

Regener8 Rhigos

Rhigos Road Solar Farm **Planning, Design and** **Access Statement**

Final report

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Prepared by LUC
September 2023



Regener8 Rhigos

Rhigos Road Solar Farm Planning, Design and Access Statement

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12057

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Chapter 1

Introduction

Introduction

1.1 This Planning, Design and Access Statement has been prepared by LUC (the Agent) on behalf of Regener8 Rhigos Ltd. and Enviromena Developments UK Ltd. (the Applicants). This statement supports the full planning application for:

Development of a Solar Farm and Associated Infrastructure at Rhigos Road, Rhondda Cynon Taf

1.2 The Applicants are applying to Rhondda Cynon Taf County Borough Council (RCT Council) for planning permission.

1.3 The Site lies to the south of Rhigos Road running east to west, and west of the settlement of Hirwaun. The land currently comprises four agricultural fields dissected by lines of mature hedgerows. The location and extent of the Site is set out on the Site Location Plan.

The Proposed Development

1.4 The Proposed Development comprises the construction of a Solar Photovoltaic Panel Array and associated infrastructure.

1.5 A detailed description of the Proposed Development is included within Chapter 2 including its construction and operation. The General Layout plan illustrates the layout of The Proposed Development, key elements of which are summarised below.

Scheme Overview

- Photovoltaic Solar Panels (18,144 no. in total)
- 1x DNO Enclosure
- 1x Customer Switchgear Enclosure
- 4x LV Transformer Station
- New highways access and crushed aggregate access road from A4061
- CCTV Cameras
- 2.05m high post and wire Perimeter fence (deer fence)

The Applicants

1.6 There are two applicants for the proposed scheme:

Regener8 Rhigos Ltd

1.7 Regener8 Rhigos Ltd (14397097), registered office The Surrey Technology Centre, The Surrey Research Park, Guildford, Surrey, England, GU2 7YG, are associated with Regener8 Power, which was founded in 2018.

Enviromena Developments UK Ltd

1.8 Enviromena Developments UK Ltd (13182236), registered office 15-16 Diddenham Court, Lambwood Hill, Grazeley, Reading, Berkshire, England, RG7 1JQ. Headquartered in the UK and with a regional office in Italy, Enviromena operates across Europe and has more than 15 years' global experience in developing, designing, constructing, managing and operating ground-breaking renewable energy projects

1.9 Both Applicants have a keen focus on the development of high-impact solar, storage, and green hydrogen projects in the UK, Poland, and Italy. The Applicants have a history of combining renewable energy, agriculture, ecology, and carbon management.

Supporting Information

1.10 This Planning, Design and Access Statement forms part of the Planning Application which includes the following:

- Planning Application Form (Prepared by LUC)
- This Planning and Design and Access Statement (Prepared by LUC)
- Plans and Drawings
 - Location Plan (Prepared by Regener8 Rhigos)
 - Site Plan (Prepared by Regener8 Rhigos)
 - General Layout (Prepared by Enviromena)
 - Section Views (Prepared by Enviromena)
 - Building section views plan (Prepared by Enviromena)
 - Track cross section (Prepared by Regener8 Rhigos)
 - Landscape Proposals Plan (Prepared by LUC)
- Statement of Community Involvement (Cadence PR)
- Landscape and Visual Appraisal (Prepared by LUC)
- Landscape and Ecological Management Plan (Prepared by LUC)

- Ecological Assessment (Prepared by LUC)
- Transport Assessment (Prepared by LUC)
- Construction Traffic Management Plan (Prepared by LUC)
- Historic Environment Assessment (Prepared by LUC)
- Agricultural Land Classification Assessment (Prepared by ADAS)
- Glint & Glare Study (Prepared by Pager Power)
- Flood Consequence Assessment (Prepared by LDE)
- Preliminary Coal Mining Risk Assessment (Prepared by RSK)
- Preliminary Risk Assessment (Ground Contamination) (Prepared by RSK)
- Negative Environmental Impact Assessment screening opinion (Prepared by RCT Council)

Structure of this Planning, Design and Access Statement

1.11 This report constitutes the Planning, Design and Access Statement which has been produced to accompany the planning application for the Proposed Development. The following chapters are structured as follows.

- **Chapter 2** sets out the Site context and specific details of the development proposal.
- **Chapter 3** sets out the need for development in the current ecological and economic context of the UK.
- **Chapter 4** comprises the design and access statement of the planning application.
- **Chapter 5** considers planning policy context related to the proposed development.
- **Chapter 6** focuses on the appraisal of planning policy and how the proposed development accords with policy.
- **Chapter 7** presents the conclusions and summary.

Chapter 2

Details of the Proposed Development and site context

The Proposed Development

2.1 This section provides a description of the Proposed Development, together with details regarding its construction and operation. When reading this section, reference should be made to the planning application drawings in addition to the Design and Access Statement provided in Chapter 4 of this document.

Site Location

2.2 The Site is located in the County Borough of Rhondda Cynon Taf, approximately 800m east of Rhigos village, and circa 1.4km west of the village of Hirwaun. Bennau Brycheiniog (formerly known as the Brecon Beacons) National Park is located approximately 700m to the north of the Site.

2.3 The Site is currently used for livestock grazing and comprises several small irregularly shaped pasture fields that are intersected by multiple drainage ditches and hedgerows. The fields are enclosed by hedgerows and small sporadic areas of woodland. A large pond lies to the northeast corner of the Site.

2.4 To the north and northeast of the Site lies an area of vegetation and waterbodies associated with previous coal-mining activities. North of this lies Rhigos Road, on the opposing side of which is a dense tree cover screening an industrial estate. The east, south, and west boundaries of the Site are bound by fields, within and beyond which were previously areas of open cast mining. Cynlas Farm, miscellaneous buildings and an area of hardstanding of industrial character stand to the northwest of the Site, south of Rhigos Road. Further south of the Site lie a number of operational wind farms.

2.5 Hendrefawr Solar Farm is located approximately 2.3km to the west of the Site (application reference 13/0699/10). An additional solar farm was approved on 9th November 2022 to the west of the Site but is not yet built – Bryngolwg Farm, Rhigos Rd, Hirwaun (application reference 22/0634/10).

2.6 The Western Power Distribution Substation to which the Proposed Development shall connect is located approximately 220m to the northeast of the Site's nearest boundary.

Development Overview

2.7 The Proposed Development is for a Solar Farm and Associated Infrastructure with a maximum export capacity of 7750.10 kVA. The Site boundary is illustrated on planning drawing 'P_Rhigos_GeneralLayout_Rev G - General Layout' and covers an area of circa 16ha.

- A total of 18,144 ground mounted solar photovoltaic (PV) panels, which would be lifted approximately 0.8m off the ground and would not exceed 3m in height. The panels will individually measure no more than 2.9m in height.
- DNO Substation Enclosure measuring 3600mm wide by 2314mm tall by 2500mm deep. This will be constructed as a standard GRP (Glass Reinforced Plastic) building.
- Customer Switchgear Enclosure measuring 3112mm wide by 2264mm tall by 2800mm deep. This will be constructed as a standard GRP building.
- Low Voltage Transformer Stations measuring 2090mm wide by 2731mm tall by 2600mm deep. This will be constructed as a standard GRP building.
- As illustrated in the PV Layout (ref: P_Rhigos_GeneralLayout_RevG - General Layout), a crushed stone Maintenance Track shall be constructed from the A4061 Rhigos Road to the Site boundary to facilitate both construction and maintenance vehicle access to the Site.
- The Site will be surrounded by a 2.05m high post and wire Perimeter fence (deer fence) with associated access gates located towards the east and southern boundaries of the Site.
- Fixed CCTV Cameras will be positioned as appropriate within the boundary of the Site perimeter.
- The Proposed Development is proposed for a period of 40 years, after which it will be removed and the land reinstated.

Site Context

2.8 The Site is within an area identified as a Coal resource on the local plan policies map. In addition, the Site intersects a Hazardous Installation Consultation Zone – where the proposed access track lies.

2.9 Previously, mining related activities have taken place on the Site, including the construction of a mining shaft on the Site, and stockpiling of materials – associated with open cast coal mining in the immediate vicinity. There are no current licensed coal mining activities within 200m of the Site and no future licensed activities are recorded.

2.10 The proposed access track intersects the Hirwaun Common Site of Importance for Nature Conservation (SINC), as it follows the existing agricultural access arrangement.

2.11 There are a number of Public Rights of Way with 1km of the Site, the closest is Footpath RHI/25/4 which is approximately 330m to the south of the southernmost point of the Site boundary.

2.12 There are no other policy designations applying to the Site.

Ecological Overview

2.13 The Site comprises species-poor semi-improved grassland fields, which are nutrient enriched, have a low sward height and are used for sheep grazing. These fields are bordered by drainage ditches and hedgerows. Small parcels of broadleaved and mixed woodland are present along the Site boundaries in the west and south-east. To the east and south-east is a stream and a series of standing waterbodies.

2.14 Immediately to the north and east of the Site, within the same land ownership, are additional fields used for grazing, a series of waterbodies with reedbed and other marginal habitats, a stream connecting these waterbodies, areas of broadleaved woodland and scrub and areas of marshy grassland. Largely to the east of the Site (but also intersecting the Site at the access track), along the A4061, is a particularly large area of marshy grassland dominated by rushes, which (along with the largest waterbody and associated marginal habitat) form part of the Hirwaun Common SINC. To the north of the Site, outside of the land ownership, lies Rhigos Road and a small area of woodland which backs onto an industrial estate and urban area. To the northeast is an electricity sub-station. In the south and west of the Site are additional farmland habitats in the form of sheep grazed fields and associated woodland and hedgerow habitat.

2.15 The accompanying Ecological Assessment sets out the mitigation and enhancement measures that will be implemented alongside the Proposed Development in accordance with local and national policy and legislation. These include:

- The Conservation of Habitats and Species Regulations 2017 (SI 2017/1012), as amended by The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 (SI 2019/579)
- The Countryside Rights of Way Act 2000
- The Wild Mammals (Protection) Act 1996
- Species and Habitats of Principal Importance for Conservation in England and Wales

- National Planning Policy Wales version 11 (PPW) 2021
- National Development Framework (Future Wales – the National Plan 2040) 2021
- The Wildlife and Countryside Act 1981 (as amended)
- The Protection of Badgers Act 1992
- The Environment (Wales) Act 2016
- Priority Species UK Post-2010 Biodiversity Framework
- The Rhondda Cynon Taf County Borough Local Development Plan (2011)
- Action for Nature: A Local Biodiversity Action Plan for Rhondda Cynon Taf, (2008); and,
- Technical advice note (TAN) 5: nature conservation and planning (2009).

2.16 The details of the mitigation and enhancement measures are outlined below in Chapter 6 of this report as well as further detailed in the accompanying Ecological Appraisal.

Heritage

2.17 There are seven total designated historic assets within the 2km and 5km of the Site. These comprise the following five listed buildings (all grade II listed), two scheduled monuments and part of the historic landscape, the locations of which are shown in Figure A of the accompanying Historic Environment Assessment.

2.18 The listed buildings comprise:

- Engine House and Fan House at Tower Colliery [Cadw ref: 10901]
- Headframe and pithead at Tower Colliery [Cadw ref: 10902]
- Tramroad causeway and bridge at Hirwaun Ironworks [Cadw ref: 26827]
- Nebo Independent Chapel [Cadw ref: 23170];
- Hirwaun war memorial clock tower [Cadw ref: 26828]
- Old house, with attached byre and barn at Trebanog Fach [Cadw ref: 26832].

2.19 The scheduled monuments comprise:

- Craig y Bwlch round cairn [Cadw ref: 4011]

- Site of Hirwaun Ironworks [Cadw ref: 1786]

2.20 The East Fforest Fawr and Mynydd-y-Glog historic landscape [Cadw ref: HLW (MGI) 3] is also located approximately 2.6km north-east of the Site.

2.21 The majority of non-designated historic assets identified within the 2km of the Site are related to post-medieval extractive activity and the ironwork industry.

2.22 The heritage Impact Assessment which accompanies the application provides further detail.

Flood Risk

2.23 The Proposed Development is predominantly located on existing permeable ground, within flood risk zone A 'at little to no risk of fluvial or coastal / tidal flooding' and fluvial flood zone 1 'low risk of flooding'. Post-development there will be negligible changes to the on-site cover because solar panels are not regarded as a typical impermeable surface.

2.24 The Site's southern and eastern boundaries are bordered by an area at high risk of Surface Water & Small Watercourses Flood Risk.

2.25 There is also a small area at the centre of the Site that is at high risk of Surface Water & Small Watercourse Flood Risk. The Flood Consequence Assessment which accompanies the application provides further detail.

Contaminated Land

2.26 The Site covers an area of approximately 16 hectares. It is currently entirely occupied by soft landscaping, for the purpose of sheep grazing. There are a number of streams, drainage ditches and ponds on or adjacent to the Site. The Site generally falls to the north, south and east with some local variation as the fields undulate.

2.27 The Site contains evidence of several areas of potentially in-filled land from a number of unspecified ground workings. These are likely associated with former opencast coal mining, ponds, and ironstone workings, including a former mine shaft located centrally on the Site.

2.28 The Contaminated Land Preliminary Risk Assessment found that with the exception of a landfill site from the early 19th century, no significant sources of contamination have been located within the Site or within 250m over its history.

2.29 The Contaminated Land Preliminary Risk Assessment concludes that no significant contaminant linkages have been identified that require further investigation with the possible exception of risks from ground gas. No further requirements in terms of contaminant linkages are considered necessary.

Planning History

2.30 22/0840/37 – Screening Opinion for a proposed solar farm. The application determined that EIA screening was not required at the Site. This Screening Opinion relates to the application which this Planning, Design and Access Statement supports.

2.31 15/1213/10 – ‘A new underground gas pipeline to bring natural gas from the existing national transmission system gas pipeline, at a point near the A4061, at which an above ground installation and vehicle access will be developed, to a point on Main Avenue to connect to and facilitate development authorised by the Hirwaun Generating Station Order 2015’. The decision was granted on the 23rd October 2015 and runs along the north/east boundary of the Proposed Development Site. The development team have been in contact with Drax (the developer for 15/1213/10).

2.32 14/0527/04 – ‘Gas fired 'peaking' power generating plant of providing 50-299MWe (referred to as the 'Power Generation Plant'), new underground electrical cable connection (referred to as the 'Electrical Connection) to export electricity from the Power Generation Plant into the Western Power Distribution at Rhigos Substation and a new underground gas pipeline connection (referred to as the 'Gas Connection' to bring natural gas to the Power Generation Plant from the existing high pressure gas network National Transmission System (NTS) in the vicinity of the proposed Project Site. This element of the proposed Project also includes the Above Ground Infrastructure (AGI) for the gas pipeline at the point of connection to the NTS, as well as a new permanent access to the AGI’. This application borders the Site's northern and eastern boundaries and intersects at the proposed access track. This consent has not been implemented eight years on from receiving permission.

2.33 Although no specific planning record has been found, the Site was previously associated with open cast coal mining. More information about this is provided in the Heritage Impact Assessment and the Contaminated Land Preliminary Risk Assessment Reports which support the application.

Chapter 3

Need for Development

International Agreements on Climate Change and Renewable Energy Legislation and Policy

3.1 In October 2014, the Heads of Government of the European Union (EU) agreed to adopt a new European Climate and Energy Policy¹. This requires at least a 40% cut in greenhouse gas emissions by 2030 (from 1990 levels), at least a 27% renewable energy share and a 27% improvement in energy efficiency across the EU member states.

3.2 In November 2016 the European Commission (EC) published a draft revised renewable energy directive to put into law the requirements of the new European Climate and Energy Policy². In December 2018, the recast Renewable Energy Directive 2018/2001/EU entered into force, which sets a new binding renewable energy target for the EU and member states must set out National Energy and Climate Plans (NECPs) for 2021-2030³. More recently in September 2020, as part of the Green Deal, the European Commission proposed to raise the 2030 greenhouse gas emission reduction target to at least 55% (from 1990 levels), at least a 32% renewable energy share and a 32.5% improvement in energy efficiency across the EU member states. The Commission assessed action required across all sectors and started the process of making detailed legislative proposals by June 2021 for implementation to achieve increased ambitions⁴.

3.3 The European Green Deal was adopted in July 2020, which aims to build an integrated energy system fit for climate neutrality and to turn hydrogen into a viable solution. The Renewable Energy Directive is in the process of being reviewed and the Commission launched a public consultation for review of the renewable energy rules on 17th November 2020, which was open for input until 9th February 2021. No draft or schedule for a draft has been released since this date and it is unclear at present how the UK Government intends to align with the Green Deal.

¹ European Council, Conclusions on 2030 Climate and Energy Policy Framework, SN 79/14, 23.10.2014. Available at: https://www.consilium.europa.eu/uedocs/cms_data/docs/pressdata/en/ec/145356.pdf

² European Commission (2016) Renewable Energy Directive. Available at: https://energy.ec.europa.eu/topics/renewable-energy/renewable-energy-directive-targets-and-rules/renewable-energy-directive_en

³ European Commission (2018) The recast directive 2018/2001/EU. Available at: https://energy.ec.europa.eu/topics/renewable-energy/renewable-energy-directive-targets-and-rules/renewable-energy-directive_en#directive-20182001eu

⁴ European Commission (2020) 2030 climate and energy framework. Available at: https://climate.ec.europa.eu/eu-action/climate-strategies-targets/2030-climate-energy-framework_en#ref-2030-climate-and-energy-framework---existing-ambition

3.4 Prior to Brexit in 2020, the UK operated under European Union (EU)⁵ legislation and policy, driven by international co-operation to cut the emissions of greenhouse gasses, through the United Nations Framework Convention on Climate Change (UNFCCC). However, as of 2022 the UK now operates under The Environment Act 2021. This includes the 'Kyoto Protocol'⁶, which became a legally binding treaty in February 2005, and the 'Paris Agreement'⁷, a legally binding international treaty on climate change, established in December 2015 at the global climate summit COP21 (Conference of the Parties). This also includes the more recent 'Glasgow Climate Pact'⁸ in November 2021, a product of the COP26 in Glasgow.

3.5 The Paris Agreement entered into force on 4th November 2016 and was ratified in the UK on the 18th November 2016. The Paris Agreement sets out the ambition of holding the increase of global average temperature to "well below 2°C", and pursuing efforts to limit temperature increase to 1.5°C. Under the Paris Agreement, countries committed to bring forward national plans setting out how much they would reduce their emissions – known as Nationally Determined Contributions, or 'NDCs'. They agreed that every five years they would come back with an updated plan that would reflect their highest possible ambition at that time.

3.6 The aim of the Egyptian COP27 Presidency was to call for an acceleration in global action on climate mitigation and adaptation and to begin implementing the outcomes from COP26 (the 'Glasgow Climate Pact'). This included revising NDCs for 153 countries covering 80% of global emissions, accelerating the phasing out of coal, limiting deforestation and methane release, and promoting electric vehicles).

UK and Wales Climate Change and Renewable Energy Legislation and Policy

UK and Welsh Government Climate Emergency

3.7 In addition to the above energy policy, the devolved Welsh Government has also published a suite of policy in

relation to renewable energy and climate change which continues to drive Wales' low carbon ambitions.

3.8 In May 2019, following the Inter-Governmental Panel on Climate Change (IPCC), the UK Government declared an Environmental and Climate Change Emergency. This declaration required a commitment to avoid a rise of more than 1.5°C in global temperature. To achieve this, global emissions are required to fall by approximately 45% by 2030 from the 1990 levels. A target for the UK to be net-zero by 2050 was legally set out in June 2019 under the UK Climate Change Act 2008 (2050 Target Amendment) Order 2019⁹. This amended the previous legal 2050 target to reduce Greenhouse Gas (GHG) emissions from 80% to 100% below the 1990 levels, otherwise referred to as net-zero.

3.9 By this declaration, the UK Government recognises a duty to combat climate change, as well as an opportunity to lead the way in green and sustainable economic opportunities and a future low carbon economy.

3.10 The Welsh Government has been a staunch leader in the road to a carbon neutral economy, having made a climate change declaration in April 2019. In June 2019, the Welsh Government also accepted the Climate Change Committee's (CCC) recommendation for a new emissions target of net zero emissions no later than 2050¹⁰.

3.11 It is important for the Welsh economy that the country remains at the forefront of tackling climate change and must continue to invest in technology and development that carries the country towards a net-zero future and world leader in addressing the climate crisis.

Path to Net-Zero

3.12 In December 2020, the CCC published a further report, titled 'The Path to Net Zero'¹¹, which called for Wales to legislate the target to reach net zero by 2050. In March 2021, new legislation came into force in Wales, setting a legally binding net zero emissions target by 2050 under The Environment (Wales) Act 2016 (Amendment of 2050 Emissions Target) Regulations 2021 as well as setting interim emissions targets¹².

⁵ Following the UK's exit from the European Union on the 31st January 2020, the UK continues to align itself with European legislation goals, and as of 2022, created its own national legislation.

⁶ UNFCCC (1997) Kyoto Protocol to the United Nations Framework Convention on Climate Change adopted at COP3 in Kyoto, Japan, on 11th December 1997.

⁷ United Nations (2015) The Paris Agreement

⁸ United Nations (2015) The Glasgow Pact. Available at: <https://ukcop26.org/cop26-keeps-1-5c-alive-and-finalises-paris-agreement/>

⁹ UK Government (2019) The Climate Change Act 2008 (2050 Target Amendment) Order 2019. Available at: <https://www.legislation.gov.uk/ukdsi/2019/9780111187654>

¹⁰ Committee on Climate Change (2019) Net Zero – The UK's contribution to stopping global warming. Available at: <https://www.theccc.org.uk/wp-content/uploads/2019/05/Net-Zero-The-UKs-contribution-to-stopping-global-warming.pdf>

¹¹ Climate Change Commission (2020) The path to Net Zero and reducing emissions in Wales. Available at: <https://www.theccc.org.uk/publication/the-path-to-net-zero-and-progress-reducing-emissions-in-wales/>

¹² The Climate Change (Interim Emissions Targets) (Wales) (Amendment) Regulations 2021. Available at: <https://www.legislation.gov.uk/wsi/2021/338/note/made>

Climate Change Strategy for Wales (2010)

3.13 The Climate Change Strategy has accompanying Delivery Plans on Emissions Reduction and Adaptation, that set out how the Welsh Government intends to limit greenhouse gas emissions and adjust to changes in our climate. The strategy focuses on several areas: creating behaviour change; leading by example in the Assembly Government and wider public sector to consider climate change in all decisions; delivering increased energy efficiency, low carbon transport and buildings skills for a low carbon economy; making the most of opportunities to cut emissions and adapt to climate change; ensuring research and development, technology, innovation and skills help Wales to gain maximum benefit; creating a framework to support effective adaptation that delivers for those who are less able to adapt or in need; and ensuring that land use and spatial planning promote sustainable development and enable a move to a low carbon economy¹³.

Energy Wales: A Low Carbon Transition (2012)

3.14 The ambition is to create a sustainable, low carbon economy for Wales. The plan¹⁴ is to take full advantage of the transition to a low carbon economy to secure a wealthier, resilient, and sustainable future. As such, business and industry will play a key role, so everything must be done to create a stable environment essential for long-term investment. According to the report, Wales needs to be responsive to the needs of business and industry; develop Wales Infrastructure Investment Plan to ensure future infrastructure investment is clear and strategically prioritized; and ensure regulatory processes are efficient and simplified. The report also notes that there should be a focus on energy projects of the greatest potential benefit. As such, an integrated, cross-Government approach will focus on delivery and partnership to ensure that through leadership, the economic and community benefits of delivering these energy developments are maximised in Wales¹⁵.

Well-being of Future Generations (Wales) Act (2016)

3.15 The Well-being of Future Generations (Wales) Act provides a comprehensive framework for sustainable development in Wales. It includes seven long term well-being goals for Wales and a well-being duty on government and specified public bodies to carry out sustainable development

and act in a manner, which seeks to ensure that the needs of the present are met without compromising the ability of future generations to meet their own needs.

Prosperity for All: A Low Carbon Wales (2019)

3.16 Under Section 39 of The Environment Wales Act 2016, Welsh Ministers must prepare and publish a report for each budgetary period setting out their policies and proposals for meeting the carbon budget for that period. 'Prosperity for All: A Low Carbon Wales'¹⁶ is the first statutory decarbonisation plan produced by the Welsh Government.

3.17 The report sets out the foundations for Wales' transition to a low carbon nation, which will bring opportunity for growth of green businesses and wider benefits for people and the environment. It sets out how Wales aims to meet the first carbon budget (2016-2020) and consequently the 2020 interim target through 100 policies and proposals across Ministerial portfolios. The report shows that power and industry have the biggest shares of emissions in Wales, which is greater than these sectors in the UK.

3.18 Net Zero Wales Carbon Budget 2 (2021 – 2025) which supersedes this report has since been published (this is described below).

A Plan for Wales' Renewable Energy Future: Essential Actions to Re-energise Wales by 2035 (2019)

3.19 The 2019 Institute for Welsh Affairs (IWA) report builds on evidence from ten previous reports published by IWA and sets out a 10-point plan with detailed actions for Wales to reach 100% renewable energy by 2030. The ten points are as follows:

1. Fund the future
2. Renew Wales' homes
3. Retain the benefits in Wales
4. Use local land for local benefit
5. Focus on delivery
6. Future-proof the grid
7. Get SMARTer
8. Get ahead in marine

¹³ Welsh Government (2010) Climate Change Strategy for Wales: Delivery Plan for Emission Reduction. Available at: <https://gov.wales/sites/default/files/publications/2019-04/climate-change-research-emission-reduction-scenarios.pdf>

¹⁴ Welsh Government (2012) Energy Wales: A Low Carbon Transition. Available at: <https://www.gov.wales/sites/default/files/publications/2019-07/energy-wales-a-low-carbon-transition.pdf>

¹⁵ Welsh Government (2012) Energy Wales: a low carbon transition. Available at: <https://gov.wales/sites/default/files/publications/2019-07/energy-wales-a-low-carbon-transition.pdf>

¹⁶ Welsh Government (2019) Prosperity for All: A Low Carbon Wales. Available at: https://www.gov.wales/sites/default/files/publications/2019-06/low-carbon-delivery-plan_1.pdf

9. Harness the potential of bioenergy

10. Decarbonise transport¹⁷

Energy Generation in Wales (2020)

3.20 The Welsh Government published *Energy Generation in Wales* in May 2022¹⁸. It sets out the energy generation capacity in Wales in 2020 and analyses how it has changed over time. The overall purpose of the report is to support the Welsh Government with the development of energy policy helping to “evidence the economic, social and environmental benefits from the development of Welsh energy projects”.

Local Ownership of Energy Generation in Wales – Benefitting Wales Today and for Future Generations (2020)

3.21 The intent of the policy statement¹⁹ is to help Wales retain the social and economic benefit from future energy developments located in Wales. It is currently estimated that Wales inadvertently exports between 6-10% of Gross Value added. Locally owned energy generation would provide a strong opportunity to retain this money in the local economy.

Net Zero Wales Carbon Budget 2 (2021 – 2025)

3.22 In October 2021, the Welsh Government published their second Low Carbon Delivery Plan, which outlines the delivery of the Second Welsh Carbon Budget (2021-2025) and looks beyond to start building the foundations for Carbon Budget 3 and the 2030 target, as well as net zero by 2050²⁰.

Welsh Policy: The Climate Change (Wales) Regulations 2021

3.23 In 2021 the Welsh Government’s Department for Economy, Skills and Natural Resources published several regulations subsequently adopted by the Government. This formally committed Wales to legally binding targets to become a net-zero emissions country by 2050. These are collectively referred to as The Climate Change (Wales) Regulations 2021.

3.24 The Regulations set out a series of milestones along a ‘decarbonisation pathway’ acting as a long-term framework in conjunction with near-term actions outlined in the more frequent carbon budgets. Hence, the Regulations provide a linear route towards achieving net-zero in Wales and

safeguarding the country and its resources for future generations.

3.25 By achieving the goals of each milestone, Wales lowers its impacts on the World and will continue to benefit from combatting climate change without which risks to health, flooding, water shortages, weather extremes, and risks to biodiversity would all increase.

The Environment (Wales) Act 2016 (Amendment of 2050 Emissions Target) Regulations 2021

3.26 The Environment Wales Act 2016 (‘the Act’)²¹ sets the target for the Welsh Government to reduce greenhouse gas emissions by 80% by 2050 (from 1990 levels), with interim emissions targets such as 45% by 2030 and 67% by 2040.

3.27 Under Section 39 of the Act, Welsh Ministers must prepare and publish a report for each budgetary period setting out their policies and proposals for meeting the carbon budget for that period. The Act also aims to enable Wales to manage resources in a more proactive, sustainable, and coordinated way, while establishing a framework necessary to tackle climate change.

3.28 The Act provides a legislative approach which helps to manage Welsh natural resources at a national and local level, through National Natural Resources Policy, a State of Natural Resources Report and Area Statements. Furthermore, the Act allows Welsh Ministers to take action to achieve higher levels of recycling for business waste, food waste treatment and energy recovery. It also provides Natural Resources Wales (NRW) with powers to undertake land management agreements and experimental schemes.

The Climate Change (Interim Emissions Targets) (Wales) (Amendment) Regulations 2021

3.29 This regulation updated the existing interim targets for reductions in greenhouse gas emissions by 2030 and 2040. This updated the target for 2030 from 45% to 67%, and the target for 2040 from 63% to 89%. This aligned the interim targets within the updated 2050 target in line with the Climate Change Committee’s advice.

¹⁷ IWA (2019) A plan for Wales’ renewable energy future: Essential actions to re-energise Wales by 2035. Available at: https://www.iwa.wales/wp-content/media/2019/03/IWA_Energy_WP6_Digital-2.pdf

¹⁸ Welsh Government (May 2022) *Energy Generation in Wales 2020*. Available at: <https://www.gov.wales/energy-generation-wales-2020>

¹⁹ Welsh Government (2020) *Local ownership of energy generation in Wales – benefitting Wales today and for future generations*. Available

at: <https://www.gov.wales/sites/default/files/publications/2020-02/policy-statement-local-ownership-of-energy-generation-in-wales.pdf>

²⁰ Net Zero Wales Carbon Budget 2 (2021 to 2025). Available at: <https://www.gov.wales/net-zero-carbon-budget-2-2021-2025>

²¹ The Environment (Wales) Act 2016. Available at: <https://www.legislation.gov.uk/anaw/2016/3/contents/enacted>

The Climate Change (Net Welsh Emissions Account Credit Limit) (Wales) Regulations 2021

3.30 A revision of the existing carbon budgets for 2021 – 2025 as well as 2026 – 2030. This set new averages of 37% and 58% respectively in reductions below the baseline statistics.

The Climate Change (Carbon Budgets) (Wales) (Amendment) Regulations 2021

3.31 Limits the use of carbon offsetting (carbon credits) for 2021 – 2025 to zero. The regulation in effect prohibits the use of carbon offsetting as a method for achieving reductions in greenhouse gas emissions during this period.

Powering up Britain (2023)

3.32 This report, published in March 2023, sets out the plans of the UK government in enhancing energy security, economic opportunities, and the transition towards achieving the, and a clearer structure as to how the UK will deliver on its net-zero emissions commitments.

Welsh National Planning Policy and Guidance

3.33 Welsh National Planning Policy and guidance is set out in Future Wales (2021 and Planning Policy Wales 11 (2021). These are described in more detail in Chapter 5. Reflecting the above national requirements in relation to climate change, these set out the following targets:

- For 70% of electricity consumption to be generated from renewable energy by 2030.
- For one gigawatt of renewable energy capacity to be locally owned by 2030.
- For new renewable energy projects to have at least an element of local ownership from 2020.

Local Level Climate Change and Renewable Energy Legislation and Policy

3.34 RCT Council has not declared a climate emergency, however, in June 2022 the Council published the 'Making Rhondda Cynon Taf Carbon Neutral by 2030'²². The strategy sets out the following targets for 2030:

- Rhondda Cynon Taf Council will be carbon neutral;

- The whole County Borough will be as close as possible to carbon neutral;
- Our work with partners will have ensured that all public and private organisations that operate in the County Borough will be carbon neutral by 2040; and
- Rhondda Cynon Taf will have contributed to the Welsh Government's ambition of a Net Zero public sector by 2030.

Assessment of need for the development

3.35 In accordance with the legislation and policy referred to above, there is a significant need and political willingness to increase the amount of renewable energy produced by in Wales. The Proposed Development will deliver 9.8MW of renewable energy which will provide a significant step towards meeting legislated renewable energy generation targets and those set out in national planning policy.

²² Rhondda Cynon Taf County Borough Council (2022) Making Rhondda Cynon Taf Carbon Neutral by 2030. Available at: www.rctcbc.gov.uk/EN/Council/Performancebudgetsandspending/Cou

ncilperformance/RelatedDocuments/ClimateChangeStrategy/FINAL5152541ClimateChangeStrategy2022ENGLISH.pdf

Chapter 4

Design and Access Statement

4.1 This section of the report includes the Design and Access Statement, and sets out how the scheme has responded to local issues and context. It complies with the requirements of The Town and Country Planning (Development Management Procedure) (Wales) Order 2012, specifically Article 7²³.

Steps taken to appraise the context of the development

4.2 The location of the site was selected following a review of several important criteria including environmental sustainability movement to, from and within the development, character and community safety. Detailed considerations in relation to each of these is provided below.

Environmental sustainability

4.3 The UK's power network was built to serve a centralised system in which power was generated in large, mostly fossil-fuelled, power stations and transmitted via the national and local distribution grids to homes and businesses.

4.4 Electricity is now being generated by smaller-scale localised generators, ranging from solar panels on roofs of houses and ground-mounted solar farms to off-shore wind farms.

4.5 As a result, demand has hugely increased for new connections to the local electricity network, increasing load on the network beyond what it was designed for. Most areas of the grid are now at capacity or would require upgrades to the network that are financially prohibitive to individual solar farms. Consequently, there are relatively few locations where the grid can viably accommodate a solar farm and it is critical given the climate crises that any grid capacity is used, subject to the availability of a suitable site.

4.6 The local Hirwaun Primary Substation was identified by the Applicants as having available capacity to connect a generation project. Following this, constraints mapping was undertaken to identify key environmental sustainability designations including:

- Ancient Woodland

²³ Welsh Ministers (2012) The Town and Country Planning (Development Management Procedure) (Wales) Order 2012 [online].

Available at:
<https://www.legislation.gov.uk/wsi/2012/801/article/7/made>

- National, European and International environmental designations: Areas of Outstanding Natural Beauty, Sites of Importance for Nature Conservation, Environmental Sensitive Areas, RAMSAR sites, Sites of Special Scientific Interest, National Parks, Special Area of Conservations and Special Protection Areas;
- Cultural Heritage: listed buildings, conservation areas, registered parks and gardens and Scheduled Monuments;
- High Risk Flood zones;
- Best and Most Versatile Agricultural Land.

4.7 The Site was selected as it avoided impacts to all of these key designations. In addition, visits to the area were undertaken by the developer and their appointed consultants (covering ecology and landscape) to provide a ground-truthed review of design considerations. Following this, discussions were held between the Developer and appointed consultants and the Site was selected. It is notable that the site was also selected because of the ability to:

- Minimise impacts on trees, hedgerows, woodland, infrastructure, pylons, railway lines and buildings.
- Mitigate amenity constraints, such as noise.

4.8 Furthermore, it was noted that the area had in recent times been subjected open cast mining and whilst the Site has been restored to pasture, the soils are of poor quality and there was unlikely to be any archaeological interest.

4.9 The fields selected slope gradually to the south, thereby providing a good aspect for solar arrays.

4.10 It is important to note that during this Site selection process, other potential areas located to the north, east and south of the application site were discounted for a number of reasons, as set out below.

- The land to the north of the Site is constrained by trees/woodland, a large pond, and a vehicular access track from Rhigos Road. Some of this is designated as the Hirwaun Common SINC. Any panels located in this area would affect more valuable habitat such as ponds, scrubland, trees, or woodland, and would be more visible from Rhigos Road to the north. The available area for solar would also be more affected by overshadowing from trees.
- Land to the east of the Site is marshy grassland and is of greater value to wildlife, relative to the Site itself. Part of this area to the east is designated as the Hirwaun Common SINC. It is also much more exposed to views as it does not benefit from the woodland planting to the north and south of the application site.

- The area to the south of the Site again is outside of the relatively well screened area of the application site which benefits from tree screening to the north and south. It would also be more visible from Rhigos Road to the east and a public footpath to the south of the Site.

4.11 To the south, the Site boundary was also influenced by the path of the future natural gas pipeline being laid by Drax, as such the areas of potential conflict with this pipeline were not included within the site.

Movement to, from and within the development

4.12 With regard to movement to and from the site, the key issues with all solar array developments arise at the construction and decommissioning phases. During operation, traffic impacts are given to be minimal. This was taken into account in the site selection process, as a site which can be safely and suitably accessed for construction / decommissioning is clearly a vital element of site selection.

4.13 The traffic generated by the solar farm during most of its lifetime (following construction and prior to decommissioning) will be limited to occasional maintenance and servicing visits. These smaller vehicles will utilise the access route for HGVs formed during construction and therefore will be suitable for use by maintenance and operational staff.

4.14 The road network in the vicinity of the Site includes roads which are all considered suitable for access via an articulated HGV, which is the largest type of vehicle which would be used for the construction / decommissioning of the development. In addition, as set out in the accompanying Transport Statement, the capacity and accident history of the surrounding areas were reviewed by transport consultants to ascertain if these were likely to give rise to issues. Concerns were not raised and the access to the site using the public highway was considered suitable.

4.15 From the public highway, the access to the site uses existing informal tracks which have been used by agricultural machinery in accessing the site in its current use (an agricultural field). This was also reviewed by transport consultants to determine its suitability and was selected given it uses an existing point of access onto the Public Highway, And therefore avoids removal of hedgerows and other vegetation which would otherwise be required. At this location, the A4061 is straight, flat, and subject to a 60mph speed limit, therefore no visibility or safety issues are anticipated.

4.16 In order to provide a useable access for construction and decommissioning during all weather conditions, it is proposed to create an access track from the public highway to the entrance to the solar array development. This will be formed via an unnamed private road, owned by the landowner of the Site, which runs parallel to the A4061.

4.17 This will use standard construction methods and will be easily maintained using standard approaches to track maintenance. The Transport Statement includes Swept Path Analysis for the access track between the access and the Site itself. The analysis concludes that the track has been designed to accommodate the swept path of an articulated vehicle.

4.18 Within the site, the layout of solar arrays was selected so that existing hedgerow gaps could be utilised, thereby avoiding the need to remove hedgerows within the site. Access within the site will be undertaken by suitable vehicles (Four Wheel Drive vehicles and tractors). This is the standard approach used by Enviromena and is the case at the Bryngolwg Solar Array, which was recently granted consent 2.3km west of the Site.

4.19 Site selection also took account of planning policies and guidance related to transport, including those included in the Rhondda Cynon Taf Local Plan and Technical Advice Note 18 'Transport'. These direct development to sites where impacts on traffic safety are minimal and can be overcome in a straightforward manner. As set out above, the Site is easily accessible for all relevant vehicle types and there are no obvious safety issues on the surrounding highways.

4.20 Detailed traffic flows are set out in the accompanying Transport Statement. This sets out that the adverse transport impacts of the Proposed Development will be limited to the construction and decommissioning phases of the development's lifespan. An anticipated total of 314 HGV movements over a 16-week period each during the construction and decommissioning phases.

4.21 Due to the lack of a footway on the A4061, providing for safe access by pedestrians is challenging. This is also the case for bus users, as the nearest bus stop is 1km from the Site, requiring people to walk the rest of the way.

4.22 However, access by cycles is considered feasible as the A4061 is considered to be accessible for cyclists and the National Cycle Route 46 runs along Rhigos Road to the north. This route links to Aberdare Train Station which is approximately 9km to the east which is considered to be an appropriate travel distance for some cyclists as part of a longer, multi-modal journey.

4.23 A full appraisal of transport matters is included within the Transport Statement and Construction Traffic Management Plan.

Character

4.24 As set out above, the Site comprises agricultural fields and is within an area which was previously used for open cast mining, and there are existing open cast mines directly to the southeast of the site. In addition, there are areas of

commercial development to the north and east, which create an urbanising effect. As such, the character of the Site is considered to be agricultural / previously developed.

4.25 There are other solar array developments in the vicinity of the Site and as such, these are present in the landscape. Given this context, it was considered, at feasibility stage that the impacts of a solar array development would be appropriate within the surrounding context.

4.26 As the Site is currently in agricultural use, there are opportunities to both reflect and strengthen the existing field pattern. The layout of the solar arrays has been designed to allow tracks to use existing gaps in the hedgerows in the site, thereby retaining the existing characteristics of the Site. Furthermore, in accordance with feedback during pre-application consultation increased planting was included in the design. This creates screening of landscape and visual effects and strengthens the existing field pattern.

4.27 Following the initial site selection, a Landscape and Visual Impact Assessment was undertaken. This has been submitted as part of the planning application. The assessment identifies that the development is likely to result in effects at a local level, but that more strategic, long distance effects will be minor and as set out in the planning policy review section of this document, are considered appropriate in accordance with planning policy.

Community safety

4.28 The Site is not currently accessible to the general public and there will continue to be no public access to the Site. As a result of the Proposed Development being located on private land, that will not require or allow access to the general public, the potential for community safety issues is low. Furthermore, standard and suitable mitigation measures have been proposed to ensure, as far as possible, that no harm comes to the surrounding community as a result of the Proposed Development. These are set out below.

4.29 As illustrated in the accompanying General Layout Plan, and detailed in the PV Elevations drawing, a perimeter fence of 2.05m in height would surround the Proposed Development to prevent accidental or malicious access to the Site and prevent the cause of any possible on-site injuries that could be incurred by the general public.

4.30 Additionally, as laid out in the accompanying Transport Statement, clear safety measures would be implemented on public highway, with the introduction of relevant signage and limit of HGV vehicles and general traffic increase. This would reduce where possible the potential for transport related safety concerns that could arise from the Proposed Development, as far as is reasonably practicable.

Context of the development

4.31 As a summary of the above sections, the Proposed Development would not unacceptably alter or detract from the context of the local area, and would, in the context of other nearby solar and wind developments, integrate into the landscape.

Pre-application Consultation

4.32 Pre-application consultation was undertaken during the development of the proposals. The details of this are set out in the Statement of Community Involvement submitted in support of the application. The main changes due to community feedback during this consultation were as follows:

- The inclusion of a new strip of hedgerow planting along the northern boundary to mitigate visual impact was offered.
- In addition, an offer was made to the Rhigos Community Council to establish a Community Benefit Scheme should the project receive planning consent.
- Working hours for the construction period were amended in accordance with the pre-application consultation response from Rhondda Cynon Taf Public Health, Protection and Community Services. These are set out in the Construction Traffic Management Plan, submitted alongside the application.

On Site Mitigation by Design

4.33 The following decisions were made as part of the Site design to reduce the environmental impacts of the solar farm:

- The layout has been designed to ensure that existing vegetation within and adjacent to the Site will be retained. The retention of this vegetation will help to screen the proposed development in certain views.
- The panels will be enclosed by post and wire deer fencing to respect the agricultural character of the Site. Mammal gates measuring a minimum of 300mm wide by 200mm high will be provided at regular intervals in the boundary fence, to provide access for badgers and other mammals.
- The PV panels are to be mounted on posts and the underlying landcover will be restored to grass through seeding with a species rich meadow mix of local provenance (to be grazed by sheep using a conservation grazing method). This will be in line with the predominant farming livestock farming practice in the local area and will enable sheep farming to continue.
- Existing hedgerows are to be reinforced with a range of native species into species-rich hedgerows and height

constrained native trees are to be planted along the northern site boundary. The species will be locally appropriate and will improve connections between existing tree and hedgerow habitats which surround the Site.

- A new hedgerow is to be provided along the north-western extent of the Site using species found in the other hedgerows on site – as enhanced using the additional planting referred to above. This new hedgerow was included in response to pre-application consultation with the community.
- The palette of materials used for new buildings, components and fencing will respond to the hues of the local landscape (as far as practicable) using muted colours to help reduce the perceptibility of these features.
- Any external lighting required for maintenance purposes will be carefully designed so as not to contribute to excessive glare and light pollution and will only be in use during maintenance visits (not during normal operation of the solar farm).

4.34 In addition to the above, the Landscape Ecological Management Plan (LEMP) will provide the following enhancements:

- Five bat boxes and six bird nest boxes will be located within the wider land ownership.
- The poor semi-improved grassland will be replaced with species-rich grassland, using a species mix of local provenance (commercial seed mixes will be avoided).
- The hedgerows within the Site will be enhanced through native scrub planting (within their existing footprint). This planting will aim to increase the plant species diversity of all hedgerows so that they have a minimum of five species regularly present throughout.
- Poor semi-improved grassland will be replaced with species-rich grassland, using a species mix of local provenance (commercial seed mixes will be avoided and opportunities to use local green hay will be explored where possible). These measures are expected to result in a significant enhancement of the existing grassland, over and above the mitigation requirements.
- A new hedgerow will be planted in the far north-west of the Site, close to the Site boundary. This hedgerow planting has been designed in consultation with the local residents to the north to provide screening of the solar farm. Given the low ecological value of the existing poor semi-improved grassland, this planting will result in an enhancement in species and structural diversity within this part of the Site.

- The grassland will then be managed using conservation grazing methods in order to encourage the establishment and maintenance of an ecologically valuable grassland habitat.

4.35 Measures to protect the environment during construction are proposed within the submitted reports.

Chapter 5

Planning Policy Context

5.1 The Proposed Development has been designed in order to comply with the relevant local, national, and neighbourhood planning policies, as well as other material considerations. This section sets out a summary of the relevant planning policies.

Local Policy

5.2 Section 38 (6) of the Planning and Compulsory Purchase Act 2004²⁴ states:

“If regard is to be had to the development plan for the purpose of any determination to be made under the planning acts the determination must be made in accordance with the development plan unless material considerations indicate otherwise”

5.3 The relevant Statutory Development Plan for the Proposed Development comprises the Rhondda Cynon Taf Borough Local Development Plan (LDP), adopted in March 2011. The plan sets out the vision, objectives, and spatial strategy for the county borough, including the strategic and detailed development management policies. The Plan comprises the statutory framework for planning decisions to be made up until 2021. However, this period has now been extended to cover the period until a new plan is published, due to the emerging replacement LDP being delayed.

5.4 Formal preparation of the initial revision of the LDP began in September 2020. However, all work on this revised LDP ceased in March 2022. It was decided that a new revised LDP would be better suited to a Plan Period of 2022 – 2037 and work has now begun on producing this.

5.5 RCT Council are now preparing a Revised LDP for the period of 2022 – 2037, a process that began in April 2022 following a review of the existing LDP in 2019. This LDP is in an early stage of development with no draft policy yet available for review. However, the LDP when adopted will replace the current LDP for Rhondda Cynon Taf (2006 – 2021). Until the new LDP is published, developments will be assessed by the existing LDP adopted in March 2011. As a result of the delayed revision, there are currently no policy

²⁴ Planning and Compulsory Purchase Act 2004, Section 38. Available at: [https://www.legislation.gov.uk/ukpga/2004/5/section/38#:~:text=\(6\)If%](https://www.legislation.gov.uk/ukpga/2004/5/section/38#:~:text=(6)If%20regard%20is%20to,unless%20material%20considerations%20indicate%20otherwise)

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proposals or updates to the current Local Plan that need to be considered.

Rhondda Cynon Taf Local Development Plan (2006 – 2021), adopted 2011

CS 1 – Development in the North

5.6 CS1 concerns the overall planning strategy for the Northern Area of Rhondda Cynon Taf, putting an emphasis on building strong and sustainable communities. To achieve this (in relevance to renewable energy development), large scale regeneration schemes in Key Settlements will be promoted alongside encouraging a strong and diverse economy that supports traditional employment whilst promoting new forms of employment.

CS 10 – Minerals and AW 14 – Safeguarding of Minerals

5.7 RCT Council will seek to protect mineral resources without compromising on environmental issues. The Site lies in an area of Coal resource as identified on the policies map produced by RCT Council²⁵. The Site has previously been used for activities relating to coal mining and a disused coal mineshaft also lies within the Site. Where a proven resource such as this is considered under threat from sterilisation as a result of necessary development, the pre-working of the mineral resource will be encouraged, followed by appropriate restoration ahead of the development progressing, and necessary aftercare measures. Promoting efficient use of the resource, or alternatives (energy in the case of coal) should be encouraged.

5.8 It is also worthwhile to note that Policy AW15 - Community Amenity Protection Buffer Zones sets out that coal extraction will not normally be permitted within 500m of defined settlement boundaries and a significant portion of the Site lies within such an area.

AW 2 – Sustainable Locations

5.9 Development proposals will only be supported in sustainable locations, where development would not conflict with surrounding uses, and are well related to existing electrical services.

AW 6 – Design and Placemaking

5.10 All development proposals will be supported where they are of a high standard of design, are appropriate within the local context (siting, scale, height, etc.). For the proposed development in particular, support will be given to proposals

that promote energy efficiency and the use of renewable energy.

AW 7 – Protection and Enhancement of the Built Environment

5.11 Development proposals that will affect Public Rights of Way (PRoW), bridleways and cycle tracks will be permitted where the development would demonstrably replace the loss with an equivalent or greater provision in the immediate locality or enhance the existing PRoW. Proposals must preserve or enhance the character and appearance of sites of architectural or historical merit.

AW 8 – Protection and Enhancement of the Natural Environment

5.12 The policy sets out the criteria for development to preserve the county borough's distinctive natural heritage. Development proposals will only be permitted by RCT Council where they effectively preserve and enhance this. Hence, development must not cause harm to any features of Sites of Importance for Nature Conservation (SINC) or Regionally Important Geological Site (RIGS) or locally designated sites.

5.13 In the event of such harm being unavoidable, it must be demonstrable that the proposal is either; directly necessary for the positive management of the Site, not unacceptably impacting upon the features of the Site, could not be reasonably relocated, or clearly outweighs the nature conservation value of the Site.

5.14 Additionally, development proposals must not result in unacceptable impacts upon features of importance to the landscape or nature conservation. Proposals that may affect protected and priority species are required to demonstrate what measures are proposed for the protection and management of said species, including the mitigation and compensation introduced against potential impacts.

AW 10 – Environmental Protection and Public Health

5.15 Development proposals will not be permitted where they would cause or result in a risk of unacceptable harm to health or local amenity. This concerns the development process, including the individual phases of construction, operation, and restoration.

5.16 The potential for air, noise, and light pollution should be taken under consideration as well as land instability and the potential for flooding. Any other risks such as public health and safety are also required to be considered with demonstrable measures to overcome adverse risks.

²⁵ RCT Council (no date) Mapping. Available at:
<https://maps.rctcbc.gov.uk/myrhondda.aspx>

AW 12 – Renewable & Non-Renewable Energy

5.17 Proposed developments that promote the provision of renewable energy, including solar energy generation, will be permitted where it is demonstrated that no unacceptable effects will occur upon soil conservation, wildlife, natural and cultural heritage, landscape, public health, and residential amenity. In addition, development proposals should minimise the use of resources during the development phases of construction, operation, and maintenance.

5.18 The relevant local planning policies are reproduced in full in Appendix A.

National Policy

Future Wales: The National Plan 2040

5.19 The Welsh Government launched Future Wales: The National Plan 2040 (Future Wales) as the National Development Framework (NDF) for Wales in February 2021²⁶. This sets out the key national planning policy direction and therefore provides context to understanding the policy tests that are applied to potential development sites. Future Wales supersedes any previous national or local policy that is inconsistent with it.

5.20 The document reports that 29% of Wales' greenhouse gas emissions in 2018 were a direct result of the country's energy supply. It sets out that Wales can become a world leader in renewable energy technologies owing to the potential for significant wind, tidal, and solar energy generation developments, and the Government's support for both large and community scale projects of this nature.

5.21 The key policy in Future Wales in relation to solar farm proposals in policy 17, reproduced in full below:

Policy 17 – Renewable and Low Carbon Energy and Associated Infrastructure

The Welsh Government strongly supports the principle of developing renewable and low carbon energy from all technologies and at all scales to meet our future energy needs.

In determining planning applications for renewable and low carbon energy development, decision-makers must give significant weight to the need to meet Wales' international commitments and our target to generate 70% of consumed electricity by renewable means by 2030 in order to combat the climate emergency.

In Pre-Assessed Areas for Wind Energy the Welsh Government has already modelled the likely impact on the landscape and has found them to be capable of accommodating development in an acceptable way. There is a presumption in favour of large-scale wind energy development (including repowering) in these areas, subject to the criteria in policy 18.

Applications for large-scale wind and solar will not be permitted in National Parks and Areas of Outstanding Natural Beauty and all proposals should demonstrate that they will not have an unacceptable adverse impact on the environment.

Proposals should describe the net benefits the scheme will bring in terms of social, economic, environmental and cultural improvements to local communities.

New strategic grid infrastructure for the transmission and distribution of energy should be designed to minimise visual impact on nearby communities. The Welsh Government will work with stakeholders, including Western Power Distribution and Distribution Network Operators, to transition to a multi-vector grid network and reduce the barriers to the implementation of new grid infrastructure.

5.22 The intent of the policy and its supporting text is to support the introduction of renewable energy projects. Policy 17 recognises the availability of opportunities for renewable energy technologies available to Wales. It demonstrates that the Welsh Government is in principle in favour of all renewable energy projects. Where proposals for such ensure no significant detrimental impact is had on the surrounding natural environment and local communities, and delivers positive social, environmental, cultural, and economic benefits; development will be supported.

Planning Policy Wales Edition 11

5.23 Planning Policy Wales (PPW) sets out the land use planning policies of the Welsh Government. It is supplemented by a series of Technical Advice Notes (TANs), Welsh Government Circulars, and policy clarification letters. Together with PPW, this provides the overarching national planning policy framework for Wales.

5.24 The publication of Future Wales 2040 necessitated revisions to Planning Policy Wales and the TANs. Notably, TAN 8: Planning for Renewable Energy was revoked at the time of the publication of Future Wales. As a result, there are no directly applicable TANs to this development proposal.

²⁶ Welsh Government (2021) Future Wales: The National Plan 2040. Available at: <https://gov.wales/sites/default/files/publications/2021-02/future-wales-the-national-plan-2040.pdf>

However, there are several that are of relevance to the proposed development application:

- TAN 5: Nature Conservation and Planning (2009)
- TAN 11: Noise (1997)
- TAN 12: Design (2014)
- TAN15: Development and Flood risk (2021)
- TAN 18: Transport (2007)
- TAN 24: The Historic Environment (2017)

5.25 The current version of PPW is edition 11, published in February 2021²⁷.

Section 3 – Strategic and Spatial Choices

5.26 The appropriate efficient use of agricultural lands is outlined within paragraphs 3.58 and 3.59 of PPW in the interest of national policy towards safeguarding Wales' Best and Most Versatile Land (Grades 1, 2, and 3a).

"When considering the search sequence and in development plan policies and development management decisions considerable weight should be given to protecting such land from development, because of its special importance. Land in grades 1, 2 and 3a should only be developed if there is an overriding need for the development..."

5.27 Paragraph 3.61 concerns the availability of supporting infrastructure and identifies how adequate and efficient infrastructure such as electricity is critical for economic, social, and environmental sustainability. Such development should be adequately supported by existing development (sub-stations, battery storage, and/or, other similar development). Paragraph 3.63 continues this premise, stating development should be in areas well serviced by existing or planned infrastructure, and that infrastructure choices should be targeted at supporting decarbonisation.

Section 5 – Productive and Enterprising Places

5.28 The importance of renewable energy is recognised throughout PPW and most notably within Section 5 where it is done so in the context of the international targets (set out in Chapter 2 of this Planning Statement). PPW sets out national planning policy objectives for Wales that are designed to support growth, protect the environment, and ensure decisions are made at the local level.

5.29 Hence, PPW is a proponent for the transition to a 'low carbon future' via utilisation of the abundant sources and opportunities for renewable energy generation in Wales.

Paragraph 5.7.1

"The Welsh Government's highest priority is to reduce demand wherever possible and affordable. Low carbon electricity must become the main source of energy in Wales. Renewable electricity will be used to provide both heating and transport in addition to power. The future energy supply mix will depend on a range of established and emerging low carbon technologies..."

5.30 Further to this, paragraph 5.7.6 requires the planning system to secure an appropriate mix of energy generation systems in order to maximise economic and social benefits whilst minimising environmental and social impacts. Paragraph 5.7.7 sets out benefits of low carbon energy in tackling the climate emergency (referred to in Chapter 2 of this Planning, Design and Access Statement) and improving Wales' energy security.

5.31 The Welsh Government has targets for the generation of renewable energy, as noted within PPW (and Future Wales). These are:

- For Wales to generate 70% of its electricity consumption from renewable energy by 2030
- For one Gigawatt of renewable energy capacity in Wales to be locally owned by 2030
- For all new energy projects to have at least an element of local ownership.

Paragraph 5.9.1

"Local authorities should facilitate all forms of renewable and low carbon energy development...In doing so, planning authorities should seek to ensure their area's full potential for renewable energy targets are achieved."

5.32 Paragraph 5.75 concerns Developments of National Significance (DNS) and states:

"Planning applications for onshore generating projects in Wales which have an installed generation capacity of between 10MW and 50MW...are made directly to the Welsh Ministers under the Development of National

²⁷ Planning Policy Wales, Edition 11. Available at: https://www.gov.wales/sites/default/files/publications/2021-02/planning-policy-wales-edition-11_0.pdf

Significance (DNS) process and considered under policies in Future Wales”

5.33 The Proposed Development for a Solar Farm at Rhigos Road will have a maximum generating capacity of 9.88MW, below the 10MW threshold for nationally significant projects. Therefore, Policy 18 of the Future Wales: National Plan, and paragraph 5.75 of the PPW are not considered further.

Material Considerations – UK Energy Policy

National Policy Statement

5.34 The National Policy Statements set out the UK wide Government objectives for the development of Nationally Significant Infrastructure (NSI).

5.35 EN-1, the Overarching National Policy Statement for Energy²⁸ and EN-3, Renewable Energy Infrastructure²⁹, note that the NPS acts as a material consideration during the determination of applications that fall under the Town and Country Planning Act 1990 (as amended).

5.36 The existing EN-1 outlines the overall commitment to increasing renewable energy capacity:

Paragraph 3.3.10

“As part of the UK’s need to diversity and decarbonise electricity generation, the Government is committed to increasing dramatically the amount of renewable generation capacity.”

5.37 The existing NPS EN-3 clarifies that an assumed need for renewable energy projects is present across the UK:

Paragraph 2.1.2

“The policies set out in this NPS are additional to those on generic impacts set out in EN-1 and do not replace them. The IPC should consider this NPS and EN-1 together. In particular, EN-1 sets out the Government’s conclusion that there is a significant need for new major energy infrastructure”

5.38 The emerging draft replacement NPS for energy (EN-1)³⁰ sets out the Government’s policy for delivery of major energy infrastructure (and can be read as a material consideration for smaller scale energy infrastructure), whilst also noting the urgent need for new electricity generating capacity to meet the energy objectives.

Paragraph 3.3.20

“Wind and solar are the lowest cost ways of generating electricity, helping reduce costs and providing a clean and secure source of electricity supply (as they are not reliant on fuel for generation). Our analysis shows that a secure, reliable, affordable, net zero consistent system in 2050 is likely to be composed predominantly of wind and solar”

5.39 Similarly, the draft NPS EN-3 replacement³¹ notes that the preference for Renewable Energy Infrastructure Development should be to use lower grade agricultural land.

Welsh Government - Planning Implications of Renewable and Low Carbon Energy (February 2011)

5.40 This Practice Guidance was commissioned by the Welsh Assembly Government in 2009 as a research study into the planning implications of a range of renewable and low carbon energy developments in Wales, including the development of solar PV arrays. The report is now over 10 years old, hence some information may be outdated.

5.41 The Practice Guidance acts as a tool to support Local Planning Authorities in dealing with applications for such development.

5.42 Most notably, the Practice Guidance states the importance of finding suitable land for solar PV arrays to be located. Proximity to the Western Power Distribution substations is highlighted as a key factor affecting economic viability.

Paragraph 8.2.1

“The main technical constraints for solar PV arrays are the availability of sufficient land on which to build them, the solar radiation received by the Site and its proximity

²⁸ HM Government (2011) Overarching National Policy Statement for Energy (EN-1). Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/47854/1938-overarching-nps-for-energy-en1.pdf

²⁹ HM Government (2011) National Policy Statement for Renewable Energy Infrastructure (EN-3). Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/37048/1940-nps-renewable-energy-en3.pdf

³⁰ HM Government (2023) DRAFT: Overarching National Policy Statement for Energy (EN-1). Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1147380/NPS_EN-1.pdf

³¹ HM Government (2023) DRAFT: National Policy Statement for renewable energy infrastructure (EN-3). Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1147382/NPS_EN-3.pdf

to a grid connection. Solar irradiation in the UK is greatest in the south and west of the country, creating more favourable conditions for solar PV arrays. As noted above, each MW of solar PV capacity currently requires 2.5 to 3.0 ha of land area and the greatest amount of electricity will be obtained from sites that allow arrays to face due south and avoid shading from surrounding features. The distance from the proposed location of a solar PV array to a suitable grid connection with capacity to accommodate the additional supply is an important consideration.”

5.43 As a result of solar PV arrays requiring a close proximity to a substation, proposals are likely to cluster around these grid connection points. Hence, it is important for proposals to consider potential cumulative effects with similar proposals and not just the isolated effects of individual development proposals. As such, sufficient and appropriate mitigation is paramount to a successful planning application:

Paragraph 8.4.10

Potential mitigation may include using existing landscape features or new planting to screen the development although this will need to avoid the shading of the panels. Screen planting (including allowing hedges to grow out) around solar PV development can, however, change the sense of enclosure of a landscape and would need to be undertaken through careful design. Existing landscape features should be retained where possible.

Chapter 6

Planning Policy Appraisal

6.1 This chapter of the Planning, Design and Access Statement explains how the proposed scheme conforms to current planning policy and the material planning considerations set out above in Chapter 5. It should be read together with the preceding chapters of this statement. It details how the Proposed Development shall be delivered and the principles that have influenced its design. The assessment considers the following:

- Rhondda Cynon Taf Local Development Plan
- Future Wales: The National Plan 2040
- Planning Policy Wales Edition 11
- Any relevant material considerations

6.2 In addition, the Proposed Development has undergone detailed assessment and consultation with the Local Planning Authority and local stakeholders. Full details are provided in the Statement of Community Involvement and reports submitted in support of the planning application.

Renewable Energy

6.3 Both Local and National Policy is moving Wales towards a net-zero emissions country by 2050, and as such, significant amounts of existing non-renewable energy generation capacity will need to be replaced during this timeframe. The Proposed Development would constitute an approximate addition of 11,308 MWh per annum, avoiding approximately 2,600 tonnes of CO₂³², and serving the equivalent of 3,900 average sized UK homes³³.

6.4 The Future Wales National Plan sets out the Welsh Government's intention to increase the renewable and low carbon energy generation capacity of the country. Policy 17 recognises the significant availability of opportunities for renewable energy technologies. As such, significant weight must be attributed to the Welsh Government's target to meet the 70% of electricity demand by renewable means by 2030, and therefore the Proposed Development should be strongly supported in principle.

³² RenSmart. Available at: <https://www.rensmart.com/Calculators/KWH-to-CO2>

³³ Ofgem Guidance. Available at: <https://www.ofgem.gov.uk/>

6.5 Additionally, the RCT Local Development Plan states under policy AW12 that solar energy generation will be permitted where it does not cause unacceptable impact upon local amenities nor the environment. As noted throughout this chapter, the Proposed Development would not result in unacceptable effects on local amenity nor the environment.

6.6 There is a clear precedent and requirement for new renewable energy development in Rhondda Cynon Taf and Wales as a whole. The Proposed Development would therefore be in keeping with and promoting both national and local planning policy.

Landscape and visual effects

6.7 The majority of the effects which will occur during the construction phase will be limited to the Site and the immediate surrounding vicinity, from which construction activities may be perceptible.

6.8 Construction activities will result in direct landscape effects on the Site. There will be a medium scale of effect on the area directly affected by the works, resulting in a change from an undeveloped agricultural landscape to a construction site. These effects will take place over the 16 week construction period and will therefore be temporary in nature. This is likely to lead to a medium perceptual change in the landscape character within the immediate perimeter of the Site (approximately 0.5km from the Proposed Development) and small change beyond this.

6.9 The visual effects of the construction phase will be limited to the few receptors surrounding the Site and receptors experiencing longer-range views, such as those upland areas to the north and south of the Site. In accordance with the sensitivity of surrounding receptors construction effects are considered to be of lesser importance. The local community residing at properties along Rhigos Road to the north-west of the Site are judged to experience visual effects of greater importance during the construction phase. Visual effects in relation to recreational receptors including Bannau Brycheiniog (formerly known as Brecon Beacons), local Public Rights of Way and road users are likely but are judged to be of lesser importance.

6.10 During operation, the changes in the landscape are judged to lead to a medium effect on the Site itself, however given the limited sensitivity of this area, the effect is considered to be of lesser importance. Surrounding the Site, there is potential for effect within the immediate periphery (0.5km) on the Tower Colliery landscape unit, resulting in effects at the lower end of greater importance. Effects beyond

this are considered to be of lesser importance due to the screening effect of topography.

6.11 During operation the majority of changes to visual receptors will be limited to those in the surrounding vicinity of the Site from which the proposed development will be visible. Visual effects will also be experienced by receptors experiencing longer-range views from upland areas to the north and south. The local community residing at properties along Rhigos Road to the north/north-west of the Site are judged to experience effects of greater importance during the operational phase. All other effects are judged to be of lesser importance.

6.12 Bannau Brycheiniog (formerly known as the Brecon Beacons) National Park lies approximately 700m to the north of the Site. The accompanying Landscape and Visual Appraisal concludes that the proposed development will not prejudice the values or integrity of this nationally designated landscape by adversely impacting on the special qualities for which it was designated.

6.13 The Hirwaun Common Special Landscape Area (SLA) is situated 0.6km to the south of the Site. As set out in the accompanying Landscape and Visual Appraisal there is expected to be patchy theoretical visibility of the proposed development across a small proportion of the SLA however overall, the proposed development will not affect the primary landscape qualities and features of the area.

6.14 It is therefore considered, due to the localised nature of the landscape and visual impacts that the development is appropriate in accordance with the development plan.

6.15 Cumulative effects in relation to landscape and visual implications are considered below.

Regeneration through Development

6.16 The RCT Council Local Plan promotes large scale regeneration schemes within key settlements as well as the diversification of the economy under Policy CS1. Whilst the location of the Proposed Development would not strictly adhere with some aspects of the LDP Policy AW2, in that the Site is in the open countryside³⁴, development here would ensure brownfield land within key settlement boundaries is used for regeneration that bolsters the existing economy and promotes new types of employment.

6.17 Furthermore, the proposed type of development is expected to be in the countryside or on the settlement fringe, particularly given that a development of this type and scale would be difficult to accommodate within the settlement

³⁴ The requirements of Policy AW2 do not appear to relate to solar farms (although this is not strictly clear within the policy or reasoned justification).

boundary. The Site constitutes poor quality agricultural land (Grade 5) and therefore does not provide a high level of agricultural production. The existing landowner will however continue sheep farming on the Site limiting any loss of agricultural production.

6.18 Development proposals will only be supported in sustainable locations, where development would not conflict with surrounding uses, and are well related to existing electrical services. The development would not unacceptably conflict with surrounding uses in the countryside, being of a similar type to existing and approved (but not yet developed) solar arrays in the Site's general proximity, as well as being located near a Western Power Distribution substation.

6.19 The Proposed Development is therefore considered to be appropriate in line with the Development Plan.

Ecology

6.20 Policy AW8 of the Rhondda Cynon Taf LDP seeks to preserve the county borough's natural heritage and ensure development effectively protects and enhances it. An ecological assessment was undertaken by LUC with regard to the Proposed Development, concerning the impact on the surrounding sites of ecological importance and potential impacts on biodiversity.

6.21 One of the primary concerns of the Proposed Development is related to the Blaen Cynon SAC, located within 712m of the Site, and the Hirwaun Common SINC, which lies immediately to the northeast and east of the Site, and intersects the proposed access track). These areas contain extensive complexes of damp pastures and heaths which support the largest metapopulation of marsh fritillary butterfly. However, the Site itself is not considered suitable for this species and therefore development of the Site would not directly affect the species. The habitats of this nature in local proximity to the Site will be retained and enhanced as part of the proposals, as demonstrated in the accompanying planning application documents.

Habitats

6.22 In the south-east of the Site, the proposed access track route will pass through a small section of the Hirwaun Common SINC, requiring the loss of a narrow strip of habitat. Given the small strip of habitat to be removed, even in the absence of mitigation, the impacts would be too small in scale to result in a likely significant effect on the SINC nor qualifying features of the SAC. As such, in relation to policy AW8 of the RCT LDP, the proposals are acceptable as they will not unacceptably impact the features of the Site.

6.23 Impact on other designated sites are reported to be unlikely given the intervening distance and lack of suitable habitat on the Site to affect qualifying features of these sites.

6.24 Within the Site, the Proposed Development has been designed to retain and protect the habitats of higher value including hedgerows and woodland, marshy grassland, and waterbodies. This includes mitigation comprising the following:

- Poor semi-improved grassland will be replaced with species-rich grassland of locally sourced wildflower meadow seed mix suitable for the Site.
- Best construction measures will also be followed throughout the project. This includes fencing off the hedgerows, woodland edge, waterbodies, stream and ditches; secure storage and safe disposal of any materials and substances, and dust prevention measures, to prevent accidental contamination to the adjacent habitats.

6.25 All habitat mitigation and enhancements will be implemented through the Landscape and Ecological Management Plan, which has been submitted in support of the planning application.

Fauna

6.26 The majority of the Site comprises habitats of low suitability for bats and the proposal is not considered to result in impacts to bat commuting, foraging, or roosting. To avoid any potential adverse effects on the bat population, good practice guidance set out within the 'Guidance Note 08/18: Bats and artificial lighting in the UK' will be followed during the various phases of the Proposed Development. These are specified in the accompanying Ecological Assessment.

6.27 The Site provides limited habitat opportunities for Badger populations owing to poor drainage and open grassland. There is no evidence of use of the Site by badgers. Suitable fencing will be implemented during the construction phase of the development to deter badgers from entering the construction site. Further best practice guidance measures that will be followed are outlined in the Ecological Assessment. The proposed boundary fencing includes mammal gates at regular intervals to allow for the future use of the Site by mammals.

6.28 The Site provides limited opportunities for reptiles owing to the open and exposed nature of poor semi-improved grassland. The tall ruderal/scattered scrub mosaic in the northeast, where the cable route is proposed, was too high and dense to provide basking opportunities and the ground likely too wet to provide regular sheltering opportunities. Given the low suitability of the Site and the proposed enhancements, in the long-term, impacts to reptiles are not anticipated. Prior

to and during construction of the solar farm, the Site will be maintained in its current short grassland condition, to prevent it from increasing in suitability for reptiles. Additionally, working areas and storage of materials will be located to minimise basking opportunities.

6.29 Great Crested Newts are considered likely to be absent from the Site and mitigation is deemed unnecessary following desk-based assessments and eDNA tests of surrounding ponds and water bodies. In the unlikely event a Great Crested Newt is present during the proposed works, the mitigation measures outlined for reptiles apply.

6.30 During surveys and studies, no nationally rare birds or species protected under Schedule 1 of the Wildlife and Countryside Act were recorded on the Site. However, a total of two red listed Birds of Conservation Concern were recorded within the Site. A further eight amber listed species were also recorded within the Site. This is detailed further in the accompanying Ecological Assessment.

6.31 The hedgerows within the Site provided suitable nest building, foraging and dispersal opportunities for dormouse, though these were considered sub-optimal due to the low plant species diversity. Therefore, no impacts to dormouse are anticipated in the long-term, as there will be no net loss in dormouse habitat or fragmentation of habitats. Standard best practice guidance will be followed.

6.32 There is no evidence of Water Voles within the survey area. However, the surveyed area does provide optimum foraging habitat albeit with very limited burrowing opportunities. There remains a low risk of Water Voles being present at the Site. Therefore, best practice guidance will be followed including undertaking an update water vole survey by a suitably experienced ecologist within three months prior to the start of the construction works and/or site clearance works. The mitigation outlined in the Habitats, Badger and Reptiles sections will also help to prevent impacts to water vole, if present during the construction phase.

Enhancement

6.33 Given the size of the Site and the common and widespread habitats that are currently present, there is significant opportunity to provide enhancements within the Site and wider site ownership, resulting in a net gain for biodiversity. These are listed in detail in the accompanying Ecological Assessment. In short:

- The hedgerows within the Site will be enhanced through native scrub planting.
- Poor semi-improved grassland will be replaced with species-rich grassland, using a species mix of local provenance.

- Scattered native trees and new hedgerow will be planted in a small area in the far north-west of the Site.
- Five bat boxes will be provided on retained mature trees to the north and east of the Site.
- Six bird nest boxes will be provided on mature trees to the north and east of the Site.

6.34 Overall, the Ecological Assessment sets out sufficient mitigation and best practice measures that will be adhered to ensure the Proposed Development meets the requirements of the Development Plan, specifically including Local Development Plan policy AW8 and the Future Wales National Plan.

Best and Most Versatile Land

6.35 The Site is entirely comprised of Grade 5 agricultural land meaning it is not best and most versatile in accordance with PPW. As a result, developing the Site for a solar farm is appropriate and meets the requirements of PPW.

Flooding

6.36 The accompanying Flood Consequences Assessment (FCA) notes that the Proposed Development is located predominantly on existing permeable ground. The FCA recognises the guidance within TAN15 and demonstrates that the Site post-development will have negligible changes to permeability.

6.37 Further, the Site lies mostly within an area of little to no flood risk with the only area at high risk being the surrounding land drainage ditches. These already assist site drainage through surface water runoff and the Proposed Development would not interfere with this. Therefore, sustainable, and sufficient drainage is already present.

6.38 The FCA demonstrates that the Proposed Development has justifiable and acceptable consequences of flooding and meets the requirements of the development plan, specifically Local Development Plan policy TAN15.

Heritage

6.39 The Proposed Development has been reviewed through the accompanying Historic Environment Assessment (HEA) which has concluded that no direct physical effects on recorded historic assets are anticipated in the vicinity of the Proposed Development Site.

6.40 The HEA found that the Site contains evidence of human activity from the Mesolithic period, with evidence for Bronze Age settlement, including funerary and ritual monuments. Evidence of human occupation within the Study Area is

recorded from the late prehistoric until the post-medieval period, when the Study Area was exploited for coal extraction and the focus of activities associated with the iron industry.

6.41 As a result of the historical coal extraction and use of the Site in more recent history as an open cast coal mine, most archaeological remains have already been disturbed or removed. Any surviving buried archaeological remains that may be present within the Site, including along the cable route, have been identified during previous topsoil stripping conducted at the Site, as per the Heritage Report.

6.42 As a result, the potential risk of direct physical effects on previously unrecorded historic assets is considered negligible.

6.43 As noted in Chapter 2 of this report, the Study Area and its wider landscape contains several historic assets, the majority related to post-medieval extractive processes and ironworking. A small number of historic assets whose setting may be affected by the Proposed Development have been assessed to understand the potential negative effects to their heritage significance. No significant negative effects have been identified for any historic assets.

6.44 The Proposed Development would become an integral part of a landscape historically shaped and characterised by industrial developments including former mining and ironwork remains, wind farms, solar farms, industrial estates, and large quarries that surround the Site. There are existing examples of existing and approved solar farms in the locality such as the Hendrefawr Solar Farm and Bryngolwg Solar Farm (both west of the Site). Hence, the Proposed Development is in keeping with the cultural heritage of the landscape as required by Policy AW8 of the LDP and would not unreasonably detract from historical assets as Policy AW12 of the LDP requires.

6.45 The Proposed Development therefore meets the requirements of the development plan.

Trees

6.46 The Proposed Development will not directly affect any existing trees. To the northwest of the Site, hedgerow planting is proposed to filter views from the residential properties to the north. As detailed in the Landscape and Neighbouring Amenity section of this chapter, this is the result of pre-application consultation with the neighbouring residents.

Transport

6.47 The accompanying Construction Traffic Management Plan and Transport Assessment review the accessibility of the Site, potential impact on traffic, and provides the transport implementation strategy focused on preventing adverse impacts related to transport arising because of the Proposed Development.

6.48 Planning Policy Wales TAN 18 (Transport) sets an objective for new developments to embody sustainability principles, balancing the need to support the rural economy, whilst maintaining and enhancing the environmental, social, and cultural quality of rural areas. As such, the applicability of this guidance concerns the Site access visibility and potential for traffic management measures.

6.49 The Site is currently accessed via existing farm tracks leading from the public highway and the Proposed Development would continue to utilise the existing farm track to the south of the Site, joining onto the Rhigos Road (A4061). There are no visibility issues anticipated. The access track will be upgraded to support the transportation of materials to Site, using crushed stone and widening the track to 4m and small instances of widening to 7m to improve navigation around bends.

6.50 With regard to vehicle movements, the Proposed Development will result in only a temporary increase in traffic to and from the Site during the construction and, following operations, the eventual dismantling stage. Hence, other than during these temporary phases, there is no requirement to support sustainable transport to and from the Site.

6.51 For the construction and dismantling stages, a shuttle-bus service could be provided from a location conveniently accessed from the existing Rhigos Road bus stop, located approximately 1km from the Site. This would provide a sufficient public transport option for workers. In terms of walking and cycling, the A4061 is considered accessible for cyclists, but not pedestrians. The cycle route is approximately 9km from Aberdare Train Station to the Site and is therefore already considered a suitable travel option as part of a longer multi-modal journey. The number 8 bus service connects the Station to the aforementioned bus stop on Rhigos Road, and therefore, suitable sustainable transport options already exist for the Site in conjunction with the possibility of a shuttle-bus service. Whilst the sustainable transport routes to the Site are not notably accessible, the Site's semi-rural location needs to be taken into consideration.

6.52 Please refer to the accompanying Transport Assessment for details of the measures taken to minimise adverse effects of generated trips during the construction and dismantling phases. No additional measures will be required during the operational phase owing to the minimal trips generated.

6.53 Overall, the adverse transport impacts of the proposed development will be limited to the construction and dismantling phases of the proposed development's 40 year lifespan. This will be limited to approximately 314 total HGV movements (to and from the Site) over a 16-week period during the construction phase (circa 1 delivery per day on average), and approximately 314 total HGV movements during the 16-week dismantling period.

6.54 Given the low transport impacts associated with the project it is considered to meet the requirements of the development plan.

Land Contamination

6.55 The accompanying Contaminated Land Preliminary Risk Assessment and Coal Mining Risk Assessment investigate and reports on the potential issues posed to the Proposed Development in relation to the Site's coal mining history.

6.56 The Coal Mining Risk Assessment has identified the possible presence of coal mining risks posed by worked seams to the north of the Site and former opencast mining and gases. Further investigation is proposed in relation to ensuring ground stability.

6.57 The Contaminated Land Preliminary Risk Assessment concludes that no significant contaminant linkages have been identified that require further investigation with the possible exception of risks from ground gas. No further requirements in terms of contaminant linkages are considered necessary. However, given the potential ground conditions resulting from the previous mining activities which took place on the Site, intrusive investigation is recommended in relation to understanding land stability. When this is undertaken, testing to verify the desk-based investigations should be undertaken.

6.58 Should unforeseen contamination be encountered during the development, specialist advice shall be sought to determine the appropriate course of action.

6.59 Given the relatively low risk of the Proposed Development it is considered that these matters can be dealt with post-consent, through appropriately worded planning conditions. The Development is therefore in accordance with development plan, particularly local development plan policy AW10.

Health and Safety

6.60 The proposed access track lies with the 'outer consultation distance' of the 'National Grid Gas Pipeline 7286_1555'. It should be noted that the pipeline itself is the other side of the A4061 and the Proposed Development does not intersect it. The Health and Safety Executive (HSE) Land Use Planning Methodology has been reviewed. Annex 2 of this sets out the types of developments which trigger a need to consult with HSE. The proposed Access Track does not fall into a development type listed that would trigger a consultation with HSE and a solar farm also falls outside of such development types. Given the nature of the development will involve very few persons coming into this consultation distance (and even then only for a very short period of time as they utilise the access track – the solar farm itself being outside the consultation distance) there is not considered to

be any material health and safety risk associated with the National Grid Gas Pipeline. As such the development is compliant with the development plan, particularly local development plan policy AW10.

Mineral resources

6.61 Policies CS10 – Minerals and AW14 – safeguarding of Minerals, of the Rhondda Cynon Taf LDP require developments to protect mineral resources without compromising on environmental issues. As the Site intersects a minerals resource area (identified in the local policies map), it is important to consider whether there is reasonable expectation that the Proposed Development will lead to a risk to safeguarding mineral resources.

6.62 In relation to this it is important to note that It is also worthwhile to note that Policy AW15 - Community Amenity Protection Buffer Zones sets out that coal extraction will not normally be permitted within 500m of defined settlement boundaries and a significant portion of the Site lies within such an area. As such, much of the Site cannot be considered workable for coal extraction. In addition, former coal mining activities have previously taken place on the Site, thus reducing its potential yield. Given these considerations, and the relatively small area of the Site compared to the overall coal resource, the development of a solar farm would not sterilise the coal resources on the Site in a manner which would be of material significance.

6.63 It is therefore considered that the development is appropriate in relation to the development plan, particularly local development plan policies CS10 and AW14.

Glint and Glare

6.64 A Glint and Glare Assessment has been produced and submitted in support of the application. This reports that the overall impact of the proposed solar array is anticipated to be low. This is owing to the existing 123m long section of screening along the north/south section of Rhigos Road (A4061) comprising of vegetation. This acts as sufficient mitigation, obstructing views of potential reflective panelling along most of the road and its properties. The development is therefore appropriate in accordance with the Development Plan.

Cumulative Impacts

6.65 As referenced in the Welsh Government – Planning Implications of Renewable and Low Carbon Energy Report (2011), planning applications for solar PV arrays must consider the cumulative impacts of the development in addition to the singular effects. Due to the localised level of effect of the Proposed Development, as set out above, the

potential for cumulative effects are limited to landscape and visual matters.

6.66 Potential mitigation for material cumulative effects is noted to include the existing landscape features of a site and new planting for the screening of development.

6.67 This application is accompanied by a Landscape and Visual Appraisal (LVIA), as part of the full planning application, which considers these cumulative impacts. This assessment concludes that in the majority of views from the surrounding landscape, there will be no additional cumulative effects related to the presence of the proposed development in combination with the existing Hendrefawr Solar Farm nor consented Bryngolwg Solar Farm.

6.68 The Public Right of Way that passes along the south-eastern site boundary of the consented Bryngolwg Solar Farm (near Viewpoint 3) is located immediately adjacent to the western boundary of the Bryngolwg site. The proposed PV panels within the south-east of the Bryngolwg Solar Farm site will be clearly visible across the middle ground of the view. Whilst this will cause a medium to high magnitude of change, it is due almost entirely to the visibility of the Bryngolwg Solar Farm rather than a cumulative impact related to the additional presence of the proposed development, which will be largely screened from view at this location. For this reason, there will be no additional cumulative effects related to the proposed development, and effects are judged to remain of lesser importance.

6.69 Taking account of cumulative impacts, the development is considered to comply with the requirements of the development plan.

Summary

6.70 In accordance with the appraisal set out above, the development has been designed in a manner which addresses all relevant policy and legislative considerations and is therefore in accordance with the development plan relating to the Site.

Chapter 7

Conclusions and Summary

7.1 This Planning, Design and Access Statement has been prepared by LUC (the Agent) on behalf of Regener8 Rhigos Ltd and Enviromena Developments UK Ltd (the Applicants) in support of the planning application for the development of a solar farm and associated infrastructure at Rhigos Road, Rhondda Cynon Taf.

7.2 This report includes a description of the Site and surrounding area, and relevant designations. In summary, the Site has been subject to coal mining activities and currently comprises poor quality agricultural land. It is surrounded by agricultural land, Rhigos Village to the east, and the village of Hirwaun to the west. The proposed access track intersects the Hirwaun Common SINC, which is also found to the east and north east of the Site, however given the small amount of area affected the proposal will not unacceptably affect the designation.

7.3 As a renewable energy development, the Proposed Development is primarily required to meet the objectives of ambitions and targets set by the Welsh Government in regard to renewable energy generation and the eventual goal of becoming a net-zero energy country, as well as the policies of Future Wales: The National Plan Policy 17, Planning Policy Wales, the 'Making Rhondda Cynon Taf Carbon Neutral by 2030' strategy and the Rhondda Cynon Taf Local Development Plan. Local Development Plan Policy AW12 recognises the opportunities for renewable energy technologies available to Wales. Where proposals ensure no significant detrimental impact on the surrounding natural environment and local communities, and deliver positive social, environmental, cultural, and economic benefits; development will be supported. As set out in Chapter 6 of this report, the development will not result in detrimental impacts in relation to these matters, due to the careful design approach and proposed mitigation.

7.4 The Proposed Development would help to achieve carbon reduction goals whilst also contributing to the improvement of biodiversity in the area and utilising poor quality, degraded agricultural land. The proximity to the Western Power Distribution Substation makes the chosen Site and location for the Proposed Development acceptable from an economic and environmental standpoint.

7.5 This Planning, Design and Access Statement, in collaboration with the accompanying documents forming the planning application, demonstrate compliance with key policy

whilst also pushing the biodiversity potential of the Site beyond what it can currently achieve.

7.6 Overall, the development proposes a sensitive and appropriate new use for the Site that is compliant with all required policy and legislation, including the Development Plan. It would contribute to local and national policies to achieve net-zero and increase renewable energy generation. It would achieve this without significant detriment to social, cultural, economic, and biodiversity environments. Hence, the Proposed Development should be approved without delay.

Appendix A

Planning Policy

Local Policy

Rhondda Cynon Taf Local Development Plan up to 2021 (2006 – 2021)

CS 1 – Development in the North

In the Northern Strategy Area the emphasis will be on building strong, sustainable communities. This will be achieved by:-

1. Promoting residential and commercial development in locations which will support and reinforce the roles of Principal Towns and Key Settlements;
2. Providing high quality, affordable accommodation that promotes diversity in the residential market;
3. Ensuring the removal and remediation of dereliction by promoting the re-use of under used and previously developed land and buildings;
4. Promoting large scale regeneration schemes in the Principal Town of Aberdare and in the Key Settlements of Mountain Ash, Ferndale and Treorchy;
5. Promoting accessibility by securing investment in new roads, public transport improvements, walking and cycling;
6. Encouraging a strong, diverse economy which supports traditional employment and promotes new forms of employment in the leisure and tourism sectors;
7. Protecting the cultural identity of the Strategy Area by protecting historic built heritage and the natural environment,
8. Promoting and enhancing transport infrastructure services to support growth and investment, and
9. Reducing daily out commuting by private car and promoting sustainable forms of travel.

CS 10 – Minerals

The Council will seek to protect resources and to contribute to the local, regional and national demand for a continuous supply of minerals, without compromising environmental and social issues, by;

1. Maintaining a minimum 10 year landbank of permitted rock aggregate reserves throughout the plan period (to 2021), together with an extended landbank in the form of a Preferred Area of Known Mineral Resource;
2. Defining safeguarding areas for mineral resources, including coal, high quality hard rock, limestone and sand and gravel, taking into account the range, quality and extent of resources and environmental, planning and transportation considerations;
3. Where proven resources are under threat from sterilisation by necessary development, the pre-working of the mineral resource will be encouraged;
4. Ensuring that appropriate restoration and aftercare measures are incorporated;
5. Promoting efficient usage, minimising production of waste, and promoting alternatives to primary won aggregates;
6. Ensuring that impacts upon residential areas and sensitive land uses from mineral operations and the transportation of minerals are limited to an acceptable proven safe limit.

AW 2 – Sustainable Locations

In order to ensure that development proposals on non-allocated sites support the objectives of the plan, development proposals will only be supported in sustainable locations. Sustainable locations are defined as sites that:-

1. Are within the defined settlement boundary or in the Northern Strategy Area, accord with Policy NSA 12;
2. Would not unacceptably conflict with surrounding uses;
3. Have good accessibility by a range of sustainable transport options;
4. Have good access to key services and facilities;
5. Do not permit highly vulnerable development and Emergency Services within Zone C2 floodplain. Within Zone C development will be permitted where it can be justified that: -
 - a) It is necessary to assist the regeneration of a Principal Town or Key Settlement including the key employment objectives, or where development involves a large brownfield site.
 - b) the potential consequences of a flooding event have been considered and found to be acceptable in accordance with national guidance and meet the definition of previously developed land.

6. Support the roles and functions of the Principal Towns, Key Settlements and Small Settlements;
7. Support the development of the 8 Strategic Sites;
8. Are well related to existing water, sewerage, waste, electrical, gas and telecommunications infrastructure and improvements to such services will be provided where necessary.
9. Where proposals relate to existing buildings in the countryside, accord with AW 9.

AW 6 – Design and Placemaking

Development Proposals will be supported where:-

1. They are of a high standard of design, which reinforces attractive qualities and local distinctiveness and improves areas of poor design and layout;
2. They are appropriate to the local context in terms of siting, appearance, scale, height, massing, elevational treatment, materials and detailing;
3. In the case of extensions to buildings, they reflect, complement or enhance the form, siting, materials, details and character of the original building, its curtilage and the wider area;
4. In the case of proposals for new and replacement shop fronts and signage, they make a positive contribution to the streetscene;
5. In the public realm and key locations such as town centres, major routes, junctions and public spaces, the character and quality of the built form is to a high standard of design;
6. They include public art;
7. Landscaping and planting are integral to the scheme and enhance the Site and the wider context;
8. They include an integrated mixture of uses appropriate to the scale of the development;
9. They include the efficient use of land, especially higher-density residential development on sites in proximity to local amenities and public transport;
10. Open space is provided in accordance with the Fields in Trust Standards;
11. A high level of connectivity and accessibility to existing centres, by a wide range of modes of sustainable transport;
12. Schemes incorporate a flexibility in design to allow changes in use of buildings and spaces as requirements and circumstances change;
13. The development reflects and enhances the cultural heritage of Rhondda Cynon Taf;

14. The design protects and enhances the landscape and biodiversity;
 15. The development promotes energy efficiency and the use of renewable energy; and
 16. The design promotes good water management, including rainwater storage, sustainable urban drainage, porous paving etc.
- Developers will be required to submit comprehensive masterplans for residential proposals of 50 dwellings and over; for commercial developments of 10,000m² net and over; and for schemes where the Council considers the issue of place making can only be fully considered through the submission of a masterplan. Masterplans must have regard to the need to create high quality, sustainable and locally distinct places.

AW 7 – Protection and Enhancement of the Built Environment

Development proposals which impact upon sites of architectural and / or historical merit and sites of archaeological importance will only be permitted where it can be demonstrated that the proposal would preserve or enhance the character and appearance of the Site.

Development proposals which affect areas of public open space, allotments, public rights of way, bridleways and cycle tracks will only be permitted where it can be demonstrated that :-

1. There is a surplus of such facilities in the locality, or;
2. The loss can be replaced with an equivalent or greater provision in the immediate locality; or
3. The development enhances the existing facility.

AW 8 – Protection and Enhancement of the Natural Environment (*The grid connection route will go through this area*)

Rhondda Cynon Taf's distinctive natural heritage will be preserved and enhanced by protecting it from inappropriate development. Development proposals will only be permitted where:-

1. They would not cause harm to the features of a Site of Importance for Nature Conservation (SINC) or Regionally Important Geological Site (RIGS) or other locally designated sites, unless it can be demonstrated that:-

a) The proposal is directly necessary for the positive management of the Site; or

- b) The proposal would not unacceptably impact on the features of the Site for which it has been designated; or*
- c) The development could not reasonably be located elsewhere and the benefits of the proposed development clearly outweigh the nature conservation value of the Site.*

2. There would be no unacceptable impact upon features of importance to landscape or nature conservation, including ecological networks, the quality of natural resources such as air, water and soil, and the natural drainage of surface water.

All development proposals, including those in built up areas, that may affect protected and priority species will be required to demonstrate what measures are proposed for the protection and management of the species and the mitigation and compensation of potential impacts.

Development proposals must be accompanied by appropriate ecological surveys and appraisals, as requested by the Council.

Development proposals that contribute to the management or development of Ecological Networks will be supported.

AW 10 – Environmental Protection and Public Health

Development proposals will not be permitted where they would cause or result in a risk of unacceptable harm to health and / or local amenity because of:-

1. Air pollution;
2. Noise pollution;
3. Light pollution;
4. Contamination;
5. Landfill gas;
6. Land instability;
7. Water pollution;
8. Flooding;
9. Or any other identified risk to the environment, local amenity and public health or safety unless it can be demonstrated that measures can be taken to overcome any significant adverse risk to public health, the environment and / or impact upon local amenity.

AW 12 – Renewable & Non-Renewable Energy

Development proposals which promote the provision of renewable and non-renewable energy such as schemes

for energy from biomass, hydro-electricity, anaerobic digestion, on-shore oil and gas and small / medium sized wind turbines, will be permitted where it can be demonstrated that there is no unacceptable effect upon the interests of soil conservation, agriculture, nature conservation, wildlife, natural and cultural heritage, landscape importance, public health and residential amenity.

Development proposals should be designed to minimise resource use during construction, operation and maintenance.

AW 14 – Safeguarding of Minerals

The following mineral resources shall be safeguarded from any development which would unnecessarily sterilise them or hinder their extraction.

1. The resources of Sand and Gravel, as listed below and shown on the proposals map, will be safeguarded from development.

- a) *Llanilid, East of Felindre Road*
- b) *Brynsadler, North of Llanharry Road*
- c) *South of Tylegarw, Pontyclun*
- d) *Ceulan Farm, Miskin*
- e) *Pant Marsh, Talbot Green*
- f) *Llantrisant and Pontyclun golf course*
- g) *Rhiwsaeson Road, Cross Inn*
- h) *Heol y Creigiau, Rhiwsaeson*

2. The resources of Sandstone, as shown on the proposals map, will be safeguarded from development.

3. The resources of Limestone, as shown on the proposals map, will be safeguarded from development.

4. The resources of Coal, as shown on the proposals map, will be safeguarded from development. This safeguarding area will exclude internationally and nationally designated nature conservation sites and established settlements of 10 units or more (as identified in Appendix 1F).

5. The Limestone and Sandstone quarries at Forest Wood, Hendy and Craig yr Hesg, will be further safeguarded from development that would adversely affect their operations by 200 metre buffer zones as shown on the proposals maps.

The above safeguarding areas will safeguard the mineral resources up to identified settlement boundaries.

NSA 25 – Special Landscape Areas

Special Landscape Areas are identified at the following locations:

- 1. Mynydd y Cymmer;
- 2. Mynydd Troed y Rhiw Slopes;
- 3. Llwyncelyn Slopes;
- 4. Cwm Clydach;
- 5. Cynon Valley Northern Slopes;
- 6. Cwm Orci;
- 7. Rhondda Fawr Northern Cwm & Slopes;
- 8. Hirwaun Common, Cwm Dare & Cwm Aman; and,
- 9. Brecon Beacons Edge at Llwydcoed.

Development within the defined Special Landscape Areas will be expected to conform to the highest standards of design, siting, layout and materials appropriate to the character of the area.