



Development of national significance in the renewable energy sector

Planning Statement

Penderi Solar Farm,
Land at Blaenhiraeth Farm,
Langennech, Llanelli, SA14 8PX

APPLICATION SUBMISSION

January 2020 | BRS.4254



PENDERI SOLAR FARM

PLANNING STATEMENT

**LAND AT BLAENHIRAETH FARM, LANGENNECH,
LLANELLI, SA14 8PX**

ON BEHALF OF VOLTALIA UK LIMITED

**TOWN & COUNTRY PLANNING ACT 1990 (AS AMENDED)
PLANNING AND COMPULSORY PURCHASE ACT 2004**

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DESIGN | **ENVIRONMENT** | **PLANNING** | **ECONOMICS** | **HERITAGE**

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1. INTRODUCTION

1.1 This Planning Statement has been managed and coordinated by Pegasus Group, on behalf of Valtalia UK Ltd [the applicant and developer] 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 solar farm at Blaenhiraeth Farm, Llangennech, Llanelli, SA14 8PX.

1.2 A site location plan is provided at Appendix 1.

APPENDIX 1: SITE LOCATION PLAN

1.3 The main element of the scheme is the installation of ground mounted solar panels. There will also be electrical connection infrastructure. The point of connection into the local electricity grid is the 132kv electrical overhead pylon which already runs through the farmstead and development site.

1.4 By virtue of its potential generating capacity, which stands at 38MWp [Megawatts peak], this project 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 Welsh Government for determination.

1.5 The proposal would provide a clean, renewable and sustainable form of electricity and will make a valuable contribution to the generation of electricity at a local level. The scheme would add to the Council's progress in meeting its renewable energy target and would also assist in meeting national targets for both energy supply and low carbon energy development.

1.6 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: Background

1.7 The section summarises the key legislative background and support for standalone renewable energy schemes in the UK and Wales.

Section 3: Site and Surrounds

1.8 This section contains a description of the application site and its environs.

Section 4: *The Development*

- 1.9 This section contains a description of the proposed development.

Section 5: *Planning Policy Context*

- 1.10 The planning policy context for the site includes both national policy guidance and the statutory development plan which comprise the Carmarthenshire County Council Local Plan 2006-2021. Brief explanations of the key policies pertaining to the development proposal is contained within this section.

Section 6: *Planning Assessment*

- 1.11 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 Section 2.

Section 7: *Conclusions*

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

Supporting Documentation

- 1.13 The application proposal is supported by the following documentation:
- **Planning Application Drawings**, prepared by Valtalia UK Limited
 - **Covering Letter**, prepared by Pegasus Group
 - **Design and Access Statement**, prepared by Pegasus Group
 - **Planning Statement**, [this statement] prepared by Pegasus Group
 - **Consultation Report**, prepared by Pegasus Group
 - **Heritage Desk Based Assessment**, prepared by Cotswold Archaeology
 - **Economic Benefits Report**, prepared by Pegasus Group
 - **Transport Statement and Construction Management Plan**, prepared by Pegasus Group

- **Noise Assessment for Planning**, prepared by ION Acoustics
- **Agricultural Assessment**, prepared by Kernon Countryside Consultants Ltd
- **Glint and Glare Assessment**, prepared by Pagerpower
- **Environmental Statement**, coordinated by Pegasus Group and structured into: -
 - i. **Volume 1: Main Statement** - Comprises the main volume of the Environmental Statement, including 'general chapters' that describe the EIA context, provide a description of the application site and development, and set out the scope of the Environmental Statement, followed by the 'technical chapters' for each environmental theme with the associated figures concluding with a summary. Coordinated and managed by Pegasus Group.
 - ii. **Volume 2: Technical Appendices** - Comprise the technical appendices supporting the main report, these include technical studies comprising: -
 - **Flood Consequence Assessment**, prepared by Clive Onions Ltd
 - **Phase 1 Ground Conditions Desk Study**, prepared by Integral
 - **Outline Construction Environmental Management Plan**, prepared by Pegasus Group and Valtalia UK Limited
 - **Arboricultural Survey, Impact Assessment and Protection Plan**, prepared by Barton Hyett Associates Ltd
 - **Residential Visual Amenity Assessment**, prepared by Pegasus Group
 - **Extended Phase 1 Ecological Survey Report**, prepared by Clarkson & Woods Ecological Consultants
 - **Wintering Bird Survey Report**, prepared by Clarkson & Woods Ecological Consultants
 - **Breeding Bird Survey Report**, prepared by Clarkson & Woods Ecological Consultants

- **Habitat Regulations Assessment Screening Matrix**, prepared by Clarkson & Woods Ecological Consultants
 - **Construction Ecological Management Plan**, prepared by Clarkson & Woods Ecological Consultants
 - **Landscape and Ecological Management Plan**, prepared by Clarkson & Woods Ecological Consultants and Pegasus Group.
- iii. **Volume 3: Non-Technical Summary** - this provides a concise summary of the Environmental Statement identifying the likely significant environmental effects and the measures proposed to mitigate or to avoid adverse effects of the development. This document is available in Welsh and English.

Statutory Requirements

- 1.14 The application is accompanied by an Environmental Statement.
- 1.15 Prior to the introduction of the DNS regulations, an Environmental Impact Assessment (EIA) Screening Opinion was adopted by Carmarthenshire County Council on 28 January 2015. A positive screening opinion was adopted whereby the Council considered the development to be EIA development based on the nature, scale and location of the proposal. The Screening Opinion recommended (inter alia) *"that any prospective application should be accompanied by a tightly scoped EIA which should provide a thorough landscape and visual impact assessment of the proposal as well as assessing its potential ecological impacts."* On 12 March 2019, the applicant submitted request for a Scoping Direction to the Planning Inspectorate Wales under Regulation 33 of the Town and Country Planning (Environmental Impact Assessment) (Wales) Regulations 2017. The Planning Inspectorate issued their Scoping Direction on 3 May 2019. A copy of the screening Direction is presented within the technical appendices of the Environmental Statement.

Pre-Application Consultation

- 1.16 The planning application was finalised following extensive non-statutory and statutory consultation with the local community, council and other statutory consultees. The table below provides an overview of the phased approach the

applicant adopted for the pre-application consultation process. These are discussed in detail in the accompanying Consultation Report.

Consultation Phase	Key Dates	Description
Non-Statutory engagement and consultation	From 2015 to July 2019	Non-statutory discussion with public and statutory consultees through extensive informal consultations. Public exhibitions over the preliminary designs were held in 2015
Environmental Impact Assessment Scoping Direction	12 March 2019 to 3 May 2019	Applicant submitted request for a Scoping Direction under Regulation 33 of the Town and Country Planning (Environmental Impact Assessment) (wales) Regulations 2017 on 12 March 2019. The Planning Inspectorate issued their Scoping Direction on 3 May 2019.
Notification	June 2019	In June 2019, the applicant gave formal notification to the Planning Inspectorate of its intention to submit a planning application.
Acceptance Period	From 27 June 2019 to 26 June 2020	Notice of Acceptance provided by Planning Inspectorate on 27 June 2019. Notice of acceptance is valid for 12 months and the statutory consultation and submission of application must be made by 26 June 2020.

Statutory pre-application consultation	From 7 August 2019 to 27 September 2019	The statutory pre-application consultation was carried out for 51 days, starting on Wednesday 7 August 2019 and finishing on Friday 27 September 2019.
Post-Statutory Engagement	September 2019 to January 2020	Consultation and continued engagement undertaken between September 2019 and December 2019 to keep stakeholders informed of progress and to keep consultees informed on final minor refinements to schemes.

2. BACKGROUND AND RENEWABLE ENERGY IN THE UK

- 2.1 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 change 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.
- 2.2 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.
- 2.3 At a local level, Carmarthen County Council made its own Climate Change Emergency Declaration during its inaugural meeting on 20 Feb 2019.
- 2.4 BREXIT is also a material consideration for energy and climate change. Government has explored the relationship between BREXIT, energy and climate change through its Briefing Paper published on 9 November 2018¹. The salient points are: -
- There is currently uncertainty about the Brexit impact on a number of issues including: the UK's departure from Euratom, the future of the EU internal energy market (IEM) and the status of the single electricity market (SEM) on the island of Ireland.
 - The impact of Brexit on UK energy and climate change policy is subject to the outcome of the Brexit negotiations. The possible consequences vary

¹ House of Commons Briefing Paper: Brexit Energy and Climate Change

based on whether the outcome is a full Brexit deal, a sector-specific deal, or in the case of no Brexit deal.

- Brexit has the potential to impact the UK's civil nuclear industry, including nuclear supply of electricity
- The UK is currently a full member of the EU 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. Britain has four electricity interconnectors with Europe and the island of Ireland providing 4GW of electricity interconnector capacity: 2GW to France (IFA); 1GW to the Netherlands (BritNed); 500MW to Northern Ireland (Moyle); and 500MW to the Republic of Ireland (East West).
- The IEM facilitates harmonised, tariff-free trade across these interconnectors. The flow of electricity between interconnected markets is driven by cost differentials. When the price of electricity is lower in one market, energy will flow from that market to the higher priced market. The effect of this is to make the prices in each converge - they increase in the exporting market and decrease in the importing market.
- 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.

2.5 Leaving the IEM has the potential to impact the trade of energy through interconnectors. The Briefing Paper 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 UK should be to increase the flexibility and resilience of grid, especially with increasing intermittent renewables. The development proposal would contribute towards the objectives set out in the briefing note.

2.6 This section continues to highlight the legislative background and support for standalone renewable energy schemes as part of both local climate change mitigation and wider national targets on the use of renewables in the UK. These documents form key components of central and local Government's policy and

commitments to renewable and low carbon energy and should be considered material to the determination of this scheme.

- 2.7 The background to the drive to increase the use of renewable sources of energy has its roots in the recognition that the burning of fossil fuels has an adverse effect on the climate of the world as a whole and that global measures are required to deal with it. The extensive use of fossil fuels that accompanied the industrialisation of the world's economy has released large volumes of CO₂ back into the atmosphere. The accumulation of greenhouse gases in the upper atmosphere reduces the planet's ability to reflect solar radiation back into space, resulting in a gradual increase in mean global air temperature.

Energy Act (November 2012)

- 2.8 By way of background, the Energy Bill was introduced by the Coalition Government in November 2012 and aimed to **"power low-carbon economic growth for the UK"**. The Secretary of State for Energy and Climate Change confirmed the introduction of the Energy Bill to the House of Commons alongside the Annual Energy Statement. The Bill sought to establish a legislative framework for delivering secure, affordable and low carbon energy throughout Great Britain. At its core is the need to ensure that, as old power plants are taken off line, the UK remains able to generate enough energy to meet its needs even if demand increases. Doing this while also decarbonising requires significant investment in new infrastructure to be brought forward. The Bill was duly progressed through Parliament and received the Royal Assent on 18 December 2013.
- 2.9 In the meantime, the objectives of the Electricity Market Reform (EMR) to which the Secretary of State will have regard when carrying out the key EMR functions are:
- the carbon reduction targets as set out in the climate change act 2008, which include a 34% reduction by 2020 and 80% reduction by 2050;
 - to ensure a security of energy supply (including through diversification of energy mix);
 - the cost to consumers; and

- the legally binding EU targets for 15% of UK energy to be supplied from renewable sources by 2020.

UK Renewable Energy Strategy

- 2.10 The 'UK Renewable Energy Strategy' was published in July 2009 by DECC, identifying how to radically increase renewable energy use in the UK as part of an overall strategy for tackling climate change. This strategy would also meet the UK's European obligations and legally binding targets to ensure that 20% of our energy comes from renewable sources by 2020.

Energy Security Strategy

- 2.11 This document was published in November 2012 and provides a detailed and open assessment of the UK's current energy security, outlines work already underway to safeguard our energy security, and sets out the policy which the Government is putting in place to ensure that our energy supplies remain secure.
- 2.12 Whilst the document identified that total UK energy demand 'is predicted to fall by 7 per cent between 2011 and 2020'; it also recognises that demand for *'electricity is likely to increase by at least 30 per cent and potentially by 100 per cent as much of our heating and transportation becomes electrified'*
- 2.13 One of the key goals of the Energy Security Strategy is to decarbonise electricity supply which will help reduce UK reliance on international fossil fuel. The UK Government recognises that increasing the amount of energy UK gets from low-carbon technologies will help make sure the UK has a secure supply of energy.

Renewable Energy Roadmap

- 2.14 The Government first published the Renewable Energy Roadmap in July 2011 which sets out the path to achieve the UK's headline renewable energy target.
- 2.15 The Roadmap has been updated on two occasions since July 2011, once in 2012 and most recently in November 2013. In these updates solar PV deployment has been included as one of the key technologies to help create a balanced UK energy mix.
- 2.16 This reflects the significant changes to the solar PV industry in the United Kingdom including the increased viability of implementing this technology at larger scales

predominantly as a result of the significant decrease in costs associated with its deployment.

- 2.17 At Paragraph 15 of the 2013 update, it is confirmed that the target outlined in the Statutory Instrument (2011 No 243 referred to above) was not met, with only 3.94% of electricity used being generated from renewable sources, compared with the first interim target of 4.04%.
- 2.18 Furthermore, Paragraph 191 confirms that there was 2.4GW of installed solar PV capacity as of the end of June 2013 and Paragraph 192 states there is significant potential for further deployment with 20GW being the estimate of the current technical maximum level of solar PV deployment by 2020. That would represent nearly a ten-fold increase in deployment over a 7 year period.

Clean Growth Strategy

- 2.19 The Clean Growth Strategy, published in October 2017, provides the Government's latest position on solar parks and sets out 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.
- 2.20 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**'

Climate Change Act 2008

- 2.21 The Climate Change Act 2008 gives Ministers the power to issue guidance to reporting authorities on:
- assessing the current and projected impacts of climate change;
 - preparing proposals and policies for adapting to climate change;

- co-operating with other organisations for that purpose

2.22 The Act sets the legally binding target of an 80% cut in greenhouse gas emissions by 2050, and sets a carbon budgeting system that caps emissions over five year periods.

2.23 The two key aims of the Act are to:

- improve carbon management, helping the transition towards a low-carbon economy in the UK
- demonstrate UK leadership internationally, signalling commitment to taking our share of responsibility for reducing global emissions in the context of developing international negotiations.

2.24 The UK Committee on Climate Change advises the government on progress on tackling climate change.

UK Renewable Energy Strategy

2.25 The 'UK Renewable Energy Strategy' was published in July 2009 by DECC, identifying how to radically increase renewable energy use in the UK as part of an overall strategy for tackling climate change. This strategy would also meet the UK's European obligations and legally binding targets to ensure that 15% of our energy comes from renewable sources by 2020.

Energy Security Strategy

2.26 This document was published in November 2012 and provides a detailed and open assessment of the UK's current energy security, outlines work already underway to safeguard our energy security, and sets out the policy which the Government is putting in place to ensure that our energy supplies remain secure.

2.27 Whilst the document identified that total UK energy demand 'is predicted to fall by 7 per cent between 2011 and 2020'; it also recognises that demand for **'electricity is likely to increase by at least 30 per cent and potentially by 100 per cent as much of our heating and transportation becomes electrified'**

2.28 One of the key goals of the Energy Security Strategy is to decarbonise electricity supply which will help reduce UK reliance on international fossil fuel.

- 2.29 The UK Government recognises that increasing the amount of energy UK gets from low-carbon technologies will help make sure the UK has a secure supply of energy.

UK Renewable Energy Roadmap Update (November 2013 Edition)

- 2.30 The Government first published the Renewable Energy Roadmap in July 2011 which sets out the path to achieve the UK's headline renewable energy target.
- 2.31 The Roadmap has been updated on two occasions since July 2011, once in 2012 and most recently in November 2013. In these updates sustainable biomass electricity has been included as one of the key technologies to help create a balanced UK energy mix.
- 2.32 Paragraph 103 of the roadmap recognises how DECC continues to support innovation in bioenergy technologies.

Digest of United Kingdom Energy Statistics (July 2019 Edition)

- 2.33 This Digest, also referred to as DUKES, is an essential source of energy information providing figures on the UK's overall energy performance, production and consumption. The digest is published annually and the latest edition was published in July 2019. The salient points of the report are: -
- In 2018, fossil fuel remained the dominant source of energy supply, accounting for 79.4 per cent. Use of fossil fuel increased in comparison to 2017.
 - In terms of progress against the Renewable Energy Directive, in 2018, 11 per cent of total energy consumption came from renewable sources up from 9.2 per cent in 2016. The 2020 target is 15 per cent.
 - In 2018, overall net imports accounted for 36 per cent of energy used in the UK.
- 2.34 In terms of the synopsis of the above, DUKES identify how 36% of the UK energy requirements is reliant on imports. This is a material consideration when balancing the security of energy supplies and the uncertainty over a no deal Brexit.

Environment (Wales) Act 2016

2.35 The Environment (Wales) Act received Royal Assent in March 2016. It sets a 2050 target to reduce emissions by at least 80% from 1990 levels and provides the legislative framework for establishing a carbon budgeting approach in Wales.

2.36 The Act requires that before the end of 2018, Welsh Ministers must set in regulation interim emissions targets for 2020, 2030 and 2040, together with 5-year carbon budgets for the periods 2016-2020 and 2021-2025.

Climate Change Strategy for Wales (October 2010)

2.37 This Strategy, and the associated Delivery Plans, sets out the Welsh Government commitments and the areas they will act in order to reduce greenhouse gas (GHG) emissions in Wales. The headline targets are:-

- Annual 3% reduction - commitment to achieving a 3% reduction in greenhouse gas emissions from 2011
- 40% recession - achieving at least 40% reduction in all emissions in Wales by 2020 on a 1990 baseline;

2.38 The document sets out a number of key themes that cut across the whole climate change agenda and assist on delivering the headline targets. These include: -

- Behavioural change - Tackling climate change demands with a response that goes beyond the incremental change. The Welsh Government recognizes the importance of fostering and promoting research and good practice, such as that envisaged by Voltalia at Penderi.
- Innovation and skills - The Welsh Government recognize that business innovation and the deployment of new technologies will be crucial in ensuring an effective response to climate change, as well as offering real opportunities for business creation and growth. Penderi achieves this requirement.
- Energy generation - Although energy generation is not included in the 3% target, the Welsh Government have included energy consumption by end-user. This means that promoting low carbon energy generation has an important role in meeting the 3% target and achievements in this area will be taken into account in the annual progress report to the National Assembly for Wales. Maximising the amount of renewable energy produced in Wales,

will also make a significant contribution to delivering a 40% reduction in total emissions by 2020. As well as contributing towards the requirements of UK Carbon Budgets.

Welsh Government Policy Statement: Preparing for a Changing Climate

- 2.39 Through this Policy Statement, the Welsh Government sets out the challenge of a changing climate and the Welsh Government response, including how it will implement relevant provisions of the Climate Change Act 2008. The ministerial foreword states (inter alia) *"Climate change is one of the greatest environmental, economic and social challenges facing the planet. The robust scientific case for human-induced climate change underpins the Welsh Government's commitment to lead action on tackling climate change. Measuring carbon footprints a process pioneered by the Welsh Government is becoming mainstream, and many public sector bodies, businesses and individuals are taking action to reduce their greenhouse gas emissions. The Welsh Government is committed to deliver on its commitments to reduce emissions year on year, but we are also committed to ensuring that Wales is well-equipped to manage the consequences of a changing climate. As part of this we need to raise awareness, engage and encourage action on adapting to the impacts of climate change... We need to act now if we are to reduce the impacts of the negative consequences and capitalize on the opportunities that future changes may bring."*

Welsh Commitment to Address Climate Change

- 2.40 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. 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.
- 2.41 Through the commitment, the Welsh Government has tasked Carmarthenshire County 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.

2.42 Furthermore, through their commitment the Welsh Government recognised the benefits that will be delivered from: -

- Social, economical 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)

- 2.43 In a joint letter from the Welsh and Scottish Government to the UK Government on 11 August 2015, the Welsh Natural Resources Minister *"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"*.
- 2.44 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.

Climate Change Action

- 2.45 The scientific evidence on climate change is summarised in 'Climate Change Explained' first published on 23 October 2014 by the Department of Energy and Climate Change. To summarise, it states that there is clear evidence to show that climate change is happening. Measurements show that the average temperature at the Earth's surface has risen by about 0.8°C over the last century. 13 of the 14 warmest years on record have occurred in the 21st century and in the last 30 years each decade has been hotter than the previous one. This change in temperature hasn't been the same everywhere; the increase has been greater over land than over the oceans and has been particularly fast in the Arctic.
- 2.46 The UK is already affected by rising temperatures. The average temperature in Britain is now 1 Deg C higher than it was 100 years ago and 0.5 Deg C higher than it was in the 1970s.
- 2.47 Although it is clear that the climate is warming in the long-term, note that temperatures aren't expected to rise every single year. Natural fluctuations will still

cause unusually cold years and seasons. Along with warming at the Earth's surface, many other changes in the climate are occurring:

- warming oceans;
- melting polar ice and glaciers;
- rising sea levels; and
- more extreme weather events.

2.48 Rising levels of carbon dioxide and other gases, such as methane, in the atmosphere create a 'greenhouse effect', trapping the Sun's energy and causing the Earth, in particular the oceans, to warm. Heating of the ocean's accounts for over nine tenths of the trapped energy. Scientists have known of this greenhouse effect since the 19th Century.

2.49 The higher the amounts of greenhouse gases in the atmosphere, the warmer the Earth becomes. Recent climate change is happening largely as a result of this warming, with smaller contributions from natural influences like variations in the Sun's output.

2.50 Carbon dioxide levels have increased by more than 40% since before the industrial revolution. Other greenhouse gases have increased by similarly large amounts. All the evidence shows that this increase in greenhouse gases is almost entirely due to human activity. The main contribution to this is the burning of fossil fuels for energy.

2.51 About 43% of the carbon dioxide produced goes into the atmosphere, the rest is absorbed by plants and the oceans. Deforestation reduces the number of trees absorbing carbon dioxide and releases the carbon contained in those trees.

2.52 The Government advise that if action is now taken to radically reduce greenhouse gas emissions, there's a good chance that we can limit average global temperature rises to 2 Deg C. By taking action now we could:-

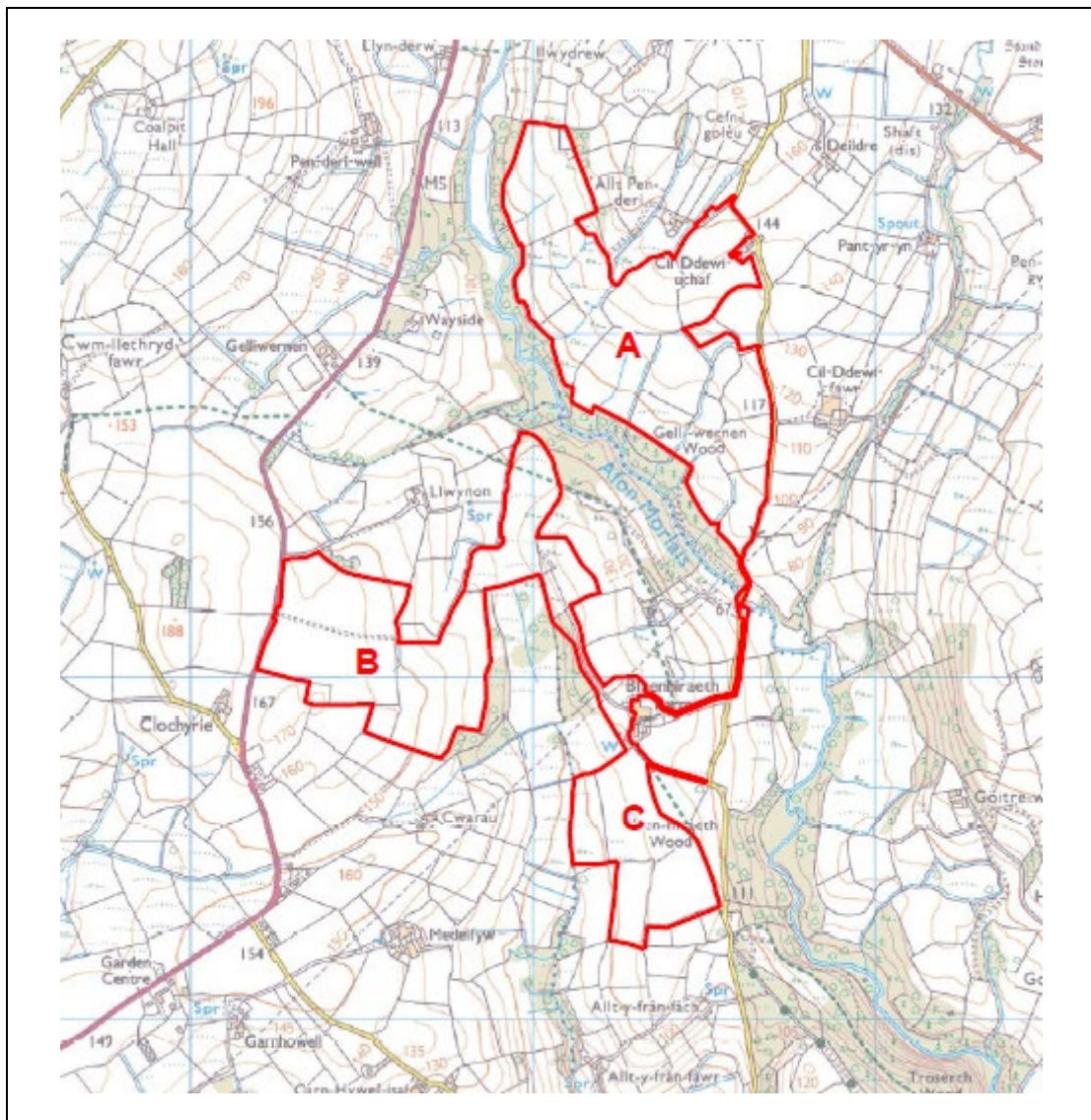
- Avoid burdening future generations with greater impacts and costs of climate change;

- Enable economies to cope better by mitigating environmental risks and improving energy efficiency there will be wider benefits to health, energy security and biodiversity; and
- Benefit economically because if we delay acting on emissions, it will only mean more radical intervention in the future at greater cost.

2.53 It is also recognised that taking action now can also help to achieve long-term, sustainable economic growth from a low-carbon economy.

3. SITE AND SURROUNDS

- 3.1 This section provides a description of the development site and its environs. Centred at OS grid reference SN54313 04897. The subject site comprises a collection of agricultural fields at Blaenhiraeth Farm, Langennech, Llanelli, SA14 8PX.
- 3.2 The development boundary extends to 96.27 hectares and predominantly comprises of agricultural land, located approximately 5km north of Llanelli, in open countryside. The site lies to the east of the A476 and is split into three distinct land parcels (A, B and C) which form part of a wider single agricultural holding and is bisected by the River Morlais.



- 3.3 Site A is located within 9 no. medium scale geometric and irregular pastoral fields, on the eastern slopes of the Afon Morlais Valley, between Penderi and Cil Ddewi-uchaf to the north, Cil-Ddewi-fawr to the east, Gelliwernen Wood and Afon Morlais to the south west of the site. Site A roughly measures 1,400 metres from north-to-south with an average width of 300 metres east-to-west. Site A is located on moderate to gently sloping topography between 90m AOD to the south and 145m AOD to the north near Cil Ddewi-uchaf Farm. The contours generally follow the curvature of the river to the south west and towards the Afon Morlais Valley. Site A is accessible from the unclassified lane near Cil Ddewi-uchaf Farm to the east of the site.
- 3.4 Site B is located within 5 no. medium-to-large scale geometric pastoral fields to the east of the A476 Llannon Road between Llwynon to the north, Afon Dafen to the east, Cwarau and Medelfyw to the south, and Clochyrrie to the south west of the site. Site B is located on gentle to moderately sloping topography between 165m AOD to the west following the A476 and 119m AOD to the north east of the site within the Afon Dafen Valley to the west of Blaenhiraeth Farm. An existing public footpath extends along the valley bottom to the north. Site B is accessible from the A476 Llannon Road on higher ground to the west of the site or from the farm track extending to the north west of Blaenhiraeth Farm into the lower valley.
- 3.5 Site C is located within 3 no. medium-to-small scale geometric pastoral fields within a local valley between Blaenhiraeth Farm to the north, Troserch Wood to the east, Allt-y-frain-fach to the south and the Afon Dafen Valley to the east of the site. Site C is located on gently sloping topography between 117m AOD near Blaenhiraeth Farm to the north, and 96m AOD within the Afon Dafen Valley to the south west of the site. Site C is accessible from the farm access track extending from the A476.

Adjoining Settlements

- 3.6 Sites A, B and C are located within the surroundings of the following settlements:
- Llannon located 1.6km to the north of Site A;
 - Hendy located 3.3km to the south west of Site A;
 - Llangennech 1.9km located to the south east of Site C;
 - Swiss Valley located 1.8km to the south west of Site B; and

- Horeb located 3.3km to the west of Site B.

3.7 Sites A, B and C are located within the surroundings of the following isolated farms and residential properties:

- Lletty llwydrew located 0.3km to the north of Site A;
- Llwyn-tew located 0.42km to the north east of Site A;
- Cil-Ddewi-uchaf located 0.21km to the north east of Site A;
- Cefn-goleu located 0.54km to the north east of Site A;
- Cil-Ddewi-fawr located 0.12km to the east of Site A;
- Llwynon located 0.54km to the south west of Site A;
- Wayside located 0.31km to the south west of Site A;
- Gelliwernen located 0.57km to the south west of Site A;
- Pen-deri-well located 0.41km to the west of Site A;
- Llyn-derw located 0.29km to the north west of Site A;
- Medelfyw located 0.62km to the south of Site B and 0.63km to the west of Site C;
- Cwarau located 0.42km to the west of Site C;
- Residential properties on the A476 Llannon Road located 0.24km to the south of Site B;
- Clochyrrie located 0.17km to the south west of Site B;
- Goitre-wen located 0.78km to the east of Site C;
- Allt-y-fran-fach located 0.25km to the south of Site C; and
- Blaenhiraeth Farm (involved property) located directly to the north of Site C.

3.8 Sites A, B and C are located within the surroundings of the following highways:

- Unclassified lane between the B4306, Cil-Ddwe-uchaf, Blaenhiraeth Farm and Troserch Wood directly to the east of Site A and C ;
- Unclassified lane between Porth Dafen, Carn-Hywel-isaf and the A476 Llannon Road to the south of Site C; and
- A476 Llannon Road to the west of Site B.

3.9 Sites A, B and C are located within the surroundings of the following public rights of way (PROW):-

- Infrequently used public footpath between Troserch Wood, Blaenhiraeth Wood and Gelliwernen Wood within the Afon Morlais Valley with glimpse and close proximity views of Sites A and C; and
- St Illtyds Walk following the unclassified lane to the south of Site B and C with glimpse views of Sites B and C at field gate openings.

Hydrology and Ground conditions

- 3.10 The development site is all located in Flood Zone A, at little or no risk of flooding, according to the TAN 15 Development Advice Map (DAM).
- 3.11 The Cranfield University Soilscales viewer shows the soil to be a combination of free draining and soil with impeded drainage, which is consistent with expectations in this area. The soil would therefore be described as having low permeability, and hence there are many watercourses introduced by the farmers to aid drainage of the soil for farming. The underlying geology varies, but is mainly till, over sandstone with mudstone bands.
- 3.12 The site comprises of a number of irregular shape fields of mainly improved grassland boarded by mature hedgerows and ditches.

Heritage Assets

- 3.13 There are no World Heritage Sites, or sites included on the Tentative List of Future Nominations for World Heritage Sites (January 2012), situated within the site or its surrounds. There are no Registered Parks and Garden's, Registered Historic Landscapes, or Conservation Areas located within the site or its surrounds. It is likely that the field boundaries within Area A date to the medieval period, and those

within Area B date to the post-medieval period, the same period as Blaenhiraeth Farm, and those within Area C are likely to date to the late 19th century, as the area of the site was not tithable in 1839.

- 3.14 There is therefore the potential for below ground remains of medieval, post-medieval and modern field boundaries. Such features would possess some evidential value but they are very common features within the landscape so they are not considered to be historic assets.
- 3.15 There is one Grade II listed structure located within the development site, namely the Cilldewi bridge:-



- 3.16 There are various designated assets surrounding the application site, these include:- (i) Scheduled Brun Maen Standing Stone, located c. 1.2km north-east of Area A; (ii) Grade II* Church of Non and its associated Grade II Listed railings and gravestone, and three other Grade II Listed structures located within Llannon over 1.5km north of Area A; (iii) Grade II Goitre Wen Farmhouse and its associated Grade II Listed stables, farmyard and barn range, located c. 780m east of Area C; (iv) Grade II Listed Cwmllethryd Fawr Farm, located c. 935m north-west of Area B; (v) Grade II Listed Ty'r Heol Farm, located c. 1.7km south-west of the Area B; and (vi) Grade II Listed Milestone near Penderi, located c. 250m west of Area A.

Natural Environment

- 3.17 The development site consists of improved grassland fields bounded by hedgerows, wet ditches, woodland (Gelli-wernen Wood) and a tributary of the Afon Dafen. The Afon Morlais runs adjacent to the northern portion of the Application Site. The wider surrounds area contained similar habitats but with areas of bramble *Rubus fruticosus* and gorse *Ulex europaeus* scrub and marshy grassland.
- 3.18 One internationally designated site, the Carmarthen Bay and Estuaries Special Area of Conservation (SAC), is located within 5km and a single Wildlife Trust Reserve is located within 1km of the site. The SAC is located approximately 3.2km to the south east of the site. The SAC is designated for having excellent examples of six of the habitats and five of the species listed within the Habitats Directive as representing priorities for conservation.
- 3.19 The Rhos Cefn Bryn Wildlife Trust Reserve is situated approximately 1km north east of the Site, encompassing 6ha and consisting of unimproved acid grassland. This type of grassland is generally confined to west Wales and is a feature associated with Carmarthenshire and south Ceredigion.

Community Council Boundaries

- 3.20 The application site crosses the administrative boundaries of three community councils. Circa 56% of the site falls within Llannon Community Council; circa 24% of the application site falls within Llangennech Community Council; and circa 20% of the application site falls within the Llanelli Rural District Council.

4. DEVELOPMENT PROPOSAL

- 4.1 The main element of the proposal is the installation of a ground mounted solar park with a maximum design capacity of up to 38MWp (megawatts peak) to achieve a maximum export capacity value of 30MW. The solar panels would be erected in all three distinct land parcels (A, B and C) contained within the scheme's development boundary. The proposed layout is provided at Appendix 2.

APPENDIX 2: PROPOSED LAYOUT

- 4.2 The photovoltaic panels would be laid out in straight arrays (or parallel rows) within the various fields selected for the renewable energy proposal. The tilt of the arrays would be c. 20 degrees from horizontal and all arrays would be south facing. The top north edges of the arrays would be 2.75 metres above ground level and the lower south facing edges of the arrays would be approximately 0.9 metres above ground level. However, for the basis of worst-case scenarios the LVIA has assessed a maximum height of 3m for the panels. The distance between the arrays would respond to topography and the minimum width is 3.62m.
- 4.3 The metal framework that houses the solar modules would be fixed into the ground by posts centred c. 6m apart. The posts will be driven into the turf to a depth of around 1.5 m. The cables linking all the arrays to the inverter / transformers centres and then onwards to the substation would be concealed in trenches up to 1m deep. CCTV would be provided within the field enclosures holding the arrays.
- 4.4 The positioning of the arrays respond to existing physical features and separation distances are provided between such features, these include ditches, overshadowing, rights of way, existing infrastructure (overhead cables), biodiversity considerations and tree root protection areas. The separation distances have been guided by technical studies and consultation with relevant bodies. The arrays would be set within a 2.0m high deer fence. The distance between the proposed fencing and existing hedges would vary across the site in response to root protection areas, ditches and field / module alignments.
- 4.5 Transformer centres that include inverters will be located throughout the site. They would be placed onto rectangular concrete slabs. The inverter cabinet would measure 2.10m by 3.61m with a height of 2.24m. The transformer element would measure 5m by 2.1m and have a maximum height of 2.24m. The transformer element would be enclosed by deer fencing. The inverters sit inside metal cabinets that will be finished in green.

4.6 A single main substation compound will serve the development and this will be required for the duration of the development. The substation compound would be centrally located within the site and positioned adjacent to the overhead pylon to the north west of the Blaenhiraeth Farm outbuildings. The point of connection to the local electricity grid would be directly to the existing overhead pylon. The cabling connecting the arrays from land parcels A, B and C to the substation would be concealed in trenches. The proposed cable run, between land Parcel A and the substation, includes the laying of cables through the Grade II Listed Masonry Cilddewi Bridge. The equipment to be installed at the substation include: -

- Security fencing - 2.4m high palisade fencing with an electrical fence backing of 3m high from ground level
- 15m high lattice communication tower (up to 500mm face width)
- WPD Control Room (measuring 4.7m by 5.65m with height of 3.87m)
- Client Control Room (measuring 4.65m by 5.6m with height of 3.85m)
- 132kv transformer
- 5m high lighting columns [The lighting will only be used during service and any fault conditions works carried out after dark]
- Gantries with voltage and current transformers
- Circuit breakers
- Earth switches

Operational Lifespan

4.7 Once constructed and energised, the development would export renewable energy to the grid for 35 years.

Biodiversity

4.8 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. The objectives for

biodiversity are summarised below and discussed in detail within the accompanying Landscape and Ecological Management Plan: -

- To create new habitats through planting of locally appropriate native species
- 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

Permissive and Public Right of Way

- 4.9 Throughout the duration the development, the two separate sections of public footpath 33/54 that crossover the planning application boundary will remain open and available to the public. As part of the community benefits deriving from the development proposal, the applicant is proposing to provide a section of permissive footpath, over 900m in length, that will directly connect the two section of public footpath 33/54 that cut across the application site. This in turn will make public footpath 33/54 easier to use for the local community as it is physically blocked at other locations outside the planning application boundary.
- 4.10 The permissive footpath will enhance public access to the countryside and will be demarked by bilingual signage identifying that the route provide is used 'by permission' of the developer and not 'as of right'.

Renewable energy and Carbon Displacement

- 4.11 The proposal would provide a decentralised clean, renewable and sustainable form of electricity generation. It would make a valuable contribution to the generation of electricity at a local level. The scheme would add to the Council's progress in meeting its renewable energy target. It would also assist in meeting Welsh Assembly Government targets.

- 4.12 In addition, the proposal would make a valuable contribution to cutting greenhouse gas emissions and help tackle climate change.
- 4.13 The solar farm would generate clean renewable energy for the equivalent of over 10,600 homes a year. The anticipated CO2 displacement is 15,000 tonnes per annum.

Access

- 4.14 Sites B and C (Southern sites) will be accessed from the A476. Site C can be accessed from Site B via existing internal tracks and roadways of the farm. It is not proposed to route any construction vehicles to Site C via Penderi Lane. Plant and machinery will be off loaded at the compound in Site B and the transported via the internal site access roads to Site C. This will prevent further construction traffic accessing and impacting on the local road network.
- 4.15 Access to Site A (Northern area) is proposed from an existing access located from Penderi Lane approximately 750m from its junction with the B4306. The existing access is an existing track of loose (compacted) stone construction. Penderi Lane is a rural lane used to access a number of farms and predominantly used by agricultural vehicles. Penderi Lane is subject to the national speed limit. However in reality speeds and volumes of traffic are low due to the rural nature and alignment of the road.
- 4.16 The lane is generally 3m wide and has a number of passing places along its length. However, large articulated vehicles will not be able to use this road to access the site. It is therefore proposed that lant and equipment can then be off loaded at Site B and then transported to Site A using 10m rigid HGV and agricultural vehicles as necessary which can navigate and manoeuvre to Site A using the local road network.

Routing

- 4.17 It is agreed with the highway authority at CCC that construction vehicles will be routed to and from Site B via the A476, B4306, Y Geibren, and the A48 towards Junction 49 of the M4.
- 4.18 The indicative routing strategy for construction traffic approaching the site from the north and south is set out below. Vehicles will turn left into and right out of the

site access for Site B to the A476. From here delivery drivers can use the adopted highway network to access the strategic road network.

- 4.19 Site working hours will be 08:00hrs to 20:00hrs Monday to Saturday. Deliveries will be outside of the traditional weekday peak hours (i.e. 10:00hrs to 16:00hrs or 18:00 to 20:00hrs).

Restoration

- 4.20 The application proposal is for a temporary structure with a modelled operational lifespan of up to 35 years. Following cessation of renewable energy generation at the site, and as part of the contractual obligations with the landowner, the photovoltaics arrays would be decommissioned and removed from site. As part of the decommissioning, the permissive footpath would also be removed.

Listed Building Consent

- 4.21 An element of the development proposal is subject to a Listed Building Consent application. This specifically relates to the laying of cables through the modern concrete overlay on the Cild Dewi bridge.

Statutory Undertakers

- 4.22 The provision of easements for the existing services that traverse the site, such as overhead powerlines and underground gas mains, are incorporated into the layout design. No arrays will be erected within the easement and thus unrestricted access will be available to the statutory undertakers at all times.

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 planned 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 Planning Policy Wales explains how material considerations could include current circumstances, planning policies of the Welsh Government² and job creation³. 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 sustainability⁴.
- 5.3 Whether a particular consideration is material in any given case will depend on the circumstances. Planning Policy Wales gives some guidance on what are material considerations. 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.
- 5.4 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 states⁵:

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.

² Planning Policy Wales paragraph 3.1.3

³ Ibid paragraph 10.2.11

⁴ Ibid paragraph 3.14

⁵ Welsh Government, Development Management Manual (May 2017) Paragraphs 9.4.1 to 9.4.6.

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 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.

- 5.5 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.

Development Plan

- 5.6 The Development Plan pertinent to the application site comprises the Carmarthenshire Local Development Plan. The Local Development Plan dates from 2006 thus its preparation started circa 15 years ago. The plan was adopted in December 2014 and this pre-dates the emergence of large scale solar parks within the UK⁶. The Development Plan Manual identifies how, in the first instance, it is for the decision-maker to determine through monitoring and review of the development plan whether policies in an adopted LDP are outdated for the purpose of determining a planning application and where this is the decision-maker should give decreasing weight in favour of other material considerations such as national policy.

⁶ The Wheal Jane Solar Park was the first commercial ground mounted solar scheme to be granted planning permission in the UK. The application was submitted in June 2010; permitted in September 2010 and became operational in summer 2011

5.7 Key policies pertinent to the development proposal are (Incorporating Inspectors recommended changes where relevant): -

- Policy SP2 Climate Change
- Policy SP14 Protection and Enhancement of Natural Environment
- Policy GP1 Sustainability and High quality design
- Policy GP4 Infrastructure and New Development
- Policy EMP5 Farm Diversification
- Policy EQ1 Protection of Buildings, landscape and features of historical importance
- Policy EQ4 Biodiversity
- Policy RE3 Non-Wind renewable energy installations, and
- Policy MPP3 Minerals Safeguarding Area.

5.8 Each policy is discussed in turn below: -

5.9 **Policy SP2** relates to Climate Change and gives explicit support to proposals where they increase the supply of renewable energy. Planning Policy Wales Edition 10 goes further and now requires decision-makers to give significant weight to the Welsh Government's targets to increase renewable and low carbon energy.

5.10 **Policy SP14** deals with the protection and enhancement of the natural environment and states: -

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, including those outlined below:

a) Statutory designated sites including Ramsar sites, SPAs, SACs, SSSIs and National Nature Reserves;

- b) Biodiversity and Nature Conservation Value, including protected species and habitats of acknowledged importance as well as key connectivity corridors and pathways; (Policy EQ4 and EQ5)*
- c) Regional and Locally important sites (and their features) including Local Nature Reserves and RIGS; (see Policy EQ3)*
- d) Areas of identified Landscape and Seascape quality; (including SLAs)*
- e) Features which contribute to local distinctiveness, nature conservation value or the landscape; (see Policy EQ5)*
- f) The Open Countryside; (see Policy GP2)*
- g) The best and most versatile agricultural land; (Grade 2 and 3a)*
- h) Natural assets: including air, soil (including high carbon soils) controlled waters and water resources. (See Policies EP1 and EP2)*

5.11 **Policy GP1** sets out the 'catch all' development management issues with regards to sustainability and high quality design. The policy provides the overarching framework for securing high design quality in development, conservation and enhancements proposals.

5.12 **Policy GP4** states that development proposals will be permitted where the infrastructure is adequate to meet the needs of the development. This policy is of specific relevance to the proposed solar scheme at Blaenhiraeth; to recap the point of connection to the national grid is located within the demise of the Blaenhiraeth Farmstead.

5.13 **Policy EMP5** relates to farm diversification and states:-

Proposals for farm diversification projects will be permitted where:

- a) it is subordinate to, compatible with and supports the continued operation of the agricultural activity of the existing working farm;
- b) it is of a scale and nature appropriate to the existing farm operation;
- c) the scale and nature of the activity is compatible with its accessibility to public transport and the need for local highway improvements;
- d) the scale and scope of any retail use (where planning permission is required) would not have an adverse impact on the vitality and viability of retail facilities

in nearby settlements, or would undermine the retail hierarchy (see policy RT1);

e) it would not have an adverse impact on the character, setting and appearance of the area and the surrounding landscape and where appropriate, townscape.

Proposals should give priority to the conversion of suitable existing buildings on the working farm. Where justified new building should be integrated with the existing working farm complex and not detrimental to the respective character and appearance of the area and surrounding landscape.

- 5.14 **Policy EQ1** relates to the protection of buildings, landscapes and features of historical importance and states:-

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.

- 5.15 **Policy EQ4** relates to biodiversity. The policy seeks to ensure that the habitats and species identified within the UKBAP and the Local Action Biodiversity Action Plan (LABAP) are suitably enhanced and protected from inappropriate development. The policy seeks that management plans detailing matters such as mitigation measures are produced as part of any planning application and agreed with the local planning authority prior to permission being granted. Full details of the biodiversity enhancement measures delivered through the application proposal are presented in the accompanying Landscape and Biodiversity Management Plan.

- 5.16 **Policy RE3** deals with small scale and large scale renewable energy schemes within and outside development limits and states: -

Proposals within Development Limits

Proposals for non-wind renewable energy installations will be permitted within defined Development Limits, provided they do not cause an unacceptable impact to the character of the local area and to the amenity of adjacent land, properties, residents and the community. Proposals will not be permitted if they negatively

impact upon archaeology or the setting and integrity of Conservation Areas, Listed Buildings or other features or areas of historical value.

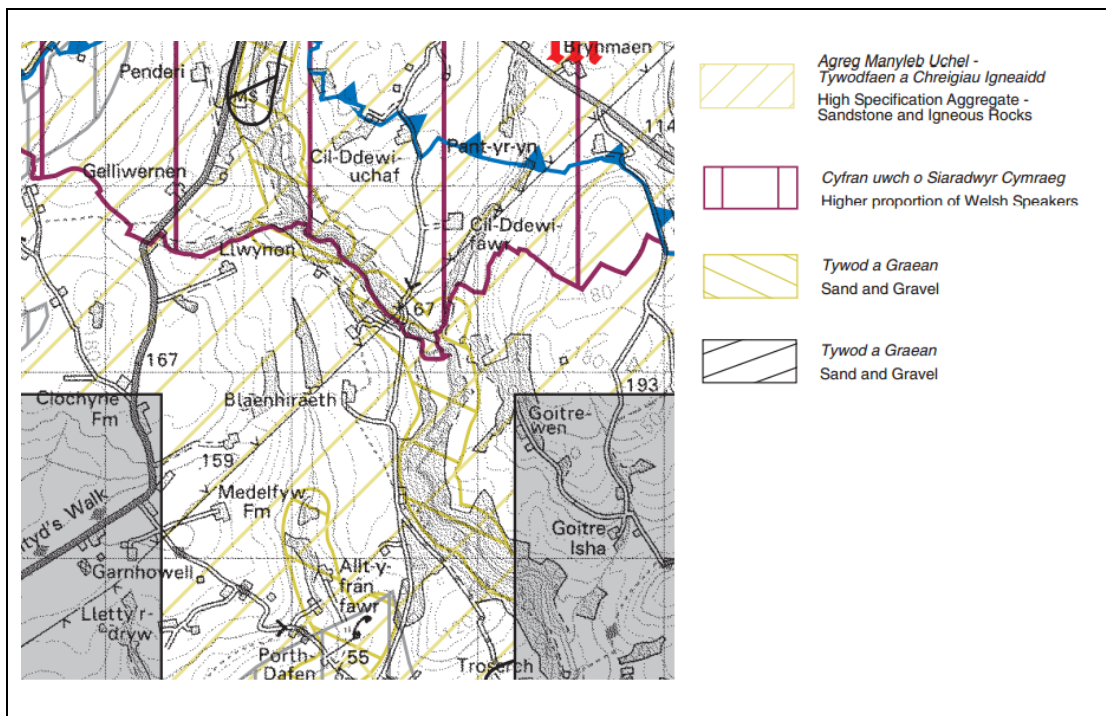
Proposals outside Development Limits

Proposals for small scale non-wind renewable energy installations outside defined Development Limits are required to satisfactorily justify the need to be sited in such a location. Such proposals should be sited in close proximity to existing buildings and structures and will not cause demonstrable harm to the landscape.

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

- 5.17 The wording of the policy with regards to 'exceptional circumstances' is over restrictive and out of kilter with National Policy, whereby Planning Policy Wales seek that local authorities ensure their area's full potential for renewable and low carbon energy generation is maximised and renewable energy targets are achieved.
- 5.18 The amplification to the policy, at **Paragraph 6.7.31** of the Development Plan, specifically deals with large scale solar schemes and states *"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 Welsh Government 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"*.
- 5.19 The application site is washed over by a minerals safeguarding area as defined by Policy MPP3 and identified on the Local Development Plan Proposals Map. The relevant extract of the Proposal Map is set out below:-



5.20 Policy MPP3 deals with mineral resources and states:-

Planning permission will not be granted for development proposals where they would permanently sterilise resources of aggregates and coal identified within the mineral safeguarding areas (areas of search) identified on the proposals map unless:

- a) The applicant can demonstrate that the extraction of the mineral is impracticable, uneconomic or environmentally unacceptable (including compromising amenity and social considerations); or
- b) The mineral resource has already been extracted; or
- c) The mineral can be extracted satisfactorily prior to the development taking place; or
- d) The development is of a temporary nature and can be completed and the site restored within the timescale that the mineral is likely to be needed; or,
- e) The nature and location of the development would have no significant impact on the potential working of the resource.

5.21 Criteria 'd' is relevant whereby the proposal is temporary in nature and can be made available for mineral extraction in the long term.

MATERIAL CONSIDERATION

Planning Policy Wales (Ed, 10 published December 2018)

- 5.22 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.
- 5.23 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.
- 5.24 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 well-being, 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.

- 5.25 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.**"*
- 5.26 In regard to Best and Most Versatile Agricultural Land, Paragraph 3.55 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.'*
- 5.27 Paragraph 3.56 under the heading 'Development in the Countryside' states (own emphasis in bold) *"Development in the countryside should be located within and **adjoining those settlements where it can best be accommodated in terms of infrastructure, access, habitat and landscape conservation.**"*
- 5.28 Paragraph 3.57 under the heading of 'Supporting Infrastructure' identifies how adequate and efficient infrastructure such as electricity is critical for economic, social and environmental sustainability. Paragraph 3.59 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..."*
- 1.2 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.

5.29 Page 74 of PPW identifies how places which are productive and enterprising contributes to the seven goals of the Well-being of Future Generation Act which include 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.

5.30 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;
- promoting and diversifying our rural economy to ensure it is fit for the future and economically sustainable while ensuring that unnecessary development in the countryside is controlled;
- 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.

5.31 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."

5.32 Section 5.7 of PPW specifically relates to Energy. Paragraph 5.7.1 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. Paragraph 5.7.2 reaffirms how The Environment Act sets a legal target of reducing greenhouse gas emissions by at least 80% by 2050. The Act also requires a series of interim targets (for 2020, 2030 and 2040) and associated carbon budgets for key sectors. The budgets will set limits on the total amount of

greenhouse gas emissions emitted in Wales over a 5 year period to serve as stepping stones and ensure progress is made towards the 2050 target.

- 5.33 Paragraph 5.7.7 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"***.
- 5.34 Paragraph 5.7.8 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.
- 5.35 Renewable energy targets are discussed at paragraph 5.7.16 of PPW, to recap the Welsh Assembly will seek that: -
- for Wales to generate 70% of its electricity consumption from renewable energy by 2030;
 - for one Gigawatt of renewable electricity capacity in Wales to be locally owned by 2030; and
 - for new renewable energy projects to have at least an element of local ownership by 2020.
- 5.36 Paragraph 5.9.8 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 5.9.10 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”.

5.37 With regards to decision taking, paragraph 5.9.17 states how *“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. 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”.*

5.38 Subsection 5.9 provides support for renewable and low carbon development. Paragraph 5.9.1 states “Planning 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 5.9.16 provides criteria on which to assess renewable and low carbon technologies:

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.

5.40 Paragraph 5.9.17 states (own emphasis in bold *“Planning authorities should **give significant weight** to 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. 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".

- 5.41 It goes on to state *"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"*.
- 5.42 If considerable weight applies to schemes located within protected landscapes, then the same must also apply for non-protected landscapes.

6. PLANNING APPRAISAL

- 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 site and its surrounds as well as the policy analysis of the previous section and the legislative background set out in the Section 2.

Principle of Development and Sustainable Development

- 6.1 Firstly, as stated elsewhere in this Statement, the application proposal has evolved following detailed non-statutory and statutory pre-application consultation with the Local Planning Authority, local stakeholders and statutory consultees. The Council conclude that subject to the consideration of detailed matters as part of their Local Impact Report, the proposed development would be acceptable in principle. Details of how the project team have continuously refined the scheme's design to encompass the Councils and other stakeholder feedback at numerous junctures are provided in the Consultation Report and Design and Access Statement and as such are not repeated here.
- 6.2 Policy RE3 of the Local Development Plan allows for the provision of large-scale renewable energy schemes within the open countryside where there is an overriding need for the scheme which can be satisfactorily justified and where the development would not cause demonstrable harm to the landscape. The Welsh Government Draft National Development Framework for Wales sets out priority areas for the development of large scale solar energy development and the application site is firmly located within Priority Area No. 13.
- 6.3 With regards to needs, 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 for Wales 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. In terms of progress toward 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"*⁷. At a local level, Carmarthenshire 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.

- 6.4 Furthermore, the impact of Brexit on UK energy and climate change policy is subject to the outcome of the Brexit negotiations. The possible consequences vary based on whether the outcome is a full Brexit deal, a sector-specific deal, or in the case of no Brexit deal. The United Kingdom is currently a full member of 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**. The development proposal would contribute towards the objectives set out in the briefing note.
- 6.5 Welsh Government's main outcomes for the planning system reflect their vision of sustainable development which means the process of improving the economic,

⁷ Source: Energy Generation in Wales 2018 report page 8.

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.

- 6.6 Economic benefits will arise through the provision of temporary jobs during the construction phase at the 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. Assuming this price is broadly similar in 2018, when applied to the Proposed Development (38MW of solar) this equates to a capital cost of around £30million and will support a number of jobs during the scheme's build phase.
- 6.7 The contribution of the 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 £56,000 per annum. This is based on data for 2018. The GVA associated with the temporary jobs supported on site during construction is expected to be around £3.3 million to the wider economy. Further details of the economic benefits of the development are provided in the accompanying Economic Benefits Report.
- 6.8 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. Other on-site social gains are provided by the introduction of 900m of permissive footpath that will directly connect the two section of public footpath 33/54 that cut across the application site. This in turn will make public footpath 33/54 easier to use and accessible for the local community as it is physically blocked at other locations outside the planning application boundary. The

permissive footpath will enhance public access to the countryside and will be demarked by bilingual signage identifying that the route provide is used 'by permission' of the developer and not 'as of right'.

6.9 Turning to environmental gains these would be secured through carbon reduction and local biodiversity enhancements.

6.10 As stated elsewhere 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 is: -

- To create new habitats through planting of locally appropriate native species.
- 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.

6.11 The proposal would therefore deliver on the environmental arm of sustainable development.

6.12 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 as should be approved without delay.

6.13 The second criteria of Policy RE3 relates to the consideration of landscape impacts. The application submission is supported by an Environmental Statement which

considers, amongst other things, landscape and visual impact. The salient points are set out below.

- 6.14 The proposed solar development would result in a degree of harm to the landscape character and visual amenity of the site and its surroundings near Blaenhireath Farm. However, the landscape and visual effects would be localised owing to the sloping landform of the valley, the surrounding woodland and the high sided hedgerows. For these reasons, the proposed development is not considered to materially conflict with Planning Policy Wales paragraphs 6.3.3 and 6.3.11 or Carmarthenshire Local Plan policies EQ5, EQ6 and RE3 when balanced against the renewable energy benefits.

Effects on Landscape Elements

- 6.15 The landscape elements that constitute the landscape character of Sites A, B and C 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. In particular, new hedgerows are proposed to the north and south of Site A, to the west of Site B and to enclose the grid connection to the north west of Blaenhireath Farm. This would result in an overall net gain of the site's hedgerow resource. The existing hedgerows would be managed to improve the visual screening of the solar arrays and the security (deer) 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 are reversible with the land being returnable to the agricultural land use following the decommissioning of the proposed development.

Effects on Landscape Character

- 6.16 The landscape elements that constitutes the character of the LANDMAP geological, habitats, historic or cultural aspect areas within Sites A, B and C 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 Llanelli Hills CRMRTVS557 and the Swiss Valley and Morlais Valley CRMRTVS988.

- 6.17 The Llanelli Hills CRMRTVS557 visual and sensory aspect is described as “an area of rolling hills and small valleys that descend from Mynydd Sylen (upland) to the urban area around Llanelli”...and...“the area is enclosed, with a strong network of hedgerows around relatively small fields and some woodland.” The Swiss Valley and Morlais Valley CRMRTVS988 visual and sensory aspect is described as a “steep sided and well wooded valleys”...and...“because of the steep valley sides there are few views out of the area.”
- 6.18 These key characteristics identified within the Llanelli Hills CRMRTVS557 and the Swiss Valley and Morlais Valley CRMRTVS988 aspect areas are considered to provide visual containment to the proposed development within the surroundings of Blaenhiraeth Farm and the Afon Morlais Valley. The Zone of Theoretical Visibility (ZTV) mapping, representative viewpoints and visualisations demonstrates that a relatively small geographical area of the LANDMAP aspect areas would be visually affected by the proposed development. Due to the limited visibility of Sites A, B and C within the study area, the landscape character of the LANDMAP aspect areas would generally prevail outside of the site itself with the proposed development in place.

Effects on Visual Amenity

- 6.19 The ZTV for Sites A, B and C within the study area reflects the undulating topography and treecover within the Llanelli Hills CRMRTVS557 and the Swiss Valley and Morlais Valley CRMRTVS988 visual and sensory aspects. The ZTV mapping is generally contained within 2km due to the higher topography at Pencwm-fach to the north, Goitre-wen to the east, the hills surrounding Llangennech and the Swiss Valley to the south, the A476, Gelliwernen and Mynydd Sylen to the west.
- 6.20 The ‘actual’ visibility of Sites A, B and C is less than illustrated in the ZTV mapping as shown within the representative viewpoints and visualisations. The reduced extent and pattern of visibility of the proposed development is due to the visual containment provided by the steeply rising topography and treecover within the Afon Morlais and Afon Dafen Valleys with numerous hedgebanks, hedgerows and woodlands. Sites A, B and C are not widely intervisible with each other and it is

therefore not possible to view the entirety of the proposed development within a single field of view, thus reducing the perceived scale of the proposed development in the wider landscape.

- 6.21 Glimpse views of the upper solar panels and security (deer) fencing would be perceptible above hedgerows when travelling along the unclassified lane between the B4306, Cil-Ddwe-uchaf, Blaenhiraeth Farm and Troserch Wood, directly to the east of Site A and C; on the unclassified lane between Porth Dafen, Carn-Hywel-isaf and the A476 Llannon Road to the south of Site C; and when travelling along the elevated A476 Llannon Road to the west of Site B. These glimpse views would be further screened through the proposed hedgerow reinforcements in the long term.
- 6.22 Close proximity views of the solar arrays would be visible from the public footpath 33/54 between Troserch Wood, Blaenhiraeth Wood and Gelliwernen Wood within the Afon Morlais Valley between Sites A, B and C. However, this public footpath is very infrequently used and no longer navigable on the ground.
- 6.23 Sites A, B and C would not generally be visible from the settlements of Hendy, Llangennech, Swiss Valley or Horeb. Distant glimpse views of the solar arrays within Site A would be barely perceptible from Llannon located 1.6km to the north.
- 6.24 A separate Residential Visual Amenity Assessment (RVAA) has been undertaken to consider the effects on the private views of the surrounding farms and residential properties within the study area. None of the identified visual effects would be overbearing, overwhelming or oppressive to such a degree that it would affect living conditions within the residential properties as a matter for the public interest.

Minerals Safeguarding

- 6.25 The application proposal forms part of a wider area of land safeguarded for mineral extraction within the adopted Development Plan. The application proposal is temporary in nature (generation is sought for a period of up to 35 Years) and as such it would not lead to the long term sterilisation of the minerals resource across the development site. In the short and intermediate term, the Carmarthenshire County Council local aggregate assessment, as detailed in the Development Plan, states that the Council 'as a Minerals authority' is well in excess of its statutory landbank figure. Accordingly, the development site is not required in the short to intermediate period. For the longer term, after a generation lifespan of 35 years

the solar panels would be removed from site and it would become available for extraction if required. The development is of a temporary nature and can be completed and the site restored within the timescale that the mineral is likely to be needed. Furthermore, the development would have no significant impact on the potential working of the reserve and for these reasons the proposal complies with Policy MPP3.

Cultural Heritage

- 6.26 A Heritage Assessment has been prepared by Cotswold Archaeology and it is supplemented with a construction method statement as the application proposal includes laying cables over the Grade II listed masonry bridge. A method statement details that there would be no harm to the historic fabric of the bridge.
- 6.27 The Heritage Assessment has also considered the setting of designated historic assets within 2km of the development site, these include- Scheduled Brun Maen Standing Stone, located c. 1.2km north-east of Area A; Grade II* Church of Non and its associated Grade II Listed railings and gravestone, and three other Grade II Listed structures located within Llannon over 1.5km north of Area A; Grade II Listed bridge crossing the Afon Morlais located c. 120m south of Area A; and Grade II Goitre Wen Farmhouse and its associated Grade II Listed stables, farmyard and barn range, located c. 780m east of Area C. 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.

Acoustics

- 6.28 The application is supported by a Noise Assessment prepared by ION Acoustics. The salient points of the report are set out below: -
- A baseline noise survey was carried out on 4th – 11th November 2019. Unattended noise measurements were made at three locations in close proximity to the nearest noise-sensitive receptors (houses) to the proposed development. The survey results have been analysed to determine the typical background noise levels for the day, evening and night-time periods. The noise levels measured on site are moderately low. The noise

environment in general comprised noises of the natural environment, with distant road traffic noise making a contribution also.

- The site is set back from major highways however and therefore there is no obvious pattern associated with traffic noise, for example higher noise levels rush hour periods.
- The site is split into three blocks over a large area. A total of 16 localised transformer centres will be distributed across the site as shown in the layout plans. These will contain transformers and inverters in a shipping container module. The outputs of these units are then fed to a DNO substation near the existing landowner's residence. These two items will be the only significant noise sources at the site. The scheme will operate only during daylight hours, with full capacity reached around the middle of the day.
- Carmarthenshire County Council's suggested planning limit requires the operational noise to be no more than 5dB above the background noise.
- A noise model has been constructed using IMMI1 noise modelling software to predict noise levels to the nearest noise-sensitive receptor locations. Within the modelling software, propagation of noise has been calculated in accordance with ISO 9613-22 with the following input parameters: Downwind propagation (noise levels under crosswind and upwind conditions will be less); Soft ground between the noise source and the receiver locations; ambient air temperature of 10°C and 70% Relative Humidity; and, Barriers and screening influence calculated in accordance with ISO 9613-2.
- The predicted rating noise levels detailed above would comply with the noise limits set out in the Carmarthenshire County Council's suggested planning condition for daytime and evening operation. Noise levels in all cases are less than 5dB above the typical daytime background sound level such that there will not be an adverse impact according to BS 4142:2014. Operation outside of what is typically considered daytime hours (07:00 – 19:00) would be rare, and certainly not at 100% operating capacity, which would consequently result in the noise levels generated being lower. As such the scheme is considered compliant with the noise limits overall.

- 6.29 Given the above, it is considered that there are no noise-related issues associated with the proposed development which would prevent the granting of full planning permission.

Hydrology

- 6.30 Clive Onions Ltd has produced a Flood Consequence Assessment (FCA) to accompany the planning application submission. The FCA has been prepared to consider the impact of the solar farm on the hydrology and to ensure that flood risk is not increased as a result of the development. It also shows that the development respects the buffer zones to watercourses and hedgerows. To summarise, the site is all located in Flood Zone A, at little or no risk of flooding, according to the TAN 15 Development Advice Map (DAM). In this context, according to TAN 15, justification tests are not applicable and there is no need to consider flood risk further. The proposed change of use will provide a real contribution to soil improvement and biodiversity, will improve runoff/infiltration water quality and result in a significant reduction in runoff rate and volume, bringing significant overall benefits to the local environment and downstream. The site will be safe and durable and is not at risk of flooding and therefore is appropriate in terms of the TAN15 advice on flood risk.
- 6.31 A real benefit of the solar farm is that it will allow the soil structure to improve. The improved soil structure enhances biodiversity and improves absorption capabilities of rainfall – the rate of runoff is more a function of the soil and vegetation than the underlying geology. The occasions when runoff occurs will therefore be reduced, and the rate of runoff will be reduced.
- 6.32 The fields will not be intensively trodden by cattle or traversed by heavy machinery. Bare areas will be seeded. The work of Richard Smith, the Environment Agency's Senior Land Quality Officer has shown that all these farming activities increase the rate of runoff considerably, increasing the risk of downstream flooding, and pollution from silt borne water.
- 6.33 The design life of the Solar Farm is 35 years, allowing the soil structure to establish and achieve the virtues described in Richard Smith's reports.
- 6.34 The access tracks and internal tracks will be permeable and designed to allow rainfall to infiltrate into the soil. The tracks tend to green over due to low usage, which adds to biodiversity.

- 6.35 This character of land use is advocated in the Carmarthenshire County Council Biodiversity Action Plan. In particular the solar farm will contribute to the Plan's target to improve biodiversity in the 'patchwork and woodlands and fields, bounded by hedgebanks'.
- 6.36 This arrangement will provide a very positive improvement for infiltration and evapotranspiration and as a biodiverse habitat.

Biodiversity

- 6.37 The application submission is supported by an Environmental Statement which considers, amongst other things, ecology. The salient points are set out below.
- 6.38 The ecological surveys have been carried out at the site which have identified a range of habitats on/immediately adjacent to the site, however, many of these habitats were of low ecological value. The habitats within and adjacent to the site were assessed as being suitable for a variety of notable and protected species. Bury Inlet SPA/Ramsar, Carmarthen Bay and Estuaries SAC and Rhos Cefn Bryn Wildlife Trust Reserve were situated near to the site and the SAC and SPA/Ramsar were considered within the zone of influence. A total of 15 "Important Ecological Features" (IEFs) were identified: Bury Inlet SPA/Ramsar, Carmarthenshire Bay and Estuaries SAC, hedgerow, semi-improved grassland, fen, streams/rivers, woodland, bats, dormice, otter, breeding birds of open habitats, breeding birds of boundary habitats, wintering birds of open habitats. Mitigation for badgers and reptiles has also been included due to a requirement for legal compliance.
- 6.39 Impacts were considered at both the construction and operational phases of the project. Key sources of impacts during construction were identified to be habitat loss, fragmentation, disturbance of species through noise and vibration, degradation of habitats by pollution or dust deposition and the incidental mortality of species during construction. Fewer operational phase effects were noted as post construction activity at the site would be minimal. However the loss or modification of the habitat during operation which will occur during the construction phase will persist for certain species throughout the operational phase, potentially having long-term adverse effects. Conversely for other species and habitats the long-term operation of the site is anticipated to be beneficial, even within the implementation of mitigation and enhancement measures.

- 6.40 The key effects likely to result in significant adverse effects were mainly associated with habitat loss (as a result of construction activities), impacts on species through removal of small sections of hedge bank, incidental mortality of animals during construction, degradation of habitats resulting from dust/runoff/collision and disturbance of species utilising adjacent habitats.
- 6.41 Operational phase effects were considered to be generally neutral although uncertainty in the conclusions was noted, in particular with respect to the adverse effects of the development on ground nesting birds.
- 6.42 Beneficial effects have been identified through creation of native, species-rich hedgerows on site which will improve connectivity as well as foraging and nesting/sheltering habitat for a range of species.
- 6.43 A number of mitigation measures have been identified that are considered essential to reduce or eliminate potential adverse effects from both the construction and operational phases. The key mitigation measure to minimise construction related effects will be preparation of a Construction Ecological Management Plan (CEcMP). This outlines measures to be undertaken to avoid impacts such as runoff, dust deposition and accidental damage. It also outlines habitat manipulation prescriptions in order to avoid impacts on ground nesting birds and reptiles during construction. A toolbox talk will be provided to all construction personnel prior to construction commencing in order to ensure that all contractors are aware of the presence of protected species or sensitive habitats and measures to take to avoid impacts.
- 6.44 Site security/ stock-proof fencing will be installed prior to construction commencing, which will maintain a minimum buffer of at least 4m from field boundaries, but extended to 7m from main ditches and 15m from rivers; no vehicles will be driven or construction materials stored within this buffer. This will protect the boundary habitats and species therein during construction activities.
- 6.45 Gaps will be provided in the base of the site security fencing to allow mammals access into the site. The section of hedgerow that requires removal will be supervised by an ecologist during the active reptile season to ensure accidental mortality of reptiles does not occur. The area will also be checked for active bird and dormouse nests.

- 6.46 A Landscape and Ecological Management Plan (LEMP) has been prepared in order to outline how the site will be managed post construction in order to maximise its ecological value. This includes conservation management of grassland to increase its species richness and management of hedgerows to maximise their value for wildlife. Other enhancements for the site include the creation of tussocky grassland at the field margins to attract a variety of invertebrates, small mammals, reptiles, amphibians, bats and birds. Bat, dormouse and bird boxes will also be installed and hedgerows in-filled with native species and layed where appropriate. As such it is anticipated that during the operational phase the development will result in a minor beneficial enhancement of hedgerows through appropriate management and new planting, as well as minor beneficial impacts on foraging and commuting bats, dormice, hedgehog, polecat, toads and reptiles. Moderate beneficial effects are also anticipated for non-ground nesting birds.
- 6.47 With the successful implementation of the mitigation measures adverse impacts upon the ecological features identified can largely be reduced to a non-significant level.
- 6.48 Although the reduction in cattle grazed pasture may have an adverse impact upon greater horseshoe bats it is noted that whilst cattle grazed pasture is of importance, particularly in late summer/early autumn it is not the only habitat of importance. The solar arrays will provide a new diversity of habitats within an otherwise fairly uniform landscape. This will provide new foraging opportunities and so provide an important alternative resource. As cattle grazing will continue to occur within surrounding fields it is not considered that such effects will have any adverse impacts upon greater horseshoe bat populations should they occur within the area. Indeed, the assessment concludes that the operational site is likely to be of minor benefit to foraging bats.
- 6.49 As such the development is considered to be in line with the Camarthenshire Local Development Plan. In particular it addresses the following policies/proposals:
- Policy EQ4 Biodiversity*
- 6.50 The implementation of a CECMP and LEMP will reduce impacts to important ecological features as far as possible and to a level which is considered not significant. The proposals have also designed to ensure a net enhancement through creation of new habitats.

Policy EQ5 Corridors, Networks and Features of Distinctiveness

- 6.51 The development seeks to retain as much habitat as possible and minimise damage to that habitat. New features are also proposed such as the inclusion of a diverse seed mix and planting of hedgerows which will create new green corridors.

SP11 Renewable Energy & Energy Efficiency

- 6.52 The environmental impacts of the development have been addressed through the implementation of specific protective measures, as outlined within a CECMP. No cumulative impacts have been identified.

Policy SP14 Protection and Enhancement of the Natural Environment

- 6.53 Mitigation measures have been proposed which seek to protect the important wildlife recorded within the site. In addition, various enhancement measures are set out within the LEMP. Impacts on nearby SAC/SPA and Ramsar sites have been assessed, as well as impacts on protected and notable species and habitat corridors.

Policy RE3 Non-wind Renewable Energy Installations

- 6.54 The development will not cause demonstrable harm to the ecology of the area, as shown by the surveys conducted and the mitigation/enhancements proposed.

Policy EP1 Water Quality and Resources

- 6.55 The cessation of intensive agricultural activities on the site is likely to improve the groundwater and surface water quality. Appropriate buffers have been proposed from all watercourses, as set out within this policy.

Diversification of Rural Enterprise

- 6.56 The proposed solar areas will occupy approximately 78 ha of agricultural land. This represents approximately 12% of all owned land and around 16% of land under the exclusive control of the farm business (i.e. excluding the common land). The solar arrays will accordingly occupy a small area of land available to the farm business. Furthermore, the land will not be irreversibly developed and will remain in agricultural use as the grazing of sheep will occur across the site whilst the solar arrays are in place. Approximately 90 ha of agricultural land will remain outside

the solar areas at Blaenhiraeth Farm. This land will continue to be available for cattle grazing, forage production and cereals.

- 6.57 The landowners will receive a rental income for the duration of the solar tenancy (a period of approximately 35 years). Income and expenditure associated with agriculture can be volatile so a long term solar agreement would provide the business with a source of regular, predictable income which would enhance the continued resilience and viability of this family-run holding, helping to secure the long-term viability of the business for the next generation. The proposal would therefore "facilitate diversification of the rural economy" (TAN6) whilst being "subordinate to, compatible with and supports the continued operation of the agricultural activity of the existing working farm" and "is of a scale and nature appropriate to the existing farm operation.
- 6.58 No agricultural land will be severed as a result of the proposed solar scheme. The proposals will not impact upon drainage outside the proposed areas. Adjacent agricultural land will be unaffected.
- 6.59 In terms of the utilisation of natural resources, production of energy from solar panels is far more efficient than other forms of energy production from cropping the land. Ground mounted solar schemes represent a prudent and efficient use of agricultural land in comparison to the energy output from biofuels:-
- 6.60 A 'land take' comparison of equivalent energy crop production is set out below⁸:-

Energy Source / Crop	MWh per acre per annum
Short rotation coppice	19 MWh per acre per annum
Miscanthus	26 MWh per acre per annum
Wheat Straw	5 MWh per acre per annum
Rapeseed oil diesel	5 MWh per acre per annum
Bioethanol (from sugar beet)	13 MWh per acre per annum

⁸ Source: Biomass Energy Centre, potential output of biofuels per hectare per annum

Bioethanol (from wheat)	7 MWh per acre per annum
Ground mounted arrays	186 MWh per acre per annum

- 6.61 As noted above, the ground mounted solar array scheme represents an efficient and effective use of land compared to other energy crops grown on agricultural land. Purely, therefore, in terms of the utilisation of natural resources, production of energy from solar panels is far more efficient than other forms of energy production from cropping the land.

Site Selection

- 6.62 Planning Policy Wales states that local planning authorities should guide appropriate renewable energy development by undertaking an assessment of the potential of all renewable energy sources and renewable and low carbon energy opportunities within their area and include appropriate policies in their development plans. In undertaking such an assessment, PPW encourages local planning authorities to establish evidence based upon issues including grid connection, the environmental, social and economic impacts from renewable and low carbon developments. The Welsh Government has recently consulted on its first National Development Framework for Wales. The NDF is a statutory requirement and will set out the Welsh Government's strategy for addressing its national priorities through the planning system. The final NDF is due to be published in September 2020. The draft consultation document sets out priority areas for the development of large scale solar energy development and the application site is firmly located within Priority Area No. 13. Accordingly, these issues are material consideration in the determination of this application proposal.
- 6.63 The adopted Carmarthenshire Local Development Plan does not specifically identify suitable areas for ground mounted solar development. Accordingly the site selection is guided by the development control considerations laid out through national and extant local policy together with the operational needs and requirements of the development proposal; these are guided by:-
- A suitable location to benefit from sunlight intensity levels – the site should be south facing and free of any buildings or landscape features that could cause overshadowing

- A suitable location with access to the grid which has capacity
- A suitable location which is served by appropriate highway infrastructure
- A site with minimal environmental constraints
- A suitable site that can be appropriately designed out to accommodate a 38MWp solar scheme, and
- A suitable site which is available for the duration of the proposed scheme.

6.64 Reflecting on the above the site is deemed appropriate and has favourably emerged through the site selection process since:-

- Sunlight intensity levels – the site is well located geographically for solar gain and is relatively flat and is free of any buildings or landscape features that could cause overshadowing
- Grid connection – proximity of a nearby point of connection which has capacity is essential. The proposed point of connection to the local electricity grid is within the demise of the wider agricultural enterprise
- Good road access - Construction and delivery vehicles can make use of the M4 and exit at either junction 48 (Llanelli) or 49 (End of motorway). From junction 48 they can access onto the A4138 towards Pontarddulais and then northbound onto the A48. After approximately 1km vehicles can turn onto Y Geibren to access northbound onto the B4306 towards Llannon. At Llannon vehicles will then turn southbound on the A476 towards Llanelli and the access for Site A and the site compound.
- Minimal environmental constraints – Carmarthenshire benefits from an attractive and naturally diverse landscape and as a consequence a proportion of the countryside is afforded with environmental designations. The necessity of avoiding these areas restricts the suitability of sites. The application site is not subject to any 'sensitive' sites as described within the EIA Regulations.
- Land take requirements – the site is of an appropriate size that can accommodate a circa 38MWp solar park, and

- The site is available for the lifetime of the proposed scheme (designed operational lifespan of the solar park is up to 35 years). Mitigation measures would be introduced to compensate against possible adverse impacts.

Proposed Access Strategy for Construction

- 6.65 The application submission is supported by a Transport Statement and Construction Traffic Management Plan which describes the access arrangements that are proposed for the construction phase and the forecast number of deliveries that will be associated with it.
- 6.66 The construction period of the Solar Farm is anticipated to take between 8 and 12 months. During this period there will be trips associated with the arrivals and departures of construction staff, and with the delivery of parts and construction materials. Staff trips will mainly be made by cars, vans or minibuses, whilst deliveries of construction materials and equipment will mainly be made by HGVs.
- 6.67 It is proposed to locate the main construction compound in Site B. This will be where all deliveries are made throughout the construction process. Smaller vehicles will then distribute materials and plant to Sites A and C, via Penderi Lane to Site C and B4306 and U2309 to Site A.
- 6.68 It is proposed to set back any vegetation outside the proposed visibility splays within the client / land owners control in order to achieve minimum visibility splays of 2.4 x 160m in both directions to the nearside kerb in both directions. This visibility splays are considered to be in accordance with the recorded 85th %ile vehicle speeds and guidance set out in TAN18.
- 6.69 It is proposed to widen the existing access track to 6m for the first 30m into the site to allow 2 vehicles to enter and exit the site to prevent construction vehicles from stacking onto the A476. Kerbed edges will be added to contain vehicles and a bituminous surface to prevent loose material entering the public highway.
- 6.70 This access will act as the only permitted access for the initial large deliveries to the development site.
- 6.71 It is proposed that access to the sites will be uncontrolled as per the extant arrangements. However, should highway officers consider it necessary, access to

Sites B and C could be controlled by temporary traffic signals applied via the appropriate licence to implement temporary works.

- 6.72 All construction traffic will enter and exit the site in a forward gear with appropriate space within the site compound for vehicles to turn and manoeuvre. It is proposed that plant and equipment can then be off loaded at Site B and then transported to Site A using 10m rigid HGV and agricultural vehicles as necessary which can navigate and manoeuvre to Site A using the local road network. Site C can be accessed from Site B via existing internal tracks and roadways of the farm. It is not proposed to route any construction vehicles to Site C via the U2309 Cilldewi Road.
- 6.73 Plant and machinery will be off loaded at the compound in Site B and then transported via the internal site access roads to Site C. This will prevent further construction traffic accessing and impacting on the local road network.
- 6.74 The access to Site A site is off the U2039 and requires improvements to allow construction vehicles to pass each other along the internal access road. The improvements are comprised of full height kerbing at 125mm upstand with carriageway widening to 6m in a bound surface and junction radii of 12m and 3m

Routing

- 6.75 It is agreed with the highway authority at CCC that construction vehicles will be routed to and from Site B via the A476, B4306, Y Geibren, and the A48 towards Junction 49 of the M4.
- 6.76 The indicative routing strategy for construction traffic approaching the site from the north and south is set out below. Vehicles will turn left into and right out of the site access for Site B to the A476. From here delivery drivers can use the adopted highway network to access the strategic road network.
- 6.77 The forecast number of delivery vehicles trips anticipated to travel to the site during the construction phase will be low at circa one delivery trip per hour. Therefore, it is considered that the A476 and the local highway network is appropriate to accommodate the low number of additional trips to the site.
- 6.78 Site working hours will be 08:00hrs to 20:00hrs Monday to Saturday. Deliveries will be outside of the traditional weekday peak hours (i.e. 10:00hrs to 16:00hrs or 18:00 to 20:00hrs).

- 6.79 The construction period will include the use of HGVs to bring equipment onto the site and these operations will be strictly managed to ensure that vehicle movements are controlled and minimised. The construction of the Solar Park will not require any equipment / components to be delivered by abnormal load vehicles.
- 6.80 The components required during the construction of the Solar Park (such as modules, mounting structures, fencing, cabling and CCTV) will be transported by articulated vehicles with a maximum length of 15.4 metres. It is forecast that approximately 230 such vehicles will be required, therefore creating 460 two-way traffic movements over a construction period of between 8 and 12 months.

Operational phase

- 6.81 Following the completion of the construction phase the client advises that there will be a low number of trips generated by the site as operationally, the site would work on an ad-hoc basis. It is forecast that there are expected to be a maximum of 2 trips per week to the site once it is fully operational by 7.5t vans. This is a nonmaterial increase in traffic and is not considered to be an intensification of use.

Restoration

- 6.82 The application proposal is for a temporary structure with a modelled operational lifespan of up to 35 years. Following cessation of energy generation at the site, and as part of the contractual obligations with the landowner, the above ground elements will be decommissioned and removed from site.
- 6.83 It is expected that decommissioning the site will involve a similar profile of vehicles as the construction phase, with processes predominantly in reverse of those which will be undertaken during the construction phase.

7. CONCLUSION

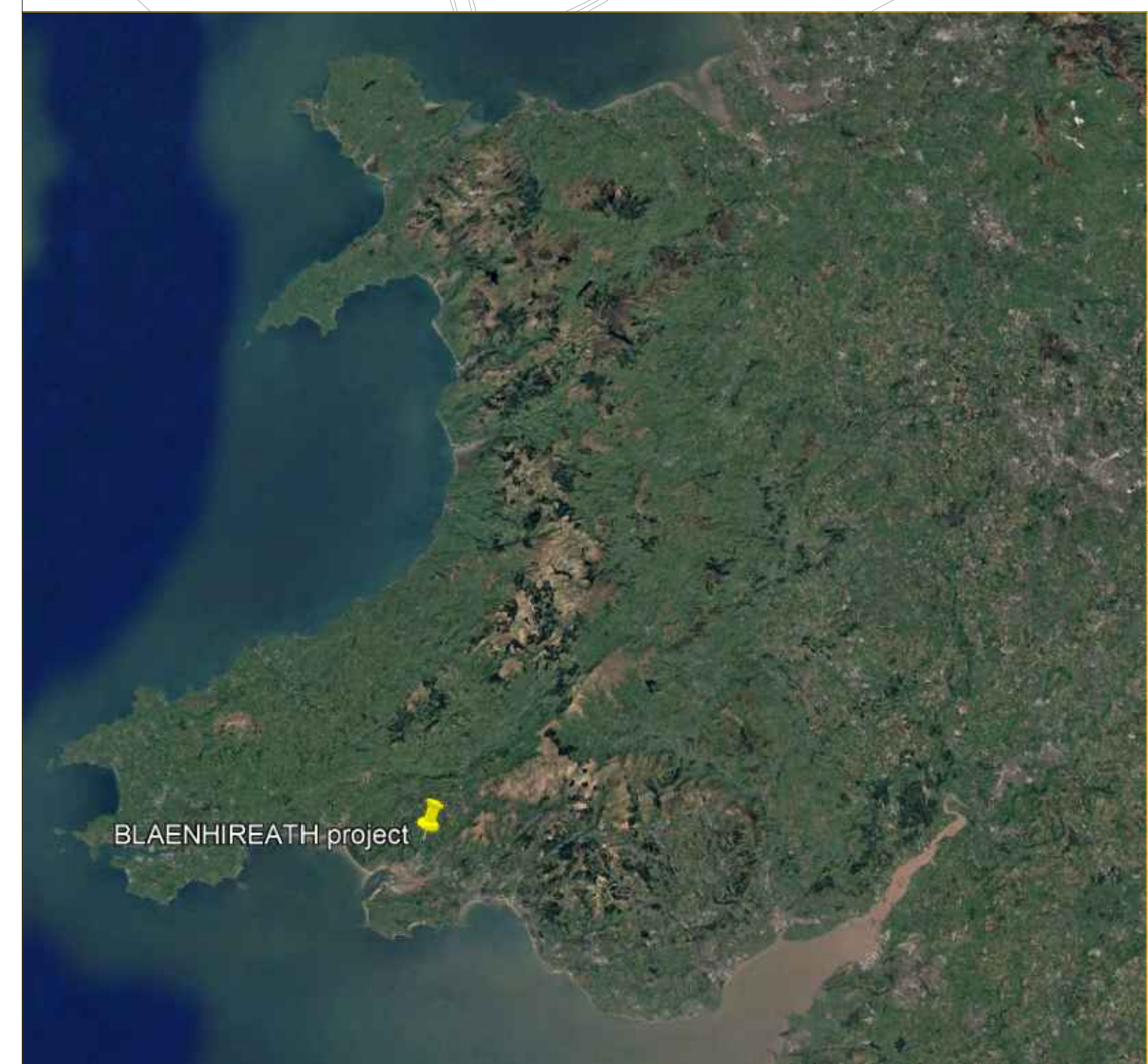
- 7.1 For the reasons outlined in this Planning Statement, it is considered that the application proposals are entirely consistent with the relevant planning policies and guidance at local and national levels.
- 7.2 The selected site is appropriate in that it can accommodate the proposed 38MWp solar scheme without significantly affecting the special landscape character of the surrounding area or nearby public amenity spaces. Moreover, the application proposal is considered to be acceptable within the open countryside as it represents a diversification of use of a proportion of land within a single wider agricultural holding. The benefits of the development are multiple: (i) it would provide a valuable contribution with regards to provision of decentralised renewable energy; (ii) it would contribute towards the viability of the existing farmstead through diversification of income; (iii) it would deliver biodiversity improvements; (iv) 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.
- 7.3 This assessment sets out that from a planning perspective there are no technical limitations, but rather support for the location of such uses in the countryside; indeed, such a scheme can only be located in open countryside at locations where grid is available and viable. The uses are compatible with being located within Flood Zone A and the use does not represent 'permanent' development; instead, the land can be restored back into agricultural use at the end of the lifespan of the developments.
- 7.4 The temporary and reversible nature of the development, together with the measures that are to be taken to enhance and encourage the ecological diversity 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 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.

- 7.5 Overall, the proposals are entirely suitable to the site and its surrounds; consistent with Planning Policy and all relevant material planning considerations; and will achieve a high-quality design as envisaged by the applicant and as required by the Local Planning Authority and the Welsh Minister.

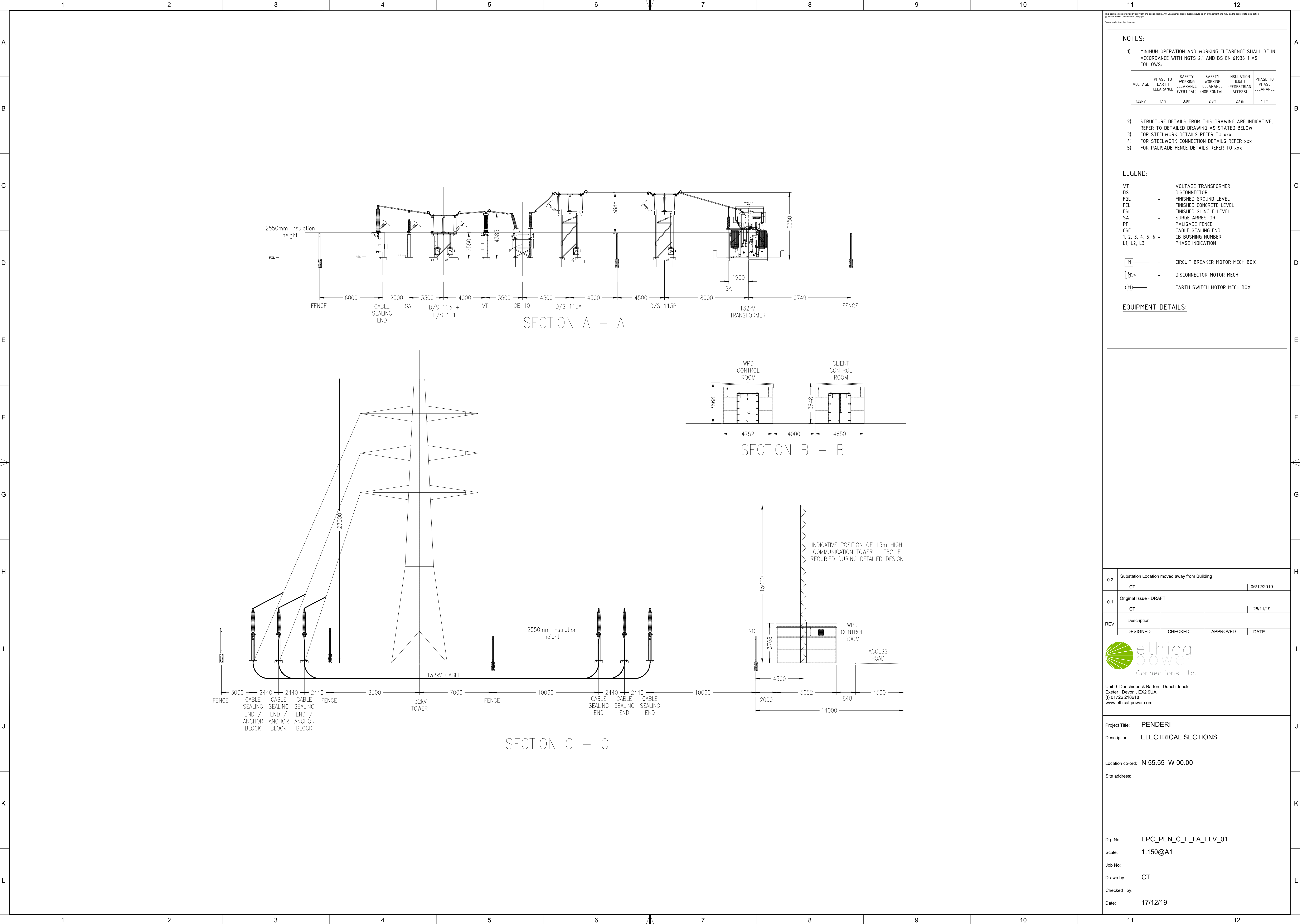
APPENDIX 1

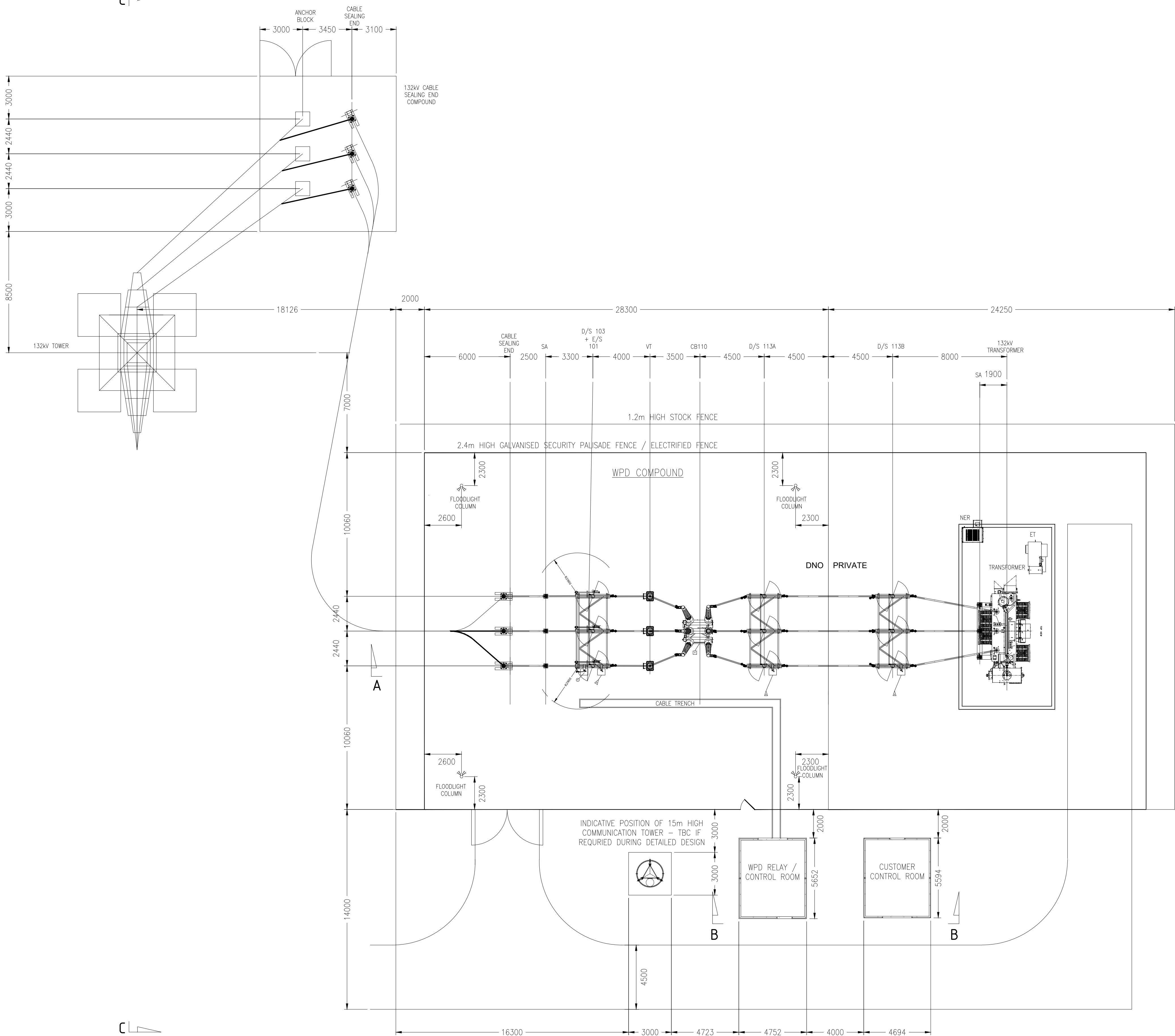
SITE LOCATION PLAN



APPENDIX 2

PLANNING APPLICATION DRAWINGS





PLAN VIEW

NOTES:

1) MINIMUM OPERATION AND WORKING CLEARANCE SHALL BE IN ACCORDANCE WITH NGTS 2.1 AND BS EN 61936-1 AS FOLLOWS:

VOLTAGE	PHASE TO EARTH CLEARANCE	SAFETY WORKING CLEARANCE (VERTICAL)	SAFETY WORKING CLEARANCE (HORIZONTAL)	INSULATION HEIGHT (PEDESTRIAN ACCESS)	PHASE TO PHASE CLEARANCE
132kV	1.1m	3.8m	2.9m	2.4m	1.4m

2) STRUCTURE DETAILS FROM THIS DRAWING ARE INDICATIVE, REFER TO DETAILED DRAWING AS STATED BELOW.

3) FOR STEELWORK DETAILS REFER TO xxx

4) FOR STEELWORK CONNECTION DETAILS REFER xxx

5) FOR PALISADE FENCE DETAILS REFER TO xxx

LEGEND:

VT - VOLTAGE TRANSFORMER
DS - DISCONNECTOR
FGL - FINISHED GROUND LEVEL
FCL - FINISHED CONCRETE LEVEL
FSL - FINISHED SHINGLE LEVEL
SA - SURGE ARRESTOR
PF - PALISADE FENCE
CSE - CABLE SEALING END
1, 2, 3, 4, 5, 6 - CB BUSHING NUMBER
L1, L2, L3 - PHASE INDICATION

EQUIPMENT DETAILS:

- CIRCUIT BREAKER MOTOR MECH BOX
 - DISCONNECTOR MOTOR MECH
 - EARTH SWITCH MOTOR MECH BOX

0.3	Cable Sealing End Compound Moved			
	CT			17/12/2019
0.2	Substation Location moved away from Building			
	CT			06/12/2019
0.1	Original Issue - DRAFT			
	CT			25/11/19
REV	Description			
	DESIGNED	CHECKED	APPROVED	DATE

Unit 9, Dunchideock Barton - Dunchideock.
Exeter - Devon - EX2 9UA
(t) 01726 218618
www.ethical-power.com

Project Title: **PENDERI**

Description: **ELECTRICAL LAYOUT**

Location co-ord: **N 55.55 W 00.00**

Site address:

Org No: **EPC_PEN_C_E_LA_SS_01**

Scale: **1:150@A1**

Job No:

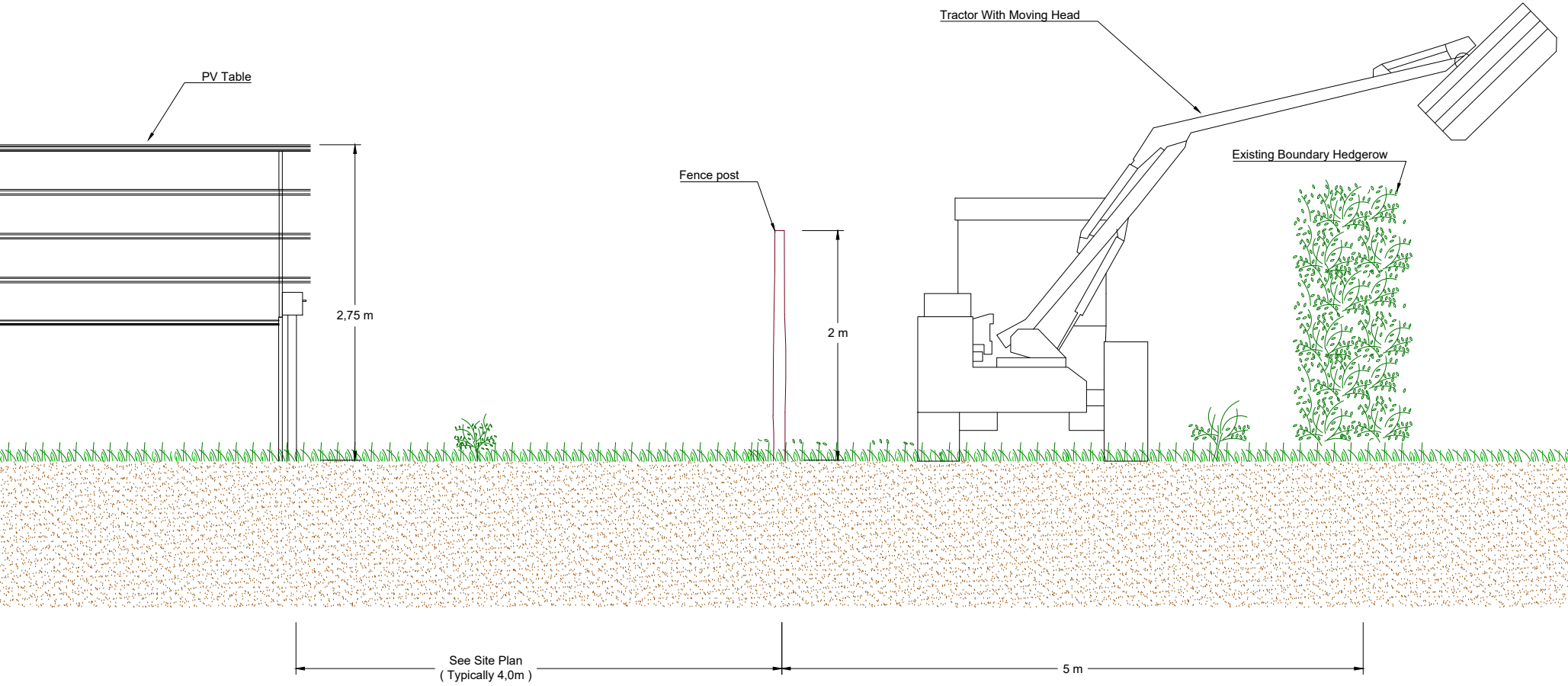
Drawn by: **CT**

Checked by:

Date: **17/12/19**

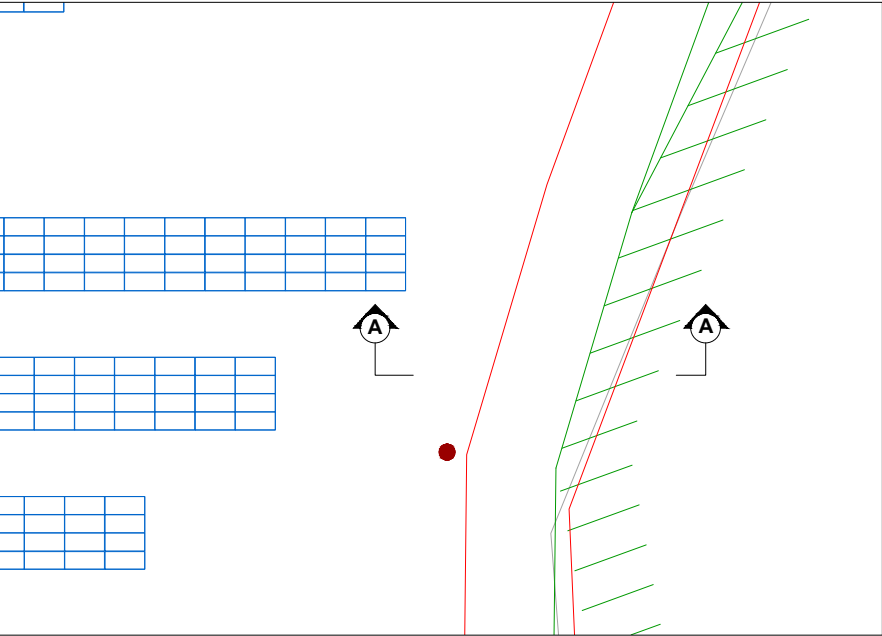
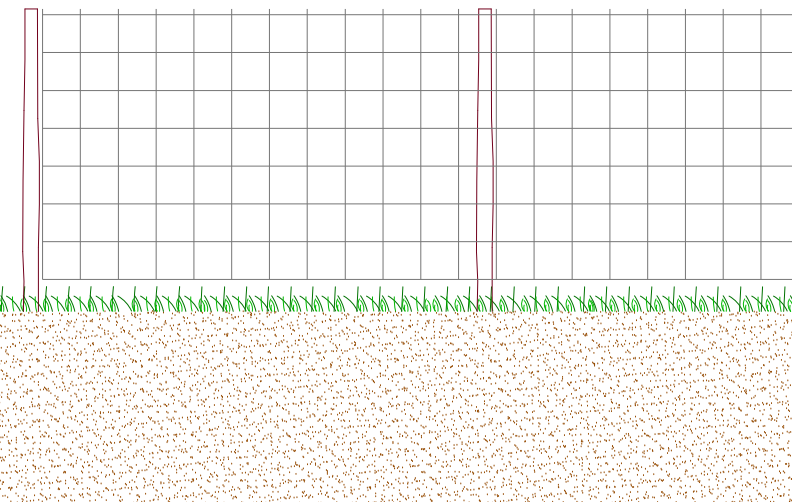
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Fence e Maintenance Access



Section A-A

Fence Details (Front Elevation)



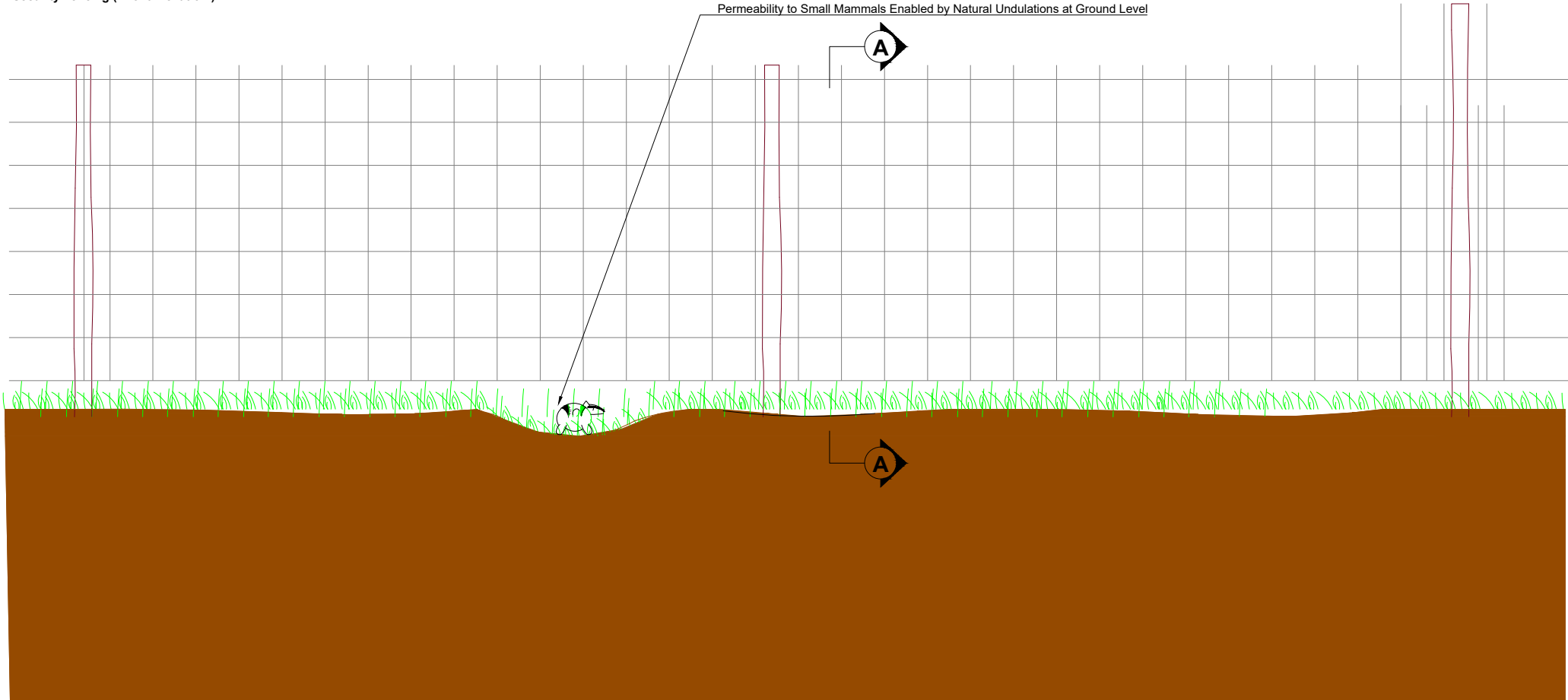
Showing Direction and Location of Elevation

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SITE: Blaenhiraeth Farm, Llangennech, SA14 8PX		DATE: 10.12.2019	RELEASED BY:	GED
DRAWING DESIGNATION: Mounting Structure and Fence Detail		SCALE: 1:50	VOLTALIA UK 1 Lyric Square, Hammersmith W6 0NB London, United Kingdom Tel: +44 2039941094	
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		FORMAT: A3		
		DRAWING N°: PEN01_DV_CS_102_01		

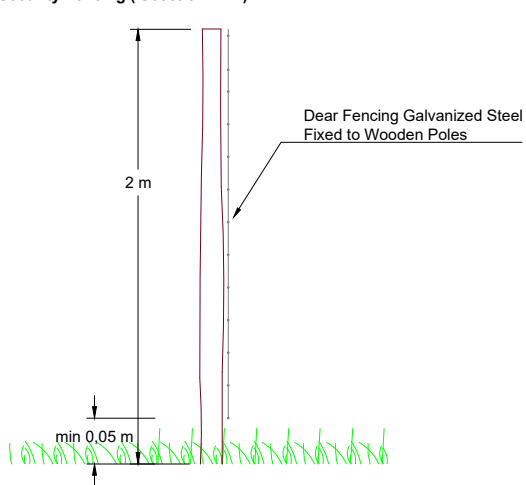


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Security Fencing (Front Elevation)



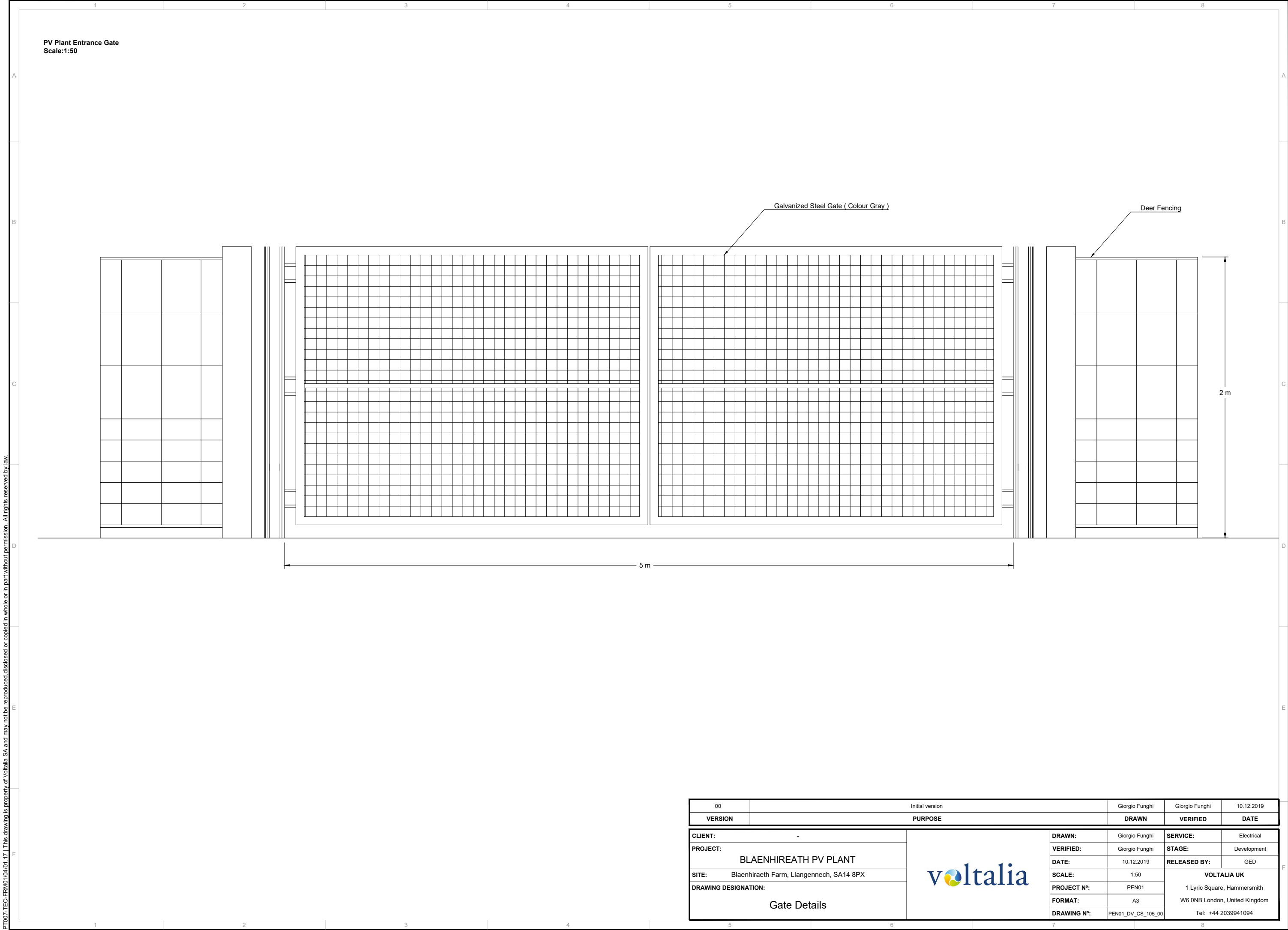
Security Fencing (Section A'A)



Security Fencing (Sample Images)

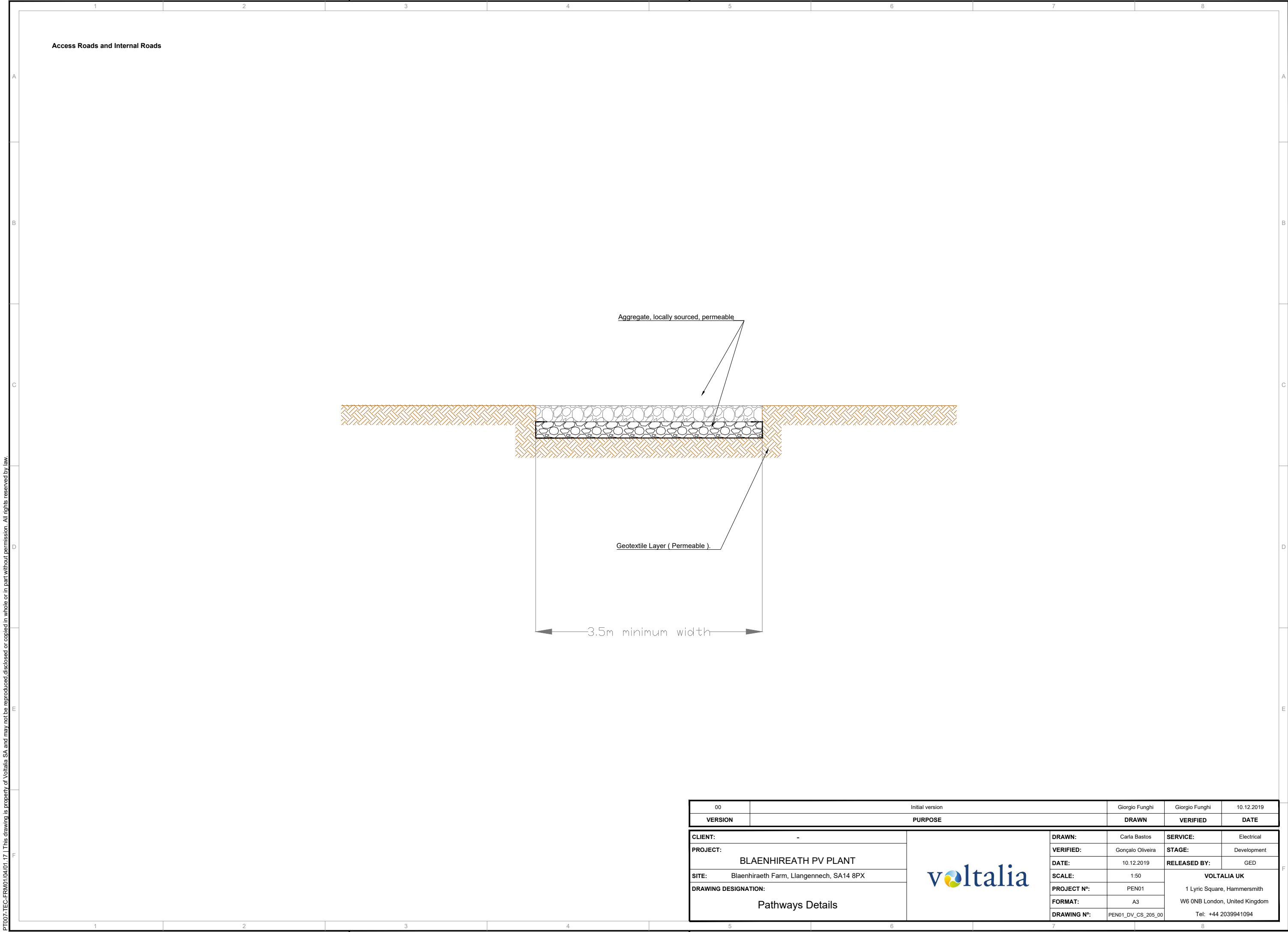


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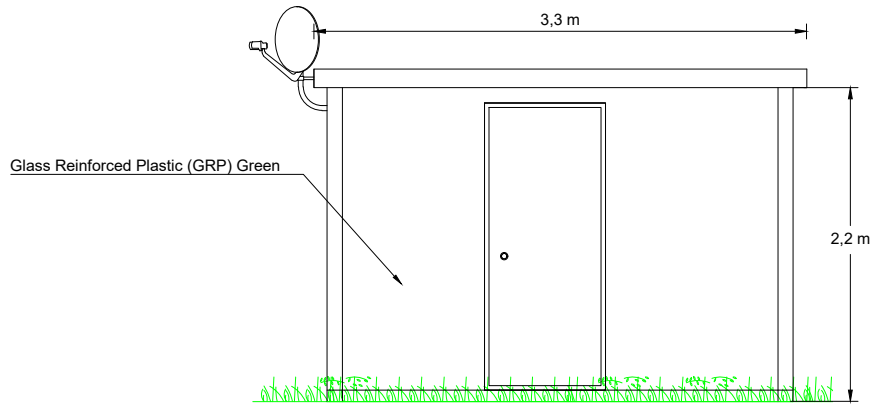


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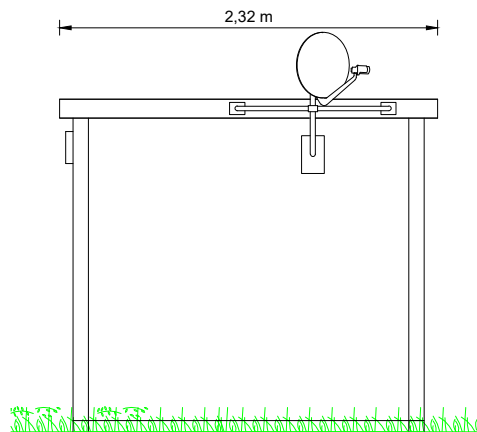
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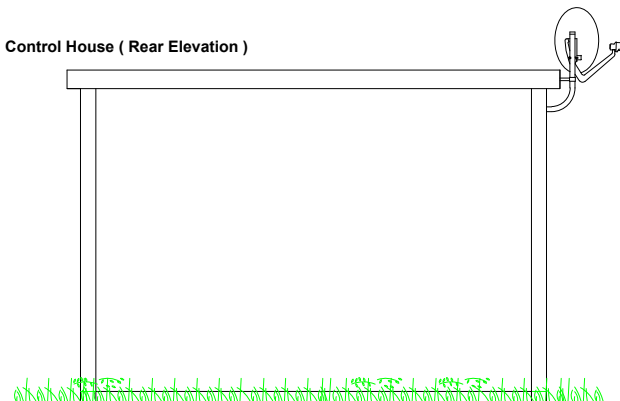
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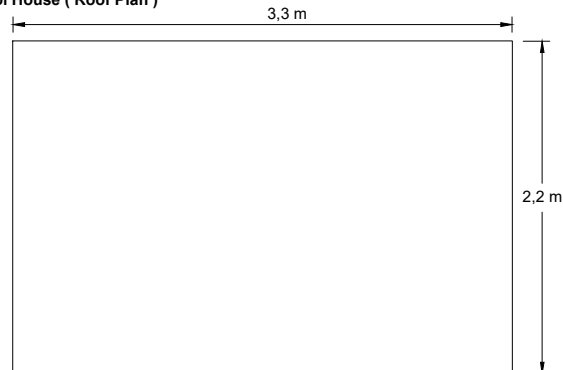
Control House (Side Elevation)



Control House (Rear Elevation)



Control House (Roof Plan)

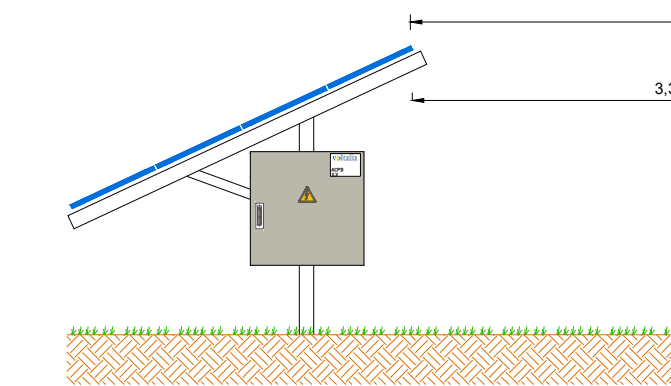


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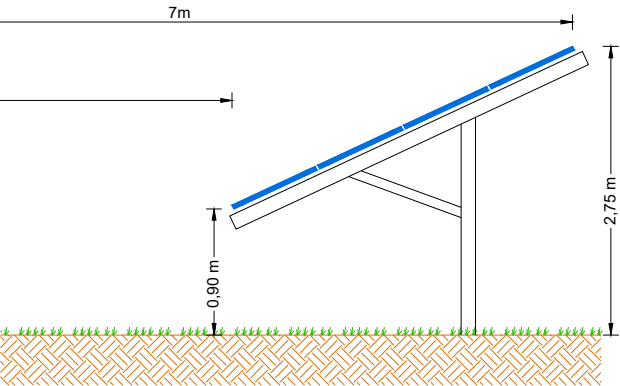


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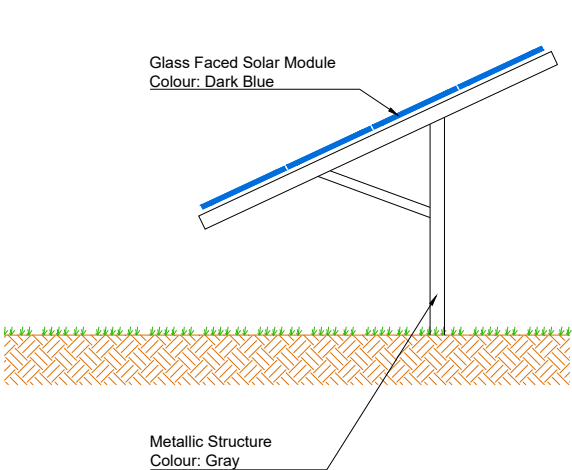
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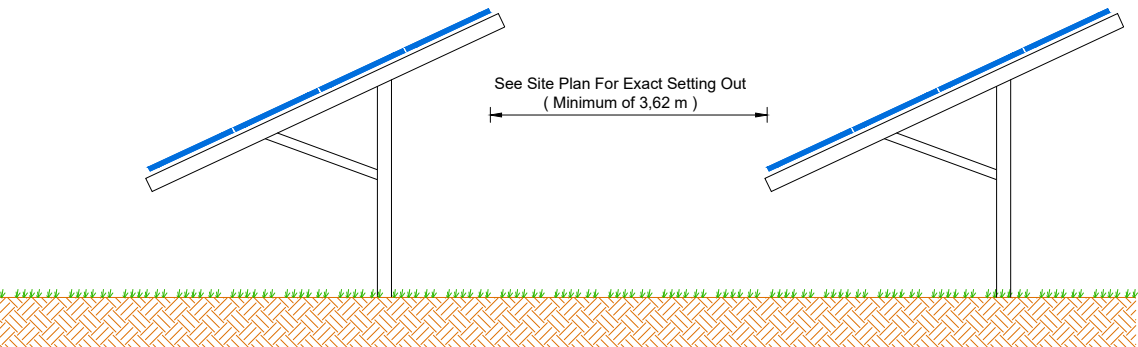
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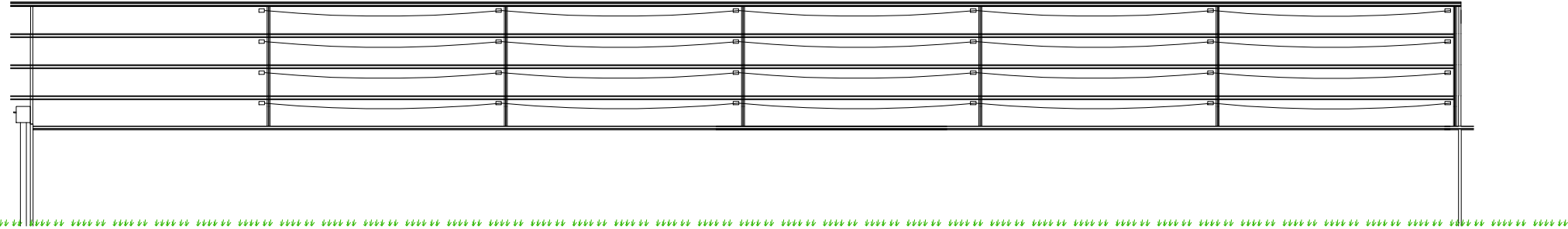
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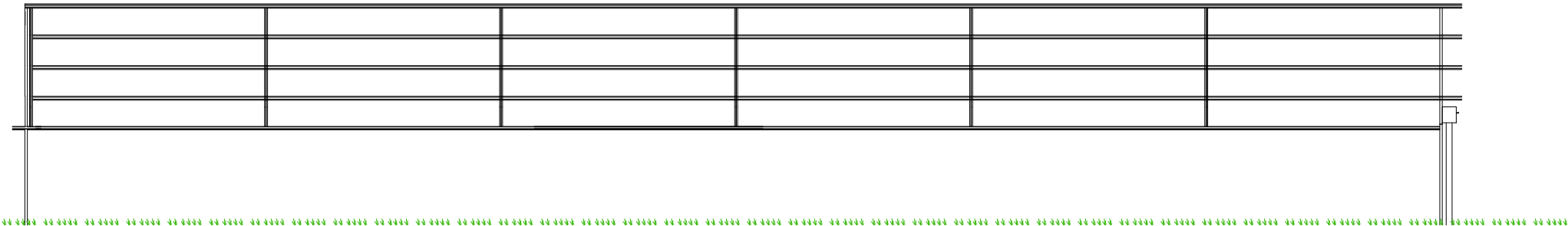
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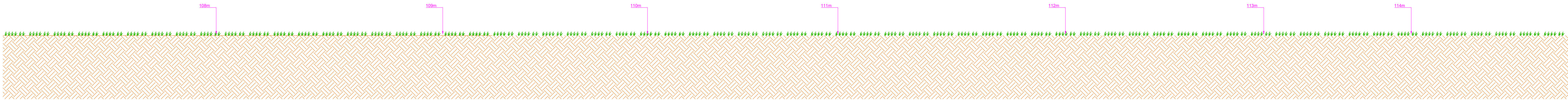
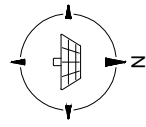
Rear Elevation



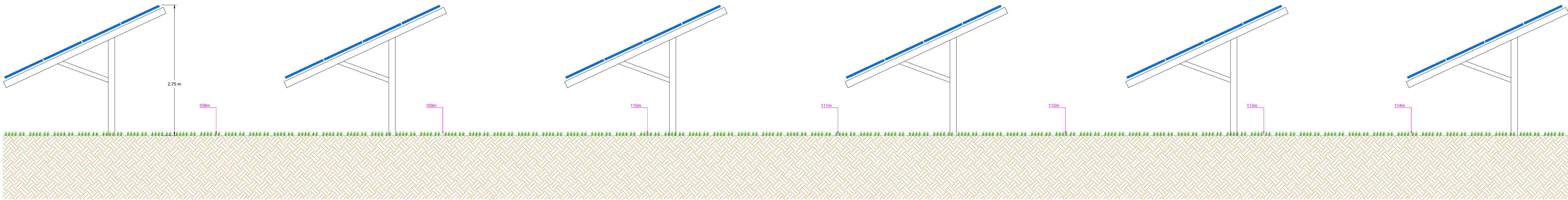
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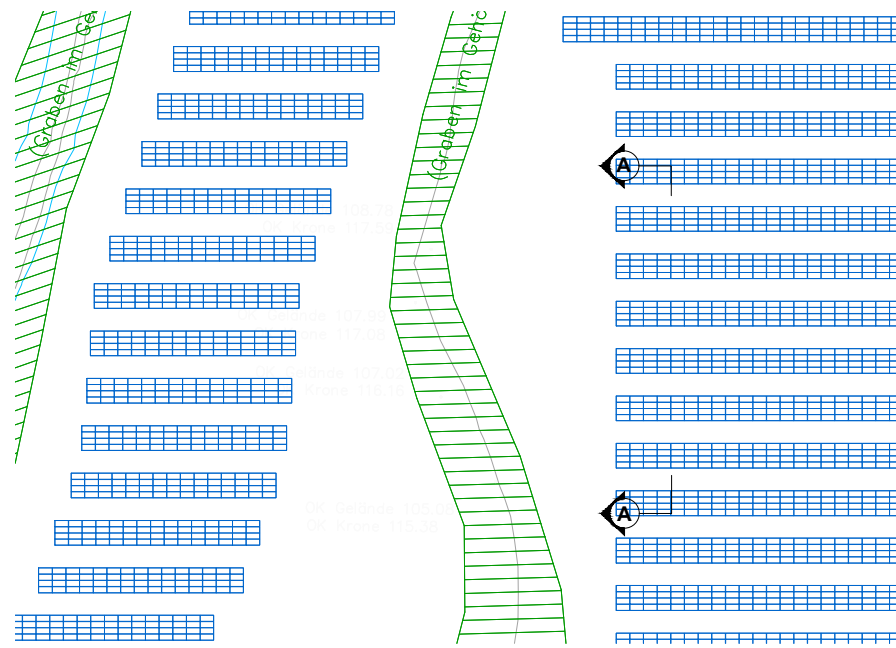
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		FORMAT: A3		
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Existing Site Elevation on A-A



Proposed Site Elevation on A-A



Showing Direction and Location of Elevation

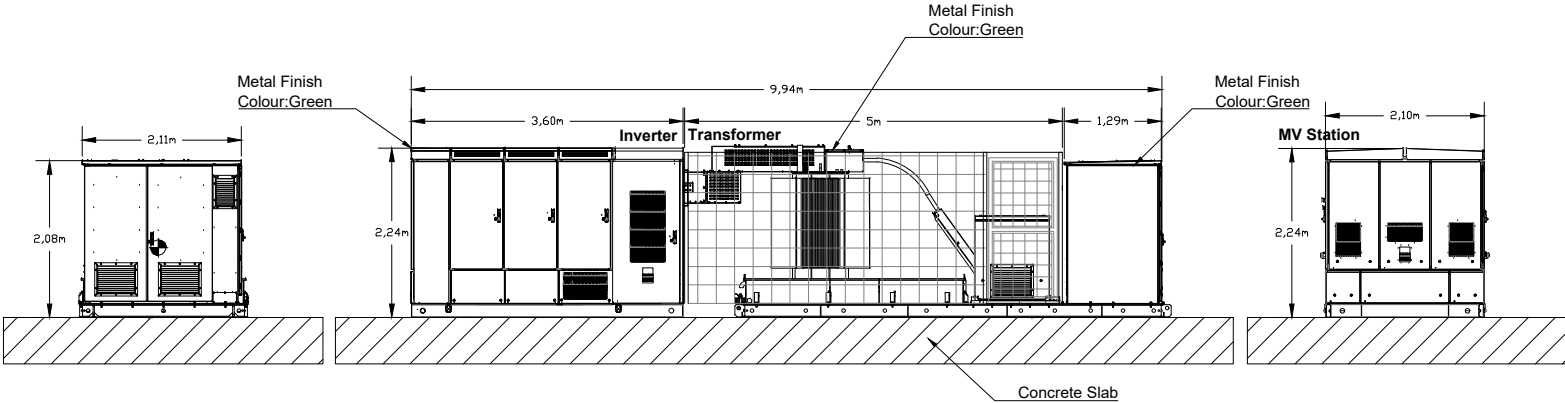
Key:
Solar Panel Limits

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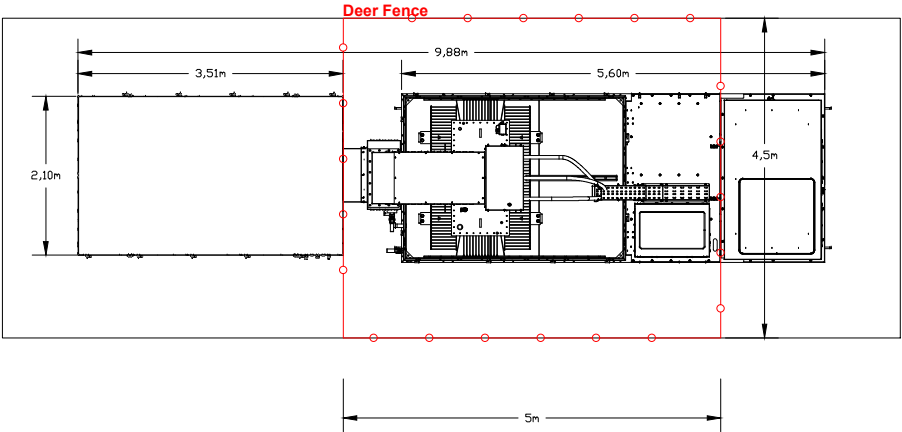


Existing e Proposed Elevations

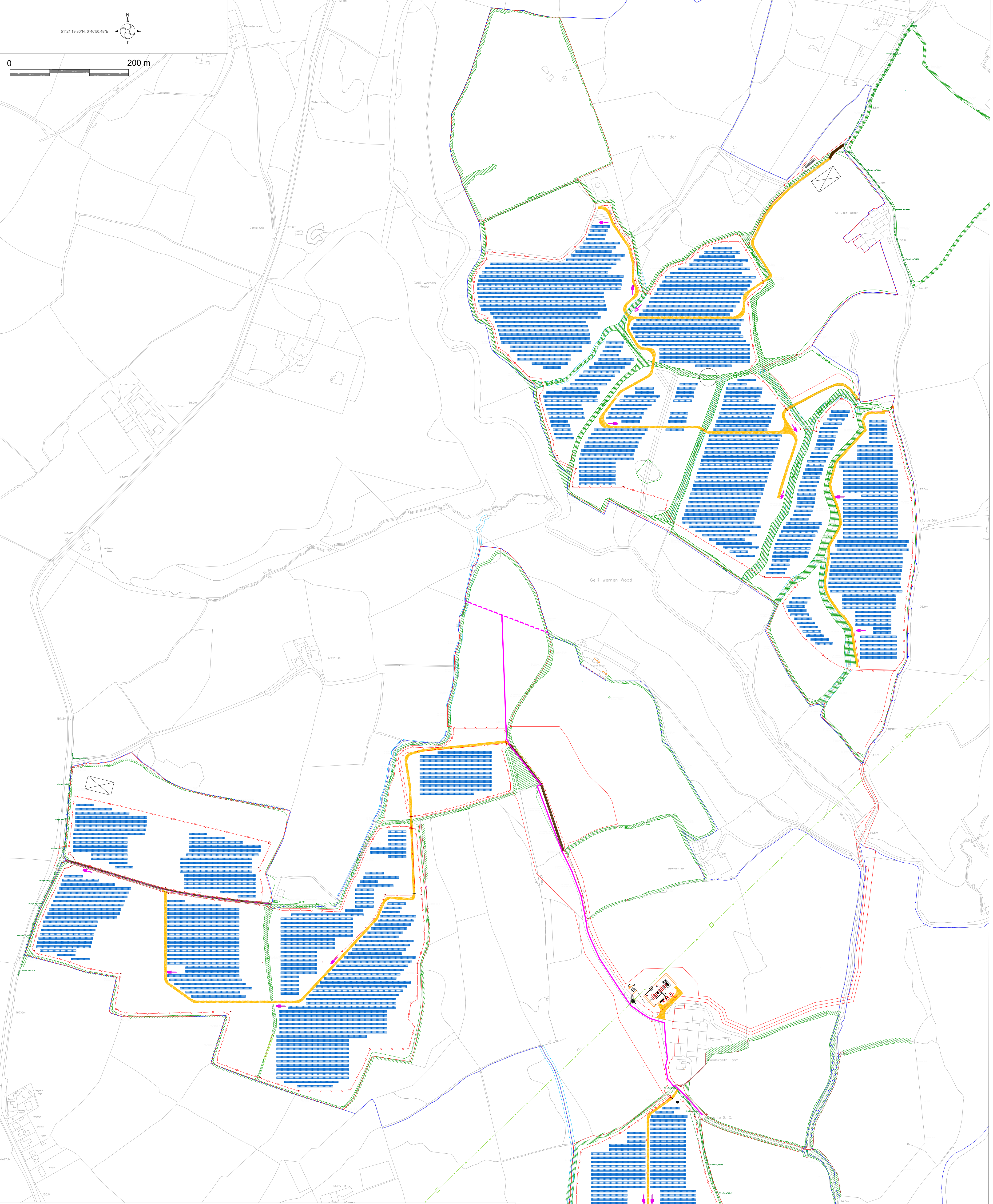
Transformer Station (Front Elevation)
Scale:1:70



Transformer Station (Plant)
Scale:1:70



00	Initial version	Giorgio Funghi	Giorgio Funghi	10.12.2019
VERSION	PURPOSE	DRAWN	VERIFIED	DATE
CLIENT: -		DRAWN: Giorgio Funghi	SERVICE: Electrical	
PROJECT: BLAENHIREATH PV PLANT		VERIFIED: Giorgio Funghi	STAGE: Development	
SITE: Blaenhiraeth Farm, Llangennech, SA14 8PX		DATE: 10.12.2019	RELEASED BY: GED	
DRAWING DESIGNATION: Transformer Center Connection Details		SCALE: 1:100	VOLTALIA UK 1 Lyric Square, Hammersmith W6 0NB London, United Kingdom Tel: +44 2039941094	
		PROJECT N°: PEN01		
		FORMAT: A4		
		DRAWING N°: PEN01_DV_HV_120_00		



TECHNICAL SPECIFICATIONS			
STRUCTURE	TYPE	TLT	
	Fixed	25°	
PV MODULES	TYPE	POWER	NUMBER
	Long LR6-12PO-3399M	395 W	96360
PV MODULES PER STRING	NUMBER		
30	3212		
INVERTERS	TYPE	POWER	NUMBER
	POWER ELECTRONICS PS2200R	2210 kVA	16
TRANSFORMER CENTER	TYPE	POWER	NUMBER
	POWER ELECTRONICS MV52330L1	2330 kVA	10
GEOMETRIC DATA	AZIMUTH/PITCH/PV PLANT PERIMETER	PV PLANT AREA	
	0°/12°/13365 m	96320 m²	
TOTAL PEAK POWER INSTALLED:		38 000,000	MW
TOTAL NOMINAL POWER INSTALLED:		38 960,000	kVA

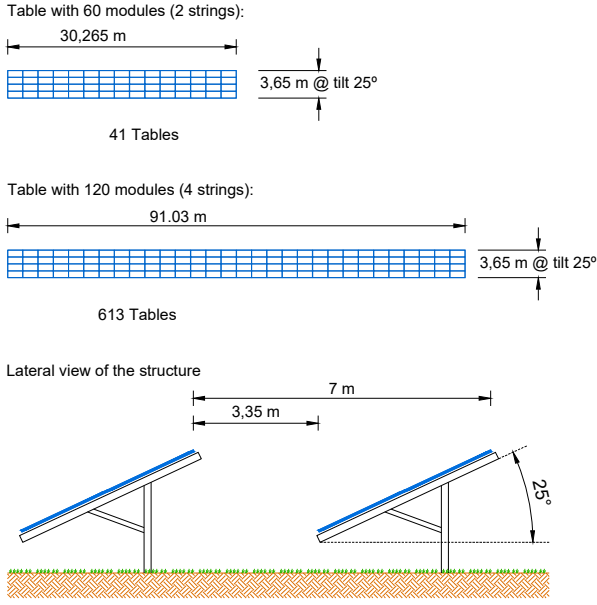
GENERAL NOTES

Assumptions:

- Flat terrain;
- No overshadowing objects on the field.

Layout subject to eventual changes that may be necessary due to:

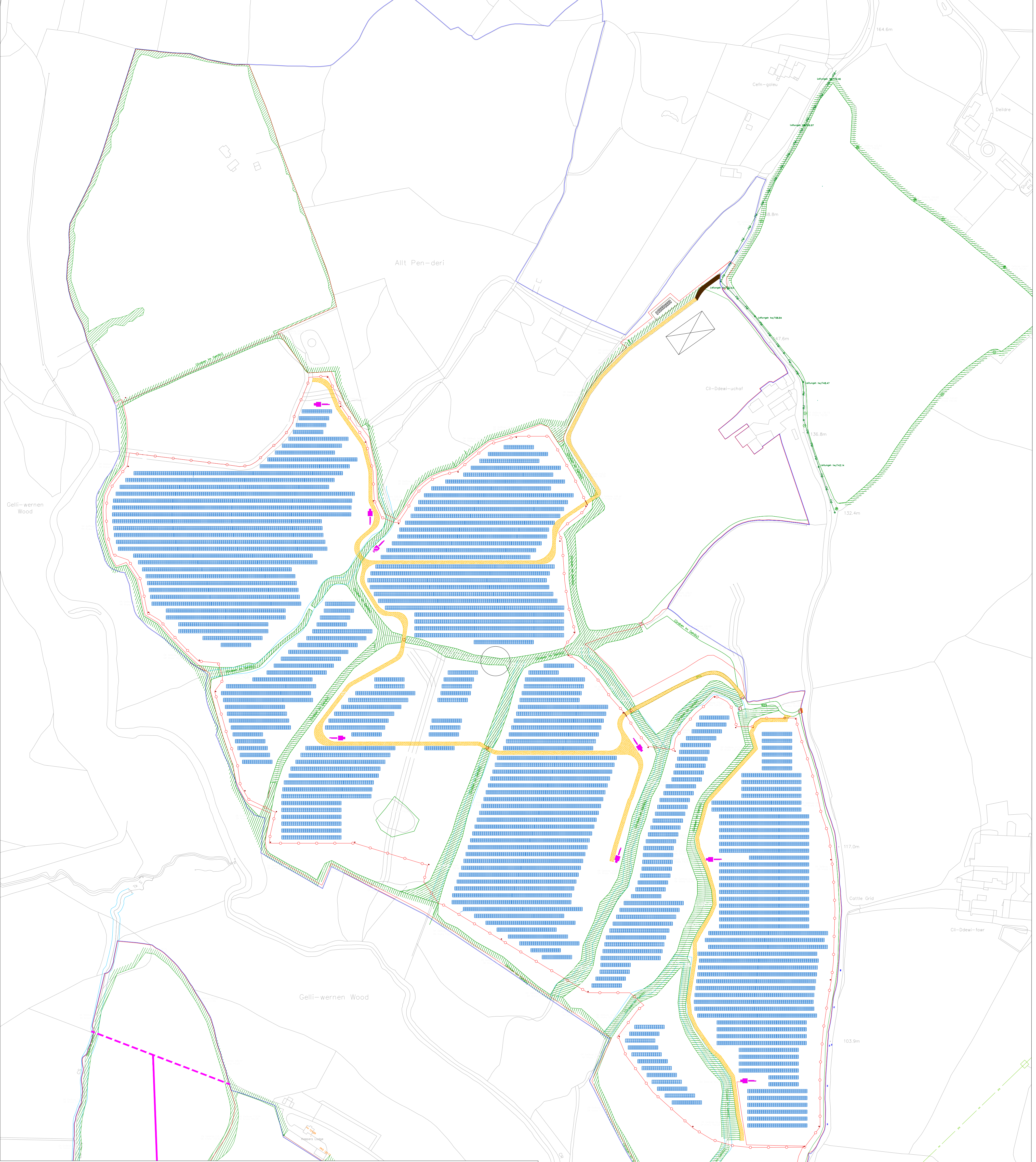
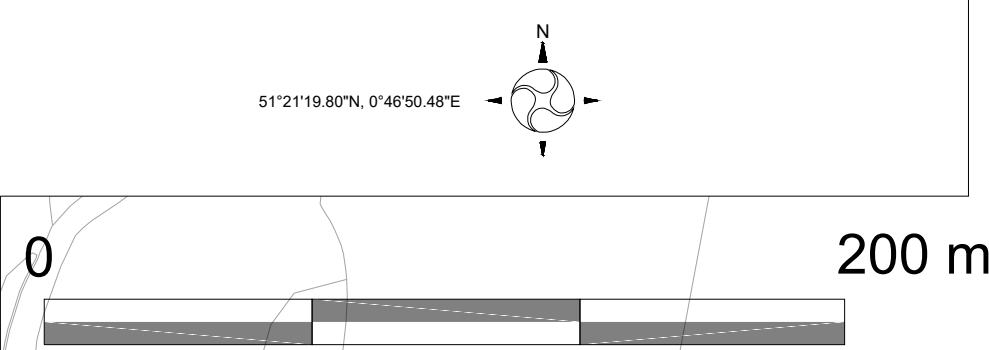
- Topographical survey;
- Geotechnical survey;
- Hydrological study;
- Grid connection conditions;
- Requirements of Planning Authorities.



- Key:
- Existing Public Footpath
 - Permissive Footpath
 - CCTV post
 - PV Module
 - Pathway
 - Existing Road
 - Fence
 - PV Plant Entrance
 - Transformer Center
 - Control House
 - Weather Station
 - Temporary Construction Compound

01	the feet in front of C/O Debra-faw has been modified to avoid having inverters next to the site boundary (noise mitigation)	Giorgio Funghi	Giorgio Funghi	06.01.2020
00	Initial Version	Giorgio Funghi	Giorgio Funghi	17.12.2019
VERSION	PURPOSE	DRAWN	APPROVED	DATE
PROJECT: BLAENHIREATH PV PLANT				
DRAWING DESIGNATION: General Implementation Plan				
SITE: Blaenhireath Farm, Llangennech, SA14 8PX				
CLIENT: VOLITALIA				
DRAWING CODE: DV_LV_101_02.00				
PROJECT N°: PEN01				
STAGE: DEVELOPMENT				
SERVICE: Electrical				
SCALE: 1:3000				
FORMAT: A1				





TECHNICAL SPECIFICATIONS			
STRUCTURE	TYPE	TILT	
	Fixed	25°	
PV MODULES	TYPE	POWER	NUMBER
	Long LRB-12PO-3399M	395 W	96360
STRINGS	PV MODULES PER STRING	NUMBER	
	30	3212	
INVERTERS	TYPE	POWER	NUMBER
	POWER ELECTRONICS PS2200K	2210 kVA	16
TRANSFORMER CENTER	TYPE	POWER	NUMBER
	POWER ELECTRONICS MV52320M1	2235 kVA	16
GEOMETRIC DATA	AREA	PV PLANT AREA	
	13366 m ²	96320 m ²	
TOTAL PEAK POWER INSTALLED:		36 060,000	MW
TOTAL NOMINAL POWER INSTALLED:		36 960,000	kVA

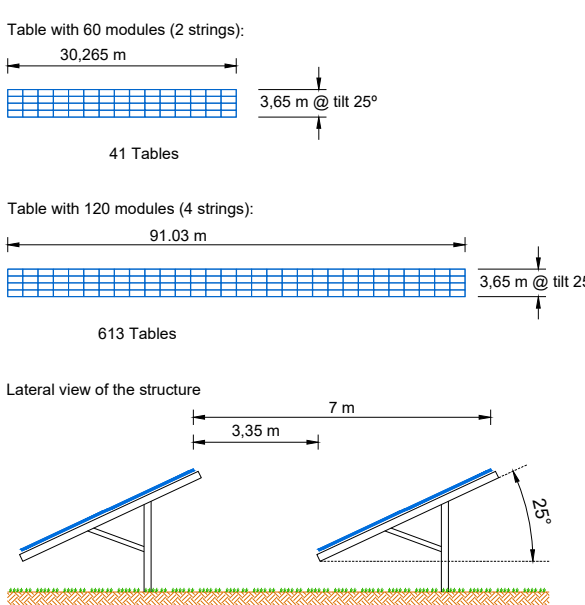
GENERAL NOTES

Assumptions:

- Flat terrain;
- No nearshading objects on the field.

Layout subject to eventual changes that may be necessary due to:

- Topographical survey;
- Geotechnical survey;
- Hydrological study;
- Grid connection conditions;
- Requirements of Planning Authorities.



- Key:
- Existing Public Footpath
 - Permissive Footpath
 - CCTV post
 - PV Module
 - Pathway
 - Existing Road
 - Fence
 - PV Plant Entrance
 - Transformer Center
 - Control House
 - Weather Station
 - Temporary Construction Compound

01	the feet in front of Cll-Ddewi-fawr has been modified to avoid having inverters next to the site boundary (noise mitigation)	Giorgio Fungini	Giorgio Fungini	06.01.2020
00	Initial Version	Giorgio Fungini	Giorgio Fungini	17.12.2019
VERSION	PURPOSE	DRAWN	APPROVED	DATE
PROJECT: BLAENHIREATH PV PLANT				
DRAWING DESIGNATION: General Implementation Plan (Detail 1/3)				
SITE: Blaenhireath Farm, Llangenbach, SA14 8PX				
CLIENT: VOLTAJIA				
DRAWING CODE: DV_LV_101_02.01				
ISSUED BY: GFE				
PROJECT N°: PEN01				
STAGE: DEVELOPMENT				
SERVICE: Electrical				
SCALE: 1:1000				
FORMAT: A1				

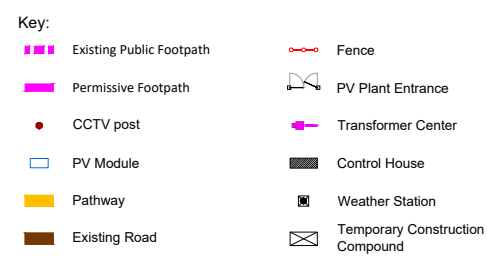


- Topographical survey;
- Geotechnical survey;
- Hydrological study;
- Grid connection conditions;
- Requirements of Planning Authorities.

Assumptions:

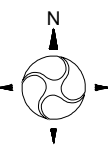
- Flat terrain;
- No nearshading objects on the field.

- Topographical survey;
- Geotechnical survey;
- Hydrological study;
- Grid connection conditions;
- Requirements of Planning Authorities.



- Key:**
- | | | | |
|--|--------------------------|--|---------------------------------|
| | Existing Public Footpath | | Fence |
| | Permissive Footpath | | PV Plant Entrance |
| | CCTV post | | Transformer Center |
| | PV Module | | Control House |
| | Pathway | | Weather Station |
| | Existing Road | | Temporary Construction Compound |

51°21'19.80"N, 0°46'50.48"E



TECHNICAL SPECIFICATIONS			
STRUCTURE	TYPE	TILT	
PV MODULES	TYPE	POWER	NUMBER
	Long LIRE (2PO-399M)	395 W	96300
STRINGS	PV MODULES PER STRING	NUMBER	
	30	3212	
INVERTERS	TYPE	POWER	NUMBER
	POWER ELECTRONICS PS2235R	2235 kVA	16
TRANSFORMER CENTER	TYPE	POWER	NUMBER
	POWER ELECTRONICS MV52320L	2330 kVA	16
GEOMETRIC DATA	AZIMUTH (PITCH) / PV PLANT PERIMETER	PV PLANT AREA	
	0° / 13365 m	96330 m²	
TOTAL PEAK POWER INSTALLED:		38 960,000	MW
TOTAL NOMINAL POWER INSTALLED:		38 960,000	kVA

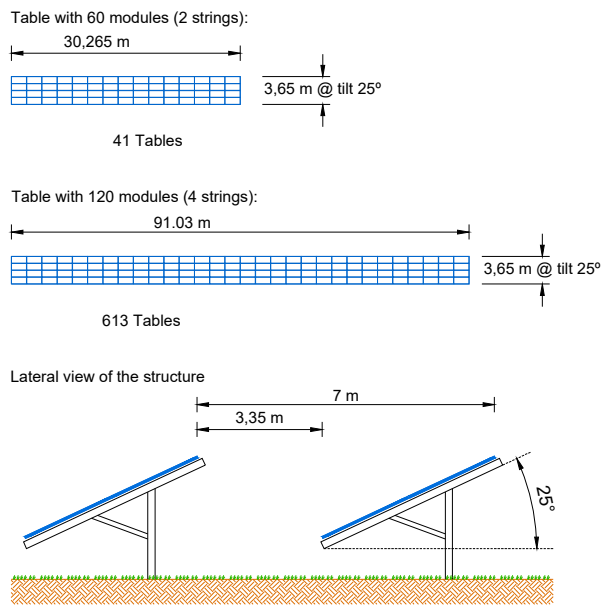
GENERAL NOTES

Assumptions:

- Flat terrain;
- No nearshading objects on the field.

Layout subject to eventual changes that may be necessary due to:

- Topographical survey;
- Geotechnical survey;
- Hydrological study;
- Grid connection conditions;
- Requirements of Planning Authorities.



- Key:
- Existing Public Footpath
 - Permissive Footpath
 - CCTV post
 - PV Module
 - Pathway
 - Existing Road
 - Fence
 - PV Plant Entrance
 - Transformer Center
 - Control House
 - Weather Station
 - Construction Compound

00	Initial Version	Giorgio Fungini	Giorgio Fungini	17.12.2019
VERSION	PURPOSE	DRAWN	APPROVED	DATE
PROJECT:	BLAENHIREATH PV PLANT	DRAWING DESIGNATION: General Implantation Plan		
SITE:	Blaenhireath Farm, Llangenbach, SA14 8PX	ISSUED BY: GFE		
CLIENT:	VOLTAJIA	DRAWING CODE:	DV LV 101_02	SCALE: 1:3000
PROJECT N°:	PER01	STAGE:	DEVELOPMENT	FORMAT: A1

A

B

C

D

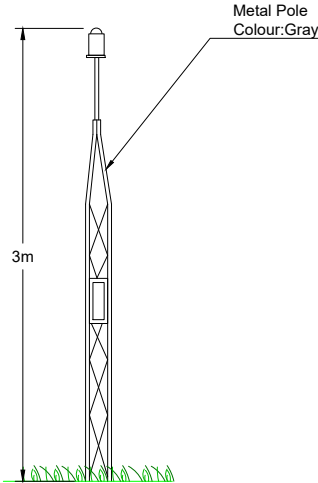
A

B

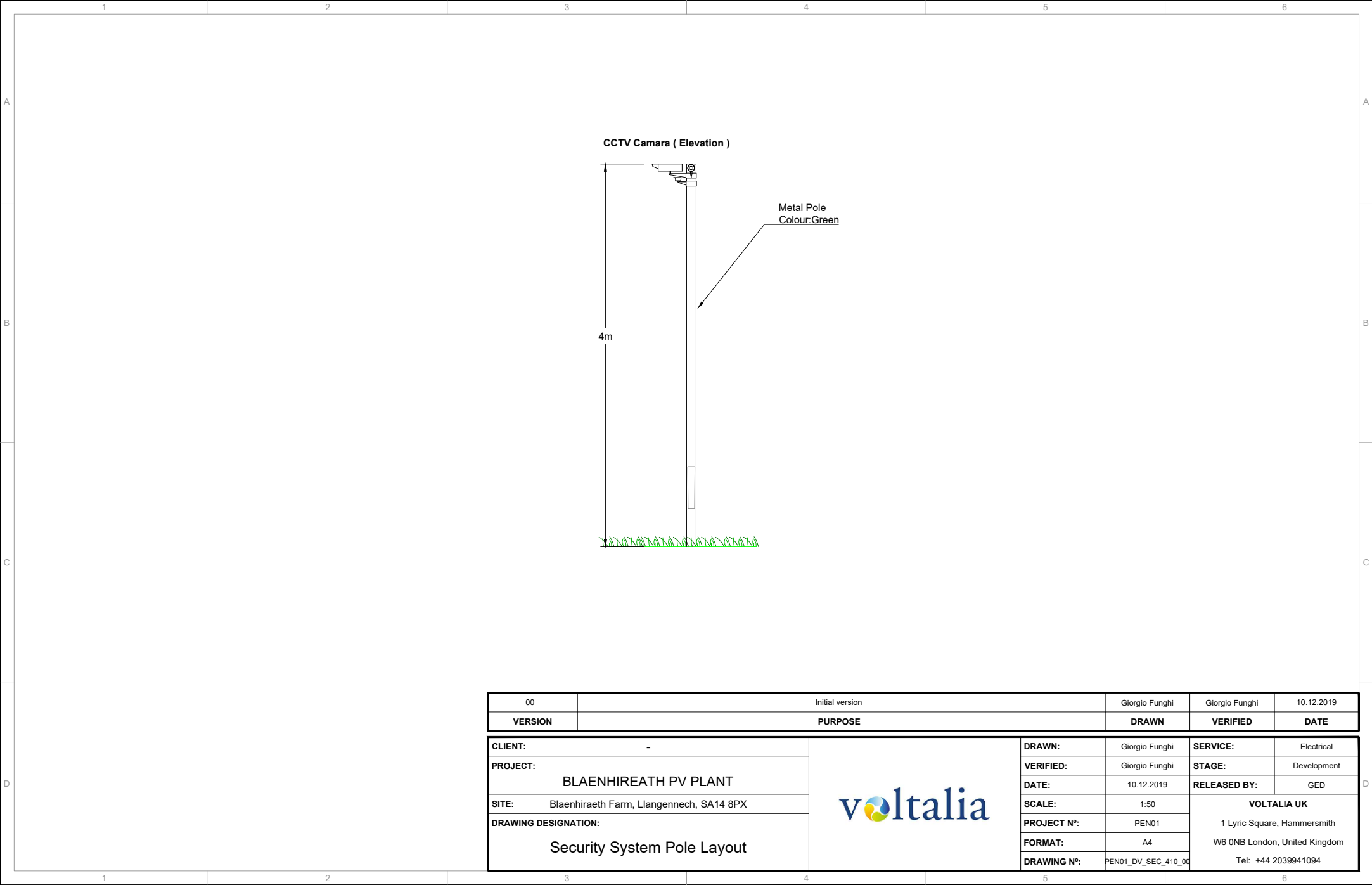
C

D

Meteo Station (Elevation)



00	Initial version	Giorgio Funghi	Giorgio Funghi	10.12.2019
VERSION	PURPOSE	DRAWN	VERIFIED	DATE
CLIENT: -		DRAWN: Giorgio Funghi	SERVICE: Electrical	
PROJECT: BLAENHIREATH PV PLANT		VERIFIED: Giorgio Funghi	STAGE: Development	
SITE: Blaenhiraeth Farm, Llangennech, SA14 8PX		DATE: 10.12.2019	RELEASED BY: GED	
DRAWING DESIGNATION: Weather Station Layout		SCALE: 1:50	VOLTALIA UK 1 Lyric Square, Hammersmith W6 0NB London, United Kingdom Tel: +44 2039941094	
		PROJECT N°: PEN01		
		FORMAT: A4		
		DRAWING N°: PEN01_DV_MON_401_00		



00	Initial version	Giorgio Funghi	Giorgio Funghi	10.12.2019
VERSION	PURPOSE	DRAWN	VERIFIED	DATE
CLIENT: -		DRAWN: Giorgio Funghi	SERVICE: Electrical	
PROJECT: BLAENHIREATH PV PLANT		VERIFIED: Giorgio Funghi	STAGE: Development	
SITE: Blaenhiraeth Farm, Llangennech, SA14 8PX		DATE: 10.12.2019	RELEASED BY: GED	
DRAWING DESIGNATION: Security System Pole Layout		SCALE: 1:50	VOLTALIA UK 1 Lyric Square, Hammersmith W6 0NB London, United Kingdom Tel: +44 2039941094	
		PROJECT N°: PEN01		
		FORMAT: A4		
		DRAWING N°: PEN01_DV_SEC_410_00		

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