

APPENDIX SCI2

PUBLIC EXHIBITION DISPLAY MATERIAL

Frequently Asked Questions



Will I be able to see the solar farm?

Solar panels can be easily screened by vegetation. A landscape character and visual impact assessment will be undertaken as part of the planning application process. This assessment will help to inform the areas from where the solar farm could be seen and identify where vegetation screening needs to be implemented or enhanced.

Does it have to be sunny for the panels to work?

No. Photovoltaic (PV) panels, such as the ones that would be installed on site, if permission were granted, can still generate electricity on a cloudy day.

Will the solar farm make a noise?

The only noise that will occur during the operation of the solar farm is a low level fan noise emitted by the inverters, during daylight hours only. It is anticipated that no noise will be audible at residential properties in the area. Furthermore, audible noise can be mitigated.

What about the impact on the land?

The land on which the solar farm will be located is currently in agricultural use. The land will continue to be available for grazing, with ecological enhancements to also be incorporated.

How long will the panels be there?

Planning permission is sought for the solar farm to be on site for up to 30 years, after which it would be decommissioned and the apparatus removed.

How will the site be secured?

The site will be secured by fencing and closed-circuit television (CCTV).

How long will the solar farm take to build?

It usually takes around 2-3 months to construct a solar farm from beginning to commissioning. A construction method statement will accompany the planning application outlining the envisaged delivery and construction schedules.

Project Outline

Where is the proposed solar farm located?

Sirius SBC Renewables LLP is proposing to develop a solar farm on land to the east and west of Plas Bennion Road, Penycae, Wrexham (see map below).

The site consists of two parcels of land and is located to the north of the village of Acrefair, west of Ruabon and south of Penycae. It is considered that the development can be effectively screened from surrounding built-up areas.

What size will the solar farm be?

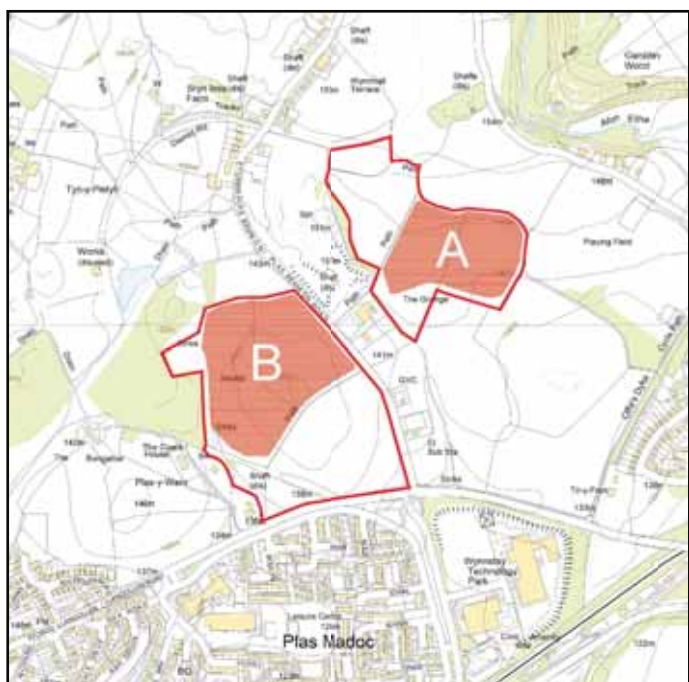
It is anticipated that Penycae Solar Farm will extend over approximately 12ha of the 20.6ha of land identified for development, generating approximately 5MWp directly from sunlight - the equivalent to powering approximately 1,000 homes per annum.

This will offset up to 2,000 tonnes of CO₂ every year, equivalent to taking around 870 cars off the road.

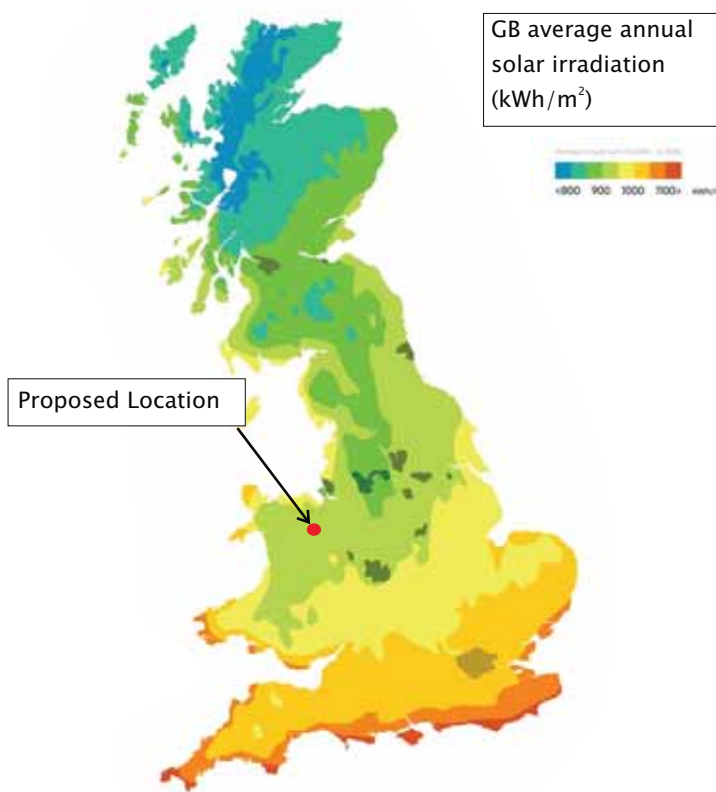
Why this location?

The site has been assessed for its suitability as a solar farm and has the following positive attributes:

- Significant vegetation screening along the site boundaries and opportunity to increase screening where necessary;
- Sufficient separation distances from the development to built-up areas;
- The site is of low sensitivity in terms of landscape and ecological designations;
- The availability and proximity of the grid connection; and
- The land can continue to be used for grazing and offers significant opportunities for biodiversity enhancement.



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Penycae Solar Farm

Environmental Assessments



What environmental assessments are being undertaken?

A series of environmental assessments are currently being undertaken to accompany the planning application. These include:

Landscape and Visual Impact

A landscape character and visual impact assessment will be undertaken. This will assess a range of views of the proposed solar farm and will consider potential effects for this temporary development on the surrounding landscape and visual receptors.

Ecology

An ecological habitat survey and impact assessment will be carried out to provide an overview of wildlife and their habitats which could potentially be affected by the proposed development.

Traffic and Transport

A transport statement will be produced, which will detail the level of construction traffic, the projected delivery time-scales and the route that construction traffic will take.

Cultural Heritage

A cultural heritage assessment will be carried out, which will assess the potential impacts arising from the proposed solar farm on designated heritage assets.

Flood Risk

A flood risk assessment will be undertaken to assess the potential impact of the proposal on flooding and what mitigation, if any, needs to be carried out.

What are the project time scales?

We expect to submit a planning application to Wrexham County Borough Council in Spring/Summer 2015, when the environmental assessments have been completed.

Subject to the granting of planning permission, it is anticipated that the solar farm will be operational in late 2015.

Why do we need renewable energy?

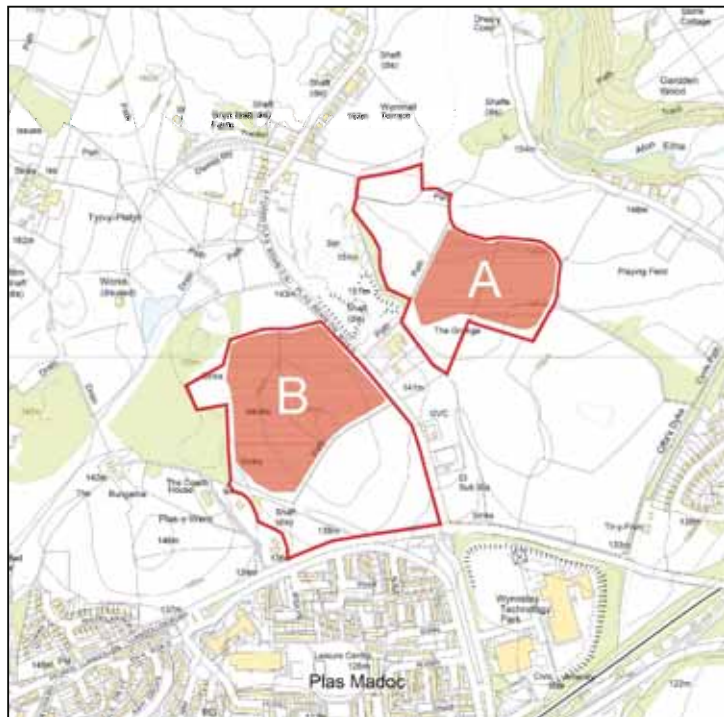
In order to address the damaging effects of climate change, we need to move away from burning our limited fossil fuel reserves to using more sustainable, cleaner, renewable energy sources.

In 2009, the UK signed up to the European Union's Renewable Energy Directive which commits the country to delivering 15% of all energy from renewable sources by 2020.

To meet this target, 35-45% of electricity generated will have to come from green sources including renewable energy technologies such as solar, wind, biomass, wave and tidal.

The use of renewable energy is also beneficial to the UK economy as it reduces the country's dependence on imported fossil fuels.

Solar farms are a simple and established technology providing a source of safe and clean energy which produce zero emissions when in operation. Solar energy is not only sustainable; it is renewable meaning that we will never run out of it. It also enjoys the highest levels of public support for renewable energy in the UK, with 81% of the public in favour.



What size will the solar farm be?

It is anticipated that Penycae Solar Farm will extend to approximately 12ha of the 20.6ha of land identified for development, generating approximately 5MWp of electricity directly from sunlight - the equivalent to powering approximately 1,000 homes per annum.

Why solar energy?

Solar farms are a relatively small, effective and unobtrusive way of creating the electricity we all use - with the panels having a low visible impact on the local landscape and creating no noise, pollution, by-products or emissions.

Additionally, solar farms result in minimal disturbance to the ground and can enhance local biodiversity, for example through planting a range of species rich wildflower mix in field margins, creating a more diverse habitat, and creating pollen rich margins for bees and butterflies. The land can be used for grazing, as grass grows well even under the panels. The introduction of native trees and hedgerows on the site can also provide opportunity for nesting, roosting and foraging opportunities for birds and invertebrates.

Why this location?

The site has been assessed for its suitability as a solar farm and has the following positive attributes:

- Significant vegetation screening along the site boundaries and opportunity to increase screening where necessary;
- Sufficient separation distances from the development to built-up areas;
- The site is of low sensitivity in terms of landscape and ecological designations;
- The availability and proximity of the grid connection; and
- The land can continue to be used for grazing and offers significant opportunities for biodiversity enhancement.



What environmental assessments will be undertaken?

A series of environmental assessments are currently being undertaken to accompany the planning applications. These include:

Landscape and Visual Impact

A landscape character and visual impact assessment will be undertaken. This will assess a range of views of the proposed solar farm and considers potential effects for this temporary development on the surrounding landscape and visual receptors

Ecology

A ecological habitat survey and impact assessment will be carried out to provide an overview of wildlife and their habitats on site.

Traffic and Transport

A transport statement will be produced, which details the level of construction traffic, the projected delivery timescales and the route that construction traffic will take. Following the 3-month construction period, maintenance will be minimal and will only require occasional visits by a van.

Cultural Heritage

A cultural heritage assessment will be carried out, which assesses whether there are any potential impacts arising from the proposed solar farm on designated heritage assets.

Flood Risk

A flood risk assessment will be undertaken to assess the potential impact of the proposal on flooding and what mitigation, if any, needs to be carried out. Solar PV panels do not increase rain water run-off or flood risk as the ground underneath remains permeable.

Frequently asked questions

Will I be able to see the solar farm?

Solar panels can generally be easily screened by vegetation. A Landscape character and visual impact assessment will be undertaken to identify the likely areas where the solar farm will be visible. This assessment has informed where screening needs to be implemented or enhanced.

What impacts will this have on wildlife?

Solar farms can incorporate biodiversity enhancements, providing for a net benefit for wildlife.

Does it have to be sunny for the panels to work?

No. Photovoltaic (PV) panels, such as the ones that would be installed on site if permission were granted, generate electricity even on a cloudy day.

Do the panels make a noise?

The only noise that will occur during the operation of the solar farm is a low level fan noise emitted by the inverters during daylight hours. Due to the site location, no noise will be audible at residential properties in the area. Furthermore, audible noise can be mitigated.

How long will the panels be there?

Permission is sought for the solar farm for 30 years, after which it would be decommissioned. All structures would be completely removed and the land returned back to its former use.



What about the impact on the land?

The land on which the solar farm is located is currently grazed. Grazing can continue on the site or grass will be allowed to grow and mature which would improve the ecology of the site. The solar panels and frames can be completely removed once the solar farm is decommissioned with no traces left behind.

How will the sites be secured?

The site will be secured by fencing and infrared closed-circuit television (CCTV). This will require no lighting and will only point into the site.

What are the project time scales?

We expect to submit a planning applications to Wrexham Borough Council in spring/summer 2015. Subject to the granting of planning permission, it is anticipated that the solar farm will be operational in late 2015.

How long will the solar farm take to build?

It usually takes around 2-3 months to construct a solar farm from beginning to commissioning. A transport statement will accompany the planning application outlining the envisaged delivery and construction schedules.



Should you have any further questions or comments please contact the Project Manager at:

Stratus Environmental Limited

01554780544 or info@stratus-environmental.co.uk

Renewable Energy

Why do we need it?

Introduction

Why do we need renewable energy?

In order to address the damaging effects of climate change, we need to move away from burning our limited fossil fuel reserves to using more sustainable, cleaner, renewable energy sources.

In 2009, the UK signed up to the European Union's Renewable Energy Directive which commits the country to delivering 15% of all energy from renewable sources by 2020.

To meet this target, 35-45% of electricity generated will have to come from green sources including renewable energy technologies such as solar, wind, biomass, wave and tidal.

The use of renewable energy is also beneficial to the UK economy as it reduces the country's dependence on imported fossil fuels.

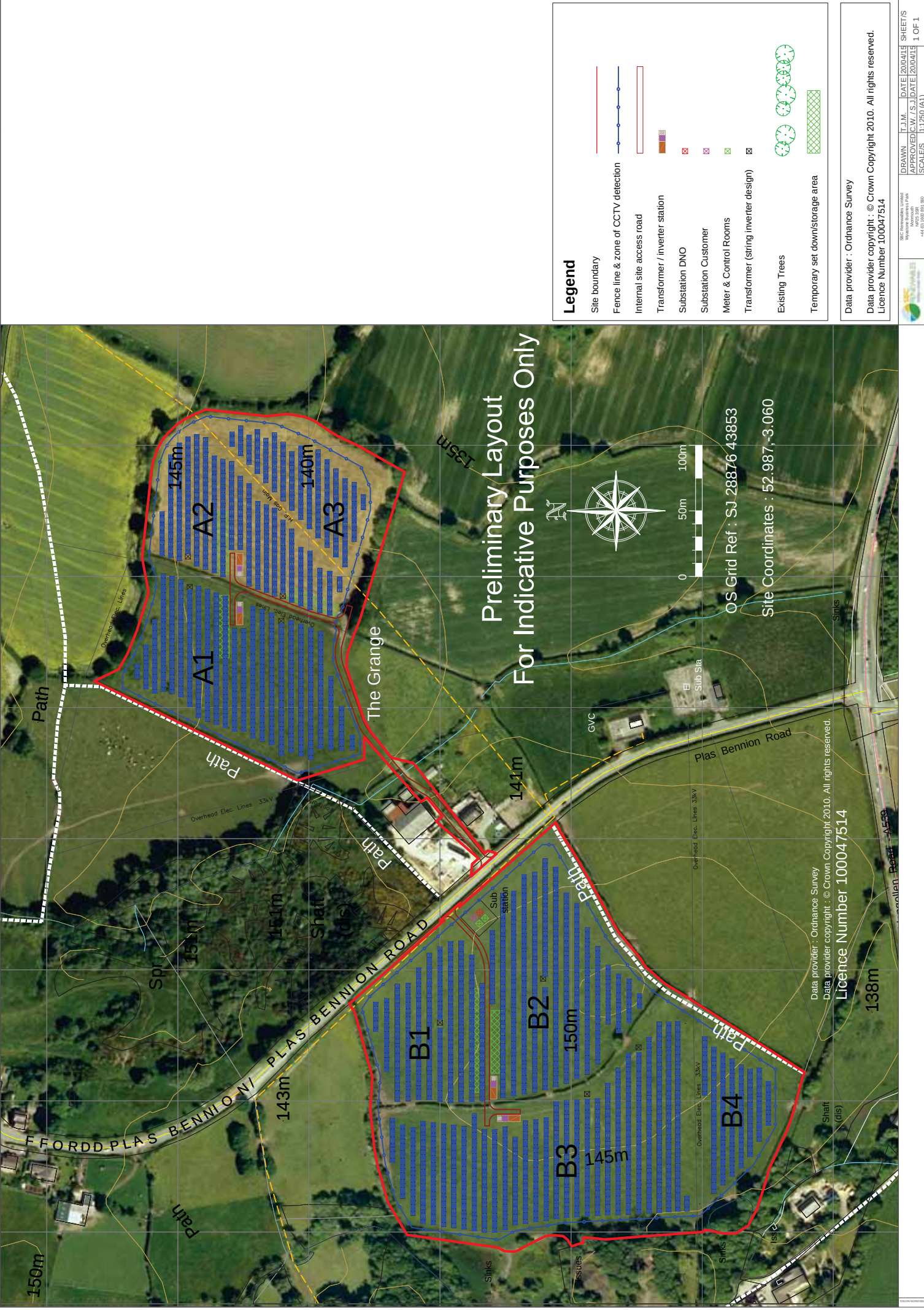
Why solar energy?

Solar energy is a safe, established and renewable form of energy generation which produces no carbon dioxide while operating. It also enjoys the highest levels of public support for renewable energy in the UK, with 81% of the public in favour. Solar energy is freely and readily available and will always be so.

Solar farms have a limited landscape and visual impact compared to other forms of renewable energy and they can be easily screened from surrounding receptors by planting.

Solar panels are a non-intrusive and benign development - agricultural activities can continue on the land and the panels can be completely removed following the end of power generation, allowing the site to be returned to its former use with no environmental legacy.





Legend

Site boundary

Fence line & zone of CCTV detection

Internal site access road

Transformer / inverter station

Substation DNO

Substation Customer

Meter & Control Rooms

Transformer (string inverter design)

Existing Trees

Temporary set down/storage area

Data provider : Ordnance Survey

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Licence Number 100047514

DRAWN

T.J.M.

DATE

20/04/15

SHEET/5

APPROVED

C.W./S.J.

DATE

20/04/15

1 OF 1

SCALE/S

1:1250 (A1)

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KEY
 PROPOSED SITE BOUNDARY
 DISTRICT BOUNDARY
 VIEWPOINT LOCATION
 VIEWPOINT REFERENCE NUMBER

NOTE:
 1 MAP SQUARE = 1KM

NO.	DATE	DESCRIPTION	BY
1	07/05/2015	UPDATE TO VIEWPOINTS - ADDITION OF 7 & 8	AS

CLIENT

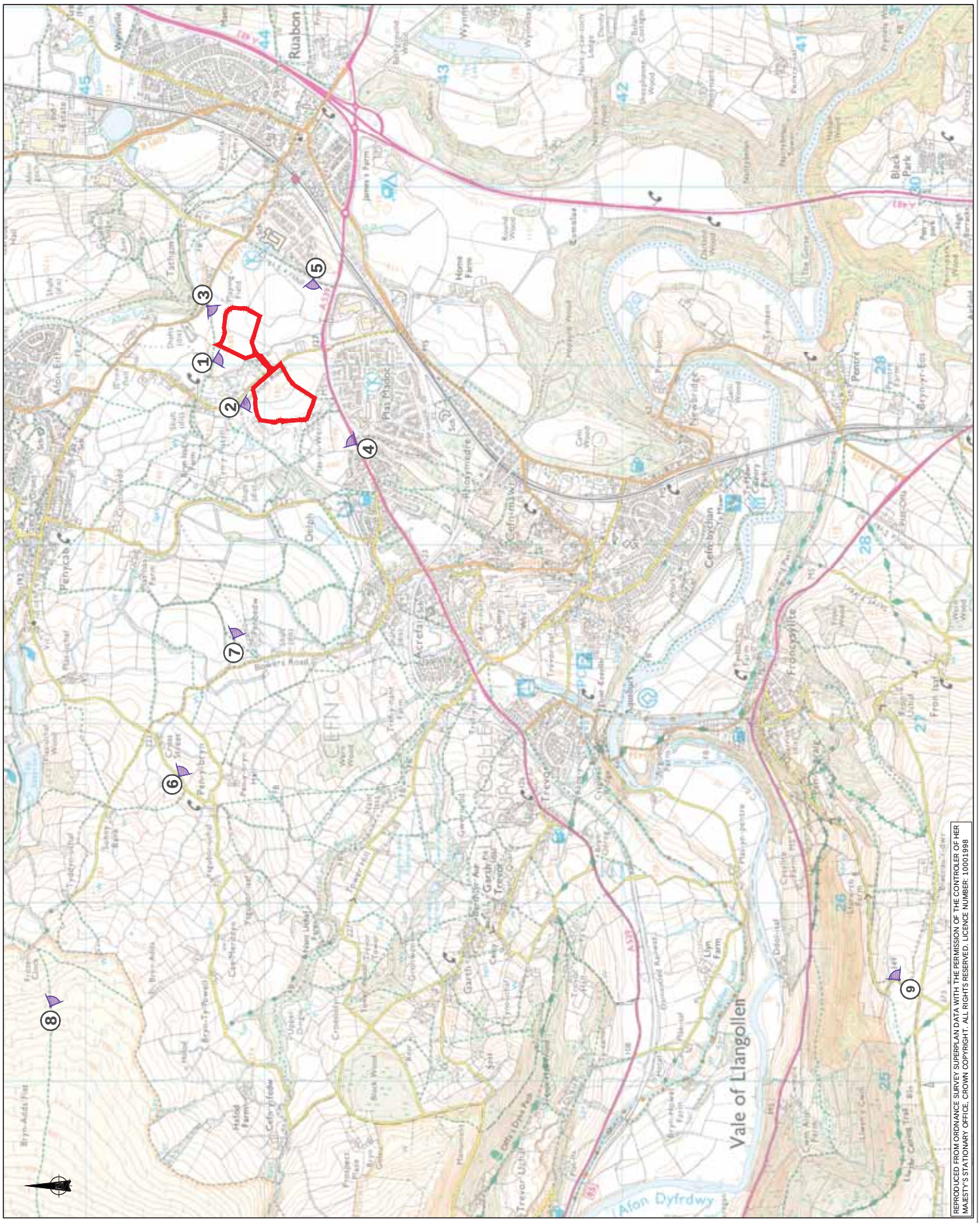
FOR FILE

PROJECT TITLE
 PENYCAE SOLAR FARM

VIEWPOINT LOCATION PLAN
 (5km)

NO.	DATE	BY	FOR FILE
1	07/05/2015	AS	07/05/2015

NO.	DATE	BY	FOR FILE
1	07/05/2015	AS	07/05/2015



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VIEWPOINT 7
Public Footpath adjacent to Bowers
Road



VIEWPOINT 8
Cross Street Public Footpath across AONB (Cambrian Mountains)



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		ORD REFERENCE ELEVATION		See layout plan See layout plan		ANGLE OF VIEW VIEWING DISTANCE		Illustrative n/a	
						PENYCAE SOLAR FARM VIEWPOINTS 7 & 8			
						DRAWING NO. M.B			
						DATE 01/05/15			
						APPROVED BY A.S			
						01/05/15			
						SHEET A3			
						DRAWING NUMBER PHOTOLATE 748			
						REVISION 0			



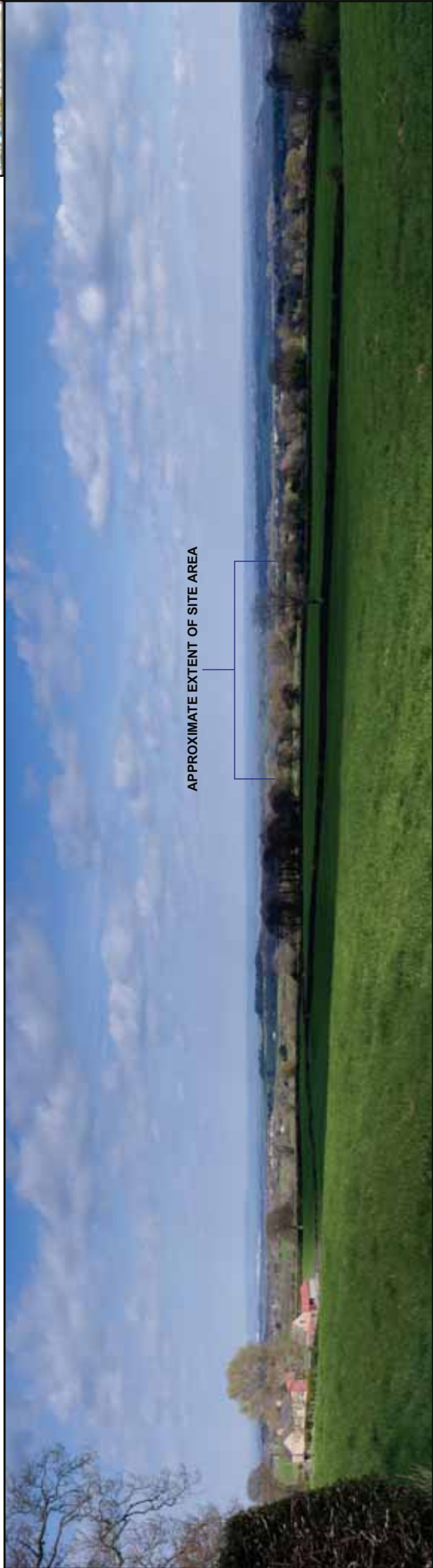
EXTENT OF SITE AREA (A + B)



VIEWPOINT 5
Offa's Dyke Footpath (Western edge
of Ruabon)



VIEWPOINT 6
Cross Street (Close to Penycae) Edge of Clwydian Range AONB



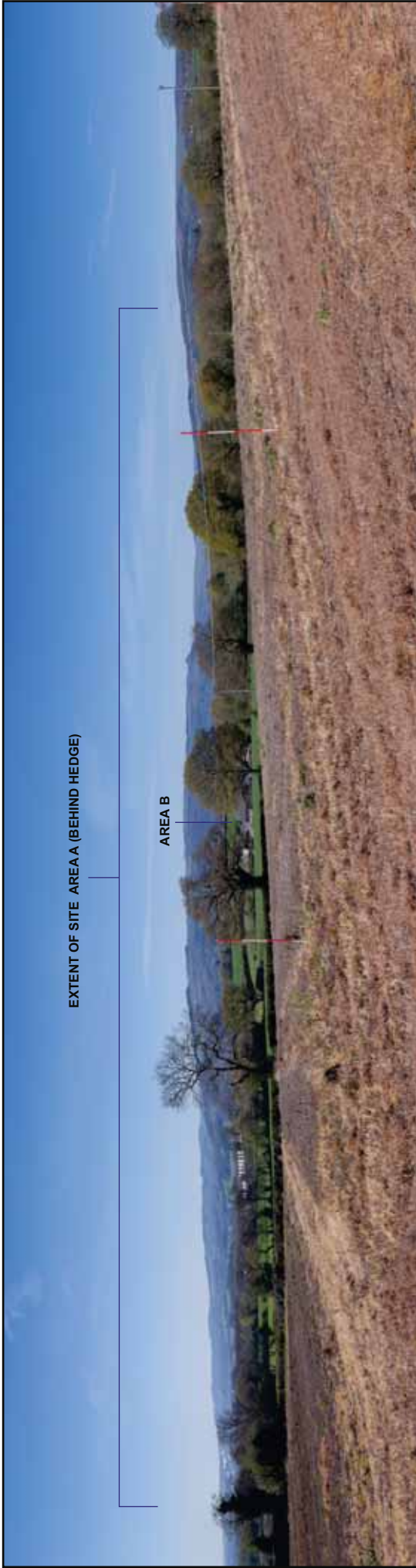
APPROXIMATE EXTENT OF SITE AREA



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VIEWPOINT PARAMETERS			
GRID REFERENCE	ANGLE OF VIEW	ILLUMINATION	ELEVATION
	VIEWING DISTANCE	n/a	

DRAWING TITLE			
PENYCAE SOLAR FARM VIEWPOINTS 5 & 6			
DATE	01/05/15	DATE	01/05/15
BY	M.B.	BY	A.S.
SHEET		A3	
PHOTOPLOT		PHOTOPLOT 546	
0		0	



EXTENT OF SITE AREA A (BEHIND HEDGE)

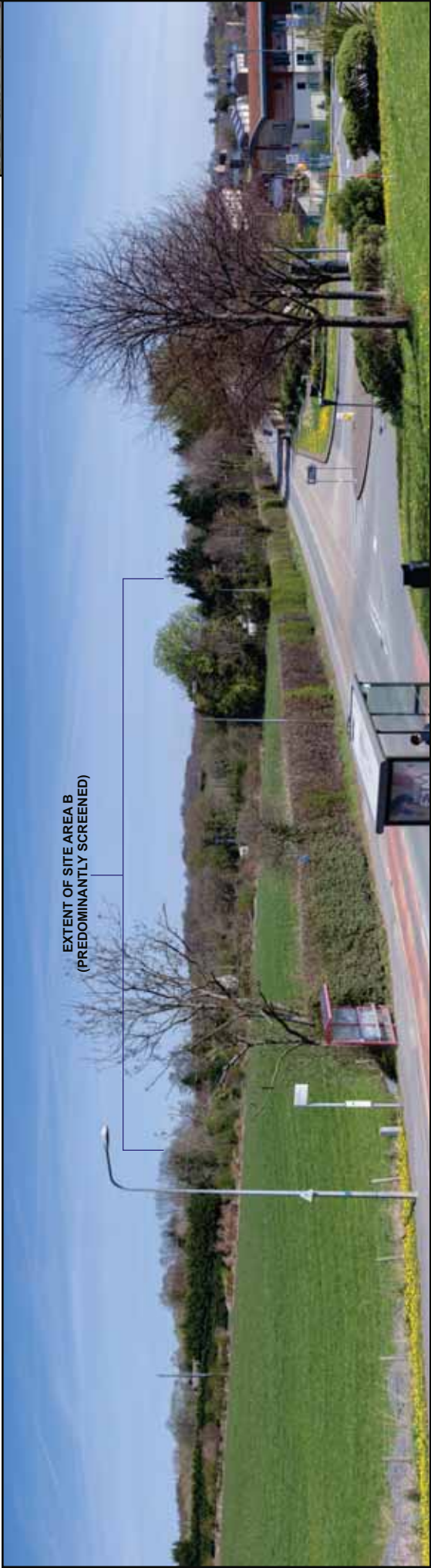
AREA B



VIEWPOINT 3
B5097 (Ruabon- Pen-y-cae Road)



VIEWPOINT 4
Plas Madoc (Oak Road)



EXTENT OF SITE AREA B
(PREDOMINANTLY SCREENED)

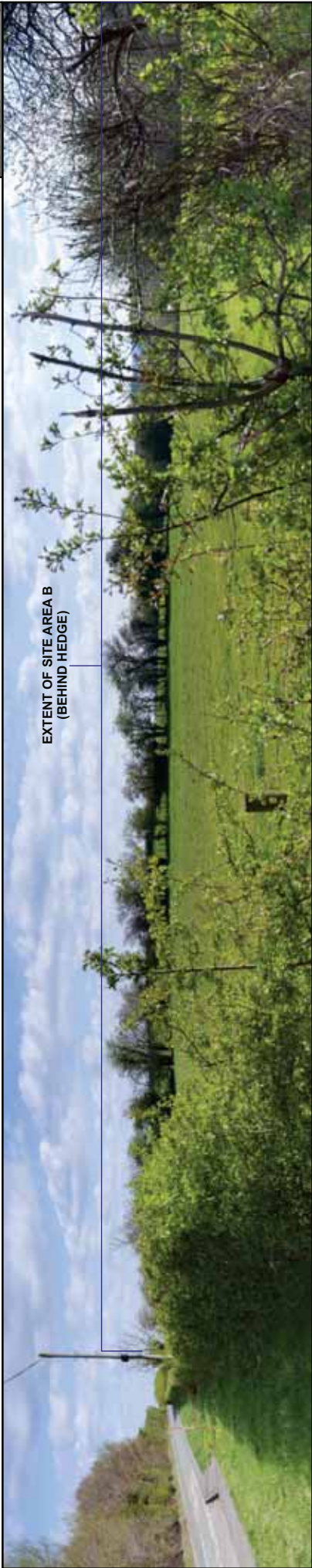
 	 STRATUS ENVIRONMENTAL LIMITED 100, PARKWAY, APPROACH THORP, LEEDS LS28 7JL T: 0117 264 8160 E: info@stratus-environmental.co.uk W: stratus-environmental.co.uk	THIS INFORMATION IS CONFIDENTIAL AND THE PROPERTY OF STRATUS ENVIRONMENTAL LIMITED. IT IS RELEASED ON THE CONDITION THAT IT IS NOT TO BE REPRODUCED OR DISCLOSED IN WHOLE OR PART WITHOUT THE PRIOR CONSENT IN WRITING OF STRATUS ENVIRONMENTAL LIMITED.				VIEWPOINT PARAMETERS				DRAWING TITLE					
		CRD REFERENCE ELEVATION				See layout plan See layout plan		ANGLE OF VIEW VIEWING DISTANCE		Illustrative n/a		PENYCAE SOLAR FARM VIEWPOINTS 3 & 4			
		ISSUED DATE	01/05/15	APPROVED DATE	01/05/15	DESIGNER	A.S	DATE	01/05/15	SHEET	A3	CONTRACT NUMBER	PHOTOPLATE 384	REVISION	0



VIEWPOINT 1
Public Footpath to the east of
Penycae.



VIEWPOINT 2
Plas Bennion Road







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VIEWPOINT PARAMETERS			
GRID REFERENCE	ANGLE OF VIEW	ILLUSTRATION	PHOTOGRAPH
ELEVATION	VIEWING DISTANCE	n/a	
See layout plan	See layout plan		

DRAWING TITLE					
PENYCAE SOLAR FARM VIEWPOINTS 1 & 2					
DATE	APPROVED DATE	SHEET	COMPILE NUMBER	PHOTOGRAPH	REVISION
M.B.	01/05/15	A.5	01/05/15	A.3	0

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KEY

- PROPOSED SITE BOUNDARY
- FENCE LINE/ZONE OF CCTV DETECTION
- PROPOSED PV PANELS
- PROPOSED SITE ACCESS ROAD
- TRANSFORMER/INVERTER STATION
- SUBSTATION DNO
- CUSTOMER SUBSTATION
- METER & CONTROL ROOMS
- TRANSFORMER (STRING INVERTER)
- EXISTING HEDGE TREES
- EXISTING HEDGEROWS
- EXISTING WOODLAND/SCRUB
- EXISTING PASTURE/ARABLE FIELDS
- PROPOSED MEADOW GRASSLAND
- PROPOSED GRASSLAND GRAZING (INSIDE SITE FENCING)
- PROPOSED STANDARD HEDGE TREES
- PROPOSED HEDGEROW PLANTING

NO	DESCRIPTION	DATE	BY

CLIENT

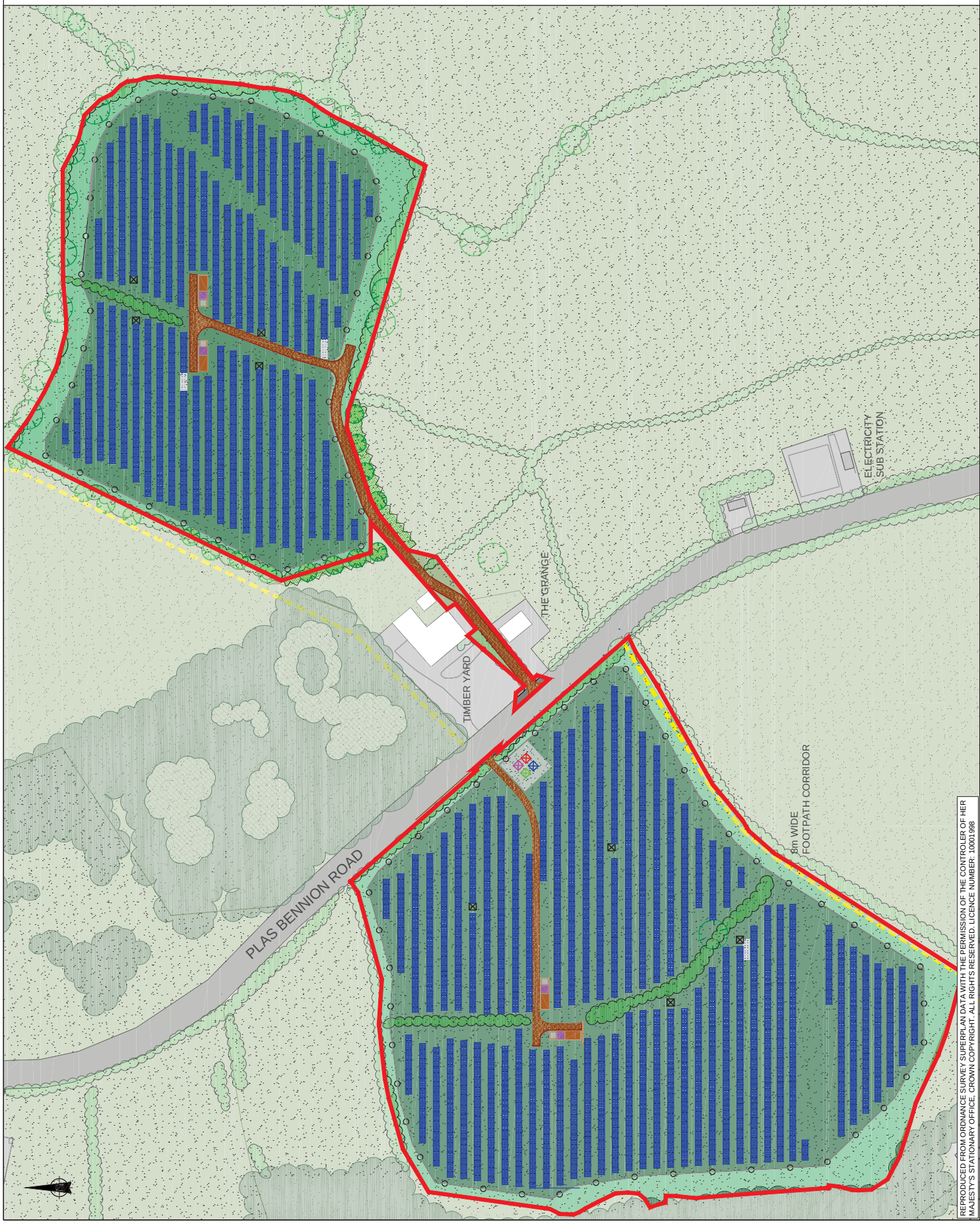


DATE TYPE

PENYCAE SOLAR FARM

FIGURE C7
LANDSCAPE MASTERPLAN (5km)

NO	DATE	BY	REVISION
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2	5/5/2015	AS	5/5/2015
3	5/5/2015	AS	5/5/2015
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