Landscape
189. The site lies in an area defined by NRW as NLCA33 Gwendraeth Vales Area. The main landscape characteristics of the area are identified as an area of rolling hills, ridges and minor valleys, comprising the area between the coastal and valley parts of the Tywi, the South Wales Valleys and the Black Mountain part of the Brecon Beacons.
190. The NLCA refers to the countryside setting, in particular, as being a complex network of small geometric fields surrounded by lush, high hedgerows and small copses. Seasonally waterlogged soils in the valleys support rushy grazing of poor agricultural quality while well drained coarse loamy and sandy soils across much of the character area are used for sheep and dairy pasture.
191. I saw at my site visit that the application site and surroundings manifest many of these characteristics; the application sites lie on gentle sloping ground amid undulating agricultural land. Well-established boundary vegetation runs along the site boundaries, consisting of native hedgerow and tree species.
192. Within the 5km⁹ study area there are 2 further NLCAs, including NCLA37 South Wales Valleys and NLCA38 Swansea Bay. Given this there is a diverse range of sensitive landscapes, which vary from low (medium-low) to high (medium-high). The applicant's LVIA states that "*The aspect areas defined as high (medium-high) are broadly situated within the expansive uplands and hills landscape focussed towards the fringes of the study area to the north, east,*

⁷ Paragraph 6.3.3 of PPW

⁸ Paragraph 6.3.4 of PPW

⁹ The 5km study area identified in the applicant's LVIA.

south as well as along the river corridors immediately to the east and south and to the south-west."

193. The Carmarthenshire Solar PV Development: Landscape Sensitivity and Capacity Study (LSCS) apportions a similar landscape character¹⁰ to the appeal sites, *"characterised by rolling hills and small valleys with a strong network of field boundary hedgerows and some small patches of woodland. There are scattered farms and several larger settlements. It is traversed by the A48 trunk road and high-voltage overhead lines carried on steel lattice towers. There are a number of operational and consented wind turbines present, and a number of field-scale solar PV installations."*
194. Within 5km of the application areas are also four Special Landscape Areas (SLA), namely:
- Llchwyr Valley SLA immediately to the south of Area 1 (Eastern Site) which extends from the north-east to the south-west, following the river corridor.
 - Cwm Cathan SLA, approximately 2.5km to the east of Area 1 (Eastern Site), which extends to the eastern fringes of the study area.
 - Mynydd y Betws SLA, approximately 4.3km to the east of Area 1 (Eastern Site), which extends to the eastern fringes of the study area.
 - Carmarthenshire Limestone Ridge SLA, approximately 4.8km to the north of Area 3 (Western Site), on the fringes of the study area.
195. Whilst I agree with the general trust of the applicant's LVIA, the local topography does not allow the field pattern described in the NLCA's to register strongly, except when viewed from surrounding higher ground, such as from some of the SLAs. However, I do agree that long range views of the landscape are apparent from elevated positions, but due to the narrow lanes edged with dense hedgerows and occasional woodland block means that locally the landscape is more enclosed in nature.
196. Turning to the local character areas set out in the LSCS, the overall purpose of the Council's LSCS *"is to provide guidance to inform the appropriate design and siting of solar PV development through setting out a baseline assessment of landscape and visual sensitivity and capacity in relation to different development classifications."* Following the approach set out in the LSCS and the assessment of the landscape character I agree with the applicant that the area has a medium sensitivity to large scale solar schemes.
197. To my mind the site is akin to a landscape described in the Council's study where there is potential for solar development. The field pattern is regular with existing mature hedgerows enclosing the fields which form the site. There is a degree of movement due to the presence of the roads and the sites are situated between

¹⁰ Area 47: Mynydd Sylen, Llanelli Hills and Pembrey Coastal Hills – East

various hamlets and farmsteads, with various manmade structures such as the overhead power lines, pylons and sub-station in close proximity to the sites.

198. The proposed development would result in the loss of open fields, changing their use from pasture and introducing a collection of modern, precision-engineered structures that would form an uncharacteristic element in the rural landscape for a period of 40 years.
199. However, the proposed solar panels would be set at a relatively low level, and would follow the contours of the land, so would not alter the existing undulating landform. They would be lower than the existing field boundaries that surround the field site, albeit those boundaries are predominantly deciduous, and gappy in places. The development would be contained within the existing fields and would therefore be consistent with the historic pattern of fields and hedges. The application areas would avoid the semi-natural habitats that exist locally thus maintaining the diversity of the landscape thereabouts.
200. Immediately to the southeast of Area 1 the landscape¹¹ has a high (medium-high) sensitivity, particularly given that this is one of only a few river valleys of this scale in the country. Nevertheless, the site design of area 1 and the containment of the panels within mature hedgerow vegetation will reduce the impact on the wider landscape character. Furthermore, the strong hedgerow structure as described above, scattered with mature trees, will be conserved, enhanced and sympathetically managed to encourage species diversity and enhanced wildlife habitats.
201. In terms of areas 2 and 3, these sites are located within relatively contained fields, with wooded margins and thus would not disrupt the surrounding and established landscape character. Given the proposed mitigation measures the development would be absorbed within the wider landscape.
202. It is therefore clear that the proposal, alongside the existing solar array, would alter the rural landscape character of the immediate areas by the introduction of these new elements. However, the impact would be partially mitigated in that the existing hedgerows between fields would be maintained and allowed to grow. Also, the surrounding woodlands would help break up and screen the development. The retention of hedgerows and the new planting would ensure that the field pattern, which is one of the main characteristics of the area, was retained.
203. Accordingly, the proposal, combined with the existing array, would result in a limited adverse impact on the local landscape and the character of the rural fields in which it would be located. Whilst in reaching this conclusion the proposals would conflict with LDP Policies RE3, GP1 and SP14, the conflict would not amount to an unacceptable adverse impact as set out in FW Policy 18(1).

Visual amenity

¹¹ Llŵchwr Valley SLA

204. In terms of the visual impact of the development I have assessed the effect when seen from a number of public viewpoints and from ground level outside a number of residential properties in the local area. The existing solar farm traverses a ridge and its full extent is not visible from the application sites. Nevertheless, a high proportion of the existing solar farm would be visible in the same views as the proposed schemes and when seen from the surrounding viewpoints it would appear to be an extension of the existing development¹².
205. Area 1 and 2: In close proximity (0 – 200m) views of the sites would be largely screened by vegetation. Views from properties and roads in and around Tycroes would be limited and the sites would be seen as occupying a thin sliver of land. I appreciate that the occupiers may well regard this as detrimental to the views available from their properties, but it is accepted in planning law that there is no individual right to a view. Moreover, such views would reduce with the managed growth of the hedgerow vegetation.
206. A PRoW crosses Area 1, broadly north to south, it then splits at the southern end of Area 1, with one limb continuing in a southerly direction and the other in an easterly direction. The users of the footpath would have high fences and solar panels along either side of them as they crossed the site and this would have an enclosing effect and substantially increase the apparent presence of man-made features to such an extent that the development would appear overbearing. This would be a major adverse impact on visual amenity. This finding is tempered by the fact that most users of the footpath would be moving and the solar arrays would have a limited and temporary impact as part of a longer journey.
207. In medium distance (200m – 1km) there would be views of Areas 1 and 2 from scattered farmsteads and residential properties. However, such views would be restricted due to a combination of vegetation, other developments and the local topography. From the surrounding road network there would be glimpsed views of both areas through existing gateways and gaps in the hedgerows.
208. For the users of other footpaths in the area, there would be views of the solar panels from time to time along the routes of the footpaths. However, with the layers of intervening vegetation these views would be intermittent and would not be likely to be a dominant feature of the experience of walking any footpath. Furthermore, the LVIA illustrates how the retention and reinforcement of existing hedgerows and trees both within and around the site would reduce the visibility of the proposal from the majority of receptors using the PRoWs.
209. In long distance views, over 1km from Areas 1 and 2, the proposed development would be effectively screened from the larger settlements of Ammanford and Pontarddulais by the existing topography. From scattered residential properties roads and open access land the site would be visible, particularly from the south east where the ground rises towards Graig Fawr.

¹² Particularly Areas 1 and 2.

210. I accept that over time the proposed planting and managed growth of the hedgerows has the potential to soften the visual impact of the development. Nevertheless, in views from the southeast the topography of the site and surrounding area is such that it is not possible to screen the development to any effective extent. In these views the sites would be seen alongside the existing Clawdd Ddu scheme and as such a large proportion of the mass of the solar array would be visible in the mid-ground and from a wide panoramic view. The visual receptors here would be of high sensitivity; however, I agree with the applicant that the combined sites would be perceived, but not dominate the views.
211. Area 3: In close proximity (0 – 200m) views of the site from the road network and PROW would be largely screened by vegetation, including mature hedgerows and tree belts. A residential property 'Ty-isaf'¹³ is located immediately to the south and east of Area 3¹⁴. The two-storey farmhouse is situated on lower ground than the adjacent sloping fields, however views of the proposed development will be possible from first floor windows. Accordingly, there would be medium impact and a moderate adverse effect on this receptor.
212. In medium distance (200m – 1km): There would be limited views of Area 3 due to the existing landscaping. Nevertheless, there will be glimpsed and fleeting views from gateways and gaps in the surrounding vegetation and thus the magnitude of impact will be medium-low, the level of effect will be minor adverse.
213. In long distance views, over 1km from Area 3: Llyn Llech Owain Country Park lies approximately 5km to the north and separated from it by existing development, undulating landform and extensive mature vegetation. Accordingly, any wider views towards the proposed development would be very restricted. This would also be the case for users of the National Cycle Route 47.
214. Security measures: The proposed solar panels and associated plant are valuable, and so the site would be enclosed by a 2.4m high deer fence, and monitored by CCTV infra-red cameras. No security lighting would be used. While the deer fencing would not be at odds with the agricultural character of the area, the cameras would. However, given the height of the existing boundary vegetation and the proposals for additional planting/management, their impact in views from outside the appeal site would be very limited indeed.
215. Cumulative impact: There are 5 operational solar schemes within 5km of the application sites. A further site has been consented and 1 scheme is pending a planning decision. I am also aware that a further site at Blaenhiraeth Farm, Llangennech, Llanelli is also pending a decision through the DNS process.
216. Nevertheless, apart from Clawdd Ddu, they are sufficiently distant from the application sites to ensure that they are not seen in the same view or seen soon before or after the proposed scheme when travelling along roads or public rights of

¹³ An involved property

¹⁴ Behind the operational solar scheme

way. Therefore, the proposal would not contribute to any harmful cumulative impacts on landscape character or visual impact.

217. To conclude on the visual impact, the main consideration is the effect on people viewing the site from public places and especially recreational users of public rights of way. The development would be screened by existing and proposed vegetation and this would limit the opportunities for viewers to perceive landscape change. The full extent of the sites would only be apparent within the context of views from the wider landscape. In such views there would be a minor adverse impact.
218. Taking all of this into account, the adverse visual impacts would be limited and localised, being largely confined to views from the footpath alongside the appeal site. After mitigation the development would only have a significant effect when seen from a limited number of viewpoints and that these effects would be typically minor and only moderate to major in a few locations. Similarly given the proposed design and mitigation measures the development would have a limited adverse impact on views into and out of the Llŵchwr Valley SLA.
219. I conclude that while the proposed scheme would have a detrimental visual impact on the rural character of the local area there would be little effect on the overall tranquil, open and expansive aspects of the character and appearance of the wider area. Whilst in reaching this conclusion the proposals would conflict with LDP Policies RE3, GP1 and SP14, the conflict would not amount to an unacceptable adverse impact as set out in FW Policy 18(1).

Residential Amenity

Glint and Glare

220. Glint can be produced as a direct reflection of the sun in the surface of the solar PV panel and can cause viewer distraction. Whereas glare is a continuous source of brightness, being a reflection of the bright sky around the sun. Nevertheless, the glass surface of the solar panels is specifically designed to absorb rather than reflect light and have a surface which is anti-reflective and diffusing and so is not reflective in the same way as a mirror or window. Furthermore, I agree with applicant's Solar Glint and Glare Study that *"the significance of a solar reflection decreases with distance. This is because the proportion of an observer's field of vision that is taken up by the reflecting area diminishes as the separation distance increases. Terrain and shielding by vegetation are also more likely to obstruct an observer's view at longer distances for ground-based receptors."* I also acknowledge that there is no specific guidance in respect of the methodology for assessing the impact of glint and glare.
221. The Study assessed 20 dwelling receptors which could potentially experience a solar reflection from the proposed development. From these 10 receptors could experience a negative impact. Nevertheless, given the existing screening and the proposed 'managed growth' of the hedgerows the maximum impact is anticipated to be low.
222. In terms of road users on A483, the study has shown that a solar reflection from the panels is geometrically possible on road users travelling in both directions along the A483 from eight out of ten locations. For the majority of these locations the existing

screening would ensure that no impact is anticipated for any type of vehicle travelling on A483 and no further mitigation would be required. However, for 2 locations there is no screening, but as the reflection will not originate in front of the driver only a low impact is anticipated.

223. Turning to road users on the A48, the study has shown that a solar reflection from the panels is geometrically possible on road users travelling in both directions on the A48 from seven out of nine locations. However, the existing screening would ensure that no impact is anticipated for any type of vehicle travelling on A48 at all seven receptor locations, and no further mitigation would be required. In any event, the height of the hedgerows can be managed to ensure that drivers of larger vehicles are not negatively affected.
224. I do not disagree with the conclusions of the applicant's study. However, I do not consider that it provides a complete picture of the potential impact. I am concerned that dwellings located on the higher ground to the southeast of Area 1 have not been assessed; where a view of a solar panel exists, a solar reflection may be possible. Nevertheless, having considered the intervening distance, duration of any impact and the potential receiving angle, any glint or glare observed would be likely to be negligible. Thus, I do not consider that the dwellings to the southeast would be significantly impacted.
225. Overall, considering the proposed planting, the distances from residential properties and the likely reduced frequency of direct sunshine at the critical times, glint or glare would not cause unacceptable harm to local residents or road users.

Other residential amenity impacts

226. The proposed solar farm would emit no smells and would be unlit. The only noise would be generated by the associated electrical plant, but this would be low-level, and at a sufficient distance from the nearest dwellings not to adversely affect their residential amenities. Moreover, a planning condition could be imposed to ensure that the development would not exceed existing background noise levels at the nearest (non-financially involved) residential property.
227. There is no evidence that the existing or proposed solar farm has/would affect property values and in any event, this is not a material consideration in determining planning applications and proposals.
228. To conclude on this matter, for the reasons set out above, I do not consider that the dwellings in the surrounding area would experience such an adverse impact from the proposed development that would be significantly detrimental to living conditions. The development would accord in this respect with the requirements of LDP Policy GP1 and FW Policy 18 and therefore this matter would be neutral in the final planning balance.

Biodiversity

229. The key principle in any new development proposal is to protect and enhance biodiversity. This is supported at national planning policy level within the FW, PPW and TAN 5 and at the local level in LDP Policies SP14, EQ4, EQ5 and EQ7.
230. The applicant undertook a PEA, dated April 2020, which included a Phase 1 Habitat Survey of all 3 of the proposed areas. This survey stated that all 3 areas comprise of improved grassland managed for its agricultural value and of negligible value for biodiversity. However, the boundaries comprise species rich managed hedgerows with diverse native woody shrubs. Hedgerows are listed under Section 7 of the Environment (Wales) Act 2016 and are a Local Biodiversity Action Plan priority habitat. These hedgerows would qualify as ecologically important for the purposes of the Hedgerow Regulations 1997. Furthermore, Area 1 contains running water which is of site value for biodiversity and Area 3 borders semi-natural broadleaved woodland which is of local value for biodiversity, as well as a number of small ponds with negligible value for biodiversity.
231. The cable route would cross areas of improved grassland, marshy grassland, roadside grassy verges, semi-natural broadleaved woodland, hardstanding, species rich hedgerows and a river. The hedgerows, semi-natural broadleaved woodland, running water and marshy grassland would qualify as a Local Biodiversity Action Plan Priority Habitat and a Habitat of Principal Importance.
232. Analysis of the biological records indicates that a number of notable species are present within 1km of the application areas. However, it is only likely that the boundary features would be used for foraging by bats and Dormice, nesting birds, hedgehogs, reptiles and badger. Otters may also use the River Gwili for feeding, although no holts were found during ecological surveys.
233. There are 10 SSSIs within 4km of the application areas and the Caeau Mynydd Mawr SAC is approximately 1.3km to the north of the application sites (at its closest point). The SAC was designated for the presence of Marsh Fritillary butterfly. Habitats within all 3 application areas would not support suitable plant communities for the Marsh Fritillary, although habitats to the immediate south of Area 2 comprise damp, *Molina* grasslands with potential. In this respect *Molina* meadows on calcareous, peaty or clayey-silt-laden soils can provide habitat to support the plant populations that the Marsh Fritillary larvae feed on.
234. The layout of the solar array would largely avoid impacts on the high value habitats, with the panels located primarily on areas of semi-improved grassland. Accordingly, the loss of this species poor habitat would not be significant. Nonetheless, in order to create an access into Area 2, three metres of hedgerow would need to be removed and replanted once the development is complete.
235. The LEMP sets out that the application areas would be managed to ensure that: hedgerows are maintained with a good structure (including additional planting) to provide connectivity for fauna and to support a diverse flora; buffer grassland would be managed to improve its diversity; grassland beneath the solar panels would be seeded with a suitable grazing mix where necessary; and, any weed growth controlled by mowing with the areas also grazed by sheep.

236. A bat and breeding bird box scheme would be introduced to provide additional habitats around the boundaries of the application sites. Badger gates would be installed at Application area 1 and 3 to facilitate continued access along foraging routes. Within Field F8, close to application area 2, 200 Devil's-bit Scabious plugs would be planted following completion of the construction phase from Mid to late Spring. The location of these is shown on LEMP Map 2.
237. During construction operations buffers would be in place to ensure that the woodland and species rich hedgerows are not damaged. The buffers would be delineated by fencing. The cable route as it passes through woodland, fields F8 and F13, and the River Gwilli would be laid using HDD and a cable trench would be used under hedgerow/banks.
238. On decommissioning the site would be restored to its original condition. This would include pre-decommissioning surveys to establish the value of the site for biodiversity and form the basis of a formal decommissioning strategy for biodiversity. These measures can be secured using a suitable planning condition.
239. The measures set out by the applicant would protect and enhance local biodiversity on the solar array sites. Nevertheless, the construction operations involve the laying of a substantial length of cabling. This cable will cross fields F8 and F13, which contain habitats that have the potential to support the Marsh Fritillary butterfly, as established in the Caeau Mynydd Mawr SAC SPG. This SPG sets out a strategy to ameliorate for the loss of and secure the ongoing and future management of habitat used by the Caeau Mynydd Mawr SAC Marsh Fritillary butterfly metapopulation.
240. The proposal would result in the disturbance to suitable habitat for the Marsh Fritillary butterfly and is therefore within the zone where the evidence points to an impact on the SAC. Following consultation with NRW the applicant revised its approach and has now adopted HDD across fields F8 and F13. HDD is a method of installing underground pipelines, cables and service conduit through trenchless methods. NRW has confirmed that this would be acceptable.
241. Based on the implementation of the proposed mitigation measures as outlined above, and secured by condition, I am satisfied that there would be no significant harmful impacts on ecological features. The application would also provide the biodiversity enhancement measures to provide a net benefit for biodiversity. As such, the proposed development would meet the requirements of the FW Policy 18(3, 4, 5) and LDP Policies EQ4, EQ7 and SP14. It would also be consistent with the objectives of TAN5 to protect nature conservation interests.

Heritage Assets

242. Section 66 of the Planning (Listed Buildings and Conservation Areas) Act 1990 places a duty on decision makers, when considering whether to grant planning permission for development which affects a listed building or its setting, to have special regard to the desirability of preserving the building or its setting or any features of special architectural or historic interest which it possesses.

243. In relation to SAMs the provisions of the Ancient Monuments and Archaeological Areas Act 1979 provides no statutory protection to the setting of a SAM. Nevertheless, PPW explains at paragraph 6.1.7 that *"It is important that the planning system looks to protect, conserve and enhance the significance of historic assets. This will include consideration of the setting of an historic asset which might extend beyond its curtilage. Any change that impacts on an historic asset or its setting should be managed in a sensitive and sustainable way."*
244. There are a number of heritage assets in the landscape surrounding the application areas, as set out in paragraphs 96 and 97 above. It is a matter of fact that none of these heritage assets would be physically altered by the proposed development. Rather, it is the indirect effect of the proposal, in terms of its impact on their settings, that needs to be considered.
245. The applicant identified that there would be a low to moderate impact on the settings of scheduled monuments GM386 Earthwork on Graig Fawr and GM513 Two Burial Chambers on Graig Fawr, with a lesser impact on the settings on Listed Buildings 18453 Plas Mawr and LB19451 Plas-Newydd Mill.
246. As a result of the local topography there is intervisibility between these identified sites and the development proposals. However, the limited visual impact of the proposed development, and the separation distances involved, would result in only a minor change to such views. Further, these impacts would be reduced over time due to the proposed hedgerow management and a planning condition would ensure an appropriate level of archaeological recording.
247. I conclude on this matter that the proposed development would not significantly harm the setting or significance of the identified heritage assets and would comply with the FW Policy 18(6) and LDP Policies GP1, SP13 and EQ1. This finding is supported by Cadw and is neutral in the final balance.

Transport and Access

248. The majority of the vehicle movements connected with the proposal are associated with the construction phase, which is predicted to last for approximately 18 weeks. It is anticipated that at its peak the construction works will generate some 10 to 11 HGV deliveries per day (40 movements) or some 2 to 3 HGV movements per hour on the A48 and a similar volume of traffic on the A483.
249. Access to Area 1 would be via the existing Clawdd Ddu solar array access, some 250m to the north east of the Coopers Road junction. As such this access has previously been 'tried and tested', without any significant concern and therefore the continued use of this access should not cause any significant impacts.
250. Whilst there are a number of PRowS that dissect Area 1, the applicant has confirmed that these will remain open at all times throughout the construction period and

thereafter. However, for the safety of the PRow users these routes will be temporarily diverted¹⁵ for the duration of the construction phase.

251. The proposed access to Area 2 is located approximately 300m to the south west of the A483's junction with Coopers Road. The access currently serves two dwellings and a field. There is good visibility in both directions, which the applicant's Transport Statement confirms is at least 215m to the west (where national speed limit applies) and 90m visibility to the east (into the 40mph speed limit area).
252. Access to Area 3 would be via the existing junction from the A48 that serves Ty-Isaf, which is a no through road. The junction also serves a vehicle 'rest area'. The applicant's Transport Statement confirms that during the construction phase of the development, construction traffic will not be permitted to turn right at this junction. Traffic approaching from the south east will instead continue north for some 5km and U-turn at the Cross Hands Business Park grade-separated junction.
253. A Construction Traffic Management Plan (CTMP) would be put in place by the applicant and the Transport Statement sets out the minimum requirement of this at paragraph 5.1. The CTMP could also be used to address the concerns raised by consultees in terms of co-ordinated deliveries and a vehicle lay-up site. The requirement for a CTMP could be conditioned if planning permission were granted.
254. After commissioning, the site will only experience very infrequent visits for maintenance by van/4x4-type vehicle.
255. Accordingly, based on the evidence before me, the proposal would not give rise to any significant highway safety concerns either during or post construction. It would therefore comply with the FW Policy 18(9) and LDP Policy TR3. It would also meet with the objectives of TAN 18 in this regard. As such this matter would be neutral in the planning balance.

Flood Risk

256. The applicant has prepared a FCA, dated 16 January 2020. The application areas are located in Zone A of the TAN 15 Development Advice Map. Accordingly, there would be little or no risk of fluvial or coastal / tidal flooding. Therefore, the impact on local hydrology must be considered to ensure that flood risk is not increased elsewhere.
257. The solar arrays have been laid out to ensure that high and medium risk flow routes are avoided or that landscape gaps are provided so that flows are not hindered. In any event the panels are supported on narrow legs that are resilient to water but do not significantly impede flow.
258. I have also taken into account that the management of the land as described above would lead to the improvement of the soil quality, increase the absorption quality of the land and reduce silt runoff.

¹⁵ Subject to necessary consents.

259. Neither the Council nor Welsh Water has raised any concern to the development in this regard. Therefore, I do not consider that the development would raise any flood risk concerns of itself or increase the risk of flooding elsewhere on the site or in the immediate surroundings.
260. The proposal would accord with LDP GP1. It would also meet with the objectives of TAN 15 to ensure the risks of flooding are assessed and managed for any new development as it relates to sustainability principles. This matter is therefore neutral in the planning balance.

Land Use

261. PPW advises that the best and most versatile (BMV) agricultural land should be conserved as a finite resource for the future. Therefore, considerable weight should be given to protecting such land from development. The WG has confirmed that a detailed Agricultural Land Classification survey is not required to support the application because it is unlikely to include BMV.
262. Given the aforementioned the proposals would comply with LDP Policy SP14 and would be neutral in the final balance.

Coal Mining

263. The Coal Authority has stated that the application sites are within the defined 'Development High Risk Area'. Therefore, it is highly likely that there are coal mining features and hazards in the area including shallow coal mine workings associated with thick coal seam outcrops and recorded mine entries.
264. The applicant has undertaken a Coal Mining Risk Assessment which guided the layout of the solar arrays, thus avoiding the areas of concern. The Coal Authority was satisfied, subject to a number of conditions, that the proposals would safeguard public safety. Given this, the proposals would comply with LDP Policy EP6 and would be neutral in the final balance.

Benefits

265. PPW at paragraph 5.76 states that "*the planning system should secure an appropriate mix of energy provision, which maximises benefits to our economy and communities.*" In this regard the WG published a Policy Statement¹⁶ on local ownership of energy developments. Although not a planning consideration this sets out an expectation that all new renewable energy projects in Wales to include an element of local ownership to retain social and economic benefit from future energy developments located in Wales. Further, PPW provides support for the principle of securing financial contributions¹⁷ for host communities through voluntary arrangements.

¹⁶ Policy Statement: Local ownership of energy generation in Wales – benefitting Wales today and for future generations, dated 18 February 2020.

¹⁷ PPW Paragraph 5.9.28

266. The applicant stated in document A31 that it has engaged with aid organisations local to the project to discuss contributions if planning permission is forthcoming and once the project is built and operational. Nevertheless, I have no mechanism before me to secure such benefits and I give this matter no weight.
267. Therefore, whilst there is no direct financial support or local ownership proposed, there would be some benefits to the landowner including an element of farm diversification, thus increasing the financial security of farming, and some economic benefit would flow from the commissioning and construction phase of the development but limited longer term employment.
268. Moreover, the proposed development would have wider community benefits in terms of increasing sustainability and energy resilience in terms of a maximum installed capacity of 40 MW, which would generate sufficient electricity to meet the needs of approximately 15,290 homes / annum and offset about 10,665 tonnes of CO₂ emissions / annum.
269. The production of renewable energy would enable a reduction in greenhouse gas emissions and there would be a useful contribution to the national and international objectives for renewable energy production. There would be commensurate assistance in securing a reliability of supply. I have no evidence that the construction, location, design or build of the arrays in themselves give rise to additional climate change impacts. As such, the development delivers positive social, environmental, cultural and economic benefits. A specific agreement to provide community benefits is not necessary to make this development acceptable in planning terms.
270. I give these benefits substantial weight in the overall planning balance.

Other Matters

271. The Council raised concerns relating to the need for a planning obligation to make provision for a bond to fund the decommissioning of the development at the end of the limited period. Nevertheless, I have no evidence that a planning condition could not deal with this matter effectively and address the removal and restoration issue, as has been the case in many other instances of solar farms and other temporary developments. Moreover, the WG Circular 016/2014 states that "*Local planning authorities should seek to overcome planning objections, where appropriate, or secure mitigation by condition rather than by a planning obligation.*" In the absence of any evidence to the contrary, a condition could address the removal of the installation and the reinstatement of the land.

Planning Balance and Preliminary Conclusion

272. I have considered the concerns expressed by a number of objectors to this application, and clearly it is vital that local views are taken into account. However, these views must be weighed together with all the other material considerations.

273. I place substantial weight on the benefits of the proposal that I have identified above. Both PPW and the FW identifies as a core principle that planning should support the transition to a low carbon future in a changing climate and encourages the development of renewable energy. It would meet the WFGA wellbeing goals as it would assist in building a stronger, greener economy as we make maximum progress towards decarbonisation and make our cities, towns and villages even better places in which to live and work.
274. I consider that, with appropriate mitigation, the consideration of the living conditions of nearby residential occupiers, biodiversity and land stability are neutral in the overall balance. I have also considered a number of other matters, however these do not weigh against the proposal.
275. FW Policies 17 and 18 set out the WG's approach to promoting the increased production of renewable energy in a way that seeks to strike an appropriate balance with the protection of other relevant interests. As FW is the most recently adopted part of the development plan and contains the most directly relevant policy to renewable energy projects of national significance and given that the conflicts that I have identified with the LDP, in terms of landscape character and visual amenity, are relatively minor, therefore I conclude that the proposal complies with the development plan when considered as a whole.

Conditions / Obligations

276. A set of suggested conditions was submitted by CCC in its LIR. I have had regard to the suggested conditions and whether they meet the tests outlined in WG Circular 016/2014. Where appropriate I have amended the suggested conditions for improved clarity and included others I consider necessary. The recommended suite of conditions is included as Annex A to this report.
277. Further to my findings above, I do not find that it has been demonstrated that a planning obligation is necessary to make the development acceptable. It would not therefore meet all three tests outlined in Regulation 122 of the CIL Regulations. It is also important to note that Welsh Office Circular 13/97 '*Planning Obligations*' advises that if there is a choice between imposing conditions and entering into a planning obligation, the imposition of a condition is preferable. Thus, planning obligations should only be used where it is not possible to address unacceptable impacts through a planning condition.

Habitat Regulations Assessment

278. Given the conclusion set out in paragraph 275 above, I now go on to consider:
- i. whether the proposed development would adversely affect the integrity of the Caeau Mynydd Mawr SAC, having regard to the conservation objectives of that site; and, if it would have an adverse effect; and
 - ii. whether, there being no alternative solutions, the development must be carried out for imperative reasons of overriding public interest¹⁸.

¹⁸ Regulation 64 of the Habitats Regs.

European Sites

279. The appeal site lies within a 2km radius of the Caeau Mynydd Mawr SAC. In relation to this SAC, a change or loss in *Molinia* meadows on calcareous, peaty or clayey-silt-laden soils habitat associated with the development may lead to a reduction of Marsh Fritillary butterflies, the Annex II species which is the primary reason for which the site is designated. In accordance with the Habitats Regulations, as the competent authority it falls on the Welsh Ministers to undertake an Appropriate Assessment (AA) but to assist in that process I have set out my assessment below.
280. If the proposed development is not directly connected with or necessary to site management, as is the case here, the decision-taker must determine whether the proposal is likely to have a significant effect on a European site, alone or in combination. An AA is required where there is a probability or a risk that the plan or project will have significant effects in terms of the conservation objectives for which the site was classified.
281. Caeau Mynydd Mawr SAC is situated at the centre of a wider area that sustains one of Wales' most important populations of the Marsh Fritillary butterfly. The butterfly requires large areas of connected habitats in order to maintain a thriving metapopulation.
282. Favourable Conservation Status of the metapopulation requires the appropriate management of a network of 'Potential, Suitable and Good Condition' Marsh Fritillary habitat to include populations of *Succisa pratensis* (Devils Bit Scabious) which is the main host plant for the butterfly's larvae. Development pressures and changes in agriculture have left the current habitat fragmented and isolated, which can threaten the survival of remaining plant populations as well as the butterfly.
283. Based on the submitted ecology reports and shadow HRA, dated February 2021, submitted by the applicant, NRW has commented¹⁹ that "*We have reviewed the updated Landscape and Ecology Management Plan (February 2021) and the draft HRA (February 2021) and our concerns regarding the Marsh Grassland fields and the cabling have been addressed. The method for laying cable is Horizontal Directional Drilling for all sensitive habitats including the fields of marshy grassland that we raised in our previous response.*" And "*We are now in agreement with the conclusion that a Likely Significant Effect, alone or in combination, on Caeau Mynydd Mawr SAC can be screened out*"
284. However, this is based on a number of mitigation measures. In some circumstances, the decision-taker must consider the way in which it is proposed to carry out the project and whether conditions or other restrictions would help to ensure that site integrity was not adversely affected. In practice, this means identifying the potential risks and putting in place a legally enforceable framework with the aim of preventing the risks from materialising.
285. The identified potential risks to the SAC habitat include land take; increased airborne pollutants; and increased waterborne pollutants. In terms of 'land take', habitats within the footprint of the solar arrays comprise managed agricultural grassland and

¹⁹ REP09 III

from the evidence before me are not suitable for the Marsh Fritillary butterfly. During construction operations, there is potential for airborne pollutants and dusts to be created for a brief period of time. The applicant states in the shadow HRA that "Prevalent winds in this area are from the south west such that any pollutants would be carried towards this SAC, nevertheless dilution over the intervening distance would negate any effect. It not expected that airborne pollutants will be emitted during the operational phase of the development." Further, "Site 3 is set close to River Gwili, whilst both Site 3 and Site 1 have small watercourses, these all flow to the south or east, leading away from the SAC and the SPG. There is no pathway for waterborne pollutants associated with the proposed development to impact this SAC or supporting habitats." NRW have not raised any objection to these statements, and I have no contradictory evidence to say otherwise.

286. However, the cable route passes through fields F8 and F13 which comprise grassland with potential for *Succisa pratensis* the foodplant of the Marsh Fritillary larvae. Degradation of this habitat and a reduction in this food plant could impact on the long-term viability of the SAC butterfly population.
287. I consider that there is the potential for impacts on the nearby SAC. As such I conclude that there would be likely significant effects arising from this development in the absence of mitigation and avoidance measures.
288. In reaching this conclusion I also have to consider the 'in-combination' impact from other similar developments. The applicant has identified four²⁰ large scale solar developments within the Caeau Mynydd Mawr SAC SPG area. Limited information was available for these projects to enable any assessment to be made. Whilst, the HRA screening Report of the LDP provides no consideration for renewable energy developments specifically, it does 'screen out' rural developments and infrastructure, of which this type of application could be considered. Accordingly, an AA for this individual proposal only is required.

Appropriate Assessment (AA)

289. As set out in the Biodiversity section above the applicant intends to use a number of mitigation methods to avoid any harm to the SAC. In particular, the use of HDD. HDD provides for the limited disturbance of land and water as there is no excavation except for the entry and exit pit. Accordingly, the ground seedbank and root structure of *Succisa pratensis* would remain undisturbed.
290. The use of planning conditions²¹ to control these factors would ensure that the adverse effect on habitats can be sufficiently reduced such that the integrity of the European site is not adversely affected from this proposal. Essentially, condition 2 ensures that the development is completed in accordance with the submitted details, including the LEMP V4 (and any subsequent update), which provides for HDD. In doing so I do not need to consider the above step 'ii' of alternative solutions or public interest.

²⁰ Council references: E/28026, E/28054, S/27987 & S/27526

²¹ Planning conditions are set out in Annex 1. Relevant conditions include Nos. 2; 4; 5; 9; 11; 13; 14.

AA Conclusion

291. I have taken into account all the available evidence and have adopted the precautionary principle in carrying out this assessment. I conclude that it is beyond reasonable scientific doubt that this development and associated construction activities, either alone or in combination with other projects, would not have an adverse effect on the integrity of a European Site, namely the Caeau Mynydd Mawr SAC.
292. This conclusion is predicated on the circumstances of the case based on the site's unique context and situation and on the basis of securing those elements of the identified mitigation and avoidance measures that I have found to be reasonable and necessary.

Recommendation

293. The requirement of the WCFG Act to make decisions "*in accordance with the sustainable development principle*" equates to behaving in a way which seeks to ensure that the needs of the present are met without compromising the ability of future generations to meet their own needs. The WCFG Act also sets out a number of well-being goals and states that in undertaking sustainable development public bodies should consider the five ways of working as set out in the Act. In coming to my recommendation, I have had regard to the extent to which the proposal contributes to the well-being goals.
294. I recommend that planning permission be granted, subject to the conditions attached at Annex A.

J Burston

Inspector

Documents/Plans Submitted with the Application

A1	Application Form
A2	Site Location Plan ref. SPLP-D02-PL
A3	Site Plan Existing 1 of 3 ref. SP-EP1.D02-PL
A4	Site Plan Existing 2 of 3 ref. SP-EP2.D02-PL
A5	Site Plan Existing 3 of 3 ref. SP-EP3.D02-PL
A6	Site Plan Proposed 1 of 3 ref. SP-SL1-D02-PL
A7	Site Plan Proposed 2of3 ref. SP-SL2-D02-PL
A7	Site Plan Proposed 3of3 ref. SP-SL3-D02-PL
A8	Elevations Plan ref. SP-ELD2-PL
A9	Transformer Housing Plan ref. SP-IND2-PL
A10	Substation Plan ref. SP-SSD2-PL
A11	CCTV Plan ref. SP-CTD2-PL
A12	Site Clearances Plan ref. SP-SCD2-PL
A13	Fence Plan ref. SP-SFD2-PL
A14	Landscape and Visual Impact Assessment (LVIA); produced by Amalgam Landscape
A15	Landscape Masterplan; produced by Amalgam Landscape (Figures 18A and 18B contained within the LVIA)
A16	Preliminary Ecological Appraisal (PEA) - solar sites; produced by Western Ecology
A17	Preliminary Ecological Appraisal (PEA) - cable route; produced by Western Ecology
A18	Landscape and Ecology Management Plan (LEMP); produced by Western Ecology
A18	Habitats Regulation Screening Assessment; produced by Western Ecology
A19	Flood Consequences Assessment (FCA); produced by Clive Onions Ltd.
A20	Heritage Impact Assessment (HIA); produced by Archaeology Wales
A21	Transport Statement; produced by Acstro
A22	Coal Mining Risk Assessment; produced by Yellow Sub Geo • Coal Mining Risk Assessment Technical Note; produced by Yellow Sub Geo

A23	Construction and Environmental Management Plan (CEMP); produced by Spring
A24	Glint and Glare Assessment; produced by Pager Power
A25	Arboricultural Impact Assessment & Method Statement [AIA&MS] Report + Appendices; prepared by Woodland and Countryside Management Ltd
A26	AIA&MS Supplementary Report - Underground Cables + Appendices; prepared by Woodland and Countryside Management Ltd.
A27	Design and Access Statement; produced Renplan Ltd
A28	Copy of Screening Direction 3213704 - EIA Not Required (enclosed in Appendix 1 of this Report)
A29	Copy of Acceptance of Notification - Letter to Applicant 23.12.2019
A30	Consultation Report; produced by Renplan Ltd 29.04.2020

Documents Submitted Since the Application was Accepted as Valid

REP01	Consultation Response: Land, Nature and Forestry Division WG
REP02	Consultation Response: Cadent
REP03 I	Consultation Response: Dyfed Archaeological Trust Ltd
REP03 II	Consultation Response: Dyfed Archaeological Trust Ltd
REP03 III	Consultation Response: Dyfed Archaeological Trust Ltd
REP04	Consultation Response The Coal Authority
REP05 I	Consultation Response: Network Management Division WG
REP05 II	Consultation Response: Network Management Division WG
REP06	Consultation Response: National Grid
REP07	Consultation Response Cadw
REP08 I	Consultation Response: Carmarthenshire County Council
REP09 I	Consultation Response: Natural Resources Wales
REP09 II	Consultation Response: Natural Resources Wales
REP10	Consultation Response: Hywel Dda University Health Board
REP11	Dwr Cymru Welsh Water

OBJ 01	Name withheld
OBJ 02	Sue Spratley

Documents Submitted following the Suspension Period and second consultation

A31	Tycroes Covering Letter (PPW/FW)
A32	Tycroes Covering Letter (HRA/National Grid)
A33	National Grid Letter
A34	NRW Letter
A35	Site Layout Plan Ref. SP-SL3-D02-PL R06
A36	Site Layout Plan Showing Gas Pipeline Ref. SP-PI-D02-PL R06
A37	Tycroes LEMP Version 4
A38	Tycroes Cable Route Preliminary Ecological Appraisal
A39	Tycroes HRA Shadow Screening Assessment
REP09 III	Consultation Response: Natural Resources Wales
REP08 II	Consultation Response: Carmarthenshire County Council
REP08 III	Consultation Response: Carmarthenshire County Council

Recommended conditions in the event of planning permission being granted:

1. The development hereby permitted shall be commenced before the expiration of five years from the date of this permission.

Reason – Required to be imposed pursuant to Section 91 of the Town and Country Planning Act 1990.

2. The development shall be carried out in accordance with the details of the following approved plans and documents, except where amended by conditions attached to this planning permission:

- Site Location Plan ref. SPLP-D02-PL
- Site Plan Existing 1 of 3 ref. SP-EP1.D02-PL
- Site Plan Existing 2 of 3 ref. SP-EP2.D02-PL
- Site Plan Existing 3 of 3 ref. SP-EP3.D02-PL
- Site Plan Proposed 1 of 3 ref. SP-SL1-D02-PL
- Site Plan Proposed 2 of 3 ref. SP-SL2-D02-PL
- Site Plan Proposed 3 of 3 ref. SP-SL3-D02-PL R06
- Site Plan Gas pipeline layout ref. SP-PI-D02-PL R06
- Elevations Plan ref. SP-ELD2-PL
- Transformer Housing Plan ref. SP-IND2-PL
- Substation Plan ref. SP-SSD2-PL
- CCTV Plan ref. SP-CTD2-PL
- Site Clearances Plan ref. SP-SCD2-PL
- Fence Plan ref. SP-SFD2-PL
- Landscape and Ecology Management Plan (LEMP) Version 4; produced by Western Ecology
- Transport Statement; produced by Acstro
- Coal Mining Risk Assessment; produced by Yellow Sub Geo
- Coal Mining Risk Assessment Technical Note; produced by Yellow Sub Geo
- Construction and Environmental Management Plan (CEMP); produced by Spring
- Arboricultural Impact Assessment & Method Statement [AIA&MS] Report + Appendices; prepared by Woodland and Countryside Management Ltd
- AIA&MS Supplementary Report - Underground Cables + Appendices; prepared by Woodland and Countryside Management Ltd.

Reason – Required to be imposed pursuant to Section 91 of the Town and Country Planning Act 1990.

3. This planning permission shall endure for a period of 40 years from the date when electricity is first exported from the solar farm to the electricity grid ('First Export Date'). Written notification of the completion of construction

operations and First Export Date shall be provided by the developer to the Local Planning Authority no later than 1 calendar month after that event.

Reason – Permission is sought for a limited time period.

4. No later than 12 months before the expiry of the permission the following schemes shall be submitted to and approved in writing by the Local Planning Authority:
 - i. a decommissioning scheme for the removal of all surface elements of the photo voltaic solar farm and associated development and any foundations or anchor systems to a depth of 1m below ground level;
 - ii. a restoration and aftercare scheme; and
 - iii. ecological surveys to inform the decommissioning.

The approved decommissioning/restoration/aftercare scheme shall be fully implemented within 12 months of the expiry date of the permission.

Reason – To ensure that, upon the expiry of the lifespan of the development, the development is removed, and the land restored to its former condition. (LDP Policy GP1).

5. If the solar farm fails to produce electricity for supply to the grid for a continuous period of 6 months a scheme shall be submitted to the Local Planning Authority for its written approval within 3 months of the end of that 6 month period for the repair or removal of the solar farm.

Where repairs or replacements of more than 500 panels in a 90 day period are to be undertaken, the scheme shall include a proposed programme/timetable of remedial or replacement works to be agreed in writing with the Local Planning Authority. Where removal of the solar farm is required the scheme shall include the same details required under the decommissioning condition 4 of this permission and a timetable for decommissioning. The relevant scheme shall thereafter be implemented in accordance with the approved details and timetable.

Reason – To ensure that, upon the expiry of the lifespan of the development, the development is removed, and the land restored to its former condition. (LDP Policy GP1).

6. No development shall take place until a detailed layout plan of the site has been submitted to and approved in writing by the Local Planning Authority. This shall include the precise location of the arrays, transformer buildings, sub-station, fencing, CCTV, lighting and the landscape and ecological mitigation.

Reason – In the interests of visual amenity and in compliance with LDP Policy GP1.

7. No development shall take place until a scheme has been submitted to and approved in writing by the Local Planning Authority which specifies the provisions to be made for the control of any noise emanating from any electrical equipment to be installed, such that the rating level (as defined in BS4142) will not exceed the existing background noise level at the boundary of the nearest noise sensitive receptor. The development shall only be operated in accordance with the approved scheme.

Reason – To protect the amenities of third parties and in compliance with LDP Policy GP1.

8. No development hereby approved shall be commenced until a Construction Traffic Management Plan (CTMP) has been submitted to and approved in writing by the local planning authority. The CTMP shall provide details of the measures set out in Section 5 of the Transport Statement. Thereafter, the development shall be implemented in accordance with the approved CTMP.

Reason – In the interests of highway safety and in compliance with LDP Policy TR3.

9. There shall at no time be any means of construction vehicular access to the development from C2134 Road.

Reason – In the interests of highway safety and in compliance with LDP Policy TR3

10. No development or site clearance shall take place until a Landscape Design Scheme (LDS) has been submitted to and approved in writing by the Local Planning Authority.

The LDS shall specifically provide plant stock and planting specifications for:

- i. Additional new native species tree planting to the immediate inside of existing hedge lines in locations where there are:
- no existing hedge line trees; and
 - there would be no potential shading of PV arrays by expected 40 year future canopy growth.

The LDS shall include sufficient information to enable effective compliance monitoring or enforcement to include:

- i. Plant specification:
- Plant species, varieties and cultivars
 - Planting stock specification (stock size, form, root condition etc.)
- ii. Planting specification:
- Depths of topsoil and subsoil;
 - ground preparation and cultivation;
 - Dimensions of planting pits or trenches and proposed backfill material;
 - Planting densities/spacing or numbers;
 - Methods of weed control, plant protection and support;
 - Seed mix specifications and sowing rates; and/or turf specification; and

- iii. Hedgerow maintenance/management scheme to ensure that highway users, including HGV drivers, are protected from glint/glare.

Reason – In the interests of biodiversity, highway safety and visual amenity and in compliance with LDP Policy EQ4 and GP1.

11. The approved Landscape Design Scheme (LDS), as submitted to discharge condition 10, shall be fully implemented in the first planting season following the commencement of development. Any new landscape elements constructed, planted or seeded, or existing landscape elements retained, in accordance with the approved LDS which within the lifetime of the proposed development are removed, die, become diseased, damaged or otherwise defective, to such extent that, in the opinion of the Local Planning Authority, the function of the landscape elements in relation to this planning approval is no longer delivered, shall be replaced in the next planting or seeding season with replacement elements of similar size and specification.

Reason – In the interests of visual amenity and in compliance with LDP Policy GP1.

12. No development hereby approved shall take place until additional land control (LC) information has been submitted to and approved in writing by the Local Planning Authority. The LC information shall include the following:

- i. Land Management Responsibility Plan which provides clear definition of the land control status of all areas within and forming the application boundary including:
 - The extent of land subject to lease agreements to PV operator(s)
 - The extent of land subject to other ownership and details of the constituent landowners.
- ii. Details of the management agent (individual, body or organisation) responsible for implementation of each area of distinct control.
- iii. Details of the legal agreements by which delivery of the LC scheme will be secured and continued through any changes to land control responsibility.

All landscape maintenance and management operations shall be fully implemented as approved.

Reason – In the interests of visual amenity and in compliance with LDP Policy GP1.

13. The scheme hereby approved shall be carried out strictly in accordance with the submitted Arboricultural Impact Assessment and Method Statement and associated plans.

Reason – In the interests of biodiversity and visual amenity and in compliance with LDP Policy EQ5 and GP1.

14. The proposed solar scheme hereby approved shall be carried out strictly in accordance with the approved Construction Environmental Management Plan.

Reason – In the interests of biodiversity and in compliance with LDP Policy EQ4.

15. No development hereby approved shall take place until an updated Landscape and Ecological Management Plan (LEMP) has been submitted to and approved in writing by the Local Planning Authority. The updated LEMP shall address monitoring of hedgerows and floristic diversity, and details of sowing mixtures. The LEMP shall be subject to 5 yearly review to be approved in writing by the Local Planning Authority. The development shall be implemented in accordance with the approved LEMP or any other iterations approved by the Local Planning Authority.

Reason – In the interests of visual amenity and in compliance with LDP Policy GP1.

16. No development shall take place until a suitably qualified archaeologist has submitted a written scheme of investigation (WSI) for approval in writing by the Local Planning Authority. The development shall be implemented in accordance with the requirements and standards of the written scheme.

Reason – To protect historic environment interests whilst enabling development and in compliance with LDP Policy SP13 and EQ1.

17. No development hereby approved shall take place until an appropriate scheme of intrusive site investigations for the Mine Shaft 257209-001 and 258209-004 has been submitted to and approved in writing by the Local Planning Authority.

Reason – In the interests of public safety and in compliance with LDP Policy EP6.

18. No development hereby approved shall take place until the submission of a report of findings arising from the intrusive site investigations, set out in Condition 17, have been submitted to and approved in writing by the Local Planning Authority. The report shall include:

- i. The submission of a report of findings arising from the intrusive site investigations; and
- ii. The submission of a scheme detailing any remedial works required.

Reason – In the interests of public safety and in compliance with LDP Policy EP6.

19. No development hereby approved shall take place until any remedial works approved by condition 18 have been fully implemented. A signed statement or declaration prepared by a suitably competent person confirming that the site is, or has been made, safe and stable for the approved development shall be submitted to

the Local Planning Authority for approval in writing. This document shall confirm the methods and findings of the intrusive site investigations and the completion of any remedial works and/or mitigation necessary to address the risks posed by past coal mining activity.

Reason – In the interests of public safety and in compliance with LDP Policy EP6.

END

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