

## Design and Access Statement

To be read in conjunction with

'Transport Statement'; prepared by Acstro Ltd

And

'Planning Statement'; prepared by Renplan Ltd

Proposed installation of a ground mounted Photo Voltaic (PV) solar farm  
development

Land to the east of the A48 (Coordinates E257386, N 209389)

And

Land to the south west of Tycroes (coordinates E259219, N209551; & E259904,  
N209590)

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Prepared for



**Report prepared for Spring Dev 02 Ltd.**

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## **Executive Summary**

This report has been prepared in support of the proposal for a proposed solar (PV) development on Land to the east of the A48 (Coordinates E257386, N209389) and Land to the south west of Tycroes (coordinates E259219, N209551; & E259904, N209590).

The proposed solar PV development is a temporary installation with permission being required for 40 years and after this time the site can be returned to its original appearance with all equipment being removed from the site directly following the end of the term.

The design of a solar farm installation is largely pre-determined by the available solar (PV) technology. The site location and layout of the proposal therefore underpins the fundamental design considerations of this proposal.

The location of this proposal is determined by the rare opportunity to complete an economically viable electricity grid connection for 40MW of solar (PV). This opportunity is presented by the local substation at Heol Ddu to the North of the site and to the south of Tycroes.

Solar (PV) is the only viable renewable technology that can be installed local to this substation. The applicant has chosen the most suitable, available and therefore deliverable areas of land for this project. The locations benefit from being well screened and Areas 1 and 2 are locations that will essentially extend an existing solar farm at Clawdd-du that already forms part of the character of the local landscape.

Access is required to the development site for installation of the project over an approximate 18week period. Thereafter, the site will only experience very infrequent visits for maintenance, by van/4x4-type vehicle until such time as it needs to be decommissioned in approximately 40years.

In respect of the traffic and potential highway disruption arising from installation, peak traffic generation will occur during the initial weeks. It is anticipated that at its peak the construction works will generate some 10 to 11 HGV deliveries per day to areas 1 and 3 (40 movements) or some 2 to 3 HGV movements per hour on the A48 and a similar volume of traffic on the A483.

No physical alterations to the vehicular accesses from the adopted highway network are proposed. Traffic management measures for construction would be secured by way of pre-commencement planning condition and details of a decommissioning plan would also be a condition of permission; these details being provided and agreed in circa 40yrs time.

Subject to the installation and decommissioning of this proposal being carried out with agreed traffic management measures secured by condition, this proposal would comply with the relevant access planning policy considerations of the adopted Development Plan and National Planning Policy.

**CONTENTS**

<b>1</b>	<b>INTRODUCTION</b>	<b>5</b>
<b>2</b>	<b>SUMMARY OF THE PROPOSAL</b>	<b>5</b>
<b>3</b>	<b>THE BRIEF AND VISION</b>	<b>10</b>
<b>4</b>	<b>SITE AND CONTEXT ANALYSIS</b>	<b>11</b>
<b>5</b>	<b>INTERPRETATION</b>	<b>12</b>
<b>6</b>	<b>DESIGN DEVELOPMENT</b>	<b>12</b>
<b>7</b>	<b>THE PROPOSAL</b>	<b>13</b>
	7.1 Character	13
	7.2 Access	13
	7.3 Environmental Sustainability	15
	7.4 Community Safety	21
	7.5 Response to planning policy	21
<b>8</b>	<b>CONSULTATION</b>	<b>22</b>
<b>9</b>	<b>CONCLUSION</b>	<b>23</b>

## 1. INTRODUCTION

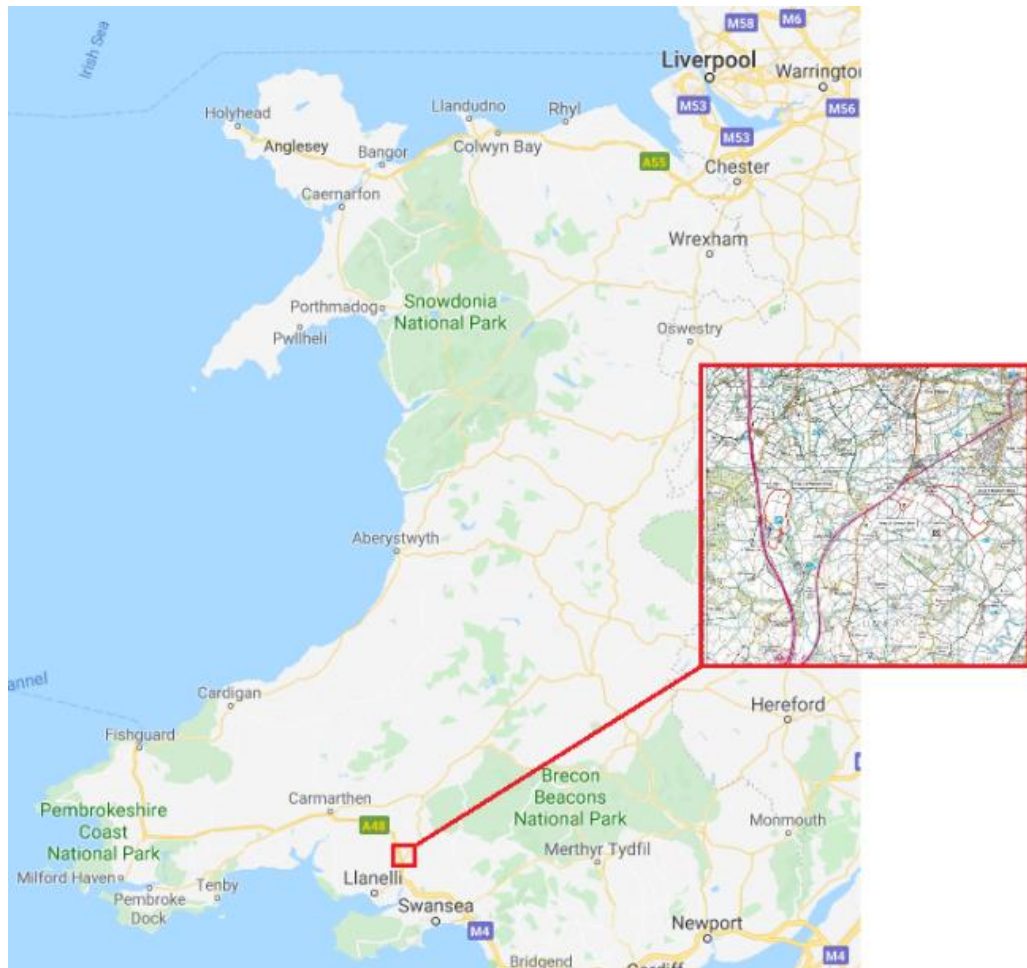
- 1.1 This report has been prepared in support of the proposal for a proposed solar (PV) development on Land to the east of the A48 (Coordinates E257386, N209389) and Land to the south west of Tycroes (coordinates E259219 N209551; & E259904 N209590).
- 1.2 The proposed development when constructed will have an installed generating capacity of approximately 40MW.
- 1.3 As established by the Developments of National Significance (DNS) (Specified Criteria and Prescribed Secondary Consents) (Wales) Regulations 2016, the proposal falls within the criteria to be considered as a DNS application by virtue of its generating capacity exceeding a threshold of 10MW. The applicant Spring Dev 02 Ltd. has formally notified the Welsh Government of an intention to submit a DNS application and this notification was accepted by Ministers on 23<sup>rd</sup> December 2019.
- 1.4 The Applicant Spring is a renewable energy development company whose purpose is to enable clean growth. This proposal at Tycroes is one of a number of large-scale solar projects Spring is developing in the UK.
- 1.5 This report provides an overview of how the proposal has been designed with consideration that the infrastructure being proposed is largely pre-fabricated, and it discusses access arrangements for installation and thereafter for maintenance. It also considers anticipated decommissioning access although this process will be best planned for in detail at the relevant time in approximately 40 years.
- 1.6 The Statement has been structured to reflect the points of discussion as outlined in 'Design and Access Statements in Wales: Why, What and How' (April 2017) which sets out the 'Design and Access Statement' supplementary planning guidance to Technical Advice Note (TAN) 12: Design (2016) and Technical Advice Note (TAN) 18: Transport (2007).

## 2. SUMMARY OF THE PROPOSAL

- 2.1 Spring is proposing to install a ground-mounted Photo Voltaic (PV) solar development consisting of 3 separate parcels of land referred to as Areas 1, 2 and 3.

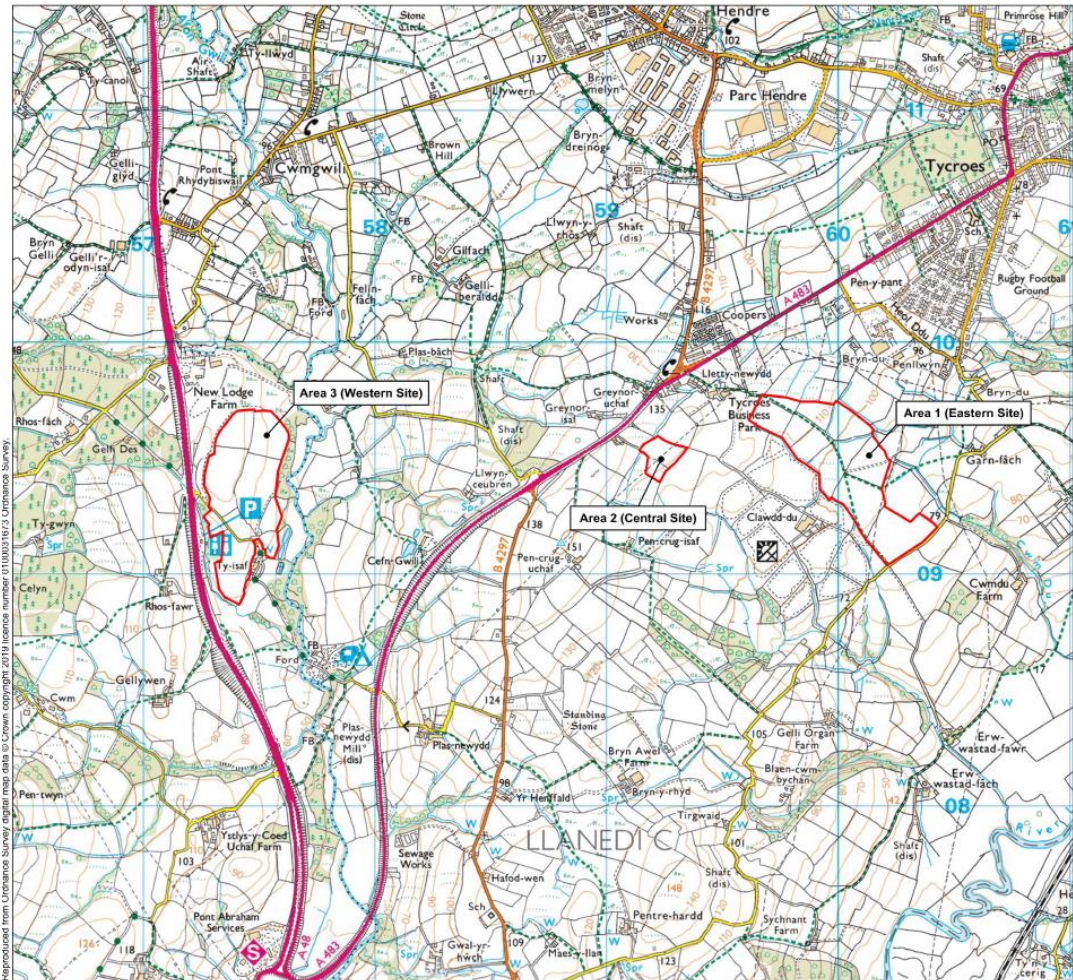
- 2.2 Area 1 and Area 2: Land to the south west of Tycroes (coordinates E 259219 N 209551; & E 259904 N 209590)
- 2.2.1 The land to the south west of Tycroes consists of 2 parcels of land and from a visual perspective these essentially extend the existing Clawdd-du Solar Farm.
- 2.2.2 The larger parcel of land is known as Area 1. It adjoins the northern boundary of the Clawdd-du solar farm and would consist of approximately 24ha. A local footpath runs through this parcel of land and will be temporarily diverted during installation of the development.
- 2.2.3 The smaller (western most) parcel of land is known as Area 2 in the application. This area of land consists of approximately 1.8ha of land accessed directly from the A483. The coordinates for this land are E 259219 N 209551.
- 2.3 Area 3: Land to the east of the A48 (Coordinates E 257386, N 209389)
- 2.3.1 This area is referred to in the application submission as Area 3 and consists of approximately 21ha of land, accessed directly from the A48 to the east.
- 2.3.2 The land in question sits alongside the A48 and slopes gently to the east. Direct access from the A48 is gained from the southbound carriageway.
- 2.3.3 Figures 1 and 2 on the next pages provide a reference to the location of the three areas of land the subject of the application.

**Figure 1**



Source: Google Maps/Earth

Figure 2



- 2.4 Permission would be required for 40 years and the installation would have the design capacity for between 36-40MW of electricity generation.
- 2.5 Together with associated infrastructure and housings the development is comprised of the following main elements:
- PV panels mounted on fixed metal frames with support posts driven into the ground to a depth of approximately 1.5m, avoiding the use of concrete foundations.

The panels are laid out in east-west orientated rows in order to optimise solar gain. The lowest edge of the panels would be approximately 0.8m above ground level with the highest edge being approximately 3.5 m above ground.



The rows are spaced approximately 4-5m apart to avoid one row of panels shading the next. The panels are non-reflective (i.e., to prevent glint or glare) and angled at approximately 20-25° to horizontal.

- Inverter technology, which converts direct current (DC) into alternating current (AC). These are likely to be string inverter (800mm x 1000m x 500m) affixed beneath the PV panels to the PV mounting system.
  - There will be approx. 24 cabinets containing electrical equipment such as switchgear and transformers housed within flat roofed pre-fabricated units no higher than 3m and with a footprint of approximately 5m x 2.5m.
  - An on-site sub-station.
  - Security fencing (most likely deer fencing) to a height of 2.4m along with infra-red security cameras which will feature around the perimeter of the development; directed inward only. There will be no external lighting.
  - Each of the three parcels of land benefits from an established vehicular access directly from both the A48 and the A483 suitable for the delivery vehicles required to deliver the equipment proposed to be installed at the site. Existing gateways and tracks will be used to access the site itself; the surfaces of which would be improved by way of providing additional gravel.
  - Cable route linking each of the 3 x solar sites the subject of the proposal. The cable is laid within a shallow and narrow trench measuring approximately 1.4m depth and 0.6m wide. The route utilises existing tracks including the A483 road verge and gated entrances between fields.
- 2.6 No major engineering works will be required. Following construction, any temporarily disturbed ground will be re-sown to grassland. Corridors of rough grassland will be allowed to develop beyond the perimeter fence which will help assimilate the development and provide an opportunity for ecological enhancement.
- 2.7 All infrastructure will be removed at the end of the life of the development (40 years) with the land then being restored to its existing form. In effect, visual impacts arising from this development are entirely reversible.
- 2.8 The land is grassed and is well drained. Due to the undulating hilly landscape, the sites will be seen from parts of the surrounding landscape, however impacts are expected to

be largely contained and landscape enhancements around the perimeter of each site will allow for ecological enhancement opportunities and additional screening.

### **3. THE BRIEF AND VISION**

- 3.1 The Applicant Spring is a renewable energy infrastructure developer. The company's objective is to design, develop and construct renewable energy projects that contribute to addressing the urgent need for clean energy to meet our national climate change targets. By delivering new renewable energy projects Spring aims to fulfil its mission to 'Enable Clean Growth' thereby enabling existing and future generations to prosper in a low-carbon and sustainable economy the can make a positive global contribution.
- 3.2 Solar (PV) technology is widely recognised by the public and the Government as an effective and important means of securing sustainable energy production. Such projects must be delivered throughout the country. The challenge is to identify viable opportunities to connect such projects as the limitations of the electricity network typically render it economically unviable to develop a project due to the cost a making a grid connection.
- 3.3 In 2017, the Welsh Government announced a target of meeting 70% of Wales' electricity demand from Welsh renewable electricity sources by 2030. In 2018, Wales reached 50% of electricity consumption being generated by renewable energy, up from 19% in 2014 and 48% in 2017 (Source: Energy Generation in Wales 2018).
- 3.4 There remain significant challenges to meeting the 70% target by 2030. There is minimal economic support following the removal of Feed in Tariff and Renewable Obligation subsidy schemes. Furthermore, there are constraining factors on the electricity distribution network which require significant investment to overcome – often that level of investment required will render generation projects uneconomic.
- 3.5 The substation at Heol Ddu is the point of connection for the proposed development; as shown on the submitted Site location Plan Ref. SPLP-D02-PL. It represents a rare opportunity to connect 40MW of clean solar (PV) energy generation without the need for significant system upgrades.
- 3.6 At 40MW, the power generated by a solar proposal connected to this substation would provide electricity to meet the demand of 15,290 average UK households (based on Ofgem's Typical Domestic Consumption Value of 3,100 kWh of electricity for a house).

- 3.7 The annual carbon saving would be 10,665 tonnes. This is the equivalent of taking 2,318 cars off the road; assuming the average vehicle on the road has a fuel economy of about 22.0 miles per gallon and drives around 11,500 miles per year.

#### **4. SITE AND CONTEXT ANALYSIS**

- 4.1 The site location was chosen following a review of all known planning constraints (including environmental, policy, residential, access etc.). It was also 'available' and thus it made for a 'deliverable' project opportunity.
- 4.2 The site is at acceptable distances from the nearest residential receptors and heritage / landscape / ecological receptors. It is also close to existing electrical infrastructure within the landscape and makes best use of existing natural landscaping (field boundaries).
- 4.3 Having identified the local substation as a viable connection point for a solar proposal, the Applicant sought to establish the most suitable location within the surrounding landscape that could accommodate a solar installation with limited impact on its surroundings and environment.
- 4.4 The land areas the subject of this application have been carefully selected having regard for the need to ensure the development is well concealed from local views and residential locations whilst also ensuring minimal installation impacts to wildlife and longer-term opportunities for ecology and landscaping.
- 4.5 It is also an accessible site for installation and a site that lies outside of any sensitive environmental designations. In addition, Area 1 sits alongside an existing solar farm so will appear as an extension to the existing farm.
- 4.6 The submitted Landscape and Visual Impact Assessment (LVIA) prepared by Amalgam Landscape confirms that the site is well concealed from the public realm and from local viewpoints and properties.
- 4.7 Furthermore, the site is of poor agricultural land quality and is recorded as not being best and most versatile agricultural land.

## **5. INTERPRETATION**

- 5.1 The process of layout design is determined by the need to meet the operational and functional requirements of the Project; and b) the need to minimise any environmental impacts that might arise from the Project.
- 5.2 The 3 site areas are an appropriate distance to nearby residents and are well screened from the local landscape; benefitting from natural screening along the boundaries of the sites (mature hedgerows).
- 5.3 The three sites are all also easily accessible from trunk A roads for construction.

## **6. DESIGN DEVELOPMENT**

- 6.1 The application is accompanied by comprehensive environmental assessment work; each report reviewing the anticipated impacts of the proposal in relation to specific environmental considerations.
- 6.2 This environmental assessment work has informed the suitability of certain parcels of land within the original areas of land available for installation. Some parcels have been dismissed as unsuitable because of flood risk or ecological constraints and the proposals on the remaining 3 areas of land have been adapted in consideration of small areas of land that are subject to risk of flooding, ecological constraints, mature trees and, public footpaths.
- 6.3 The final layout and where appropriate, any proposed mitigation, will provide an opportunity maturity of hedgerow habitats and the introduction of species-rich grassland managed as meadow to encourage more wildlife locally.
- 6.4 Farming will also continue alongside energy generation, with sheep continuing to graze, managing the ground cover.
- 6.5 It is proposed that the footpath that crosses the south eastern most field in Area 1 as outlined on the submitted plans be re-directed around the edge of the field; on the outside of the proposed fencing.

## 7. THE PROPOSAL

### 7.1 Character

7.1.1 The proposed development will generate electricity from solar (PV) panels. Inverter technology, which converts direct current (DC) into alternating current (AC) will then transfer / export the electricity generated into the local electricity distribution

7.1.2 network.

7.1.3 The solar (PV) panels are mounted on fixed metal frames with support posts driven into the ground to a depth of approximately 1.5m, avoiding the use of concrete foundations.

7.1.4 The panels are laid out in east-west orientated rows in order to optimise solar gain. The lowest edge of the panels would be approximately 0.8m above ground level with the highest edge being approximately 3.5 m above ground.

7.1.5 The rows are spaced approximately 4-5m apart to avoid one row of panels shading the next. The panels are non-reflective (i.e., to prevent glint or glare) and angled at approximately 20-25° to horizontal.

7.1.6 Ancillary equipment to the solar array installation includes:

- 8-10 cabinets containing electrical equipment such as switchgear and transformers housed within flat roofed pre-fabricated units no higher than 3m and with a footprint of approximately 5m x 2.5m;
- An on-site sub-station; and
- Security fencing (most likely deer fencing) to a height of 2.4m along with infra-red security cameras which will feature around the perimeter of the development; directed inward only. There will be no external lighting.

### 7.2 Access

7.2.1 This section of the Design and Access Statement is an overview of the access and transport considerations of this proposal. Please refer to the '*Transport Statement*'; prepared by Acstro Ltd for a detailed overview of the proposal in respect of Access.

7.2.2 It is anticipated that the construction of the solar farm will take some 18 weeks. Peak traffic generation will occur during the initial weeks when materials to fabricate the compound areas and access roads are brought to site.

- 7.2.3 Traffic management will be in place during the construction period. At the A48 access to Site Area 3, arriving construction traffic will not be permitted to turn right and cross the southbound carriageway. Instead traffic will continue north for some 5km and U-turn at the Cross Hands Business Park grade-separated junction. Appropriate temporary signage will be deployed during the construction period.
- 7.2.4 After commissioning, the site will experience infrequent visits for maintenance, by van/4x4-type vehicle.
- 7.2.5 The application is accompanied by a Transport Statement prepared by Acstro that reviews the various transport and access related considerations to installation of the proposal. It also details the number of vehicle deliveries across the 3 site areas.
- 7.2.6 The Transport Statement demonstrates that the construction traffic associated with the development will be modest in volume and will have no significant impact on the operation of the surrounding highway network. It also demonstrates that safe access to the sites will be provided from the public highway.
- 7.2.7 Construction Traffic Management recommendations are made in Section 5 of the Transport Statement.
- 7.2.8 The applicant fully intends to comply with the above recommendations and in doing so will ensure the proposed development can be installed with minimal disruption on the highway network and minimal highway safety impacts to users of the highways.
- 7.2.9 The Transport Statement concludes that “the proposed mitigation measures will ensure that construction traffic can safely access the site and that there will be no significant permanent impact on the operation and safety of the surrounding highway network. As such it is considered that the proposed development is acceptable in terms of its Transport impacts.”
- 7.2.10 In light of the above advice, it can be concluded that the proposal will comply with the relevant access and highway safety planning policy framework of the adopted Development Plan as well as relevant National Planning Policy Guidance.

**7.3 Environmental Sustainability**

**7.3.1 Overview of Environmental Credentials**

7.3.2 The submitted application confirms that at an approximate 40MW design capacity, the proposed solar installation would generate approximately 47,400,000kWh per annum. The proposal therefore represents an important contribution towards the nation's efforts on tackling climate change; contributing significantly to Carmarthenshire County's contribution to achieving carbon emission targets and crucially making a significant contribution towards the nation's target of securing 70% of electricity generation being from renewable sources.

7.3.3 40MW of clean renewable power would also provide the equivalent amount of electricity to meet the demand of 15,290 average UK households (based on Ofgem's Typical Domestic Consumption Value of 3,100 kWh of electricity for a house).

7.3.4 The annual carbon saving would be 10,665 tonnes. This is the equivalent of taking 2,318 cars off the road; assuming the average vehicle on the road has a fuel economy of about 22.0 miles per gallon and drives around 11,500 miles per year.

7.3.5 The development will provide an opportunity for the expansion and further maturity of hedgerow habitats, and the introduction of species-rich grassland managed as meadow to encourage more wildlife locally.

7.3.6 Farming will continue alongside energy generation, with sheep continuing to graze the ground cover.

7.3.7 Enclosed within Appendix 3 of the submitted Planning Statement is a matrix assessment of the net ecological impacts of the proposal. The matrix used is that which is being developed by Natural England and which Natural Resources Wales have adopted until such time as they develop their own matrix. The calculations show that the proposal would have a net gain of 34.10% in habitat units and a net gain of 22.95% in hedgerow units based on the proposed management given in the submitted Landscape and Ecological Management Plan (LEMP).

7.3.8 The solar energy industry provides thousands of jobs worldwide and many of those are in the UK; jobs being created through both the consultancy, and construction and operation phases of solar developments. In addition, during the construction phase, workers will

use local services and accommodation, providing support for local business and the economy.

7.3.9 Consideration of Potential Environmental Impacts

7.3.10 This section should be read in conjunction with the submitted Planning Statement which reviews each potential impact in more detail; particularly in respect of planning policy justification.

7.3.11 For a more detailed review of the potential environmental impacts, please refer to the various specialist environmental reports submitted with the application and which are referred to below.

Use of Agricultural Land for Ground-Mounted Photovoltaic Solar Farms

7.3.12 Concerning Agricultural impacts, during pre-application discussions with the LPA Carmarthenshire County Council (CCC), consultation was made with Welsh Government (WG) regarding the agricultural land classification of the 3 sites. Welsh Government confirmed (copy of email in Appendix 4) that *“According to the Predictive ALC Map, the land East of the A48 is ALC Subgrade 3b and the land South West of Ty Croes is ALC Grade 4 and 5.”*

7.3.13 WG’s response continued to advise that *“An ALC [agricultural land classification] survey is not required for this site as it is unlikely to include BMV agricultural land. Therefore BMV Agricultural Land Policy (PPW paragraph 3.54 & 3.55) does not apply to this application.”*

7.3.14 Therefore an ALC Survey is not deemed necessary and one has not been undertaken as part of this DNS application.

7.3.15 Landscape / Visual Amenity

7.3.16 Chartered landscape consultancy Amalgam Landscape has been commissioned by Spring to consider the landscape and visual considerations of the proposal. In doing so, they have prepared a Landscape and Visual Impact Assessment (LVIA) in accordance with the Landscape Institute’s prevailing guidance for such proposals. The LVIA report is submitted with this planning application together with its associated Figures and Photomontages.



7.3.17 Existing field boundary vegetation will be protected and enhanced, to retain and improve the landscape pattern and increase screening for nearby visual amenity receptors. Selected hedgerow in-fill planting to existing boundaries will also improve screening and promote the field pattern and regular landscape structure.

7.3.18 The LVIA advises that the proposal, *“Overall, will have limited impacts on landscape relevant designations, landscape character and visual amenity receptors and their views.”*

7.3.19 Residential Amenity

7.3.20 The application site Areas referred to as Areas 1, 2 and 3 are all considered appropriate locations for a solar (PV) development. The land is predominantly screened by the surrounding topography from the nearest residential properties. The site also benefits from extensive mature screening along its perimeters and where necessary.

7.3.21 Heritage

7.3.22 A detailed Historical Impact Assessment has been carried out by Archaeology Wales and accompanies the application.

7.3.23 Relatively minor heritage settings impacts could be partially offset by enhancing the hedgerows and through the design of the solar farm that fits in to the existing pattern of enclosed fields and blends into the mature trees in front and behind to more reflect the character of the surrounding field scape.

7.3.24 In respect of archaeology, subject to a pre-commencement condition of approval being to secure the further investigative work (as advised by Archaeology Wales in their Heritage Impact Assessment), it is anticipated that the relatively minor heritage setting impacts can be justified when regard is born for the benefits of this proposal.

7.3.25 Ecology

7.3.26 The land is approximately 0.5km north of the SSSI designation Caeau Afon Gwili and approximately 0.5km south of FelinFach Meadows Cwmgwili SSSI. Both are grassland SSSI designations. The proposed solar array when commissioned and operational will offer

ecological enhancement opportunities for species rich grassland corridors and therefore is unlikely to have an adverse impact on these SSSI's.

- 7.3.27 All hedgerows would be retained as part of the installation of the solar panels and these would also be protected with an adequate buffer from the installation.
- 7.3.28 Western Ecology has produced an Ecological Assessment to accompany the planning application. For detailed consideration of the ecological issues surrounding this proposal, reference should be made to the Ecological Preliminary Assessment reports for the solar farms and the cable route. In addition, Western Ecology has produced a Landscape and Environmental Management Plan (LEMP) a Habitats Regulations Assessment Screening and an assessment of the anticipated net ecological impacts of the proposal.
- 7.3.29 The Western Ecology Surveys confirm that the facility can be installed without unacceptable adverse environmental impacts.
- 7.3.30 Furthermore, the matrix assessment of the anticipated net ecological impacts of the proposal show that the proposal would have a net gain of 34.10% in habitat units and a net gain of 22.95% in hedgerow units based on the proposed management given in the submitted Landscape and Ecological Management Plan (LEMP).
- 7.3.31 Flood Risk and Surface Water Drainage
- 7.3.32 A Flood Consequences Assessment (FCA); prepared by Clive Onions has been prepared to accompany this planning application. This includes a surface water drainage strategy for the site.
- 7.3.33 The proposal brings significant benefit to the management of surface water, a reduction in runoff leaving the site and the improvement in water quality entering the environment. The development does not increase the risk of flooding to the local area or lower in the catchment. The proposal is therefore in accordance with the guidance given in the local and national Planning Guidance with particular reference to TAN 15 (Development and Flood Risk) 2004.
- 7.3.34 The Clive Onions Ltd. report advises that the proposed change of use will provide a real contribution to soil improvement and biodiversity, will improve runoff/infiltration water quality and result in a significant reduction in the occasions of runoff, runoff rate and volume, bringing significant overall benefits to the local environment and downstream. It will also deliver an important supply of renewable energy. The site will be safe and

durable, is not at risk of flooding, will reduce flood risk off-site and improve the receiving waters, and therefore is appropriate in terms of the TAN 15 advice on flood risk.

7.3.35 Trees and Hedgerows

7.3.36 Woodland & Countryside Management Ltd. was commissioned to carry out a BS5837 (2012) Tree Survey in November 2019. An Arboricultural Impact Assessment and Method Statement is provided with the DNS application to reflect the proposed project layout and cable route.

7.3.37 The Impact Assessment confirms that the proposed works can be carried out without adverse impacts to trees providing advice is followed in respect of the protection of trees during construction.

7.3.38 Glint and Glare

7.3.39 Pager Power have been appointed by the Applicant to carry out a Glint and Glare Assessment. The assessment reviews the potential glint and glare impacts on highway users and local dwellings.

7.3.40 Areas 1 and 2 are accessed directly from the A483 to the north west. The analysis discussed in the Pager Power report states that:

“A solar reflection from the proposed solar development towards road users travelling in both directions on the A48 is geometrically possible for seven locations out of nine. However, screening in form of vegetation has been identified therefore no impact is anticipated for any type of vehicle travelling on A48 at all seven receptor locations, and no mitigation is required.”

7.3.41 Area 3 is accessed directly from the A48 to the north west. The Pager Power report states that

*“The analysis has shown that a solar reflection from the proposed solar development towards road users travelling in both directions on the A483 is geometrically possible for eight locations out of ten. In six of the eight locations the impact is categorised as*

*no impact, due to sufficient screening in form of vegetation, and in two of those ten is categorised as “low” impact, due to the fact that:*

- *The reflection will not originate in front of drivers;*
- *Sunlight and reflection will originate from the same point in space as sunlight which produces a greater intensity of light.*

*Therefore, the maximum impact forecasted is “low” and no mitigation is required under such condition.”*

7.3.42 In relation to the potential for impact on local dwellings, Pager Power’s assessment advises that:

*“Based on a review of the geometric analysis and available imagery, residents located within 10 of the 20 assessed dwelling receptors could potentially experience a solar reflection from the proposed solar development. In four of those 10 case the impact is categorised as “no impact”, due to sufficient screening in form of vegetation, while for the remaining six is categorised as low because the reflection will last for less than three months per year.*

*Therefore, the maximum impact forecasted is “low” and no mitigation is required under such condition.”*

7.3.43 Overall, the assessment confirms that *“maximum impact forecasted is categorised as “low” which means no mitigation is required in any case.”*

#### 7.3.44 Coal Mining Risk Assessment

7.3.45 The Coal Authority were consulted during pre-application discussions with the LPA. Their response stated that *“in considering the nature of the development proposed, and on the basis that parts of the site are within the defined Development High Risk Area, the planning application should be supported by a Coal Mining Risk Assessment, or equivalent, which will assess the risk to the development from coal mining legacy.”*

7.3.46 Yellow Sub Geo Limited has been appointed by the Applicant to prepare a Coal Mining Risk Assessment Report of the proposed development site, in order to provide the Local Planning Authority with information on coal mining and an assessment of its impact on land stability. Their report is supplemented by a Technical Note dated 25<sup>th</sup> March 2020.

7.3.47 The Yellow Sub Geo report advises in Section 7 that *“The risk posed to the proposed development by known or potential shallow coal mining is generally assessed to be of a LOW to NEGLIGIBLE order, with no further assessment work required, with the exception of the presence of three historic shafts”*. The Technical Note details the risks associated with the three historic shafts and provides a mitigation strategy for development.

7.3.48 It is anticipated that these mitigation works can also be prescribed through use of a pre-commencement planning condition to any permission granted.

#### 7.4 **Community Safety**

7.4.1 During the installation of the proposed solar farm, working hours would be restricted to minimise noise and disturbance impacts on the local community. The submitted Construction and Environmental Management Plan confirms in Paragraph 4.1 that construction of the development will be undertaken 7 days a week. No activities audible from the boundary of the nearest noise sensitive receptor shall take place on Sundays during the construction period or at times outside 07:30 and 19:30 (or dusk if earlier). Vehicular deliveries including all HGV movements shall arrive, be received or dispatched from the site between the hours of 07:30 and 19:30 (or dusk if earlier) Monday to Friday and 07:30 to 12:00 on Saturdays.

7.4.2 During Construction / delivery periods, standard highway safety protocols will be followed and complied with in accordance with the recommendations outlined in the submitted Transport Statement prepared by Acstro Ltd. and in accordance with requirements set by the relevant Highways Authority.

7.4.3 The facility is perimeter secured during and after construction. Details of the security fencing are enclosed with the application inclusive of CCTV locations and design details.

7.4.4 There is no public access to the site despite a public right of way following the perimeter outer edge perimeter of Area 1 to the east.

#### 7.5 **Response to planning policy**

7.5.1 Please refer to the submitted Planning Statement for a more detailed policy analysis of this proposal. This report summarises the prevailing national planning policy position in respect of securing clean renewable energy in Wales.

- 7.5.2 Planning Policy Wales (PPW) Edition 10, December 2018 sets out the most up to date prevailing National Framework for planning guidance in Wales. In light of the ‘Well-being of Future Generations (Wales) Act 2015’, Ministers revised Planning Policy Wales (PPW) to reflect the objectives of the strategically set Well-being of Future Generations (Wales) Act 2015.
- 7.5.3 PPW Edition 10 sets out that securing large scale strategic renewable energy generating infrastructure is essential to securing the well-being goals of the future generations of Wales.
- 7.5.4 The proposal will introduce important, additional renewable energy generation to contribute towards Wales’ strategic objectives of generating 70% of its electricity consumption from renewable energy by 2030 (ref. Welsh Government’s ‘Energy Generation in Wales 2018’ and Planning Policy Wales Edition 10).
- 7.5.5 In 2017, the Welsh Government announced a target of meeting 70% of Wales’ electricity demand from Welsh renewable electricity sources by 2030. In 2018, Wales reached 50% of electricity consumption being generated by renewable energy, up from 19% in 2014 and 48% in 2017 (Source: Energy Generation in Wales 2018).
- 7.5.6 There remain significant challenges to meeting the 70% target by 2030. There is minimal economic support following the removal of Feed in Tariff and Renewable Obligation subsidy schemes. Furthermore, there are constraining factors on the electricity distribution network which require significant investment to overcome – often that level of investment required will render generation projects uneconomic.
- 7.5.7 This project represents an important opportunity to secure renewable energy generation that is not reliant on subsidies from Government and which also benefits from the ability to connect to the local network. The substation point of connection at Heol Ddu to the south of Tycroes is a strategically important opportunity for Wales to connect 40MW of new, clean renewable energy generation.

## **8. CONSULTATION**

- 8.1 Spring has undertaken extensive consultation with statutory consultees, key stakeholders and the community; in accordance with Articles 8 and 9 of ‘The Developments of National Significance (Procedure) (Wales) Order 2016’. A website containing a draft copy

of the planning application acted as a 'consultation hub' for a period of 42 days between 17<sup>th</sup> January 2020 and 2<sup>nd</sup> March 2020.

- 8.2 Full details can be found in a Consultation Report that is submitted with the application. Please refer to the Consultation Report for further information.

## 9. CONCLUSION

- 9.1 The proposed solar PV development is a temporary installation with permission being required for 40 years and after this time the site can be returned to its existing appearance with all equipment being removed from the site directly following the end of the term.
- 9.2 The design of a solar farm installation is largely pre-determined by the available solar (PV) technology. The site location and layout of the proposal therefore underpins the fundamental design considerations of this proposal.
- 9.3 The location of this proposal is determined by the rare opportunity to complete an economically viable electricity grid connection for 40MW of solar (PV). This opportunity is presented by the local substation at Heol Ddu to the North of the site and to the south of Tycroes.
- 9.4 Solar (PV) is the only viable renewable technology that can be installed at this substation. The applicant has chosen the most suitable, available and therefore deliverable areas of land for this project. The locations benefit from being well screened and Areas 1 and 2 are locations that will essentially extend an existing Clawdd-du solar farm that already forms part of the character of the local landscape.
- 9.5 Access is required to the development site for installation of the project over an approximate 18 week period. Thereafter, the site will experience very infrequent visits for maintenance, by van/4x4-type vehicle until such time as it needs to be decommissioned in approximately 40 years.
- 9.6 In respect of the traffic and potential highway disruption arising from installation, peak traffic generation will occur during the initial weeks. It is anticipated that at its peak the construction works will generate some 10 to 11 HGV deliveries per day to areas 1 and 3 (40 movements) or some 2 to 3 HGV movements per hour on the A48 and a similar volume of traffic on the A483.

- 9.7 No physical alterations to the vehicular accesses from the adopted highway network are proposed. Traffic management measures for construction would be secured by way of pre-commencement planning condition and details of a decommissioning plan would also be a condition of permission; these details being provided and agreed in circa 40yrs time.
- 9.8 Subject to the installation and decommissioning of this proposal being carried out with agreed traffic management measures secured by condition, this proposal would comply with the relevant access planning policy considerations of the adopted Development Plan and National Planning Policy.



## BACK PAGE