

31 October 2024



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Our Ref LH24-30
Your Ref

Dear Sir/Madam

Request for an EIA Screening Opinion in accordance with Regulation 6 of the Town and Country Planning (Environmental Impact Assessment) (Wales) Regulations 2017

Proposal: Installation and operation of battery energy storage system (BESS), together with high voltage substation compound, underground cable route, transformer stations, inverters, site access, internal access tracks, security measures, access gates, other ancillary infrastructure, landscaping and biodiversity enhancements.

Site: Land at Cefn Farm, Mount Road, Rhigos, Aberdare, CF44 9YS

I am writing to request an Environmental Impact Assessment screening opinion for the above proposed development under Regulation 6 of the Town and Country Planning (Environmental Impact Assessment) Regulations 2017 ("The EIA Regulations").

The site boundary is shown on an aerial image and Ordnance Survey plan edged in red for reference purposes – attached in **Appendices A and B**.

The Proposed Site

The site comprises an agricultural field and is approximately 12.9 acres (5.2 hectares). The proposed development would be for a battery energy storage system (BESS), providing an essential component of the UK's renewable energy infrastructure to meet net zero emissions. It is located within a relatively rural setting with the small settlement of Cefn Rhigos located some 200m to the east. Further to the south-east then are the more built up areas of Rhigos, Hirwaun and Aberdare. The site is located approximately 795 meters to the south of the designated Bannau Brycheiniog National Park separated by the A465 dual carriageway (heads of the valleys road).

The site occupies a rectangular plot of land comprising an agricultural field bound by an access track along its northern boundary, and sparsely positioned hedgerows and trees along its eastern, western and southern boundaries. There is one tree located within the centre of the site. There is an existing access to the south east of the site off Mount Road.

The red line includes for the proposed underground cable which would be laid within Mount Road. The cable would then travel east along Rhigos Road and connect into Hirwaun Substation.



The site is not subject to any significant planning designations including National Landscapes National Park, Site of Special Scientific Interest (SSSI), Special Area of Conservation (SAC) and Special Protection Area (SPA). The site does not contain any Public Rights of Way (PROWs) and the nearest Heritage Assets to the site is the Dinas Silica Mine which is located 872 metres to the south. The site is located within Flood Zone A, which is the area at lowest risk of flooding. The plan included in **Appendix D** illustrates the designations surrounding the site.

The red line boundary comprises the proposed battery storage compound, and areas of land which would be utilised for landscaping and biodiversity enhancements. **Appendix B** shows the site location and the photograph shown in **Appendix C** shows the proposed battery compound within the context of the wider landscape.

Energy Storage – An Introduction

A research paper by the House of Commons¹ explains that Battery Energy Storage Systems (BESS) store electricity at times when the level of supply is higher than demand. This means that electricity can then be released later when levels of demand are higher than supply. BESS is therefore “important for the replacement of fossil fuels with renewable energy”. The paper explains that renewable energy sources such as wind and solar depend on the weather conditions in order to produce electricity. This means unlike nuclear and fossil fuels they are less adaptable to consumer demand. As a result, the government has said a decarbonised power system will need to be “supported by technologies that can respond to fluctuations in supply and demand, including energy storage. The government expects demand for grid energy storage to rise to 10 gigawatt hours (GWh) by 2030 and 20GWh by 2035”.

Welsh Government’s Energy Generation in Wales (2022) report identifies that there are 19 projects in the pipeline that have been granted planning permission, totaling over 300 MW of power capacity and over 500 MWh of storage capacity in Wales. The report similarly recognises the benefits of energy storage and states that:

‘As Wales and the rest of the UK look to operate a net zero electricity system by 2035, the role of batteries in providing zero carbon flexibility is expected to rapidly increase’.

The Consenting Regime

In 2019 a Statutory Instrument was made to amend The Developments of National Significance (Specified Criteria and Prescribed Secondary Consents) Regulations 2016 in such a way that energy storage facilities were removed from the definition of “generating station”, with the effect that the development of such facilities do not represent a Development of National Significance (DNS).

Similarly, the Planning Act (2008) was revised in December 2020 to clarify that ‘electrical storage facilities’ are exempt from the Act’s definition of a ‘Generating Station’ and can thus be considered by Local Planning Authorities under the Town and Country Planning Act (1990) and therefore do not represent Nationally Significant Infrastructure Projects irrespective of their scale. In making this change the UK Government stated that:

¹ UK Parliament. House of Commons Library. (2024) *Battery Energy Storage Systems*. Available at: <https://researchbriefings.files.parliament.uk/documents/CBP-7621/CBP-7621.pdf> (Accessed: 9 October 2024)



“the planning impacts of the types of storage being deployed (predominantly batteries), are much lower than other forms of generation”. Indeed, battery electrical storage systems have smaller footprints, low vertical extents and limited noise effects compared to all other forms of electrical energy generation.

As such, proposals for electrical energy storage in Wales fall to be determined by the Local Planning Authority, in this case, Rhondda Cynon Taf CBC.

The Development Proposal

The proposed development will consist of an enclosed compound area containing a BESS comprising 120 battery containers mounted on concrete footings measuring approximately 2.3 metres in depth, 6 metres wide and 3 metres in height. The development is proposed to be a 'temporary installation' being operational for a period of 40 years from energisation, after which the site would be restored to its current agricultural function.

The proposal is for sufficient capacity to store around 400MW hours of energy, allowing discharge of power for a period up to 2 hours. The containers will provide housing for battery infrastructure, a power distribution system, and auxiliary systems such as fire suppression and alarm systems, ventilation and cooling system. The site area will be enclosed within a palisade fence enhanced by screening from existing and new vegetation, reducing visual impact and increasing biodiversity over baseline conditions. It is proposed that the scheme would connect into Rhigos Substation, which is located approximately 3km to the east of the proposed site. The connection is proposed via an underground cable within the highway that will connect from a new substation on site.

The red line boundary (as shown in **Appendix B**) comprises the proposed battery storage compound, and areas of land which would be utilised for landscaping and biodiversity enhancements.

Proposed Planning Application

Subject to this EIA Screening Request, a full planning application is proposed to be submitted to the LPA. This would be accompanied by all of the necessary technical assessment work in order to inform an understanding of the likely impacts of the development. This would comprise the following scope of plans and reporting:

- Site Location Plan
- Site Layout Plan and elevations of all componentry
- Planning, Design & Access Statement
- Landscape and Visual Assessment
- Desk Based Heritage Assessment
- Fire Safety Assessment
- Drainage Assessment
- Tree Survey
- Arboricultural Impact Assessment
- Noise Impact Assessment
- Flood Risk and Drainage Strategy
- Preliminary Ecological Appraisal Report and Protected Species Surveys if required
- Outline Construction Traffic Management Plan
- Landscape Mitigation and Enhancement Plan
- Pre-Application Consultation Statement



EIA Screening Request

The process of deciding if there is a requirement for an Environmental Impact Assessment (known as 'screening') considers the scale, nature and location of a proposed development and the likelihood of significant environmental effects arising as a result. The EIA regulations define development types for which an EIA is mandatory - and for those which need to be screened to decide if there are any likely significant effects on the environment, and if an EIA is required in order to assess those. Development included under Schedule 1 of the EIA Regulations is mandatory. Where development falls under Schedule 2, the need for EIA is determined based on set criteria, which are as follows:

- The type of development falls within one of the classes of development stated in Schedule 2;
AND EITHER
- Exceeds the size threshold for that class of development OR;
- Is in a sensitive area as defined by the EIA Regulations;
- AND it is likely to have significant environmental effects due to factors such as nature, size or location.

The exceedance of a Schedule 2 category threshold triggers the need to consider whether the proposed development is EIA Development with reference to the criteria set out in Schedule 3 of the EIA Regulations. These are:

1. Characteristics of the proposed development (e.g. size, cumulative effects with existing/approved development, use of natural resources, production of waste, pollution, nuisance, risk of accidents, and risk to human health);
2. Location of the proposed development (e.g. environmental sensitivity of the area); and,
3. Types and characteristics of the potential effects of the proposed development (with particular regard to the extent, nature, magnitude and complexity, probability and duration, frequency and reversibility of the effect, including the likelihood for transboundary effects).

Indicative Thresholds set out at National Planning Practice Guidance (NPPG)

Although the EIA (Wales) Regulations 2017 are distinct from the Town and Country Planning (Environmental Impact Assessment) Regulations 2017 which apply to England, the screening criteria set out within the Schedules to the legislation are the same. In this respect, the National Planning Practice Guidance (NPPG) provides guidance on EIA screening and how to assess whether a development is likely to give rise to significant environmental effects. Hence, whilst there is no comparable guidance in Wales, it is considered that the guidance provided may be equally applicable when assessing EIA Screening Requests. PPG 018 (Ref ID: 4- 018-20170728) of the guidance 6 states that:

"only a very small proportion of Schedule 2 development will require an Environmental Impact Assessment". In order to assist LPAs to determine whether a project is likely to require an assessment a set of indicative thresholds and criteria have been prepared and presented as a tabulated annex to the PPG (Paragraph 058 Reference ID:4-058-20150326).

The thresholds in this annex specifically set out the 'key issues' to be considered in respect of 'Industrial installations for the production of electricity, steam and hot water'. These issues are listed as 'Level of emissions to air, arrangements for the transport of fuel and any visual impact'.



Assessment of proposed development against EIA Regulations

The Proposed Development is not a Schedule 1 development and does not automatically require an EIA. However, it does constitute a project under category 3(a) of Schedule 2 of the Regulations as an "industrial installation for the production of electricity" whereby the applicable threshold to undertake screening is when the site area exceeds 0.5 hectares.

There is direct reference to battery electrical storage systems (BESS) in Schedule 2 of the EIA Regulations. Electrical storage facilities are recognised by Government "as a form of electrical generating station for planning purposes". The proposed development therefore falls within Category 3a Schedule 2 for the purposes of screening.

EIA Screening Assessment	
Is the project Schedule 1 development according to Schedule 1 of the EIA Regulations?	No
Is the project Schedule 2 development under the EIA Regulations?	Yes
If YES, under which description of development in Column 1 and Column 2?	3. Energy (a) Industrial installations for the production of electricity, steam and hot water (unless included in Schedule); 1) The area of the development exceeds 0.5 hectares
Is the development within, partly within, or near a 'sensitive area' as defined by Regulation 2 of the EIA Regulations?	No (defined in the EIA Regulations as : Sites of Special Scientific Interest (SSSI) and European Sites, National Parks, the Broads and National Landscapes, and World Heritage Sites and Scheduled Monuments.) The site lies over 740m from the Bannau Brycheiniog National Park and is separated by the existing A465 dual carriageway, it is not theoretically visible from any part of the National Park.
Are the applicable thresholds/criteria in Column 2 exceeded/met?	Yes.
Would the development proposal be likely to have significant effects on the environment (nature, size, location)	No, as described in assessment table below

As the Proposed Development will cover an area of 5.2ha it is appropriate to seek an EIA screening opinion from Rhondda Cynon Taf County Borough Council with reference to the criteria set out in Schedule 3 of the EIA Regulations. The NPPG sets out indicative screening thresholds to guide the issues and criteria for screening for Schedule 2 developments (Paragraph: 058 Reference ID: 4-058-20150326). For Category 3(a) developments the guidance states as follows:



3. Energy Industry			
Development Type	Schedule 2 Criteria and Thresholds	Indicative Criteria and Thresholds	Key issues to consider
(a) Industrial installations for the production of electricity, steam and hot water (unless included in Schedule 1);	The area of the development exceeds 0.5 hectare.	Thermal output of more than 50MW. Small stations using novel forms of generation should be considered carefully.	Level of emissions to air, arrangements for the transport of fuel and any visual impact.

Battery Energy Storage Systems do not represent a thermal power station. The threshold here refers to conventional thermal industrial power stations such as coal or gas. The 50MW limit for BESS was recently amended in planning legislation as described above on the basis that *“the planning impacts of the types of storage being deployed (predominantly batteries), are much lower than other forms of generation”*².

BESS do not create any emissions to air and there is no transportation of fuel. Visual impact is likely to be limited and will be dealt with through a Landscape and Visual Impact Assessment as part of the planning process. An appraisal of the Schedule 3 criteria are provided below, including consideration of the key issues identified above.

² Proposals on the planning system for electricity storage, Dept for Business, Energy and Industrial Strategy, July 2020.



Screening Assessment against Schedule 3.			
Characteristics of development	of	Screening Assessment	EIA Development?
Size and Design Development	of	The site area is 5.2ha thus exceeding the 0.5 threshold, although the actual area used for the development will be much less than this. The proposal will comprise: • Battery storage units • LV- MV Transformer and Inverter Blocks • New HV substation • HV Transformer • Substation control building • Switchgear • Erection of associated ancillary buildings and electrical plant • Associated underground cabling • Equipment foundations, including construction of site drainage • Internal access tracks • Security fencing and CCTV • Water Tank • Landscape and ecological enhancements • Temporary construction compound The maximum height of the battery units does not exceed 3m. Visual and landscape appraisals show that the development can be enclosed with low potential visibility due to topography, and opportunity to mitigate any close views with effective planting, retention of existing plants, and screening.	No



Cumulation with other development	The planning application will be accompanied by a full Landscape and Visual Impact Appraisal. There is little other development within the immediate locality besides the nearby overhead pylons which cross the field. Due to the distance, topography, existing vegetation, and opportunities for additional screening on the site boundaries, any additional visual impacts are expected to be negligible and the proposal will not be seen from any significant settlements. There are no other operational BESS within the immediate sense of the development site. However, there is a BESS some 2.5km to the east near the Hirwaun substation: 21/0104/FUL – Replace 52 Diesel generators with new low carbon battery technology within existing compound at Hirwaun Store Generation, Main Avenue, Hirwaun There are also two solar farm developments nearby. They are as follows: P2013/0635 – 11.6MW solar array including transformer stations, internal access tracks, landscaping, fencing and associated works at Land at Hendrefawr Farm, Mount Road, Rhigos, Neath, West Glamorgan 22/0634/10 – Development of a solar farm with ancillary infrastructure, security fence, landscaping and continued agriculture at land at Bryngolwg Farm, Rhigos Road, Hirwaun, Aberdare, CF44 9UG. Any cumulative effects will be considered within specialist surveys.	No
Use of natural resources	BESS complements the installation of renewable energy generation by providing an energy store and by balancing supply to the electricity network. The development land will also be restored to agricultural use after the BESS use has ceased. The materials used in the manufacture of the equipment for the scheme are expected to be recycled at the end of the development's life. In this regard, the use of any natural resource would be negligible.	No
Production of Waste	The development will not produce any waste during the operational phase. At the decommissioning stage, the materials used can predominantly be recycled.	No
Pollution and Nuisance	Any noise impacts are anticipated to be very low level, noting the noise levels cited in manufacturer's specifications. These are not likely to be perceptible to sensitive receptors above background noise levels. This can be confirmed through a noise assessment. There will be no harmful pollutants or odours. Disturbance arising from construction and related traffic will be short term in nature and controlled through a construction traffic management plan (CTMP).	No



Risks to Human Health	Battery systems and materials used within them do not contain substances that are considered hazardous within Schedule 1 to the Planning (Hazardous Substances) Regulations 2015. Therefore, the development does not come under the Planning (Hazardous Substances) Regulations 2015. The site is situated on wholly private land and the compound would be secure and restricted by fencing and discrete CCTV.	No
Major Accident Risk	The proposed componentry at the site is considered entirely safe as systems are designed to comply with relevant UK standards across all aspects of the development. themselves. The following key safety measures are incorporated into the battery system: - Typically, the system manages itself and responds automatically to abnormal temperature rises and other issues. However, the facility will also be continually monitored to ensure effective operation. The management system includes alarms and warnings to notify operatives of the health status of each battery, faults, over-charge/ discharge/ temperature/ voltage/current. An emergency stop can be activated and the battery system enters safe mode, with each battery string disconnecting from the wider system. - A ventilation and cooling system for the batteries managed by temperature sensors. - The containers are fire retardant and compliant with associated regulations. - Appropriately located fuses to prevent arc flash (a type of electrical explosion produced as part of an arc fault). - Isolator switches. There is low risk as all equipment will comply with industry safety regulations and shall be operated and maintained by professional operatives in accordance with relevant standards, guidance and legislation.	No
Location of Development	Screening Assessment	EIA Development?
Existing Land Use	The existing use is agricultural land and the site is not subject to any statutory designations for landscape, ecology or heritage assets. The EIA Regulations define "sensitive areas" in Regulation 2(1) and an EIA is more likely to be required if a sensitive area is affected. The site is not located in a sensitive area and distance, topography and intervening vegetation means it does not significantly affect nearby heritage assets including a listed building to the south of the site.	No
Relative abundance, quality and regenerative capacity of natural resources in the area	The agricultural land use will change for the duration of the planned 40 year period but will be completely reversible at the end of the development's lifetime. The site will be actively managed to enhance biodiversity, and will deliver a Biodiversity Net Gain (BNG). Solar and wind power from the wider electricity grid will be stored and released to optimise the use of renewable energy.	No



The absorption capacity of the natural environment, paying particular attention to the following areas cited at Schedule 3.	The site does not lie within any of the areas listed within the associated criteria set out at Schedule 3 2. (1)(c) of the regulations. Initial landscape and visual appraisal show the proposed development can be sensitively accommodated within the landscape. The proposals seek to maintain, protect and enhance existing hedgerows, mature trees, and field boundaries. The site is outside of the Flood Zone and will not result in an increased risk of flooding elsewhere. The development is well screened by natural topography and existing vegetation. The hedgerow to the north and east of the site serves to provide screening from the adjacent highway. Noise from construction and operation will be limited and controlled through specific hours of construction. There is also ample opportunity to implement additional scrub and tree planting to provide visual and acoustic screening.	No
Characteristics of Potential Impact	Screening Assessment	EIA Development?
Magnitude, extent and nature of impacts	In terms of magnitude, the impacts are likely to be low and mitigated through layout, design and landscaping measures. The potential but minimal impact of the proposed development will relate to a temporary loss of a small area of agricultural land and limited visual impacts within very close proximity to the site. The land will revert to agricultural use upon decommissioning. The visual amenity of road users will be protected as any view views towards the site and there would be screened by existing vegetation on the northern and eastern field boundaries. Taking account of on-site observations and the outcome of ZTV analysis, it is apparent that impacts beyond the site boundary will be limited to low levels due to the distance from sensitive receptors, topography and intervening vegetation. The proposed development is fully reversible. In light of the above, the magnitude, extent and nature of the impacts will be low. In particular the proposals have been carefully positioned on lower ground so as to avoid direct intervisibility with the National Park to the north.	No
Transboundary nature of the impact	The environmental impacts of the development proposal itself will be highly localised. Conversely the proposed development will make an important contribution to achieving legally binding national targets to achieve net zero carbon emissions by 2050 and national renewable energy targets.	No
Intensity and complexity of the impact	The impacts are low-intensity, limited to localised visual and noise impacts. These impacts are well-understood within the planning system and are not considered complex or unusual.	No



Probability of the impact	The impacts can be reliably predicted and assessed. Indeed, the visual impacts can be accurately modelled and the noise levels can also be projected using manufacturer's specifications. Based on the preliminary assessments informing this Screening Request, it is not considered the proposed development will have any significant environmental impacts.	No
Duration, frequency and reversibility of the impact	The effects of construction phase will be temporary while the effects of operation will be long term (up to 40 years) and fully reversible. The effects of decommissioning will be temporary and short term. The proposals are designed to be fully reversible.	No
Cumulation of the impact	There are no other identified battery storage installations within the immediate surrounding area, with one scheme some 2.5km to the east. However, all accompanying specialist surveys will consider potential for cumulative impacts.	No
Possibility of reducing impact	Given the location and discrete nature of the prospective site it is considered that the proposals reflect an inherent mitigation by virtue of sensitive site selection. Residual impacts will be reduced through effective screening and biodiversity enhancements.	No

Conclusion

Having assessed the proposed development with reference to the EIA Regulations, it is demonstrated that the proposals in this location are not likely to create significant environmental impacts which require an Environmental Impact Assessment. Our view therefore is that no EIA is required.

The contribution of the development toward achieving a zero carbon energy system and tackling climate change, would provide a significant environmental benefit without any unacceptable local adverse impacts. Associated biodiversity proposals and ongoing management will also support localised climate change resilience. The proposed planning application will be accompanied by a full range of assessments which will be submitted relating to landscape, visual impact, heritage, ecology, noise and agricultural land impacts.

I look forward to receiving your screening opinion in due course and thank you for your consideration.

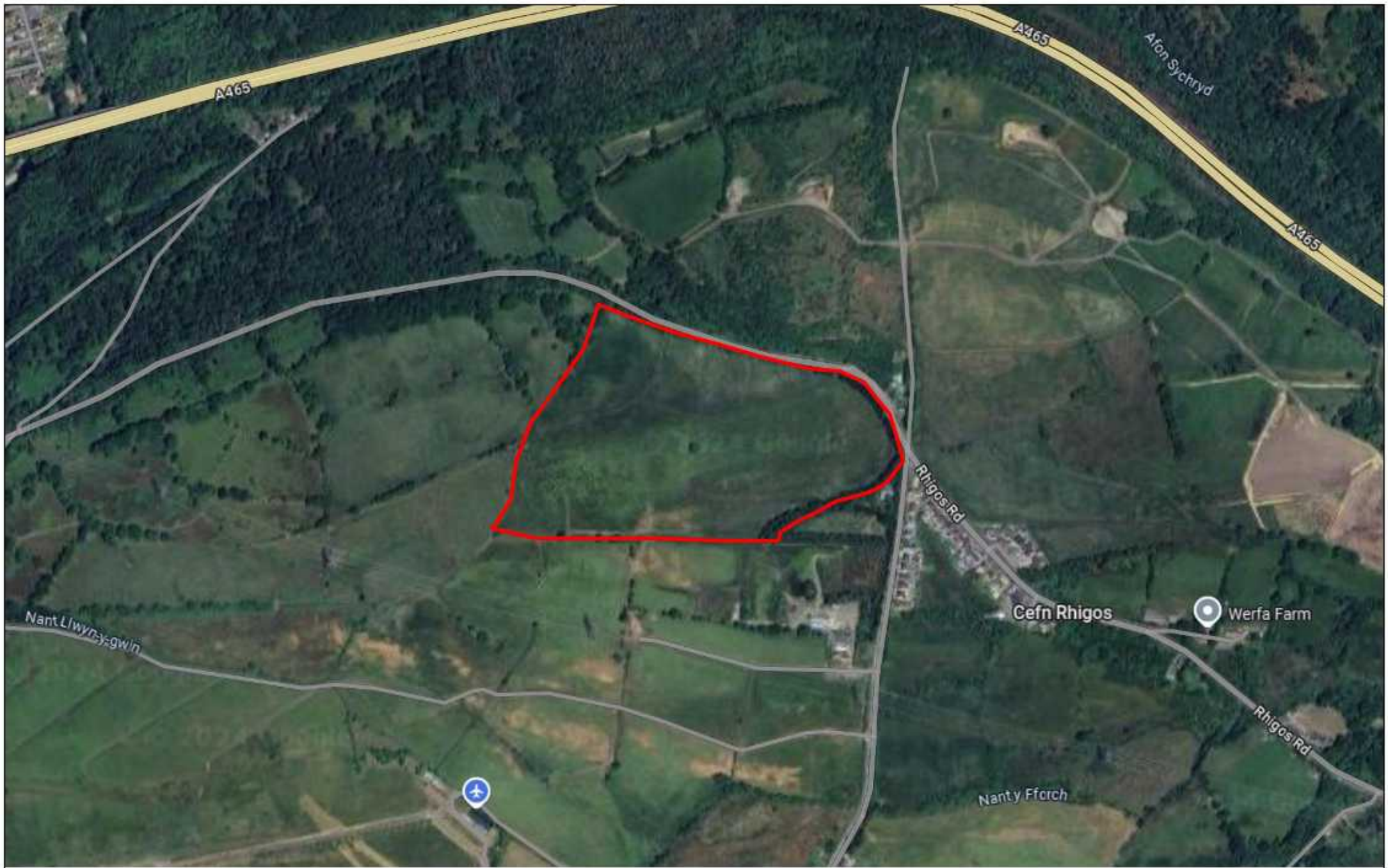
Yours sincerely,

Lewis Taylor BSc MSc
Planning Consultant



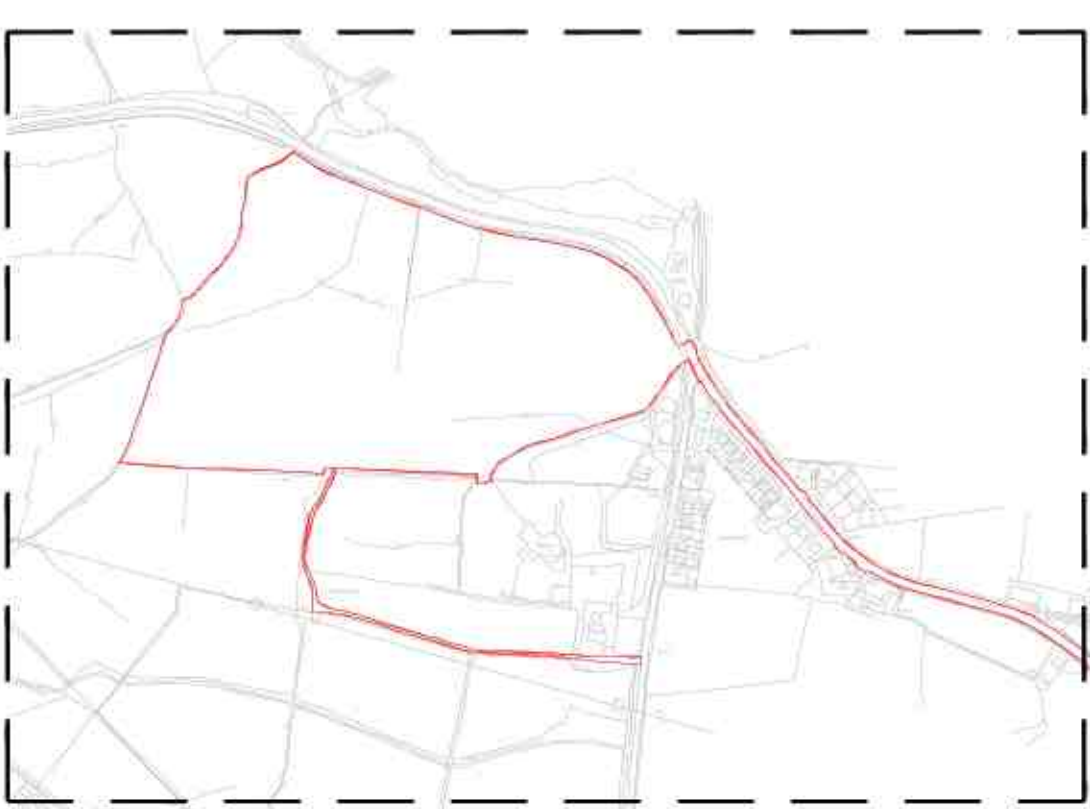
Appendices

Appendix A – Aerial Plan





Appendix B – Site Location Plan



RED LINE BOUNDARY
SCALE 1:8000 @ A1

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BY	NO	DATE	REV	NO	DATE	BY
REV	DATE	BY	CHECKED	APPROVED		



CLIENT
REWE 11 Limited

PROJECT TITLE
Rhigos BESS

DRAWING TITLE
Site Location Plan

SCALE @ A1
1:1000

JOB NO.
11

REV.
01

DRAWING NO.
REWE 11-SLP-01

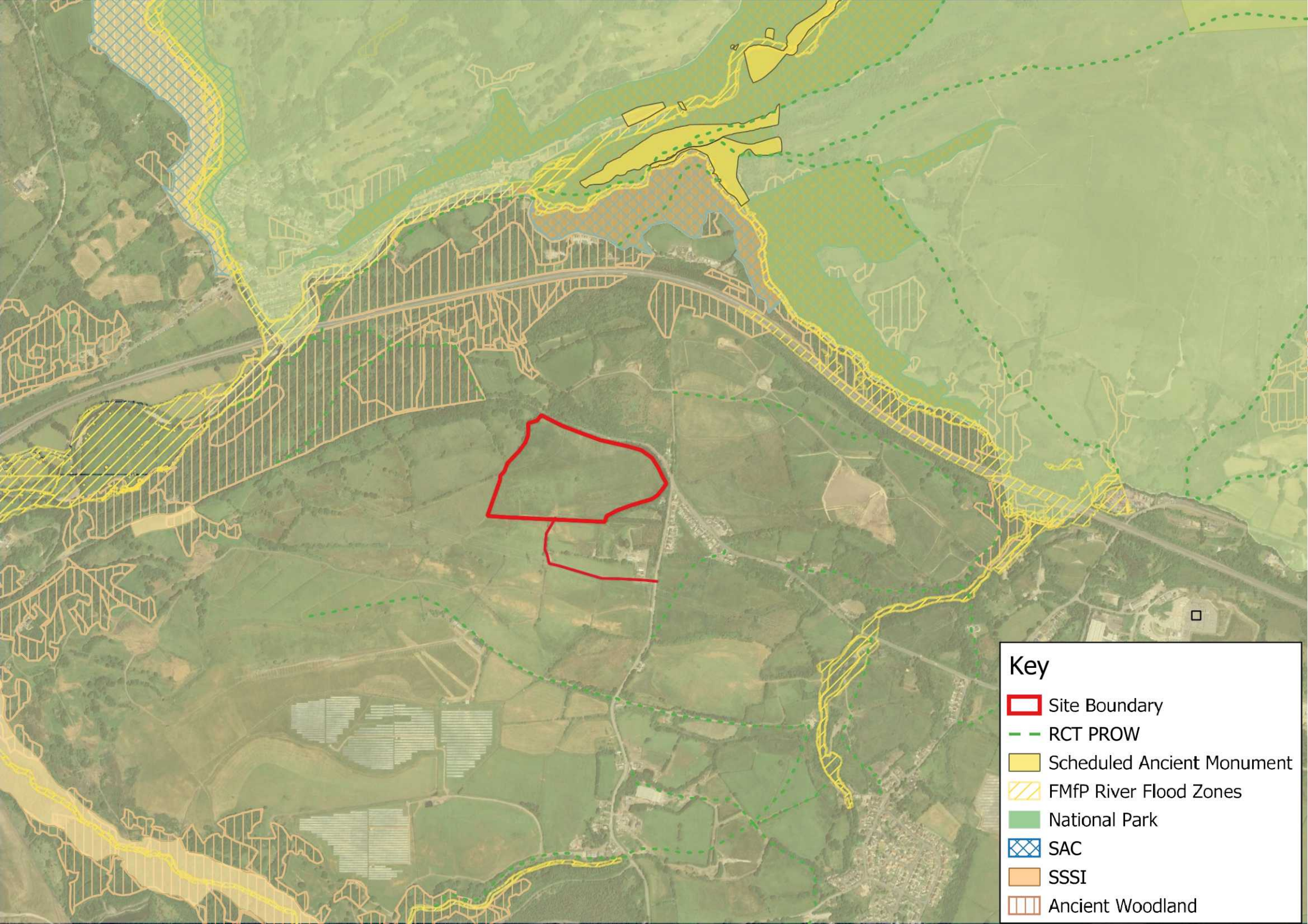


Appendix C – Photograph of site within the surrounding context





Appendix D – Designations Plan



Key

-  Site Boundary
-  RCT PROW
-  Scheduled Ancient Monument
-  FMfP River Flood Zones
-  National Park
-  SAC
-  SSSI
-  Ancient Woodland