

MAES MAWR SOLAR FARM ENVIRONMENTAL STATEMENT: NON-TECHNICAL SUMMARY

On behalf of Elgin Energy EsCO

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1 INTRODUCTION

- 1.1 This Environmental Statement (ES) Non-Technical Summary (NTS) has been prepared by RPS on behalf of Elgin Energy EsCO Ltd (the Applicant).
- 1.2 The document accompanies a planning application for the construction of a solar photovoltaic electricity generating station ('solar farm') and associated ancillary development, with an installed generation capacity of approximately 30MW (referred to as the 'Proposed Development').
- 1.3 As a development generating over 10MW of energy, the Proposed Development is classified as a Development of National Significance (DNS) and, as such, the planning application is submitted to Planning and Environment Decisions Wales (PEDW) for consideration, with the Welsh Ministers ultimately determining the application.
- 1.4 The application site is located on land between Church Village and Treforest Industrial Estate, 13km north-west of Cardiff City Centre. The site location is shown at **Figure 1.1**.
- 1.5 Taking into account the nature and scale of the development proposed, a process of Environmental Impact Assessment (EIA) has been undertaken in accordance with UK legal requirements to identify the potential for significant environmental impacts to arise from the Proposed Development.
- 1.6 An Environmental Statement has been produced, setting out the findings of the EIA process and this document is the NTS (Volume 3) of the Environmental Statement (ES).
- 1.7 This summary document provides an overview of the assessment findings. Details of how to view the full ES and how to obtain further copies of this NTS are provided at the end of this document.

2 PROJECT DESCRIPTION

The Site and Surrounding Area

- 2.1 The site lies within the administrative boundary of Rhondda Cynon Taf County Borough Council (RCTCBC) and is located 13km north-west of Cardiff City Centre.
- 2.2 The site is located on land between Church Village and Treforest Industrial Estate, to the east is the main railway line linking Cardiff and the Valleys. To the west lies the A473. Maesmawr Road runs through the site in a north-south direction and there is an existing solar farm (Maes Bach) located to the southeast of the site. For more detail on the site location please see **Figures 2.1 – 2.4**.
- 2.3 The site itself extends to approximately 40 hectares (98.8 acres) (including the cable route) and consists of several parcels of land. The parcels are irregular in shape and comprise a series of agricultural fields of varying sizes. They are currently primarily used for pasture grazing and are bound by a mixture of mature woodland, trees and hedgerows.

Description of the Proposed Development

- 2.4 The Proposed Development comprises the erection of a solar farm and ancillary development capable of generating approximately 30MW of electricity for a period of up to 40 years. The Proposed Development is temporary and fully reversible at the end of its lifespan.

Summary of Key Parameters

Table 2.1: Key Parameters for Environmental Assessment

Element of the Development	Key Parameter for EIA
Site area	40 hectares
Maximum height	Solar panels and tables up to 3.2 m above ground
Area of built development comprising:	
Area covered by solar panels	Approximately 9 hectares
Inverters	These are anticipated to be 2.4m wide, 7m long and 3m high and current design has 16 inverters
District Network Operator (DNO) Substation	This is anticipated to be 3.8m wide, 5.75m long and 3.74m high.
Solar Farm Substation	This is anticipated to be 3.8m wide, 5.75m long and 3.74m high
CCTV	Numerous CCTV cameras mounted on poles 3m high
Internal Access Roads	Internal road network to allow access on site approx. 3.5m wide.
Security Fencing	Fencing of approx. 2.4m height surrounding the site.
Area of landscape planting/semi-natural greenspace	Native hedgerow and tree planting provided to improve screening of the Proposed Development were possible.

Key Components

2.5 The project includes the following key components:

- Solar panels and frames



- DNO and solar farm inverters



- Cabling

- Security fencing



- CCTV System



2.6 An indicative proposed site layout plan is provided in **Figure 2.1**. Further details of the key components are provided below.

Solar Panels, Frames, Inverters and Transformers

2.7 The panels will be arranged in series of rows up to a height of approximately 3.2m at the highest and 0.8m at the lowest points and tilted southwards at an angle of 10-25 degrees. The panels themselves will be bifacial and will be approximately 2.4m by 1.3m in size. The underside of a bifacial panel has a transparent material that allows the panel to also collect light which reflects from the ground

- 2.8 The support frame uprights are pile driven into the ground. The distance between the rows of panels will vary depending on the gradient of the topography but will typically be spaced between 2m and 8m apart.
- 2.9 Several inverters will be required across the site, requiring some excavation and gravel base for their foundations.

Cabling

- 2.10 The majority of the cabling associated with the development will be laid underground via surface dug trenches of approximately 1m deep and 50cm wide and backfilled. These will utilise existing access tracks and road options wherever possible, particularly where sensitive habitats or archaeology is potentially present.

Substations

- 2.11 A DNO substation, solar farm substation, monitoring house and storage building will be positioned towards the northern portion of the site near the road as shown on **Figure 2.1**.

Access and Parking

- 2.12 Several existing access points will be used for access for the construction, maintenance and decommissioning of the Proposed Development. Existing farm tracks will be used for internal access within the site wherever possible. New access tracks, where required, will be formed, normally, using a layer of permeable crushed stone.
- 2.13 A detailed Construction Traffic Management Plan (CTMP) describing the delivery routes, construction routes, construction compounds and any associated parking or management of construction traffic will be submitted with the planning application.

Transport Management

- 2.14 The EIA Scoping Report (see Appendix 4.1 of ES) and Welsh Minister's Scoping Direction (see Appendix 4.2 of ES) confirmed that transport, both construction and operational, should be scoped out of the EIA as it would be unlikely to have significant environmental effects and can be adequately addressed through the submission of separate standalone reports, such as the CTMP mentioned above.
- 2.15 The Proposed Development will cause limited impacts on the local road network during the construction phase. The CTMP provides details of traffic routing and any accommodation works (with provision for contractor parking) during construction and, once operational, the vehicle movements associated with the Proposed Development will be minimal, approximately 10-20 visits a year by van or four-wheel drive vehicle.
- 2.16 The CTMP also includes information on the construction period, which is expected to be approximately 6-8 months, with construction hours expected to be between 08:00 and 18:30 hours Monday to Friday and 08:00 to 13:00 hours on Saturday. Deliveries will vary in amount per day during the construction period with an average of 6-8 deliveries (6-8 inbound plus 6-8 outbound movements) per day over the period.
- 2.17 It is envisaged that the main construction route will be from the north via the A473 and Maesmawr Road. This is the same route that the adjacent Maes Bach Solar Farm used for its construction traffic and thus the route has already been confirmed as being suitable for use as a construction route for a solar farm. However, it is expected that the final details will be agreed following determination of the application via a planning condition requiring a final CTMP to be submitted prior to construction works commencing.

Appearance and Design

- 2.18 The Proposed Development is low lying in nature, typically shorter in height than the many existing mature trees and hedgerows around the site.
- 2.19 The appearance will be a more modern and obvious human influence on the landscape compared to that currently formed by agriculture. Whilst construction would cover a wide area, the works would be temporary and the Proposed Development itself will be considerably less solid in appearance than traditional buildings. This would mitigate against the likely change in the character of the landscape.
- 2.20 The Proposed Development would be removed at the end of its 40 years lifetime enabling the site to return to its former agricultural character and appearance.

Landscape and Open Space Strategy

- 2.21 The site lies within a local Special Landscape Area (SLA) as designated within RCTCBC's Local Development Plan (LDP). The SLA covers a much wider area of the County Borough.
- 2.22 Landscape and biodiversity enhancements are proposed as part of the Proposed Development, which include enhancements to existing onsite hedgerows, as well as proposals for new hedgerow and tree planting as shown in **Figure 2.5**. The mitigation includes ecology enhancement and hedgerow infill planting, as necessary, in order to gap-up areas where existing hedge planting is sparse to help redefine field boundaries where they have become fragmented.

Drainage and Flood Risk

- 2.23 There are a number of unnamed ordinary watercourses acting as field drainage as well as a number of ponds on site. A small watercourse is located within the site boundary, flowing in a north-westerly direction through the site before existing the site along the northern boundary. Another small watercourse converges with this watercourse is the centre of the site.
- 2.24 The River Taff, a designated main river, runs through Treforest Industrial Estate and is located adjacent to the northern spur of the development site. Another main river, called Nant Dowlais, is located approximately 360m to the west of the site.
- 2.25 The Proposed Development would add a relatively small amount of additional impermeable surfacing relative to the site area.
- 2.26 With regard to drainage, the Welsh Minister's Scoping Direction (see Appendix 4.2 of ES) stated:
"However, given that soil compaction (which has not been addressed) can lead to additional water-run off, it is not possible at this stage to state that there will be no hydrological impacts created by the proposed development (during construction and decommissioning). PEDW does not agree that water (including drainage) can be scoped out at this early stage. Should subsequent assessment show that significant effects in this respect are not likely it may be possible to scope this topic out at this stage."
- 2.27 Whilst the Scoping Direction was being considered by Welsh Ministers and subsequently, a Drainage Strategy and Flood Consequence Assessment (FCA) has been prepared. This is a separate document submitted with the planning application.
- 2.28 The Drainage Strategy and FCA confirm that designed in measures should, where practicable, mitigate the risk of soil compaction and the creation of rivulet systems and, therefore, that significant effects are not likely. Accordingly, drainage and flood risk is scoped out if the EIA.

Lighting

- 2.29 There will be no use of artificial lighting during operation that could adversely affect field boundary habitats and/or adjoining woodland.
- 2.30 Some temporary task lighting may be required during construction and decommissioning depending on the time of year and sunlight levels.
- 2.31 The Proposed Development will cause a minimal amount of potential for redirection of light in terms of glint and glare via the surface of the panels. Any effects in terms of glint and glare would be localised and unlikely to be of a magnitude that would be significant in environmental terms. As such, consideration of these effects have been scoped out of the ES as a specific chapter in accordance with the Welsh Minister's Scoping Direction (see Appendix 4.2 of ES).

Sustainability

- 2.32 This section outlines the effects of the Proposed Development on sustainability factors such energy demand, waste, use of natural resources and residues and emissions.

Energy Demand

- 2.33 The Proposed Development will supply electrical energy to the distribution network rather than generate demand.
- 2.34 The Welsh Government (WG) has formally committed Wales to legally binding targets to deliver the goal of net-zero emissions. The Climate Change Committee recommended the following targets that the Proposed Development will contribute to:
- Carbon Budget 2 (2021-25): 37% average reduction with credit ("offset") limit of 0%
 - Carbon Budget 3 (2026-30): 58% average reduction
 - 2030 target: 63% reduction
 - 2040 target: 89% reduction
 - 2050 target: 100% reduction (net zero)
- 2.35 The Proposed Development will also contribute to cost-effective local energy generation and energy security with limited governmental subsidy and will, therefore provide socio-economic and community benefits. Notably, the design of the Proposed Development will allow an efficient dual use of the land for renewable energy generation and agriculture.

Waste

- 2.36 Waste produced during construction will be kept to a minimum and will be managed and sorted accordingly. Only registered waste management companies will be utilised to dispose of construction waste (packaging, wood, metal) or waste from the construction team (general domestic or canteen/kitchen waste). The specialist EPC hired to construct the solar installation will ensure that all waste is disposed of responsibly using only licensed waste management companies. This will be subject to appropriate due diligence checks prior to contracting.
- 2.37 Following decommissioning there will be significant potential for recycling many of the materials used in the Proposed Development. There may be some equipment at the end of the project lifespan that would result in some solid waste. However, given the scale and nature of the Proposed Development significant effects are not likely in terms of waste generation. At decommissioning stage, the solar panels will be unscrewed from the mounting frames and packaged either to send to a solar recycling depot, or if they are still operational, they may be sold on second-hand.

Use of Natural Resources

- 2.38 A desktop Agricultural Land Classification Survey of the proposed site was in November 2020 and updated in March 2022 and is a separate technical document forming part of the planning application.
- 2.39 The assessment confirmed that the majority of the site comprised Grade 3b – Grade 5 agricultural land, with only a very small section of the cable route falling within Grade 3a Best and Most Versatile (BMV) Land. The cable route will follow the existing track for the majority of its length.
- 2.40 The Proposed Development is temporary in nature and fully reversible. Appropriate construction techniques will be implemented to reduce above and below ground works and to minimise any compaction of soil mitigating any potential impact on the soil structure and ability to infiltrate water. Most of the soil will not be physically impacted.
- 2.41 Relatively small, localised areas of earthworks will be required to create level platforms for the substations, transformers and other containerised infrastructure, and to create the trenches for the HV cable and LV cables. Topsoil will be removed from the relevant areas and set aside separately from any subsoil. When backfilling the cable trenches, the subsoil will be replaced first, followed by the topsoil.
- 2.42 Following decommissioning, the above would ensure that the future quality of the agricultural land is maintained with no likely significant lasting adverse effects on the quality of the soil.

Residues and Emissions

- 2.43 Details of any potential effects in relation to residues and emissions having regard to water are set out in the separate Drainage Strategy and FCA.
- 2.44 The Climate Change section of this NTS provides a summary of the assessment of the effects of the Proposed Development having regard to climate change.

Vulnerability to Accidents and Disasters

- 2.45 The EIA Regulations state that an EIA must identify, describe and assess, in an appropriate manner, the direct and indirect significant effects arising from the vulnerability of the Proposed Development to risks of major accidents or disasters.
- 2.46 Solar photovoltaic technology is a relatively benign and safe form of electricity generation with very low risk of accident or disaster and will not have a significant environmental effect in this regard.
- 2.47 The Proposed Development will be enclosed by appropriately designed security fencing and monitored by CCTV, which will lower the risk of unauthorised access and accidents.
- 2.48 Accordingly, vulnerability to accidents and disasters is scoped out of this ES, as confirmed in the Scoping Direction (see Appendix 4.2 of ES).

Construction

- 2.49 The details of construction methods, timing and phasing are necessarily broad at this stage of the Proposed Development. The limits of the EIA, however, have been set sufficiently wide to allow a robust assessment to be undertaken of a reasonable worst-case scenario.

Indicative Phasing of Construction Works

- 2.50 The timing of construction would be dependent on securing planning permission and the discharge of planning conditions. The indicative construction programme sets out a programme of

approximately 6-8 months duration. It is assumed that the construction is likely to be phased as shown in **Table 2.2** below.

Table 2.2: Indicative Phasing of Construction

Phase	Indicative Dates	Activities
1	Q2 2024	Site preparation, fencing, internal access and compounds and drainage works
2	Q2 2024 – Q3 2024	Installing frames and panels
3	Q3 2024	Install associate infrastructure and CCTV
4	Q3 2024	Connection
9	Q3 2024	Landscaping

2.51 It is the intention of the Applicant that the site would be registered under the Considerate Constructors Scheme (CCS) or a similar, locally recognised certification scheme.

Construction Working Hours

2.52 Working hours would be 08:00 to 19:00 hours Monday to Friday, 08:00 to 13:00 hours on Saturday and at no time on Sundays or on public or bank holidays. In the event that works are required outside of these hours in exceptional circumstances, this would be agreed with RCTCBC prior to commencement of the activity, as necessary.

Environmental Management during Construction

2.53 Construction would be undertaken in accordance with good practice environmental management procedures that will be set out in more detailed plans and method statements contained within a Construction Environmental Management Plan (CEMP) to be developed by the contractor. The CEMP will set out the key management measures that the contractor will be required to adopt and implement. These measures will be developed based upon those effects identified during the EIA process. They will include strategies and control measures for managing the potential environmental effects of construction and limiting disturbance from construction activities as far as reasonably practicable.

2.54 The CEMP would be prepared during the pre-construction period once a contractor has been appointed. It is anticipated that a final CEMP would be submitted to RCTCBC for approval.

Construction Working Areas

2.55 A number of temporary facilities would be required during construction including:

- Temporary offices and welfare facilities;
- Storage area for materials, fuels, plant and equipment;
- Waste management areas; and
- Car parking facilities.

2.56 As far as possible, storage areas would be located away from existing properties. Such storage areas would be bunded to mitigate any spillages of potential contaminants and would avoid being located in areas of vegetation or habitat to be retained.

2.57 All construction works will be carried out within the site and no additional land would be required outside of the Proposed Development site boundary.

Construction Vehicles

- 2.58 The type of construction vehicles would be selected by the contractor prior to and during the construction phase. However, the following vehicles would typically be used during construction:
- Excavators;
 - Cranes (for assembly and erection);
 - Low loaders (for transport of construction equipment and plant);
 - Concrete lorries;
 - Tipper lorries; and
 - Construction staff vehicles.
- 2.59 Staff levels are likely to vary through construction depending on the operations being undertaken. It is anticipated that during the peak period of construction 40 staff will be required on-site per day, during the other phases of work it is anticipated that approximately 20 staff will be required.

Construction Waste

- 2.60 The contractor will ensure that any waste that is required to be taken off site will be disposed of responsibly to registered waste companies.
- 2.61 The potential waste generated will primarily be related to packaging, and will include:
- Any non-hazardous waste produced is likely to be primarily packaging and cable off cuts. This waste will be stored in a covered skip and recycled or appropriately disposed of.
 - Food waste from workers - personal rubbish will be collected along with non-recyclable packaging materials, for disposal at an appropriate landfill.
 - Portable toilets will be hired for the duration of the construction period, therefore there will be no human waste issues.
 - Excavated soil - the site will require some ground works for access tracks, cable trenching and equipment platforms. Excavated soil will be used for backfilling activities. Any excess subsoil will be removed from the sites and disposed of at an appropriate landfill or sold to a landowner needing additional soil.

Utilities

- 2.62 On site electrical power from generators will be utilised where necessary during the construction phase. It is not anticipated that new utility connections would be required for the construction compound.

Operation and Maintenance

- 2.63 Once operational, the Proposed Development will be operated remotely and only require between 10-20 visits per year for maintenance, monitoring and cleaning of the panels and site. Normally, the Applicant's operational sites are managed through their Operations and Maintenance Team based in Bath. The Applicant also has an Asset Management Team to ensure the long-term management of its assets, including any site planting.

3 NEED AND ALTERNATIVES CONSIDERED

Need for the Development

- 3.1 The need for the Proposed Development is twofold, firstly to help ensure the UK's energy security in terms of increasing demand for electricity and secondly, to contribute towards the need to decarbonise the UK's energy systems and combat the potentially devastating effects of climate change on current and future generations.

National Grid Future Energy Scenarios (July 2021)

- 3.2 'Future Energy Scenarios' (FES) (National Grid, 2021) outlines different credible pathways for the future of energy for the next 30 years and beyond. For electricity supply, in all scenarios, there are significant increases in renewable energy generation. The 'key messages' of the report, with regards to the Proposed Development, include:

- Significant investment in low carbon electricity generation will be required across all net zero pathways;
- Between 34GW and 77GW of new wind and solar generation could be required to meet demand in 2030.

- 3.3 National Grid anticipates annual electricity demand in the UK could more than double from 294TWh in 2020 to up to 702TWh by 2050. Similarly, peak demand in 2020 of 58GW could almost double to up to 113GW over the same period. There is therefore an urgent need to increase electricity capacity in the UK to ensure a secure and stable supply in the future and achieve renewable energy and net zero targets.

Welsh Government Declaration of Climate Emergency

- 3.4 On 29 April 2019 the then Environment Minister Lesley Griffiths declared a climate emergency in Wales on behalf of the Welsh Government (WG).

Welsh Government Declaration of Commitment to Net Zero by 2050

- 3.5 On 9 February 2021 WG set out its legal commitment to achieve net zero emissions by 2050.

UK Government Commitment to Net Zero by 2050

- 3.6 On 27 June 2019, the UK became the first major economy in the world to pass laws to end its contribution to global warming by 2050. The target will require the UK to bring all greenhouse gas emissions to 'net zero' by 2050.
- 3.7 Net Zero 2050 – A Roadmap for the Global Energy Sector (International Energy Agency (IEA), 2021) outlines the essential conditions for the global energy sector to reach net-zero carbon dioxide emissions by 2050. It calls for scaling up solar and wind technologies during the 2020s, reaching up to 630GW of solar by 2030, four times the set levels in 2020.
- 3.8 The Roadmap stresses that for solar, this equates to installing the world's current largest solar farm roughly every day.

Alternatives Considered

'Do nothing' Scenario

- 3.9 Under the 'Do nothing' scenario, the Site would continue to be used for agriculture and the benefits of producing renewable energy to feed into the electricity distribution network and help the Welsh and UK Governments to respond to energy security needs, the climate emergency and reach greenhouse gas reduction and net zero targets by 2050 would not be contributed towards.

Site Location

- 3.10 The Applicant is committed to delivering renewable developments across the UK and, as such, undertakes continuous nationwide assessments of land opportunities where land is available in agreement with landowners' commitments to supporting the provision of green energy production to meet a sustainable future.
- 3.11 Large scale ground mounted solar farms are generally located in the open countryside. Sites large enough to accommodate a financially viable scheme, with sufficient MW output, are difficult to find in settlements, particularly the towns and villages that are found in the local area.
- 3.12 A number of other sites were considered within the RCTCBC area but were discounted for a range of reasons including limited options for connection to the electricity distribution network, prominence in the landscape and visually owing to topography and lack of vegetation screening, and landowner issues and access constraints.
- 3.13 The key reasons the site was selected and taken forward include proximity and ease of connection to grid infrastructure and because the land parcel is large enough to make the scheme commercially viable. From a visual effect perspective, the field boundary hedges are in good condition allowing considerable screening from local views. In addition, the transport network and access routes are suitable to allow for construction of the Proposed Development.

Site Layout and Design

- 3.14 An evaluation of site constraints and opportunities was undertaken to inform an initial concept design. This has subsequently been refined through a combination of technical assessments and engagement with various stakeholders and through the EIA process. As a result, the Proposed Development presents an opportunity to provide the following:
- Approximately 30MW of renewable electricity to feed into the electricity distribution network and support the Government's Net Zero targets.
 - Provide areas of habitat enhancement.
- 3.15 Constraining factors that affected the layout and design include:
- A number of existing public footpaths running through the site
 - Agricultural land grade: majority grade 3b with some grade 3a
 - Ancient woodland adjacent to site boundary
 - Sites of Importance for Nature Conservation (SINCs) adjacent to site boundary
 - On site peat.

4 EIA METHODOLOGY

- 4.1 Scoping is the process of identifying the issues to be addressed during the EIA process.
- 4.2 As mentioned previously, a Scoping Request was submitted and the Welsh Minister's subsequently issued a Scoping Direction in May 2022 (see Appendices 4.1 and 4.2 of the ES).
- 4.3 The topics listed below were considered appropriate to be included in the ES.
- Chapter 1 Introduction
 - Chapter 2 Project Description
 - Chapter 3 Need and Alternatives Considered
 - Chapter 4 Environmental Assessment Methodology
 - Chapter 5 Landscape and Visual
 - Chapter 6 Ecology and Nature Conservation
 - Chapter 7 Historic Environment
 - Chapter 8 Climate Change
 - Chapter 9 Ground Conditions

Environmental Assessment Methodology

- 4.4 The assessment of each environmental topic includes:
- Methodology and assessment criteria;
 - Description of the environmental baseline conditions;
 - Measures adopted as part of the Proposed Development, including mitigation and design measures that form part of the Proposed Development;
 - Identification of likely effects and evaluation and assessment of the significance of identified effects, taking into account any measures designed to reduce or avoid environmental effects which form part of the Proposed Development;
 - Identification of any further mitigation or monitoring measures envisaged to avoid, reduce and, if possible, remedy adverse effects (in addition to those measures that form part of the Proposed Development); and
 - Assessment of any cumulative effects with other developments planned in the area.

Assessment of Effects

- 4.5 The assessment is based on consideration of the likely magnitude of the predicted impact and the sensitivity of the affected receptor.

Sensitivity or Importance of Receptors

- 4.6 Receptors are the physical or biological resource or user group that would be affected by the Proposed Development. Some receptors will be more sensitive to certain environmental effects than others. Sensitivity takes into account factors including:
- Vulnerability of the receptor
 - Recoverability of the receptor
 - Value/importance of the receptor.

Magnitude of Impact

4.7 Impacts are the physical changes to the environment attributable to the Proposed Development. The categorisation of the magnitude of impact is topic-specific but generally takes into account factors such as:

- Extent
- Duration
- Frequency
- Reversibility.

Significance of Effects

4.8 Effect is the term used to express the consequence of an impact (expressed as the ‘significance of effect’). This is identified by considering the magnitude of the impact and the sensitivity or value of the receptor.

4.9 The magnitude of an impact does not directly translate into significance of effect. For example, a significant effect may arise as a result of a relatively modest impact on a resource of national value, or a large impact on a resource of local value. In broad terms, therefore, the significance of the effect can depend on both the impact magnitude and the sensitivity or importance of the receptor having regard to the matrix below.

Table 4.1: Typical Assessment Matrix

Sensitivity	Magnitude of Impact					
	No Change	Negligible	Low	Medium	High	
Negligible	No change	Negligible	Negligible or Minor	Negligible or Minor	Minor	
Low	No change	Negligible or Minor	Negligible or Minor	Minor or Moderate	Moderate or Major	
Medium	No change	Negligible or Minor	Minor or Moderate	Moderate or Major	Major or Substantial	
High	No change	Minor	Moderate or Major	Moderate or Major	Major or Substantial	
Very high	No change	Minor	Moderate or Major	Moderate or Major	Major or Substantial	

4.10 Unless set out otherwise in relation to a topic, effects assessed as moderate or above are considered to be significant in terms of the EIA Regulations within this assessment.

5 POLICY CONTEXT

5.1 A broad overview of the key national and local policy and guidance relevant to the Proposed Development is provided below.

- United Nations Framework Convention on Climate Change: The Paris Agreement (2015);
- Welsh Government Climate Emergency Declaration (April 2019);
- Welsh Government Commitment to Net Zero (February 2021);
- Well Being and Future Generations Act 2015;
- Future Wales – The National Plan 2040;
- Planning Policy Wales Edition 11 (February 2021); and
- The Rhondda Cynon Taf Local Development Plan (March 2011).

5.2 An analysis of the Proposed Development having regard to the planning policy and legislative context is provided in the Planning Statement that accompanies the application.

6 SUMMARY OF ENVIRONMENTAL EFFECTS

- 6.1 This section provides a summary of the findings of the EIA process as reported in the ES. For full details of the assessments, please refer to the ES.

Landscape and Visual Impact – ES Chapter 5

- 6.2 The Landscape and Visual Impact Assessment (LVIA) has considered the existing landscape and visual resources within the site and a surrounding 5km radius study area. This includes identification of the character and features of the landscape and consideration of the changes that would result because of the construction and operation of the Proposed Development. A computer-generated zone of theoretical visibility (ZTV) was mapped to identify the areas from which the Proposed Development would be potentially visible.
- 6.3 The site and study area is representative of the LANDMAP aspect (character) area which comprises *"A rolling rural landscape with small/medium sized fields, predominantly grazing, defined by hedgerows with scattered blocks of broadleaf and mixed woodland...with much of the area consisting of...improved grassland which is low value but there are valuable (including priority) habitats scattered throughout and a number of areas worthy of SINC designation which raise the value of the area..."*. Transport and communication routes, such as major roads, rail lines, pylons and telegraph poles and the existing Maes Bach Solar Farm have an impact on the local landscape. A number of locally designated sites are located within the study area, but not within the site itself.
- 6.4 The majority of the site comprises grazed poor semi-improved grassland (bounded by hedgerows, field ditches and watercourses). It is located between the A473 and the Treforest Industrial Estate, a large area of industrial/commercial development to the east and lies to the south of the settlement of Church Village/Tonteg.
- 6.5 There are a limited number of isolated residential properties located in close proximity to the site. Within the wider study area there are large areas of predominantly residential development which follow the valley floors interspersed with high ridges of open countryside and wooded valley sides. People with views of the site are predominantly vehicle travellers and cyclists on the local roads and walkers using several public rights of way (PRoWs) located throughout the study area and in some cases through the site itself. Tall features in the study area include the large scale industrial/commercial development to the east within Treforest Industrial Estate and overhead powerlines and telephone lines which pass through the east of the site.
- 6.6 The Proposed Development would include a range of measures that have been designed to reduce or avoid significant adverse landscape and visual effects. The overall external design, including the site layout, has been developed to aid in reducing its overall landscape and visual impact. Existing field boundary planting, such as hedgerows and trees, would be retained and supplemented as appropriate, with newly planted native species trees, hedgerows and scrub areas planted in selected areas.
- 6.7 Construction will involve limited tall plant such as piling rigs/cranes. Whilst the Proposed Development would increase the overall level of development within the study area and infill areas of undeveloped land, the site is located within an area that has been influenced by energy-based industry. The character of the area has been influenced by transportation corridors, overhead power line pylons and the existing Maes Bach Solar Farm and other development, although the overall landscape remains predominantly rural grazed farmland and other grassland habitats. The sensitivity of the landscape character, within which the site is located, is medium and direct effects on the site area during construction and at completion of the Proposed Development would result in temporary effects on the landscape character of the site itself which, on balance when considering the protection and retention of existing features and relatively small footprint of a development of this type, are not considered significant. Effects on other landscape character within the study area would **not be significant**.

- 6.8 Once operational, there would be no significant adverse effect on landscape character in the long term. Over time, as proposed landscape planting matures and the appropriate management of the existing vegetation is implemented, effects on landscape character would reduce further. Overall, the quality and character of the wider landscape within the study area would be maintained and would accommodate the Proposed Development **without significant effects**.
- 6.9 In terms of views, it is anticipated that the scale of the Proposed Development would cause some localised obstruction to near distant views from footpaths that traverse the site. People would experience **significant adverse effects** on views from two public rights of way (DRE/50b/1 and 2) which would be diverted.
- 6.10 On completion, there would be **significant adverse effects** on views from four PRoWs which pass through the site and/or have been diverted to the south. Including, DRE/47/2 and 3 and DRE/50b/1 and 2. Landscape planting where appropriate, once established, would help reduce the effects in the long term.
- 6.11 By year 15, the mature planting proposals and appropriate management of the existing grassland habitats, existing hedgerow and trees would increase species diversity in the site, provide a landscape buffer between the site and adjacent SINC woodland and help blend the site into the surrounding landscape. Long term landscape benefits associated with the landscape scheme would promote the integration of the Proposed Development into the surrounding landscape.
- 6.12 The Proposed Development would be up to 3.2m in height and potentially visible from small areas on higher ground within the 5km study area. However, it is considered that the potential effects upon longer distance views would **not be significant** due to the small or barely perceptible change in view. Effects on people experiencing long distance views would **not be significant**.
- 6.13 The visual amenity of people within the study area, due to intervening layered vegetation and topographical variation would generally be maintained. The nature of the Proposed Development would not be entirely uncharacteristic of the study area as a whole and **significant effects would be limited** to people experiencing views in close proximity during the construction and operational phase from a small number of local public rights way. Over time, as proposed landscape planting matures, visual effects would help reduce levels, but effects are likely to remain significant.
- 6.14 Overall, the quality and character of the landscape and visual resources would be maintained and would have the capacity to accommodate the Proposed Development without significant effects beyond those identified in very close proximity to the site or within it, where mitigation would be very difficult and not entirely appropriate when considering the characteristics of the site.

Ecology and Nature Conservation – ES Chapter 6

- 6.15 The ecological assessment confirms that there is **no potential** for impacts on any statutory designated sites.
- 6.16 The eastern boundary of the site and a short section of the northern boundary area adjoin a non-statutory designated site, The Willowford SINC and there is a hydrological connection with Tonteg Marsh SINC. The consistent implementation of environmentally sensitively construction methods, including pollution prevention, would **avoid the potential for any adverse effects** on these SINCS.
- 6.17 Many of the key habitats are being retained and protected within the site including the hedgerow network, mature trees, ponds, ditches, and boundary watercourses.
- 6.18 Habitats of low value (important in a local context) include marsh/marshy grassland which comprises a large area of species-poor marsh growing on a deep layer of underlying peat, a small area of sharp-flowered rush grassland with multiple positive indicator species and more localised areas of marsh/marshy grassland with some associated with shallow peat. These features are classified as having low sensitivity/value under the EIA criteria for assessment, equating to importance in a local context only.

- 6.19 The species/species groups that utilise habitats within the site have been evaluated as mostly low value (importance at a site or local context) derived from survey findings and precautionary assumptions of presence. The assemblage of birds breeding within and adjacent to the site, is classified as of low - medium sensitivity equating to importance in a local or possibly district context, with a barn owl hunting territory overlapping the site. Adder has been recorded on site with the habitats also having the potential to support grass snake, slow worm and common lizard.
- 6.20 Surveys have confirmed the very likely absence of great crested newt, and water vole and there is no evidence of otter activity.
- 6.21 Direct habitat loss will be limited to the access track, small-scale infrastructure and the supports for each panel. During construction the predominately short impacts on grassland habitats have been classified as **negligible adverse**.
- 6.22 Construction activities have the potential to have an effect of **minor adverse** significance on breeding birds. The predicted construction impacts on all other species/species groups are almost all short term and have been classified as effects of **negligible adverse** significance (effects of relevance in the context of the site) or **no change**.
- 6.23 During the operational phase the changes to habitats and species will relate to the partial shading by solar panels and the changes in management with areas currently subject to cutting regimes becoming grazed.
- 6.24 Management of the field boundaries will be designed to safeguard the value of higher value features over the lifetime of the Proposed Development and enhance areas of lower diversity/value for fauna. Management objectives will specifically create variation designed to benefit a wide range of fauna species including areas of flower-rich grassland.
- 6.25 Selected areas in the north-western part of the site will become a Biodiversity Enhancement Area comprising the area of deep peat and most species-rich areas of marshy grassland.
- 6.26 The significance of the effect is predicted to be **beneficial at a site level** for higher value marshy grassland and hedgerows and trees, to **no change** for broadleaved woodland or ponds. Effects that are **adverse but significant in the context of the site only** relate to grassland fields that are currently subject to cutting management regimes which will be sheep grazed following the installation of the Proposed Development.
- 6.27 For fauna species effects are predicted to be **beneficial in the context of the site** or result in **no change** as a result of targeted habitat protection, management and enhancement.
- 6.28 None of the adverse or beneficial effects identified during construction and operation are significant in EIA terms.

Historic Environment – ES Chapter 7

- 6.29 This Historic Environment ES Chapter has been prepared to assess potential significant effects on archaeology and the historic built environment arising from the Proposed Development.

Archaeology

- 6.30 The assessment of potential effects was informed by an Archaeological Desk Based Assessment (DBA). The methodology for this assessment was based on relevant guidance and best practice and was agreed with Cadw and Glamorgan-Gwent Archaeological Trust (GGAT) as part of pre-application consultation.
- 6.31 The DBA included a review of any known archaeological assets within the site and within a 1km radius of its boundary. Where assessment has been undertaken with regard to potential impacts on the settings of designated archaeological heritage assets, the search radius was extended to 5km.

As with the landscape assessment, the heritage assessment was informed by the findings of a ZTV as well as a site visit.

- 6.32 In terms of relevant designated archaeological assets, no World Heritage Sites, Scheduled Monuments, Historic Wreck or Historic Battlefield sites are present within the site, nor are any non-designated archaeological heritage assets recorded within its boundary.
- 6.33 The DBA concluded that the site can be considered to have a low potential for archaeological remains associated with the Prehistoric, Roman, Early Medieval and Medieval periods.
- 6.34 Current evidence indicates that the site has been used solely for agricultural purposes throughout the Post-Medieval, Industrial and Modern periods from at least 1700. While development has taken place in the surrounding area, none has taken place within the site. Post-medieval features in the form of field boundaries survive. Based on this evidence, it is considered that the site has a low potential for hitherto unknown archaeological assets from the Post-Medieval to Modern periods to be present. Any such finds are likely to consist solely of evidence of agricultural practices, and therefore to be of no more than Low/Local sensitivity.
- 6.35 Some of the hedgerows forming internal boundaries within the site are likely to be considered 'important' under the Hedgerow Regulations, as they were present at the time of the Tithe mapping in 1840 (but these would be retained as part of the Proposed Development).
- 6.36 With regard to archaeological assets (designated and non-designated) within a 1km radius of its boundary. There is one scheduled monument within the 1km study area, Tomen Y Clawdd (GM064) but this motte has very limited intervisibility with the site, and the site is not considered to be part of its setting.
- 6.37 With regard to the settings of designated archaeological heritage assets within the 5km study area the following scheduled monuments were considered to be within or on the periphery of the ZTV:
- Rhiw Saeson Caerau (GM065) 4.5km southwest of the site
 - Five Round Barrows on Garth Hill (GM107) 2.5km south of the site
 - Cross Ridge Dyke and Earthwork on Cefn Eglwysilan (GM452) 4km north of the site
 - Newbridge Beam Engine (GM457) 3.5km north of the site
 - Garnedd Lwyd (GM462) 4km north of the site
 - Ring Cairn and Two Standing Stones on Coedpenmaen Common (GM510) 4km northwest of the site
- 6.38 There would be no direct physical impacts to any known designated or non-designated archaeological heritage assets arising from the Proposed Development.
- 6.39 The DBA identified a low potential for hitherto unknown archaeological remains from any period to be present within the site, and it is therefore considered that the potential impact is low.
- 6.40 Construction activities would result in a High direct impact upon archaeological remains if present within the footprint of below ground interventions associated with the construction of the Proposed Development. Where this occurs the Proposed Development would result in a generally **Minor Adverse** effect upon archaeological remains within the site, which would **not be considered a significant effect**.
- 6.41 The operational Proposed Development will **not have any direct physical effect** on archaeological remains within the site as it has been assumed that the construction phase of the Proposed Development will have disturbed any remains which may be present as a result of excavation, earthworks and other below ground construction activities.
- 6.42 With respect to archaeological heritage assets outside of the site but located within the 1km study area, any effects will be confined to the settings of the assets affected. The one scheduled

monument within this study area (Tomen Y Clawdd (GM064) has very limited intervisibility with the site, and the site is not considered to be part of its setting.

- 6.43 With respect to designated archaeological heritage assets within the 5km study area, it is considered that at distances further than 1km from the Proposed Development would not produce noise or light pollution, or generate increased traffic, which could adversely affect the identified archaeological heritage assets in a way unrelated to visibility. For the six additional scheduled monuments within 5km of the site, no more than a **negligible** potential impact on the setting of one asset, the Rhiw Saeson Caerau hillfort, is identified. For all the others, a combination of intervisibility, distance, and the scale of contribution to often very extensive settings has led to the conclusion that **no impact** will arise for any designated archaeological heritage asset as a result of the Proposed Development.
- 6.44 In summary, there would be **no significant effects** arising to archaeological heritage assets as a result of the Proposed Development.
- 6.45 No further archaeological mitigation works are recommended in this particular instance. If required, mitigation measures would be agreed with the council and their archaeological advisor GGAT in advance of development, to ensure that any archaeological remains within the site are appropriately preserved by record prior to any significant construction adverse effects. Any archaeological investigation and appropriate dissemination of that data would be considered a **beneficial effect**.

Built Heritage

- 6.46 The assessment of potential effects to built heritage assets was informed by a Heritage Impact Assessment (HIA), which meets the requirements of national and local planning policy and provides sufficient information and assessment to identify the potential heritage impacts arising from the Proposed Development on the historic built environment. It complies with Cadw guidance related to the production of HIAs.
- 6.47 There are no built heritage assets within the site. The Proposed Development will give rise to minor and distant visual changes to the extended settings of the following built heritage assets (the closest of which is 1.4km from the site boundary):
- 29 Graig-yr-Helfa Road, Glyntaff, Mid Glamorgan, Grade II listed building (Cadw ref: 13490)
 - 30 Graig-yr-Helfa Road, Glyntaff, Mid Glamorgan, Grade II listed building (Cadw ref: 13491)
 - Glyntaff Roundhouse, Grade II listed building (Cadw ref: 13492)
 - 32 Graig-yr-Helfa Road, Glyntaff, Mid Glamorgan, Grade II listed building (Cadw ref: 13493)
 - Castle Bridge, Grade II listed Building (Cadw ref: 24869)
 - Crawshay Obelisk SW of Castle Bridge, Grade II listed building (Cadw ref: 24870)
 - Treforest Tinplate Works Feeder Sluice and Weir, Grade II listed building (Cadw ref: 80670)
 - Church of St Illtyd, Grade II listed building (Cadw ref: 25541)
 - Pig Sty at Berthlwyd Farm, Grade II listed building (Cadw ref: 24886)
 - Coed Y Lan Comprehensive Lower School, including rear science block and Gymnasium, Grade II listed building (Cadw ref: 24874)
 - Welch Regimental War Memorial, Grade II listed building (Cadw ref: 24858)
- 6.48 The built heritage assets are separated from the site by interceding development, topography and planting. In all cases, the site forms a rural, peripheral part of the settings of the built heritage assets.
- 6.49 The Proposed Development would see the alteration of the site for use as a solar farm. This has the potential to affect the above built heritage assets through changes to their wider settings. However, due to the current distance between the site and the listed buildings, the changed nature of their

settings, and the nature of the solar farm, the Proposed Development will have **no impact** on their sensitivity, or how that sensitivity is appreciated and experienced.

- 6.50 In summary the Proposed Development would give rise to **no significant effects** during the construction or operation phases.

Climate Change – ES Chapter 8

- 6.51 The potential impact of greenhouse gas (GHG) emissions due to the Proposed Development, resulting in an effect on the global atmospheric GHG concentration that contributes to climate change, has been assessed. The potential risks to the Proposed Development from a changing climate have also been assessed.
- 6.52 The construction-stage impact due to the extraction of raw materials, manufacturing and transportation of the panels and associated electrical components has been assessed. The GHG impacts were calculated to be approximately 56,173 tCO₂e, causing a **major adverse** effect that is **significant**. These impacts are immediate at the time of construction.
- 6.53 The construction-stage GHG effects can be minimised via engagement with the supply chain and procurement decisions that consider GHG emissions performance as documented through Environmental Product Declarations, in order to ensure that the solar panel modules and associated components selected are those manufactured under conditions with minimised GHG impacts.
- 6.54 The operational phase GHG effects, due to the generation of zero-carbon electricity and consequent displacement of marginal sources of generation with greater GHG impacts have been assessed. They are expected to be in the order of magnitude of 193,472 tCO₂e over the Proposed Development's lifetime compared to a current business-as-usual baseline. The operational GHG impact of the Proposed Development has been determined to have a **significant beneficial** effect.
- 6.55 The whole-life impact of the Proposed Development has been determined to have a **negligible** effect that is **not significant**, in line with the definitions of IEMA's guidance for GHG impact assessment. Although a significant initial carbon cost of manufacturing and installation is incurred, by achieving a carbon payback period of 11 years and providing subsequent net negative emissions in operation, the Proposed Development meets, and in some respects exceeds policy goals for the rate of carbon reduction in the context of UK, Wales and Rhondda Cynon Taf carbon budgets.
- 6.56 Of the four potential risks to the Proposed Development as a result of climate change assessed, one was considered to have a potentially significant effect in the initial screening risk assessment. Owing to the good practice design measures that will be incorporated into the Proposed Development, this effect was determined to be **negligible** and **not significant**.

Ground Conditions – ES Chapter 9

- 6.57 The site is underlain by extensive superficial cover of glacial Boulder Clay, with sporadic areas of Glaciofluvial Deposits and Alluvium, and the Upper Coal Measures comprising the Grovesend Formation across the majority of the site with the Hughes Member to the north.
- 6.58 Numerous coal seams present below the site within the Coal Measures are indicated to have been worked from underground mines in the past. The greatest mining activity is indicated beneath the northern half of the site.
- 6.59 Adits are indicated to extend toward the south and south-west to the north of the main site and at the base of the valley. One shaft is located in a central location on site and another two shafts are located within 50-75m of the northern boundary of the site or immediately adjacent to the south-west boundary
- 6.60 The ground conditions assessment has considered potential impacts on human health and the built environment with regard to mining related land instability. With mitigation measures in place during

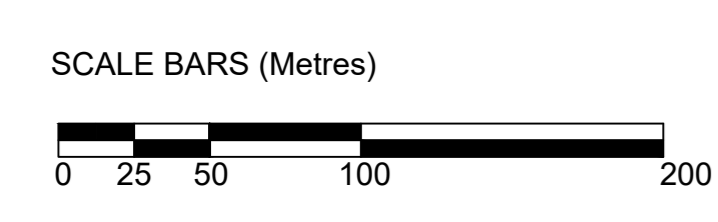
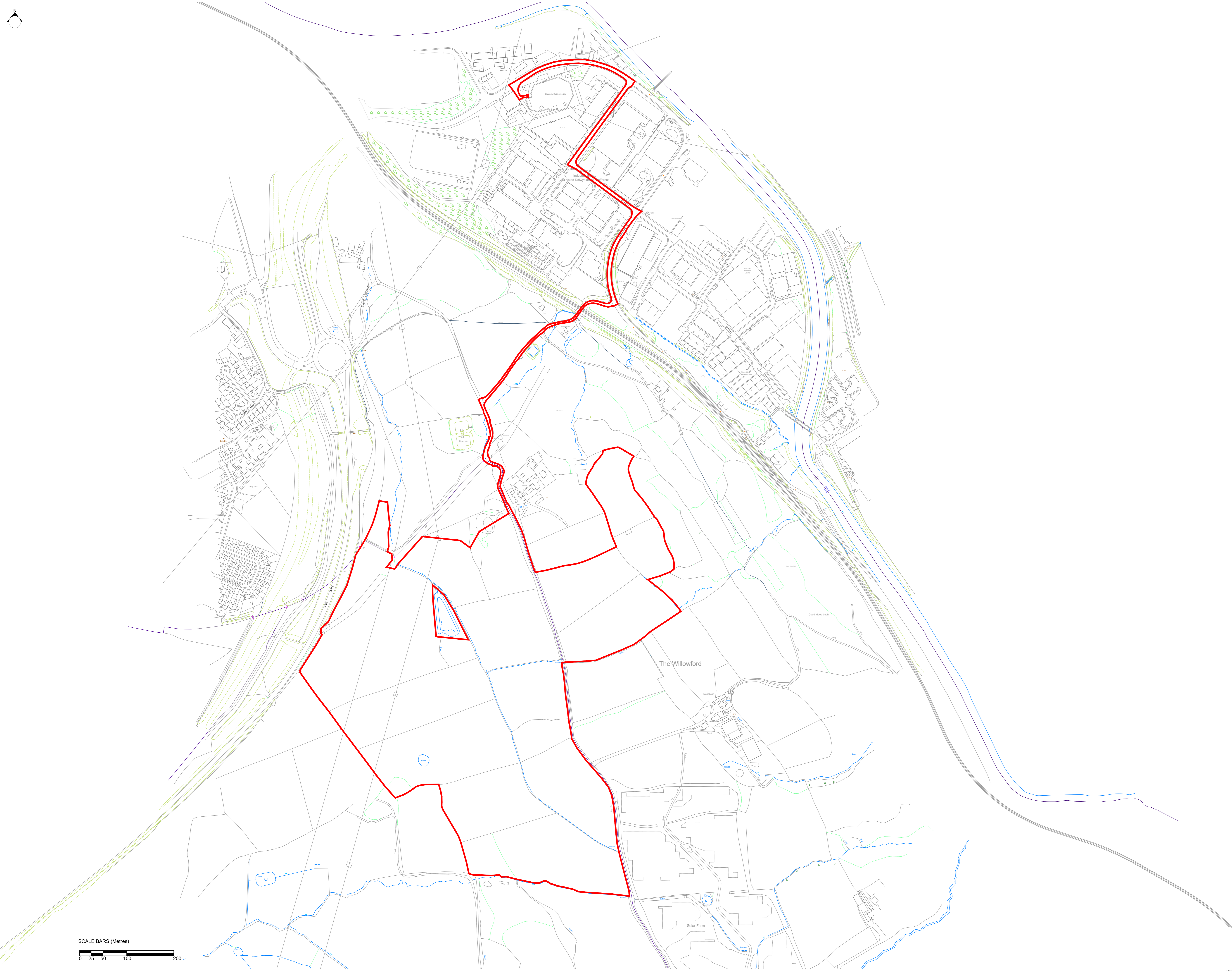
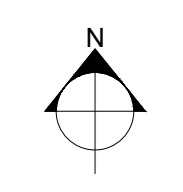
the construction and operation of the Proposed Development the significance of effects are **not significant** in EIA terms.

- 6.61 The mitigation measures include a targeted ground investigation and detailed risk assessment to be undertaken prior to construction. This will inform the requirement and nature of any remedial measures which will be incorporated within a detailed Construction Environmental Management Plan (CEMP) to be implemented during construction.

Cumulative Effects

- 6.62 The Welsh Minister's Scoping Direction (see Appendix 4.2 of ES) advised on nearby developments which required assessment cumulatively with the Proposed Development. The developments are:
- The proposed Twyn Hywel Wind Farm - over 4km to the north of the site with settlements and the Treforest Industrial Estate creating significant separation.
 - The proposed Mynydd Y Glyn Wind Farm - over 5km to the northwest of the site, with the settlements of Church Village and Tonteg and extensive areas of upland pasture fields between that development and the site.
 - The proposed Cwm Ifor Solar Farm - over 4m north of the site adjacent to the proposed Twyn Hywel Wind Farm.
- 6.63 All of the above topics considered these developments cumulatively with the Proposed Development and concluded that there would be no increase in significance of effects cumulatively when compared to the Proposed Development alone.
- 6.64 In terms of climate change, it was confirmed that all developments that emit GHGs have the potential to impact the atmospheric mass of GHGs as a receptor, and so may have a cumulative impact on climate change. Consequently, cumulative effects due to other specific local development projects are not predicted but are taken into account when considering the impact of the Proposed Development by defining the atmospheric mass of GHGs as a high sensitivity receptor. The operational phase significant beneficial effect assessment of the Proposed Development takes account of cumulative changes in GHG emissions from other generation sources.

Figure 1.1: Site Boundary Plan



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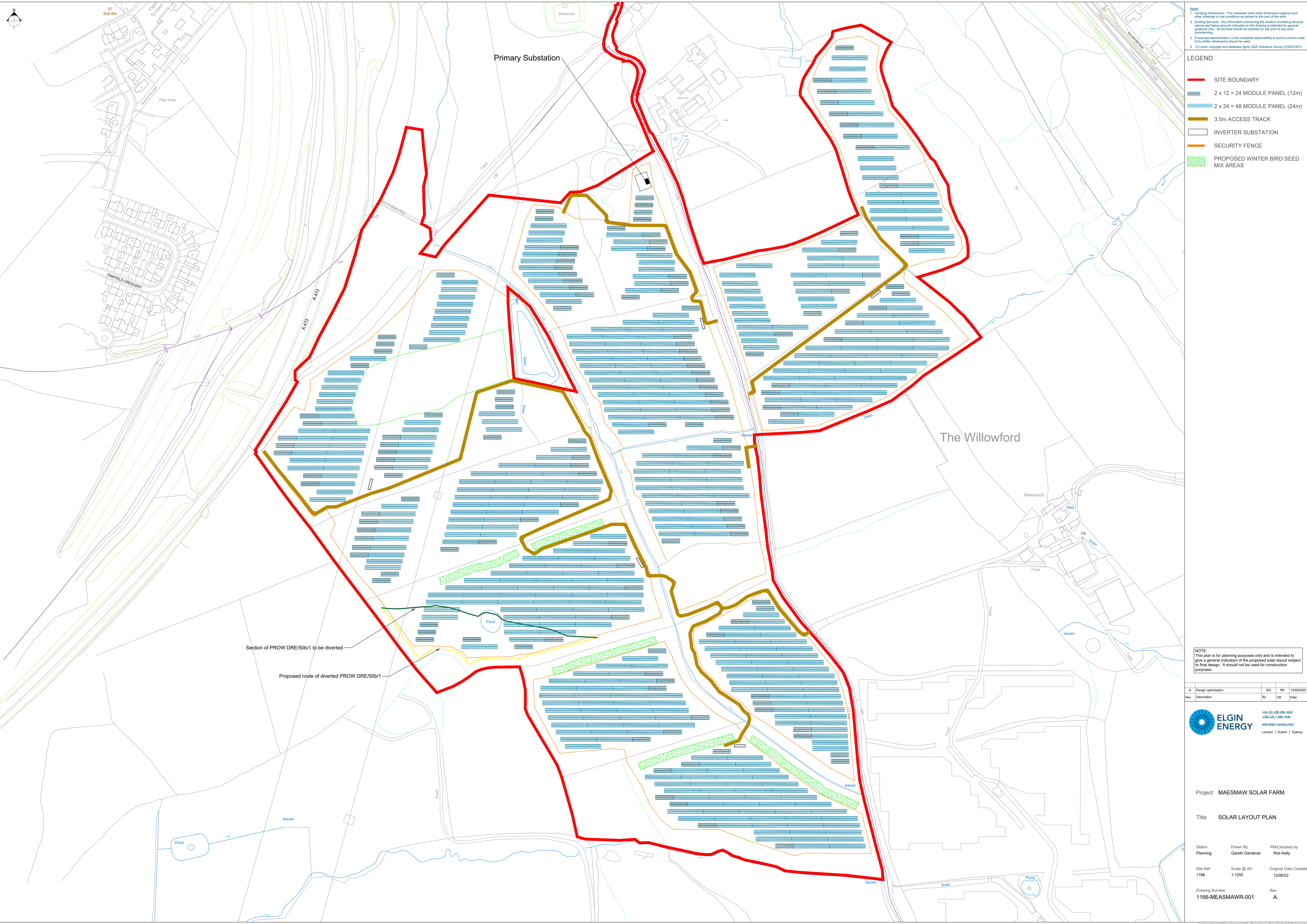
Project **MAES MAWR SOLAR**

Title **SITE BOUNDARY PLAN**

Status	Drawn By	PM/Checked by
DNS	GG	DW
Job Ref	Scale @ A0	Date Created
JPW1546	1:2500	NOV 2021

RPS Drawing/Figure Number	Rev
JPW1546-DNS-003	-

Figure 2.1: Solar Layout Plan



- Notes
1. Verifying Dimensions: The contractor shall verify dimensions against such other drawings or site conditions as pertain to this part of the work.
 2. Existing Services: Any information concerning the location of existing services (above and below ground) indicated on this drawing is intended for general guidance only. All services should be checked on site prior to any work commencing.
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LEGEND

- SITE BOUNDARY
- ▨ 2 x 12 = 24 MODULE PANEL (12m)
- ▨ 2 x 24 = 48 MODULE PANEL (24m)
- 3.5m ACCESS TRACK
- INVERTER SUBSTATION
- SECURITY FENCE
- PROPOSED WINTER BIRD SEED MIX AREAS

NOTE:
This plan is for planning purposes only and is intended to give a general indication of the proposed solar layout subject to final design. It should not be used for construction purposes.

Rev	Description	By	CB	Date
A	Design optimisation	GG	RK	15/06/2022

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Project **MAESMAW SOLAR FARM**

Title **SOLAR LAYOUT PLAN**

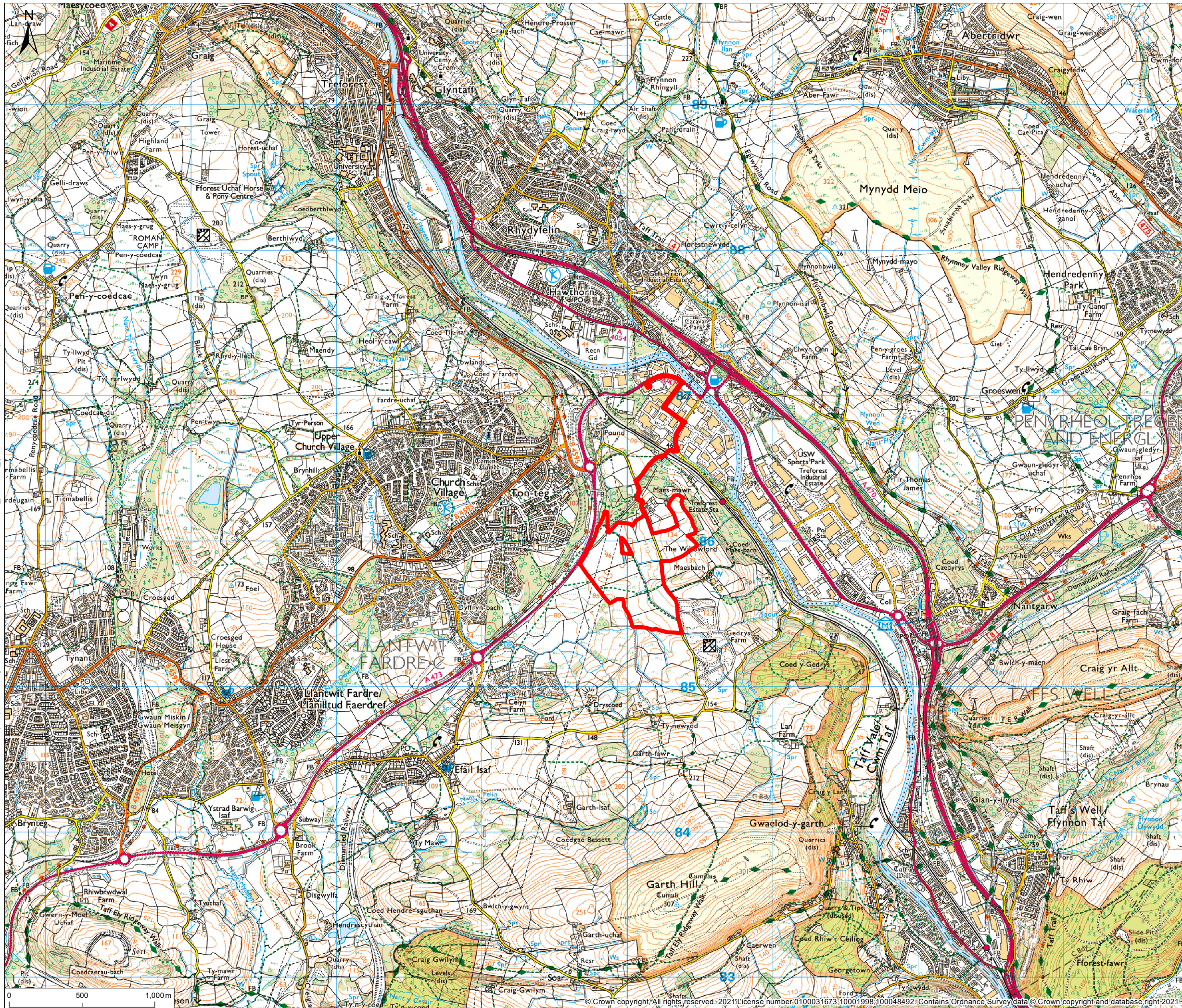
Status **Planning** Drawn By **Gareth Gardener** PM/Checked by **Rob Kelly**

Site Ref **1166** Scale @ **A0** Original Date Created **13/06/22**

Drawing Number **1166-MEASMAWR-001** Rev **A**

Figure 2.2: Site Location Plan 1:25,000

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Project MAES MAWR SOLAR FARM
Title SITE LOCATION PLAN

Status DRAFT
Project Number JPW1546
Drawing Number JPW1546-DNS-004

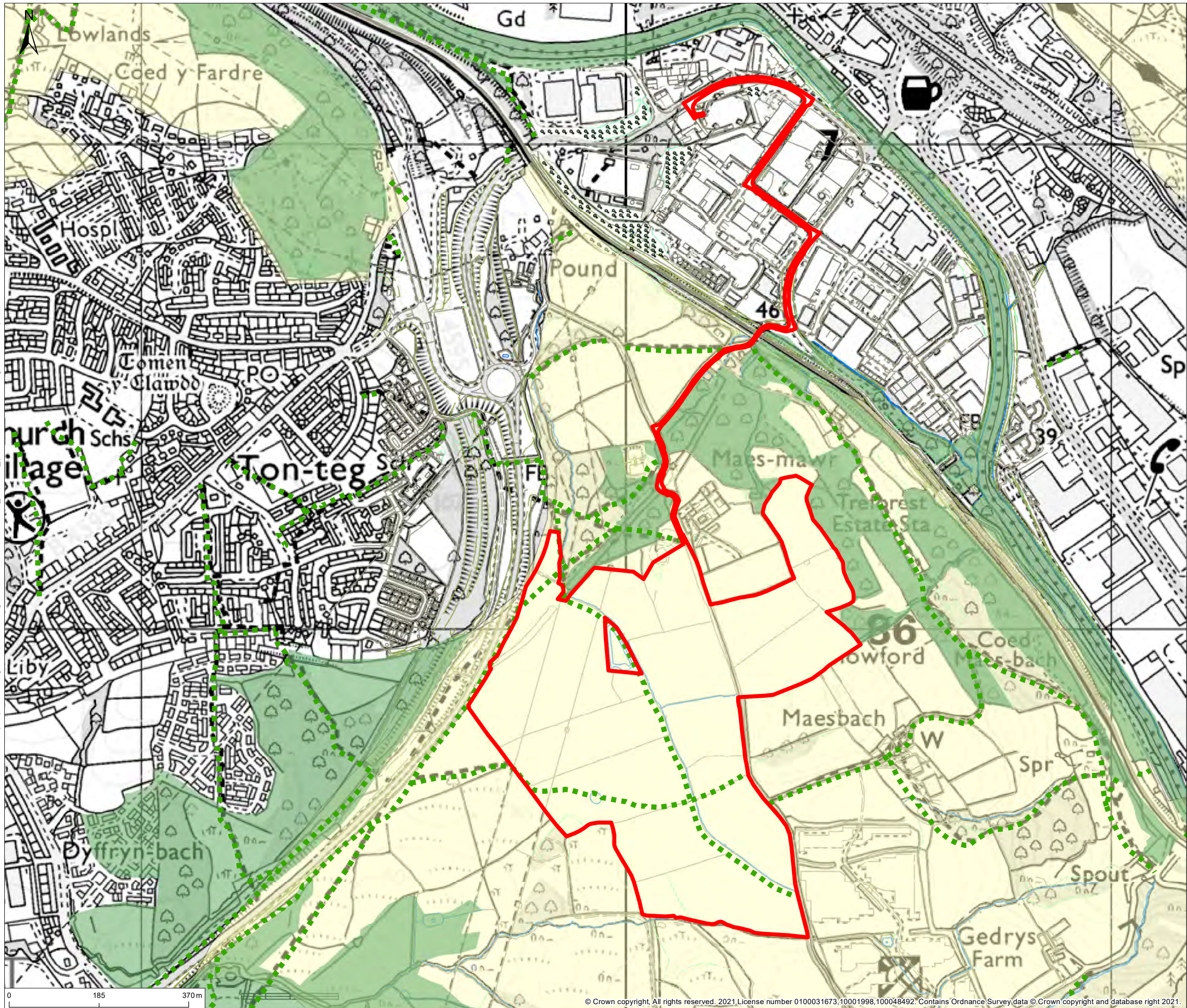
Drawn By GG
Scale @ A3 1:25,000

PM/Checked By AL
Date Created NOV 2021
Rev -

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Figure 2.3: Local Designations Plan

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Legend

- Site Boundary
- Footpath
- SINC
- Special Landscape Areas

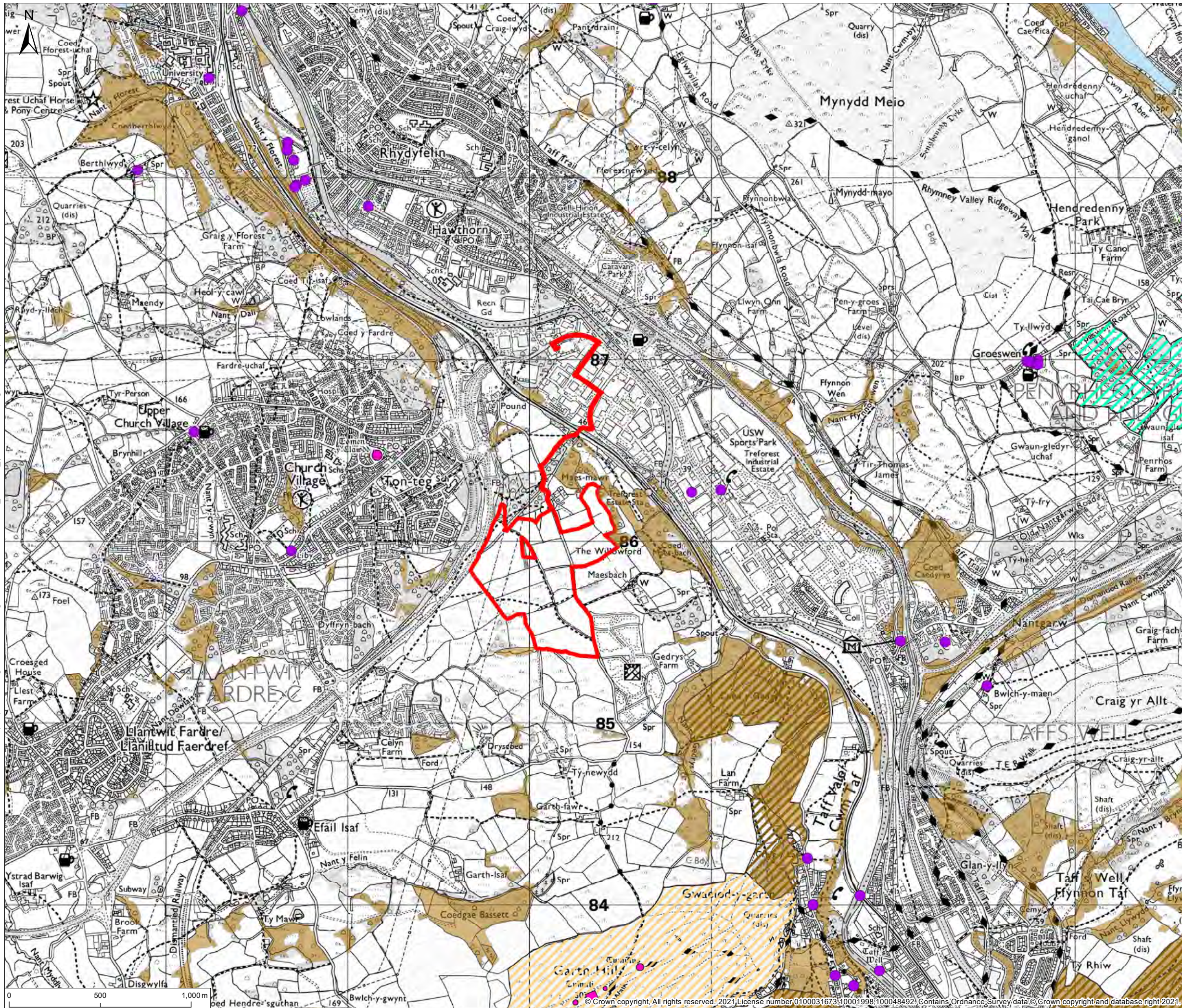
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Client **ELGIN ENERGY EsCO LTD**
 Project **MAES MAWR SOLAR FARM**
 Title **LOCAL DESIGNATION PLAN INCLUDING PUBLIC RIGHTS OF WAY**
 Status **DRAFT** Drawn By **GG** PM/Checked By **AL**
 Project Number **JPW1546** Scale @ A3 **1:7,500** Date Created **NOV 2021**
 Drawing Number **JPW1546-DNS-006** Rev **-**

Figure 2.4: Statutory Designations Plan

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Legend

- Site Boundary
- Listed Buildings
- SSSI
- Schedule Ancient Monument
- Ancient Woodland
- Common Land
- NRW CROW Dedicated Land
- NRW Open Country Land

Rev	Description	By	CB	Date

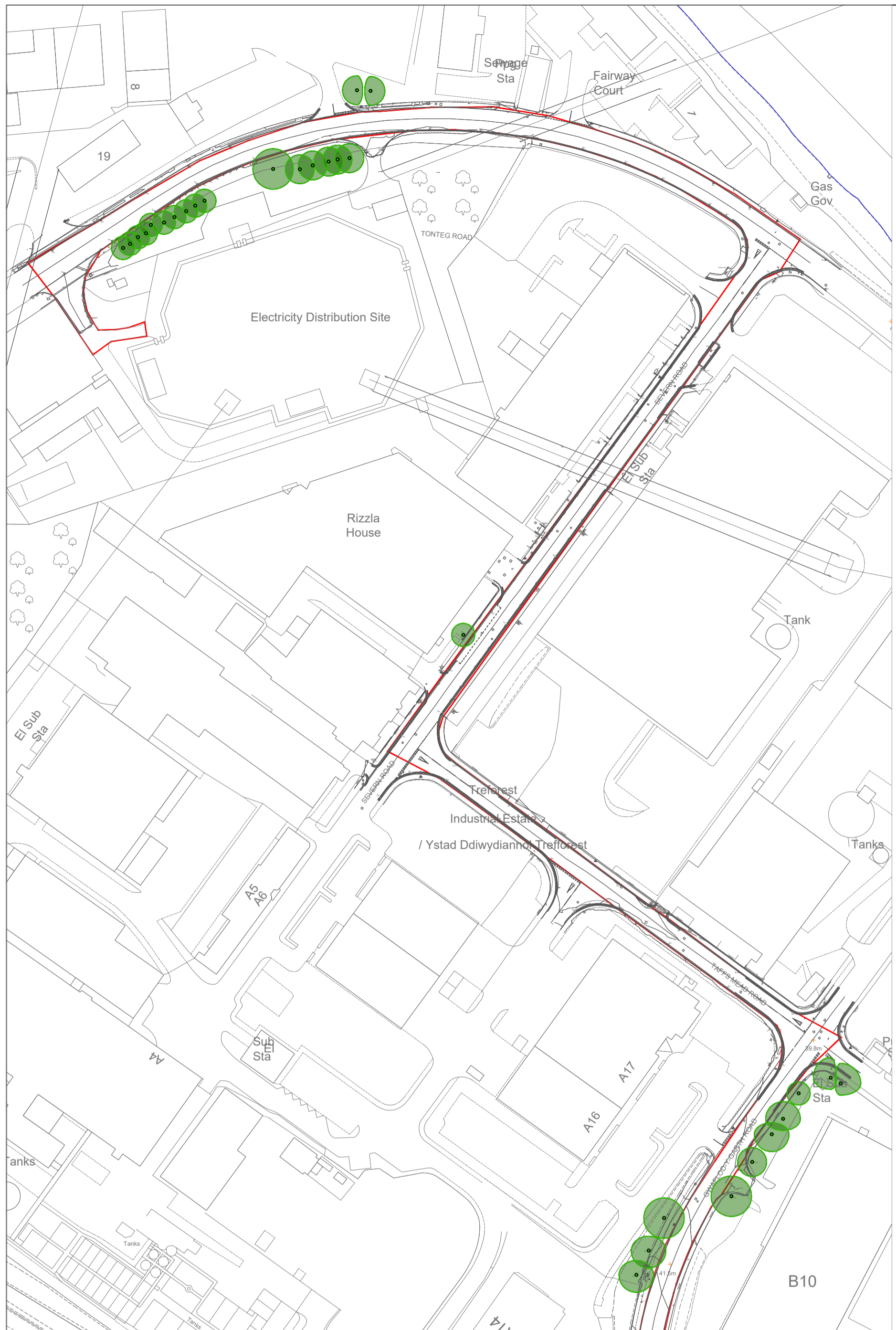
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 Project **MAES MAWR SOLAR FARM**
 Title **STATUTORY DESIGNATION PLAN**

Status **DRAFT** Drawn By **GG** PM/Checked By **AL**
 Project Number **JPW1546** Scale @ A3 **1:20,000** Date Created **NOV 2021**
 Drawing Number **JPW1546-DNS-005** Rev **-**

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Figure 2.5: Landscape Strategy



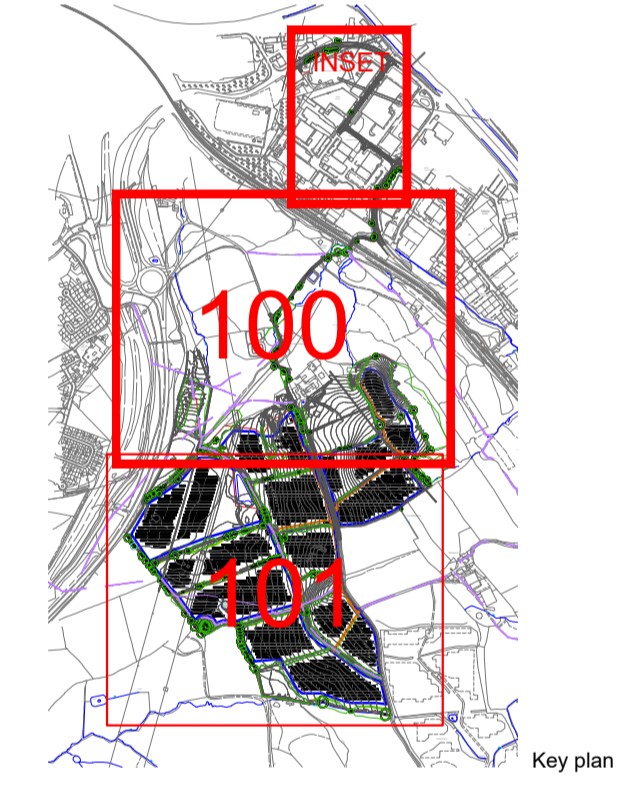
INSET (Cable route)



Areas of semi improved acid grassland retained and managed as buffer to sinc woodland. Supplementary seeding/ plug planting as required (e.g. Emorsgate EM8 or similar approved)

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- KEY**
- Existing elements**
- TREE to be retained and protected
 - WOODLAND/ SCRUB / HEDGEROW
 - GENERAL GRASSLAND AREA (including areas of tussock grassland)
 - MARSHY GRASSLAND AREA
 - ACID GRASSLAND AREA
 - ECOLOGICAL ENHANCEMENT AREA including Marshy Grassland Habitat
 - PUBLIC RIGHT OF WAY
- Proposed elements**
- INDIVIDUAL NATIVE SPECIES TREE
 - NATIVE SPECIES SCRUB BUFFER
 - NATIVE SPECIES UNDERSTORY PLANTING
 - NATIVE SPECIES HEDGEROW PLANTING
 - NATIVE SPECIES HEDGEROW REINFORCEMENT WITH TREES Selective planting in gaps parallel or within existing hedgerows, where required
 - CREATION OF TUSOCK GRASSLAND HABITAT



Rev	Description	By	CB	Date

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Client **ELGIN ENERGY EsCO LTD**

Project **MAESMAWR SOLAR**

Title **LANDSCAPE STRATEGY PLAN 1 of 2**

Status **DRAFT** Drawn By **JMB** PM/Checked by **GL**



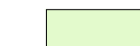


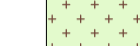

Job Ref **JSL3514** Scale @ A1 **1:2500** Date Created **April 2022**

RPS Drawing/Figure Number **100** Rev **-**







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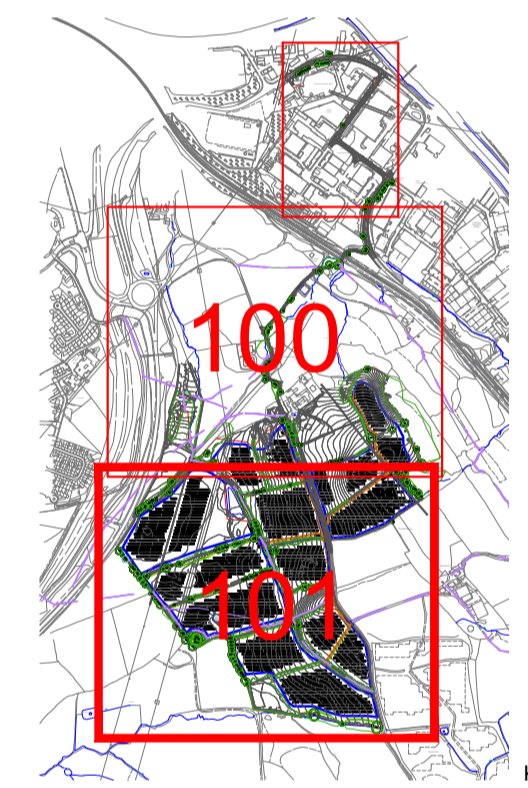
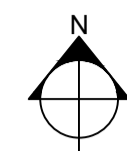
KEY

Existing elements

-  TREE to be retained and protected
-  WOODLAND/ SCRUB / HEDGEROW
-  GENERAL GRASSLAND AREA (including areas of tussock grassland)
-  MARSHY GRASSLAND AREA
-  ACID GRASSLAND AREA
-  ECOLOGICAL ENHANCEMENT AREA Including Marshy Grassland Habitat
-  PUBLIC RIGHT OF WAY

Proposed elements

-  INDIVIDUAL NATIVE SPECIES TREE
-  NATIVE SPECIES SCRUB BUFFER
-  NATIVE SPECIES UNDERSTORY PLANTING
-  NATIVE SPECIES HEDGEROW PLANTING
-  NATIVE SPECIES HEDGEROW REINFORCEMENT WITH TREES Selective planting in gaps parallel or within existing hedgerows, where required
-  CREATION OF TUSOCK GRASSLAND HABITAT



Key plan

Rev	Description	By	CB	Date



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Client **ELGIN ENERGY EsCO LTD**

Project **MAESMAWR SOLAR**

Title **LANDSCAPE STRATEGY PLAN 2 of 2**

Status **DRAFT** Drawn By **JMB** PM/Checked by **GL**

Job Ref **JSL3514** Scale @ A1 **1:2500** Date Created **April 2022**

RPS Drawing/Figure Number **101** Rev **-**



Areas of priority Purple Moor Grass and habitat managed with select translocation to other parts of site. Within ecological enhancement areas.

Areas of established bracken to be scraped out and re-planted with native species scrub planting

Areas of Himalayan Balsam to be appropriately managed

Diversion of PRoW DRE/50b/1

Existing grassland managed as Sky Lark habitat. Managed grass cutting to allow circa 30% at 7cm and 30% at 7.2cm

Areas of tussock grassland within fields and at field margins to be managed on 3 year rotation with selected areas of harrowing/ rotavation with seeding/ plug planting in selected location to encourage species diversity