

Collaborative Benefits Report

DOC 05

Development of National Significance

Alaw Môn Solar Farm

Land west of the B5112, 415m south of Llyn Alaw, 500m east of Llantrisant and 1.5km west of Llannerch-y-Medd, Anglesey

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1. INTRODUCTION

- 1.1. Pegasus Group has been appointed by Wylfa Green Ltd (herein referred to as "the applicant") to prepare a Collaborative Benefits Report for a renewable energy scheme comprising ground mounted solar and ancillary battery storage facility on land approximately 1.5km land on the west of the B5112 and is located 415 m to the south of Llyn Alaw, 500m to the east of the small hamlet of Llantrisant, and 1.5 km to the west of the village of Llannerch-y-Medd.

Purpose of a Collaborative Benefits Report

- 1.2. Welsh Government planning and energy policy seeks to ensure that large scale renewable energy generation delivers benefits at the local level alongside the considerable benefits delivered in respect of climate change.
- 1.3. Policy 17 of Future Wales (February 2021) requires applicants to describe the net benefits a proposed development will bring in terms of social, economic, environmental and cultural improvements to local communities, and the policy statement titled 'Local ownership of energy generation in Wales – benefitting Wales today and for future generations' (February 2020) seeks to retain value in Wales from these types of development. The policy statement is the culmination of the Welsh Government's work to create greater local and national economic benefits from investment in energy projects, with Section 1 of the policy statement stating that with technological advances and increased leadership, *"...we can create an energy system to retain much more of the economic value for Wales"*.
- 1.4. The Welsh Government views a Collaborative Benefits Report as a practical tool to improve transparency throughout the development process and increase the participation of all stakeholders. The Collaborative Benefits Report should detail the engagement journey and include a record of dialogue on local and shared ownership. Welsh Government guidance on Local Ownership indicates that the Collaborative Benefits Report should be submitted as evidence of good practice and local support, alongside the main planning application documents. This is line with the requirement of Planning Policy Wales (PPW) for applications to demonstrate the full benefits of development.
- 1.5. The Collaborative Benefits Report therefore demonstrates the social, economic, environmental and cultural benefits that the proposed development could deliver – benefits that should be weighed in the planning balance. It also provides an overview of the engagement that has taken place (and its outcomes) with local communities.
- 1.6. Given that ownership is not a material consideration in planning decisions, the report seeks to demonstrate the overall collaborative benefits the project can provide. The evidence and information contained in this report is intended to provide PEDW with the comfort that the proposed collaborative benefits are realistic, securable and deliverable.



2. DEVELOPMENT PROPOSAL

2.1. The application proposal relates to the construction, operation, maintenance and decommissioning of a ground mounted solar power and battery storage facility. An operational lifespan of 40 years is sought after which the development would be decommissioned. Individual elements of the proposed development are shown on the accompanying Planning Application Drawings.

2.2. The proposed development can be split into five key components, these are:

- Ground Mounted Solar Arrays
- Battery Energy Storage System
- Client Substation
- Cable Route and Point of Connection to the National Grid via Wylfa substation.
- Landscape & Biodiversity Mitigation & Enhancements Proposals

Design Flexibility

2.3. The proposed development has employed a 'maximum design scenario' approach which reflects the Rochdale Envelope approach.

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

Ground Mounted Solar PV Arrays

2.5. The design principles of the solar modules are:

- Photovoltaic (PV) arrays, which would be a maximum of 3m in height about existing ground levels



- A number of inverter and transformer block at various locations around the arrays
- Boundary fencing (e.g deer/stock fencing)
- A CCTV system, pole mounted, located at strategic points around the site
- Storage container(s) for spare parts etc
- Relevant communications and monitoring equipment
- Provision of permeable internal access tracks and improvement of existing vehicular accesses for the construction, operation and decommissioning phases of the development

2.6. Land between and beneath the panels would be used for biodiversity enhancements and/or seasonal sheep grazing. This is discussed in detail below.

2.7. The arrays would be set within a 2.0m high security fence. Cables linking the rows of panels will be buried in the ground within trenches, typically up to 1.2m in depth.

2.8. Internal access tracks will be required and involves the laying of permeable aggregate.

Battery Energy Storage System

2.9. The battery energy storage system consists of containerised battery units that can store energy and are able to release or absorb energy from the power network. Being able to absorb and release energy, the battery energy storage system at the proposed development can be used to contribute towards the frequency balancing services, where the power is being generated or absorbed statically or dynamically depending on the system frequency. When there is not enough power, batteries are discharged to balance under frequency preventing black and brown outs. To balance over frequency batteries are charged to prevent dangerous spikes across electricity infrastructure.

2.10. Under normal working conditions, the battery energy storage system would be unmanned. Visual checks will be undertaken during maintenance visits to the proposed development.

2.11. The equipment and infrastructure to be installed at the battery energy storage system include:

- Battery storage system contained within a 2.4m high gated compound
- 42No. battery containers measuring 12.2m by 2.4m and a height of 2.9m
- The battery containers could be dark green or similar in colour
- Retaining wall
- Internal access tracks
- Vehicular parking
- Transformers and inverters

- The battery compound will be surfaced with chippings.

2.12. Earthworks would be required to create two platforms for the battery compound.

Substation Compound

2.13. A new substation compound will be required for the proposed development, and this will be positioned next to the battery energy storage system. The function of the substation will be to take power from the solar arrays, and this would then run within an underground cable to the point of connection at Wylfa. Whilst external lighting will be installed at the substation for emergency work during hours of darkness, the substation will not normally be lit.

2.14. The main design principles of the substation compound are: -

- Substation located within a secure 2.4m high gated compound
- LV control room, switch rooms & 132kv Relay Room
- Earthing Transformer, Transformer bund, High level connectors; circuit breaker, low level disconnectors; and anchor blocks
- Car parking
- Access Road
- Maintenance strip
- Emergency lighting and CCTV

2.15. As with the battery energy storage system, the substation compound will require cut and fill earthworks profiling to create a level surface.

Cable Route and Point of Connection

2.16. The Development will connect to the electricity network via the National Grid Substation at Wylfa. Connection will be provided by underground cabling located within the existing adopted highway or its footpath / verge.

2.17. The development includes an underground cable route which runs from the main part of the site along the public highway to the National Grid Substation at Wylfa, located approximately 9.5km north of the main part of the site.

Landscape & Biodiversity Mitigation & Enhancements Proposals

2.18. Measures have been specifically designed to enhance habitats after intensive grazing and provide a gain in biodiversity at the site post-development.

2.19. Green infrastructure provision delivered as part of the proposed development will include: -

- 6.21 ha of new woodland planting,
- 1.69 ha of new native scrub planting,

- 6.85 ha of meadow grassland,
- 52.59 ha Grassland around the perimeter develop a taller sward, with some tussocks allowed to develop,
- 4,304 m of additional hedgerow (both infilling gaps and new sections of hedgerow),
- 14 (0.23ha) of new ponds and wetland/marginal vegetation.

2.20. Existing grassland will be retained within the solar PV arrays Habitat conservation, creation and enhancement measures are proposed across the entire application site in order to increase the extent and quality of habitat along key corridors within and through the application site, notably for specific landscape management areas have been introduced to the scheme. These are discussed in detail within chapter 6 of this statement.

Operational Lifespan

2.21. A temporary operational lifespan of 40 years would be sought for the entire development and linked to the first export date of electrical energy from the development. During the operational phase, the activities on the application site would amount to servicing and maintenance of plant and equipment and vegetation management.

2.22. Traffic impacts from the operational phase of the proposed development will only consist of one or two Light Goods Vehicles per month.

Decommissioning

2.23. After a 40 year period the proposal would be decommissioned with all electricity generating equipment and built structures associated with the proposed development removed from the application site and the land returned to agricultural use.



3. PROJECT BENEFITS

- 3.1. This Chapter provides a summary of the projected benefits the proposed development will deliver.

Legacy Community Benefits

- 3.2. As part of the legacy community benefits associated with the application proposal, the applicant has pledged a legacy community benefit fund, that would be paid annually for the lifetime of the development. The Applicant intention is set out in a draft Deed of Gift which accompanies the submission. Depending on the structure of the fund, the annual payment based on the candidate layout would be approximately £32,000 per annum. This equates to approximately £1.28 million over the lifetime of the project. The Applicant anticipates that Menter Mon would act as the fund administrator and be responsible for managing and distributing the funds to the local communities.
- 3.3. The Applicant has acknowledges the pre-application response put forward by Gwynedd Archaeological Planning Service regarding opportunities for outreach/public engagement during the archaeological fieldwork. Whilst site access during the construction phase will be restricted, the applicant welcomes the opportunity to host educational outreach programmes during the operational phase of the development.

Carbon Saving & Energy Generation

- 3.4. The Committee on Climate Change (CCC) published a report in May 2019, titled 'Net Zero – The UK's contribution to stopping global warming'. The report responded to a request from the Government to reassess the UK's long-term emissions targets and recommended a new emissions target for Wales: a 95% reduction in greenhouse gases by 2050, from a 1990 baseline. The target had previously been an 80% reduction, as set out in The Environment (Wales) Act 2016.
- 3.5. In April 2019, the Welsh Government declared a climate emergency and in June 2019 accepted the CCC's recommendation for a new emissions target but set a more ambitious target of net zero emissions no later than 2050. In March 2021, new legislation came into force in Wales, amending the 2050 emissions target and the interim emissions targets. As well as amending the 2050 emissions target to net zero, the 2030 target was increased from 45% to 63% below the 1990 baseline, and the 2040 target was increased from 67% to 89% below the 1990 baseline.
- 3.6. The latest Climate Change Committee Progress Report covering Reducing Emission in Wales, published in June 2023, identifies how Welsh greenhouse gas emissions have been falling slowly since 1990 and fell to an average of 28% below 1990 levels during the First Carbon Budget period (2016– 2020). Wales has therefore met its First Carbon Budget, which requires a 23% reduction. Emissions in 2020 were 34 MtCO₂e, which is 39% lower than 1990 levels and so Wales has also achieved its 2020 interim target of a 27% reduction.
- 3.7. The Progress Report notes *"While the First Carbon Budget (2016–2020) has been achieved, Wales is not yet on track to meet its targets for the second half of this decade and beyond"*. It goes on to state *"Wales must now accelerate action to ensure it is on-track to meet its future carbon budgets and the Net Zero target."*



- 3.8. The proposed development is zero carbon and will provide carbon free energy for approximately 33,935¹ homes each year and offset around 36,623 tonnes of carbon emission each year.
- 3.9. Welsh energy policy acknowledges that renewable energy development is a key contributor to the net zero targets. Specifically, Prosperity for All: A Low Carbon Wales and its update Net Zero Wales seek to accelerate renewable energy generation in order to cut emissions.

Planning Obligations

- 3.10. Welsh Office Circular 13/97 Planning Obligations provides procedural guidance on the role of planning obligations in mitigating the site specific impact of unacceptable development to make it acceptable in planning terms. Planning obligations should only be used where it is not possible to address unacceptable impacts through a planning condition. The legal tests for when planning obligations can be used are set out in regulation 122 and 123 of the Community Infrastructure Levy Regulations 2010. The tests are:
- necessary to make the development acceptable in planning terms
 - directly related to the development
 - fairly and reasonably related in scale and kind to the development
- 3.11. The Applicant is not aware of any planning obligations requirements to make the development acceptable in planning terms and this has been agreed by Isle of Anglesey County Council during the pre-application discussions.

Ecological Enhancement

- 3.12. The Environment (Wales) Act 2016, the Well-Being of Future Generations Act (Wales) 2015, and the Chief Planner's letter (30th December 2022) frame biodiversity with respect to its contribution to achieving "ecosystem resilience". The policy position was consolidated and reinforced through the publication of PPW 12 edition. The Environment (Wales) Act 2016 Section 6 duty is referenced throughout the national planning policy guidance.
- 3.13. National Resource Wales (NRW) has developed a framework for evaluating ecosystem resilience based on five attributes and properties specified in the Environment (Wales) Act 2016. This is referred to as 'DECCA': Diversity, Extent, Condition, Connectivity and Aspects of ecosystem resilience. NRW works to the definition of ecosystem resilience published in its State of Natural Resources Report in 2020, which is: 'An environment that can respond to pressures by resisting, recovering or adapting to change; and is able to continue to provide natural resources and benefits to people.' When assessing planning applications, PPW instructs planning authorities to take account of and promote the resilience of ecosystems, in particular the five attributes of ecosystem resilience.

¹ Equivalent homes supplied is calculated using BEIS's "Temperature corrected – Average consumption (kWh)" figure of 3,954kWh per household for the year 2020 as set out in "[Table C9 of the ECUK 2021: Consumption data table](#)" published by DUKES in September 2021

3.14. Chapter 8 of the Environmental Statement lists the attributes have been considered in in the Development’s layout design and the landscape strategy. A summary of the DECCA attributes (from CIEEM, 2022) is set out below, together with a summary of how each attribute has been considered and achieved in the Development’s design.

DECCA attributes (summarised)	How this has been achieved within the Development’s design
<p>Diversity: underpins biodiversity, resilient ecosystems, their functioning and the delivery of ecosystem services. More diverse ecosystems are more resilient to external influences. Strategic planning and individual development proposals should avoid negative impacts on biodiversity by considering how biodiversity assets can be maintained and enhanced</p>	<p>The fields within the main site support heavily-grazed improved grassland or species-poor semi-improved grassland. This grassland will be retained within the solar PV arrays, other areas of the Site will be protected and enhanced through the Development’s landscape strategy.</p> <p>Existing ecological features (hedgerows, woodland, wetland habitat and scrub) within the site have been retained and incorporated into the design of the Development.</p> <p>New habitats will be created (woodland, grassland, scrub, and ponds) throughout the site, around the proposed solar PV arrays. This will increase the diversity of habitats within the site.</p>
<p>Extent: strategic planning and individual development proposals must avoid loss in the extent of biodiversity and incorporate measures to appropriately maintain and enlarge existing habitats, through habitat restoration and creation with adjoining and nearby areas, green infrastructure features and networks.</p>	<p>The landscape strategy for the Development has been designed to complement and strengthen the existing ecological features, which are largely defined by field boundaries and adjacent features around the site’s periphery.</p> <p>These features are buffered within the design, throughout the Site with new areas of habitat; linkages between habitats both within and around the application site will be improved. Examples of improvements are given within the bullet points below. Given the scale of the Development, this means that the design will include:</p> <ul style="list-style-type: none"> • 6.21 ha of new woodland planting, • 1.69 ha of new native scrub planting, • 6.85 ha of meadow grassland, • 52.59 ha Grassland around the perimeter develop a taller sward, with some tussocks allowed to develop,

DECCA attributes (summarised)	How this has been achieved within the Development's design
	<ul style="list-style-type: none"> • 4,304 m of additional hedgerow (both infilling gaps and new sections of hedgerow)², • 14 (0.23ha) of new ponds and wetland/marginal vegetation. <p>Existing grassland will be retained within the solar PV arrays.</p>
<p>Condition: Ecosystems and biodiversity assets need to be in a healthy condition to function effectively, to deliver a range of important ecosystem services and be more resilient to external influences. Good condition requires sufficient scale and functioning natural processes or appropriate management to provide structural complexity and sustain diverse mosaics of habitats. Strategic planning and individual development proposals must not compromise the condition of ecosystems. Planning for and securing the long-term management of retained habitats is key to maintaining condition.</p>	<p>Ecological features adjacent to the Site will be buffered from the Development, and new habitats (meadow grassland and scrub) to be created in these areas, which are currently heavily grazed pasture. The buffer areas around the retained features will therefore improve in ecological condition through the implementation of the Development's landscape strategy.</p> <p>Additional ponds will be created, in clusters, surrounded by areas of longer grassland and scrub, which will increase the suitability of the Site for amphibians, increase the network of ponds available.</p> <p>These habitats will be managed to ensure they reach the desired condition and maintain their value for wildlife for the 40-year lifespan of the Development. Details will be set out in the LEMP.</p>
<p>Connectivity: take opportunities to develop functional and physical connectivity of biodiversity and ecological networks within and between ecosystems and across landscapes, building on existing connectivity and quality and encouraging habitat creation,</p>	<p>The Development's landscape strategy has been designed around the existing ecological features, which are largely defined by field boundaries and adjacent features around the Site's periphery. These features are buffered and strengthened within the design (i.e. hedgerow gapping up, new hedgerows, and creation of meadow grassland in buffer areas adjacent to field boundaries) meaning that linkages between habitats both within and around the Site will be improved.</p>

² The existing boundary features will be retained through the Development's design. Existing access points will be used to avoid the need to create new openings in hedgerows; there may be some minor widening to increase the width of any narrower gaps. The removal of nine 2m sections (amounting 18m in total) is required to facilitate installation of perimeter fencing, but this is not considered to require any further assessment, given the minor nature of this work, and the inherent design which gives rise to a significant net increase in hedgerows (4,304m increase).

DECCA attributes (summarised)	How this has been achieved within the Development's design
restoration and appropriate management, Individual development proposals should identify and incorporate measures which enable appropriate links to be made between the site and its surroundings so as to improve connectivity.	<p>Additional ponds will increase the suitability of the Site for amphibians, by increasing the network of high-quality ponds available.</p> <p>The most suitable habitat for birds is primarily restricted to the field boundaries; the creation of new hedgerows and buffering of existing hedgerows with meadow grassland, together with new woodland and scrub planting, will increase the value of the Site for birds and a range of other wildlife through the provision of additional foraging resources and cover.</p>
Adaptability to change: resistance and recovery from pressures arise when the attributes of ecosystem resilience – diversity, extent, condition and connectivity of ecosystems – are in good condition. Strategic planning and individual development proposals should identify impacts to the ecosystem resilience attributes of biodiversity	The Development's landscape strategy has been designed to buffer and reinforce the existing features, and to improve habitat connectivity within the Site. It is therefore considered likely to also increase ecosystem resilience within the site, by increasing habitat area, linkages and opportunities for wildlife in various areas of the site.

- 3.15. New habitat features will be incorporated into the design including native woodland planting, native scrub planting, meadow creation and improved grassland management for wildlife, the creation of areas of rough grassland, hedgerow enhancement (i.e. gapping up/creating a grass-margin/buffer). 14 new ponds will be also created.
- 3.16. Existing access points will be used to avoid the need to create new openings in hedgerows; there may be some minor widening to increase the width of any narrower gaps.
- 3.17. The connection will be provided by underground cabling located within the adopted highway of local roads and will not affect vegetated areas (with the exception of three short and very narrow sections of verge that will be slightly widened on the road between B5112 and Chwaen Bach, to allow for slightly wider passing places).
- 3.18. Buffer areas will be incorporated into the design of the Development to protect Nantanog (geological SSSI, Cors-y-bol LWS and Tir Pori Traian LWS, to protect these sites and to provide space for habitat enhancement and management. The buffer for the Nantanog (geological) SSSI will be 10m-wide, as agreed with NRW at the DPAS virtual meeting on 23rd June 2021 (refer to Appendix 8.5 of the Environmental Statement). The buffer from Cors-y-bol and the perimeter fence will be at least 15m-wide.

- 3.19. A 50m-wide buffer will be incorporated between the fence and Pond 11 to provide an open area of grassland for birds around the pond, which will be grazed/mown on a regular rotation, to maintain short-sward, open habitat conditions suitable for grazing wildfowl. The nearest solar PV panels will be over 50m from the edge of the pond.
- 3.20. New habitat features will be incorporated into the design including native woodland planting, native scrub planting, meadow creation and improved grassland management for wildlife, the creation of areas of rough grassland, hedgerow enhancement (i.e. gapping up/creating a grass-margin/buffer). 14 new ponds will be also created.
- 3.21. The design of the habitat features will increase habitat connectivity throughout the Site (and promote the resilience of ecosystems, in line with the requirements of PPW). It is also noted that the new features (including new ponds and grassland management) will also improve habitats for great crested newt, in line with local conservation objectives for this species (source: DPAS virtual meeting with NRW on 23rd June 2021, refer to meeting minutes in Appendix 8.5 of the Environmental Statement). These elements of the application proposal have been designed through close liaison with the project Landscape consultant and wider project team.
- 3.22. The landscape strategy for the application proposal is shown on the Landscape Strategy Plan, these are presented at Figures 7.13 to 7.16 of the Environmental Statement, and described in the Planting Schedule and Notes, Figure 7.17 of the Environmental Statement, and summarised below.

Summary of New Habitat Features	Area /length	Notes
Native woodland planting	6.21ha	A range of locally appropriate native species will be used in the planting scheme.
Native scrub planting	1.69ha	A range of locally appropriate native species will be used in the planting scheme.
Meadow grassland (fields) – <u>Specific Landscape Area 2</u>	4.31ha	Grassland areas will be re-seeded and managed using hay meadow-style management (mowing and removal of arisings in late July/August / aftermath grazing in autumn, using an appropriate seed mix, such as Emorsgate EM2 or equivalent).
Meadow grassland (fields) – <u>Specific Landscape Area 3</u>	2.54ha	In addition, this habitat type includes <u>Specific Landscape Area 3</u> – this is an additional 2.52ha.

Summary of New Habitat Features	Area /length	Notes
Grassland management (for wildlife) outside perimeter fence. – <u>Specific Landscape Area 1</u>	46.64ha	Existing grassland outside perimeter fence to be allowed to develop a taller sward, with some tussocks allowed to develop in the margins; cut no more than once annually.
Grassland management (for wildlife) outside perimeter fence – additional area	5.95ha	In addition, this habitat type includes <u>Specific Landscape Area 1</u> (which includes some gorse clearance to maintain open habitat around Nantanog [geological] SSSI) – this is an additional 5.95ha.
New hedgerow, and existing hedgerow enhancement (gapping up)	4,304m	Locally appropriate native species will be used in the planting scheme.
New ponds	14 no. (0.23ha)	14 new ponds will be created in clusters of 2–3 ponds (equating to 0.23ha of pond habitat). This will be located adjacent to areas of less frequently managed grassland and scrub. Hibernacula will be created nearby to provide additional habitat for reptiles and amphibians. Marginal / riparian planting around pond margins will include c. 0.16ha of additional habitat.
Other areas of retained habitats		
Grassland within proposed perimeter fence	181.51ha	This will be retained grassland between the panels – this is not new habitat. It will be managed by grazing or mowing, or a combination of both.
Specific Landscape Management Area 2	3.5ha	A 50m wide buffer between the perimeter fence and Pond 11 to provide an open area of grassland which will be grazed/mown on a regular rotation, to maintain short-sward, open habitat conditions suitable for grazing wildfowl. This is not new habitat and will be managed and maintained during the lifetime of development
Specific Landscape	0.48ha	Cors-y-Bol Scheduled Monument buffer – existing grassland to be maintained as a

Summary of New Habitat Features	Area /length	Notes
Management Area 4		short sward, cut six times annually. This is not new habitat and will be managed and maintained during the lifetime of development.

- 3.23. A Biodiversity Gain Assessment has also been undertaken to support the application submission. Biodiversity Gain Assessment derives from the Environment Act 2021, which from January 2024 will require new development (in England) to achieve a 10% net gain in biodiversity; it requires the use of a metric to calculate gains and losses.
- 3.24. The assessment is made using the Biodiversity Metric 4.0 Calculation Tool (Defra, April 2023). The calculation of the baseline biodiversity value of the Site is based on area (ha) coverage of habitats within the site (and in kilometres for linear features i.e. hedgerows).
- 3.25. The pre-development baseline calculation uses existing habitat areas and condition scores. This is used to derive the biodiversity value of the Site, which is expressed in biodiversity units. The post-development calculation takes into account habitat loss and any habitat retention, enhancement and creation measures.
- 3.26. Post-construction, there would be a significant increase in habitat units: 197.77 habitat units are gained as result of the development. Overall, there is a percentage change improvement of 31.94% in habitat units. There would be a significant increase in hedgerow units: 24.17 units are gained as result of the development. Overall, there is a percentage change improvement of 41.53% in hedgerow units. These Biodiversity Net Gain calculations demonstrate how a significant contribution will be made towards biodiversity when compared against the existing baseline conditions.

Economic Impact

- 3.1. Solar projects create opportunities for local businesses through the supply chain, including aggregates suppliers, security and monitoring during operation, farming and landscaping contractors and other aspects of the construction process, such as fencing. Construction workers may also use local services, which can bring further benefits to an area. Based on information provided by the Applicant, the average number of construction workers on-site is expected to be around 100. The construction period is estimated to be 12-months.
- 3.2. The direct jobs on-site will support further employment via the “multiplier effect”, which measures further economic activity (jobs, expenditure or income) associated with additional local income and local supplier purchases. Research published in 2014 by the Centre for Economic & Business Research (CEBR) on solar powered growth in the UK³ gives an employment multiplier for large-scale solar PV investments of 2.33 – i.e. for every single job supported on-site, 1.33 indirect/induced jobs are supported in the wider economy. Applying

³ *Solar powered growth in the UK – the macroeconomic benefits for the UK of investment in solar PV*: CEBR (report for the Solar Trade Association), September 2014.



this multiplier to the average of 100 on-site jobs, the Proposed Development could support up to 133 additional temporary jobs in the wider economy during the 12-month build phase.

- 3.3. In total, the Proposed Development could support up to 233 temporary jobs, both direct jobs on-site and indirect/induced roles in the wider economy, during peak times of the 12-month construction period. A similar number of jobs are expected to be supported as part of the decommissioning process after 40 years when the solar project comes to the end of its lifespan.
- 3.4. The contribution of the site to economic output has been calculated by taking the average of 100 on-site jobs associated with the Proposed Development and multiplying this by an estimate of average levels of gross value added (GVA) per construction employee in Wales. Based on data sourced from ONS for 2021, GVA per construction employee in Wales is around £68,817 per annum.
- 3.5. The 133 indirect/induced jobs have been multiplied by the average GVA per job for all sectors in England & Wales (reflecting the fact that not all indirect/induced jobs will be in Wales). Based on 2021 ONS data, annual GVA per job is approximately £63,670.
- 3.6. Based on the figures above, it is estimated that during the 12-month construction of the Proposed Development, the GVA associated with the 233 temporary jobs supported on-site and in the wider economy could be in the region of £15.1million.
- 3.7. Research published by the CITB in April 2019⁴ shows that nearly all construction workers in Wales live in Wales (98%). Due to the specialist nature of some parts of the Proposed Development, it is unlikely that a similar proportion of on-site workers will be living in Wales. The same CITB research also indicates that around 30% of a construction worker's career is mostly spent in Wales. Taking into account the specialist nature of some parts of the Proposed Development, it is felt that a figure of 30% of jobs is more realistic when considering the proportion of on-site build phase jobs that could be taken by local people or those living in the wider area.
- 3.8. Assuming therefore that at least 30% of the jobs are taken by local people during the build phase, the remaining 70% will be taken by people outside of the local area. These workers are likely to stay in the local area during construction and will spend money on accommodation and food and drink. It is therefore possible to estimate how much the construction workers could spend in the local area, thus supporting local businesses.
- 3.9. The build phase is expected to last 12 months and 70 jobs supported on-site could be taken by workers from outside of IACC (70% of the overall average of 100 on-site jobs). Workers from outside the area will be staying in hotels, B&B's etc. during the build phase. They will also be spending money in shops, other amenities, etc. The analysis below gives a high-level estimate of what this level of spend could equate to.
- 3.10. For month one it is assumed 40 workers will be on-site, for month two there will be 50 workers on-site, for month three there will be 60 workers on-site and for months four to seven there will be 70 workers on-site. For months eight and nine this will go back down to 60, for months ten and 11 there will be 50 workers on-site and for month 12 there will be 40

⁴ *Workforce Mobility and Skills in the UK Construction Sector 2018/19. – Wales Report.* CITB, April 2019.



workers on-site. Assuming each worker spends around £75 per day on accommodation⁵, food and drink etc. and there are 21.75 working days in a month, it is estimated that during the 12-month construction phase, the construction employees from outside the local area could spend around £1.1million in local businesses. This will help support the 725 accommodation, food & drink and retail businesses⁶ that operate within IACC.

- 3.11. Whilst no existing industry has yet to approach, or be approached by us, the applicant is keen for the construction and maintenance benefits of the proposed development to apply to local enterprises where possible.

Welsh Language

- 3.12. In line with the Planning (Wales) Act 2015, which requires, amongst other things, the consideration of the Welsh language at every level of the planning system, the applicant has adopted specific steps during the planning application process; these have included:

- Consultation materials in English and Welsh
- Allowing community the opportunity to communicate directly in Welsh, by email or telephone, directly to a key member of the main project team without the need for any translation service.

- 3.13. These bilingual provisions will continue through to the statutory consultation process. These include the website, and key materials such as the Notices, consultation letters and the environmental Statement Non-Technical Summary.

- 3.14. The development proposal itself would contribute to the local community by way of a legacy community benefit fund. The application submission is also supported by a Welsh Language Impact Statement. The Welsh Language Statement has been produced to demonstrate how the development meets both local and national policy requirements over the social and cultural fabric of the Welsh language.

- 3.15. In addition, to reflect paragraph 4.1.2 of TAN 20, the applicant has given the development a Welsh name that is linked to the locality, namely Alaw Mon Solar Farm. All signage (including construction traffic signage) in the public domain will be bilingual.

⁵ Assumes up to £50 per day on accommodation and up to £25 per day on food & drink, other items etc.

⁶ Based on data for 2023 from the UK Business Count, published by ONS.

Town & Country Planning Act 1990 (as amended)
Planning and Compulsory Purchase Act 2004

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