



# Craig y Perthi Solar Farm

## Environmental Statement

### Chapter 01: Introduction and Background

Prepared for



JBM Solar Projects 25 Limited

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3312-01-ES01-001



# Document Control

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## **1.0 INTRODUCTION AND BACKGROUND**

### **1.1 Introduction**

1.1.1 This Environmental Statement (ES) supports a Development of National Significance (DNS) application, under Section 62D of the Town and Country Planning Act 1990.<sup>1</sup> An application will be made for the construction and operation of Craig Y Perthi Solar Farm, a renewable energy facility and associated infrastructure ('the Proposed Development') on land between the M4 Motorway and the South Wales Main Line Railway, near Llanwern, Underwood and Bishton ('the Site'), as highlighted on Figure 1.1.

1.1.2 The ES has been prepared in accordance with The Town and Country Planning (Environmental Impact Assessment) (Wales) Regulations 2017 [SI 2017 No. 567 (W.136)] ('the EIA Regulations'). It assesses the likely significant environmental effects of the Proposed Development during the construction, operation and decommissioning phases. It has been prepared for the purposes of pre-application consultation and will be subject to finalisation prior to submission of the DNS application.

1.1.3 This chapter identifies the applicant, provides a summary description of the Proposed Development, outlines the structure of the ES, confirms the legislative framework to which it accords, provides a summary of consultation and engagement undertaken, and identifies the expert organisations that have undertaken the EIA.

### **1.2 The Proposed Development**

1.2.1 JBM Solar Projects 25 ('the Applicant') (part of the RWE Group), is seeking planning consent for the installation and operation of a renewable energy generating station comprising ground-mounted photovoltaic solar arrays and battery-based electricity storage containers together with substation, switchgear container, inverter/transformer units, Site access, internal access tracks, security measures, access gates, other ancillary infrastructure and landscaping and biodiversity enhancements. This solar photovoltaic electricity generating station (or 'solar farm')

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<sup>1</sup> *Town and Country Planning Act 1990, Section 62D, amended by the Planning (Wales) Act 2015 Section 19*



would have an export capacity of approximately 99.9 MW, with battery storage co-located strategically within the Site. The electricity generated would be enough to provide electricity for approximately 45,374 typical Welsh homes and result in an approximate saving of over 3,180,368 tonnes of CO<sub>2</sub> over the life of the development, compared with generation from fossil fuels. The inclusion of batteries ensures the maximum efficiency of the Site, working with the electricity distribution system to enable surplus energy to be stored and released as needed, and provide vital balancing services to the grid network.

### 1.2.2 The main components of the Proposed Development are:

- i) Photovoltaic solar panels and associated support frames.
- ii) Central Inverter Stations.
- iii) Containerised Battery Energy Storage Systems (BESS), including battery storage containers, DC-DC converters and associated hybrid inverters.
- iv) An onsite 132 kv substation.
- v) A switchgear building.
- vi) Approximately 4.9 km of improved footpaths/green lanes, enhancing Public Rights of Way through the Site.
- vii) Approximately 3.3 km of new permissive path walkways.
- viii) Wooden post deer/stock fencing.
- ix) In-ward facing infrared CCTV cameras on 3 m poles.
- x) Ecological enhancements including bee hotels, reptile hibernacula, bird boxes, insect hotels, log piles, wildflower meadows enhanced for shrill carder bees, and a dedicated enhanced habitat for lapwing.
- xi) Over 11 km of new native species hedgerow / tree planting, with existing hedgerows filled in / improved.
- xii) Areas of native species woodland planting and creation of a community orchard.

## 1.3 The Applicant

- 1.3.1 The Applicant is a market leading UK-based solar developer, having secured over 1 GW of solar and battery storage projects throughout the UK. The Applicant places a special focus on improving local biodiversity of sites, with an average biodiversity net gain of over 100% on its sites and has a strong record of engaging with and winning



the support of local communities, who in turn help to shape their developments. As a result, they have a 98% success rate in planning.

- 1.3.2 The RWE group is the largest power producer in Wales, and the country's number one renewable energy generator. RWE are currently involved in over 3 GW of power generation in Wales across 12 sites, of which around 1 GW is renewable. The company's existing renewable energy portfolio already generates one third of Wales' renewable energy production – enough to power 550,000 homes. RWE plays a critical role in driving Wales' decarbonisation, working in partnership with Welsh Government and wider partner organisations. Through its past and future investments RWE is helping to create a clean, affordable and secure power system, which will act as the springboard to the decarbonisation of wider economic sectors across Wales, such as industry and transport.

## **1.4 Site Location and Description**

- 1.4.1 The location of the Proposed Development is shown on Figure 1.1.
- 1.4.2 The Site, including the associated infrastructure, cable run, wildflower meadows and wildlife enhancement areas, covers approximately 240 ha, and is currently used for agriculture as part of several pastoral and arable agricultural holdings, with the focus being at Castle Farm. The proposed area within fencing that will contain panelling is limited to around 135 ha.
- 1.4.3 The Site is adjacent to the South Wales Main Line railway, approximately 4 km to the east of the city of Newport. The railway line forms the southern boundary to the Site, whilst to the north and northwest, the Site is bounded by agricultural fields and areas of woodland within Llanwern Park. To the east, the Site is again largely bounded by agricultural fields.
- 1.4.4 Whilst being used for agriculture and being of a rural nature, the Site is located within a heavily industrialised area of South Wales. To the south of the site, operations are ongoing at the Tata Steel Llanwern site. The western portion of the site is now redundant and being developed as part of the Newport Eastern Expansion Area at Glan Llyn, which will provide an additional urban environment. The eastern portion of the Tata Steel Llanwern site is still used for the rolling of steel.



- 1.4.5 To the east of the Site is Magor Brewery, currently operated by AB InBev, which produces over one billion pints of beer a year. There are plans to extend the site further, including the installation of hydrogen technology to power the site. The Magor Brewery is currently also powered by a single 150m tall wind turbine, located nearby, within the Gwent Levels.
- 1.4.6 To the southeast of the Site is the Gwent Europark, a logistics hub that includes storage and distribution facilities for national retailers including Tesco and Wickes, with the Tesco distribution facility equipped with two wind turbines.
- 1.4.7 The village of Bishton is located south of the central area of the Proposed Development, with a buffer of existing field units to the west and a minimum 75 m buffer to the nearest houses on the east of the village.
- 1.4.8 The boundaries of the Site are generally formed by hedgerows and trees as part of recognised field boundaries within agricultural holdings. The southern boundary of the Site is made up of a combination of the South Wales Main Line, Bishton Road, and an unnamed road between Bishton and Wilcrick.
- 1.4.9 The Gwent Levels - Redwick and Llandeenny Site of Special Scientific Interest (SSSI) briefly overlaps the Site within the south-easternmost portion, with the majority of the SSSI outwith of the site, separated by the Tata Steelworks, Tesco Distribution Centres, and the South Wales Main Line railway. The SSSI is 940 ha in total, with only a small area included within the Site. A large proportion of this area is devoted to serve as a wildlife enhancement area in the plans. Further details on this SSSI can be found in Chapter 6.0 of this ES.
- 1.4.10 The proposed cable route connects the Site to the Grid Supply Point (GSP) at Uskmouth Power Station. This is an approximate 10 km grid connection within the highway boundary. Towards the GSP at Uskmouth Power Station, the cable route would be located in the existing highway adjacent to and within the Gwent Levels - Nash and Goldclif SSSI and then adjacent to an approximate 200 m section of the Newport Wetlands SSSI.
- 1.4.11 No other statutory environmental designations are within the Site, though there are three schedule monuments near to the Site. These are:



- i) Bishton Castle – located to the north of Bishton, adjacent to the Site boundary, and is the former location of a medieval castle or fortified house, with no ruins remaining.
- ii) Wilcrick Hill Camp – located approximately 600 m to the east of the Site and is the location of a probable Iron Age Hillfort.
- iii) Deserted Medieval Village – Located to the northwest of Wilcrick Hill Camp, and is a collection of earthworks comprising four rectangular enclosures.

## **1.5 EIA Regulations**

### ***Legal context***

1.5.1 Environmental Impact Assessment was prescribed by European law under Council Directive 85/337/EEC. This Directive has been amended four times, with the latest amendment, the Environmental Impact Assessment (EIA) Directive (2014/52/EU) entering into force on 15 May 2014. In Wales, the Directive has been transposed most recently into law by the EIA Regulations.

1.5.2 Further details on the EIA process are reported in Chapter 2.0 of this ES.

## **1.6 Pre-application consultation and engagement**

### ***Newport City Council***

1.6.1 Newport City Council are the Planning Authority to which the application for the Proposed Development would have been made had it not been submitted to Planning and Environment Decisions Wales (PEDW). As such, it is important to engage with the LPA as it plays an important role in procedural aspects of the DNS process, such as EIA scoping, and was required to submit a Local Impact Report in response to formal consultation.

1.6.2 In order to facilitate these requirements, the Planning Authority should be engaged with early on in the design process so that it can be familiarised with the project as well as influencing design development and assessment when there is the greatest flexibility to do so.

1.6.3 The Planning Authority were first contacted on 25 October 2021 with relevant information in order to provide pre-application advice for the proposed





developments. The Planning Authority responded on 25 January 2022, providing a preliminary assessment of the Proposed Development including an indication of the main issues that should be addressed should an application be made.

1.6.4 Further details this pre-application consultation can be found in Appendix 1.1 of Volume 4 of this ES. In summary the key environmental issues raised were:

- i) **Flood Risk** – It should be noted that the site is partly within areas vulnerable to flooding and that it will be necessary to demonstrate that the Proposed Development passes the justification tests outlined in TAN 15<sup>2</sup>.
- ii) **Biodiversity** – Baseline surveys will be key in understanding how biodiversity interests will be affected. It should be established whether there are any links to European sites in the Seven Estuary. Protected species should be considered in line with recorded data obtained from South East Wales Biodiversity Records Centre (SEWBRc). Potential species to be considered are also highlighted, along with the importance of considering the ecosystems within which these species inhabit. It will be important to demonstrate a net benefit for biodiversity.
- iii) **Landscape and Visual** – Potential impacts of the Proposed Development should not be underplayed and should address adjacent, mid-distance and longer distance impacts. The number of viewpoints should be expanded to include a broader range of views. The consideration of cumulative visual amenity impacts will also be key for the assessment.
- iv) **Agricultural Land** – It is noted that the Proposed Development is not likely to be on Best and Most Versatile Agricultural Land (BMVAL). The reversibility of the Proposed Development should be demonstrated.
- v) **Woodland / Hedges** – A large area of the site will be bordered by woodland on hedgerows and large specimen trees are present. These should be accommodated within the design. Any felling, lopping or topping would not be supported.
- vi) **Public Rights of Way (PRoW)** – The regard to existing PRoW appears positive, though effective management needs to be secured to ensure PRoW do not become overgrown. Opportunities for PRoW enhancement should be explored.

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<sup>2</sup> Welsh Government (2021) Technical Advice Note 15 Development, flooding and coastal erosion, Section 10



- vii) **Cultural Heritage** – Part of the Site is located within an Archaeologically Sensitive Area so there is a strong likelihood of preserved archaeology. The Proposed Development may have an impact on the Llanwern Park Historic Park and Garden, and Bishton Castle Scheduled Monument.
- viii) **Noise** – The generally rural noise environment, noting the presence of the South Wales Main Line railway and major industrial development, and detailed design should ensure that fixed plant meets appropriate noise standards in relation to nearby dwellings.
- ix) **Glint and Glare** – Advised that a Glint and Glare assessment should be undertaken in terms of visual impact and impacts on the South Wales Main Line railway and aircraft.
- x) **Minerals** – It is noted that parts of the Site are located within Mineral Safeguarding Areas. The Proposed Development should not inhibit future extraction within the timescales of likely demand.
- xi) **Construction Traffic** – Stated that highways impacts may be reduced by identifying accessible lay down areas and using on site haul roads. A Construction Traffic Management Plan (CTMP) will be required.

### ***The Planning Inspectorate Wales / PEDW***

- 1.6.5 Early engagement has also been undertaken with PEDW, formerly the Planning Inspectorate Wales, to ascertain a without prejudice view of the emerging development and proposed assessment. In summary:
- i) **Meeting of Tuesday 27 July 2021** – An overview of the Proposed Development was provided by the applicant with initial discussions on potential constraints, survey work and consenting options for the proposed cable route to the Severn Power Station at Uskmouth. Information regarding potential cumulative developments was also provided to the applicant.
  - ii) **Meeting of 29 November 2022** – Meeting ahead of submission of the EIA Scoping Report to update PEDW of progress to date and future time lines. The proposed scope of the EIA was presented, with a subsequent discussion regarding the content of the ES and the need for any secondary consents.



### ***Informal Public Consultation***

- 1.6.6 JBM Solar launched an informal public consultation for the Craig y Perthi Solar Farm on the 1 December 2022. The consultation sought the views of those who live and work in the surrounding area to inform them of the emerging proposals and to obtain feedback that would inform the ongoing design process.
- 1.6.7 The consultation was open from the 1 December 2022 to the 27 January 2023, with a public exhibition held on the 15 December 2022 in Bishton village.
- 1.6.8 In total, the Applicant received:
- i) 65 people attending the public event.
  - ii) 14 written feedback forms.
  - iii) 21 email responses.
  - iv) 5 written letters (of which 2 represented individuals and 3 represented groups).
- 1.6.9 The findings of the key questions asked at the informal consultation can be summarised as:
- i) The majority of respondents were local.
  - ii) There was agreement that climate change and energy security are important issues, and that the UK needs more renewable energy and energy storage.
  - iii) The majority of those who responded stated that the retention of agricultural land and improved visual screening were important aspects of the proposals.
  - iv) Peoples changing views over the past 2 years regarding solar energy are polarised.
  - v) There was agreement that solar energy could increase solar energy and reduce electricity bills.
  - vi) More than 50% of respondents supported the plans to create new green infrastructure and community funding.
  - vii) Support for the project was evenly split.

## **1.7 Structure of the Environmental Statement**

- 1.7.1 The structure of the ES is as follows:



- i) **Volume 1 (Non-Technical Summary)** – The contents of the ES are summarised in a Non-Technical Summary to provide a review of the development proposals, and the possible environmental implications, in concise lay terms.
- ii) **Volume 2 (Main Report)** – provides an introduction to the project and details the technical assessments that have been undertaken to determine the likely impacts of the project. The chapters of the Main Report are as follows:
  - a) Chapter 1.0 Introduction and Background
  - b) Chapter 2.0 Approach to Environmental Impact Assessment
  - c) Chapter 3.0 Alternatives
  - d) Chapter 4.0 Scheme Description and Construction Methods
  - e) Chapter 5.0 Landscape and Visual
  - f) Chapter 6.0 Ecology
  - g) Chapter 7.0 Ornithology
  - h) Chapter 8.0 Cultural Heritage
  - i) Chapter 9.0 Hydrology and Flood Risk
  - j) Chapter 10.0 Summary of Effects and Mitigation
- iii) **Volume 3 (Figures)** – presents the visual and cartographic information that supports the Main Report.
- iv) **Volume 4 (Technical Appendices)** – a series of documents that include details of the methodology and information used in the assessment, detailed technical schedules and, where appropriate, raw data.

## 1.8 The Assessment Team

- 1.8.1 In accordance with Regulation 17(4)(a) of the EIA Regulations, the applicant has engaged competent experts to prepare the ES. As per Regulation 17(4)(b), a statement of competence in relation to the preparation of the ES is included in Table 1.1 below.

**Table 1.1 EIA team technical competence**

ES Chapter	Company	Relevant Experience
Chapters 1-4, 10	Axis	Persons responsible hold CEnv, MRTPI, PIEMA professional qualifications and over 20 years' experience of preparing, managing and reviewing Environmental Impact Assessments.
Chapter 5	Amalgum Landscape Architects	Persons responsible hold professional qualifications in landscape architecture and over 30 years' experience in landscape and visual impact assessment (LVIA)

ES Chapter	Company	Relevant Experience
Chapter 6	Western Ecology	Managing ecologist with 25 years of professional experience and full member of CIEEM. Surveying ecologists with suitable experience and NRW licences (dormice and great crested newt) where needed.
Chapter 7		
Chapter 8	RPS	Person responsible holds MCIfA professional qualification and has more than 35 years' experience in providing historic environment advice to private and public sector clients.
Chapter 9	Calibro	Persons responsible hold BSc, MSc in water-related subjects. Each person has over 15 years' experience in preparing hydrology and flood risk ES chapters and FCAs/FRAs.

