

SP Manweb Plc, Registered Office: 3 Prenton Way Prenton CH43 3ET

June / 2017

Anglesey 132kV Reinforcement

Document 2: Environmental Appraisal

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EXECUTIVE SUMMARY

SP Energy Networks propose to construct approximately 0.7km of new 132kV wooden trident pole overhead line north west of Caergeiliog, in the Isle of Anglesey. This development forms part of a wider scheme to reinforce Anglesey's 132kV infrastructure to cope with the recent and future increase in power generation on the island.

The route of the proposed development is generally within lowland improved grassland with some main watercourses in the area. The route runs in a north-south direction and crosses the A55.

This environmental appraisal is supported by a visual impact assessment and an ecological constraints report. Collectively, this report considers the potential environmental impact of the construction and operation of the proposed development.

This appraisal concludes that the potential impacts are predominately during the construction phase; relating to potential impacts upon flood risk and watercourses, land use and protected species which may be present. However these impacts are considered to be minimised through the recommended mitigation and construction best-practice.

Further actions are recommended, including the development and implementation of a Construction Environmental Management Plan and ecological species surveys following the identification of suitable habitat.

With the implementation of the recommended mitigation and actions, no adverse environmental impacts are predicted.



1. Introduction

1.1 Overview

- 1.1.1 This Environmental Appraisal report has been prepared by WSP | Parsons Brinckerhoff on behalf of SP Energy Networks. It should be read in conjunction with the separately prepared Planning Report, which together accompanies the application for Section 37 consent under the Electricity Act 1989 to reinforce the 132kV network at Anglesey, North Wales.
- 1.1.2 The purpose of the Environmental Appraisal report is to identify potential environmental constraints and risks associated with the proposed route 132kV overhead line (OHL) route.
- 1.1.3 This report first provides a brief description, background and overview of the route of the proposed development. The second section provides a summary of the methodology that has been applied in the undertaking of the environmental appraisal. This is then followed by the third part of the technical note, which presents the findings and details the environmental constraints, followed by a summary of the potential impacts and constraints figures, which accompany this appraisal.
- 1.1.4 References are made to the information contained in the separate Planning Report which should be referred to for further detail on the following topics, which are of relevance to this appraisal:
- Relevant planning policy;
 - Consideration of alternatives (including why the overhead line is not being developed underground);
 - Consultation that has been undertaken; and
 - Detailed design consideration.
- 1.1.5 In brief, SP Energy Networks' overall approach to routing is based on the premise that the major effect of an overhead line is visual, as a result of its scale relative to objects in the vicinity such as buildings and trees; and that as there is no technical way of reducing this other than the choice of structures, and only limited ways of achieving screening through planting. Therefore, the most effective way of causing the least visual disturbance is by careful routeing. In addition, SP Energy Networks is aware that a well-routed line takes account of other environmental and technical considerations, even if the length is increased in consequence.

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1.2 Background to SP Energy Networks

1.2.1 SP Energy Networks is part of the Scottish Power Group of companies and owns three regulated electricity network businesses in the UK. These businesses are 'asset-owner companies' holding the regulated assets and Electricity Transmission and Distribution Licenses of Scottish Power. SP Energy Networks operates, maintains and develops the network of cables, overhead lines and substations transporting electricity to around 3.5 million connected customers.

1.3 Background and need for the Proposed Development

1.3.1 SP Energy Networks is proposing to reinforce its electricity distribution network by constructing approximately 0.74km of new 132 kV wood pole power line (the Proposed Development) and a new 12km circuit of 33kV line (which is the subject of a separate planning application).

1.3.2 The reinforcement of the distribution network is needed due to difficulty in accommodating current and future generation on Anglesey without exceeding the existing network's voltage limits or causing stability issues over the next 10 years. The Planning Report which accompanies this application provides further information regarding the need for the reinforcement.

1.3.3 Consent is therefore being sought from the Secretary of State for the permanent installation of the new 132kV line.

1.4 Consultation

1.4.1 SP Energy Networks attaches great importance to the effect that its works may have on the environment and on local communities. In seeking to achieve 'least disturbance', SP Energy Networks is keen to engage with key stakeholders including local communities and others who may have an interest in the project. This engagement process begins at the early stages of development of a project and continues into construction once consent has been granted. The Planning Report provides further information regarding the consultation that has been undertaken for this project.

1.4.2 During the preparation of this appraisal, the Isle of Anglesey Council was consulted upon to request environmental baseline data. Further information is provided in Section 4 of this report.

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2. Design considerations

- 2.1.1 The objective of route selection is to identify a technically feasible and economically viable overhead line route, between specified points, which causes the least disturbance to people and the environment.
- 2.1.2 Further information on the approach to routeing is contained in the Planning Report.

2.2 Description of the 132 kV Overhead Line

The Route

- 2.2.1 The overhead line route runs for approximately 0.74 km from the existing NGET Wylfa - Penrhos 132kV tower line to a terminal pole on the edge of Caergeiliog, as illustrated in Figure 7. The route runs within a rural agricultural area before crossing the A55 to a terminal pole, where the overhead line terminates.
- 2.2.2 From this point, the proposed underground cable route runs approximately south, and then turns west along the A5 Holyhead Road and then turns south to the existing substation. The underground cable section of the route has been excluded from this appraisal as it does not form part of the section 37 planning application. The indicative underground cable route has, however, been included in the accompanying environmental constraints maps for illustrative purposes only.

Overhead Line Design

- 2.2.3 The proposal is for a wood pole 'Trident' design overhead line. It was considered that wooden poles, which are lower in height and have a more slender and simpler appearance than steel lattice towers, will be more sympathetic to the predominantly rural landscape through which the line will be routed. Further details of the 132kV overhead line design and the embedded design mitigation are contained in the Planning Report.

2.3 Construction Activities

- 2.3.1 Overhead line construction follows a standard sequence of activities. For a single circuit wood pole line these activities are:
- Preparation of accesses;
 - Excavation of foundations for poles and stays;
 - Delivery of poles;

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- Erection of poles;
- Undergrounding/deviation of lower voltage lines where necessary for safety clearances;
- Delivery of conductor drums and stringing equipment;
- Insulator and conductor erection and sagging; and
- Clearance and reinstatement.

2.3.2 It is estimated that the overhead line works will take approximately 4 weeks to construct once the pre-engineering and site set works are complete. Further details of the construction activities are contained in the Planning Report.

2.4 Routeing Strategy

2.4.1 With SP Energy Networks, a routeing strategy is developed, based on established practice for line routeing and a general understanding of the technical and environmental constraints and opportunities relating to routeing an overhead line through the identified study area.

2.4.2 SP Energy Networks approach to routeing is discussed in the Planning Report: however broadly, the approach follows a process of developing route options; appraisal of the route options and then the development of a preferred route.

2.4.3 SP Energy Networks provided WSP | PB with an indicative route for the 132kV line to inform a high-level environmental appraisal. Following an initial appraisal which identified potential visual impacts, SP Energy Networks amended the route. This report is the appraisal of the amended route for the Proposed Development.

3. Planning Policy Summary

3.1.1 The Planning Report provides a review of relevant planning policy, legislation and guidance. This section therefore provides a summary of planning policy discussed in the Planning Report which is applicable to this environmental appraisal.

3.2 National Policy

3.2.1 National Policy Statements (NPSs) provide the policy framework for examining and determining nationally significant infrastructure. Two NPSs are relevant for electricity infrastructure; Overarching National Policy Statement for Energy (EN-1)

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and the National Policy Statement for Electricity Networks Infrastructure (EN-5) (which must be read in conjunction with EN-1).

- 3.2.2 The Planning (Wales) Act 2015 provides a statutory requirement for the Welsh Ministers to produce a National Development Framework (NDF) which will replace the current Wales Spatial Plan.
- 3.2.3 The Wales Spatial Plan: People, Places, Futures 2008 Update aims to deliver sustainable development through its area strategies in the context of its Sustainable Development Scheme. It sets out national spatial priorities, providing the context for the application of national and regional policies for specific sectors reflecting the distinctive characteristics of different areas of Wales and their cross-border relationships.
- 3.2.4 Planning Policy Wales (PPW) (Edition 8, 2016) is the current overarching planning policy for Wales, which sets out the Country's land use planning policies. PPW is supplemented by a series of Technical Advice Notes (TANs) which provide advice and guidance on a range of topics.

3.3 Local Policy

- 3.3.1 A full list of the relevant local policies is provided in the Planning Report. A summary of those which are applicable to environmental topics are provided below

Ynys Môn Local Plan

- 3.3.2 See the Planning Report for a full list of policy's applicable to the Proposed Development.
- Policy 28: Tidal Inundation and River Flooding;
 - Policy 31: Landscape;
 - Policy 33: Nature Conservation; and
 - Policy 39: Archaeology.

Anglesey's Stopped Ynys Mon UDP Plan

- 3.3.3 The Stopped Ynys Mon UDP Plan contains many several policies which aim to safeguard from harm and promote sustainable and considerate development. The Stopped UDP is considered by the Council to be the material decision making document for planning and contains Policies governing the protection of landscape, biodiversity, historic environment, trees hedgerows and woodlands. A full list of applicable policies is contained in the Planning Report.

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Anglesey and Gwynedd JLDP

- 3.3.4 Gwynedd Council and the Isle of Anglesey County Council are preparing a JLDP that will serve the Anglesey and Gwynedd Local Planning Authority areas. When the JLDP is adopted, it will replace the Anglesey Local Plan (1996) and the Anglesey Unitary Development Plan (that was stopped in 2005), which currently is a material planning consideration for determining planning applications by the Isle of Anglesey County Council. The draft JLDP proposes policies such as PS16 (Conserve and enhance the area's distinctive natural environment), AMG1 (development in SLAs) and AMG5 (proposals potentially impacting LWSs, Wildlife Sites). A full list of applicable policies is contained in the Planning Report.



4. Environmental Appraisal Methodology

4.1 Overview

- 4.1.1 The identification and appraisal of environmental constraints form an integral part of the route corridor and selection and appraisal process. Having identified the requirement and determined the preferred design solution for reinforcing the distribution network, the purpose of this study is to identify the potential environmental constraints in the area so as to identify a route corridor for the 132kV line which is technically feasible, economically viable and will cause as minimal environmental and social impacts as possible.

4.2 Baseline methodology

- 4.2.1 The existing environmental and social baseline has been informed by the following means:

DESK BASED DATA COLLECTION AND CONSULTATION

- 4.2.2 A desk-based data collection exercise was undertaken to collate publically available information for the 132kV routes, within the study areas stated in Section 4. The data collection process consisted of obtaining data from government body websites; a review of local planning documents and development plans; research on local interest groups and a review of aerial photography.
- 4.2.3 Consultation was undertaken with the Isle of Anglesey County Council on the 9th November 2016 via email, in order to request local designation information and request any further comment.
- 4.2.4 Table 1 below describes the environmental features which have been included within the desk-based data collection and appraisal exercise. The table outlines the relevant environmental aspect category and a description of the associated features within each.

EXTENDED PHASE 1 ECOLOGICAL SURVEY

- 4.2.5 Avian Ecology Ltd. was commissioned by SP Energy Networks to undertake an Ecological Constraints Walkover of land at Caergeiliog, Isle of Anglesey in relation to the proposed 132kV overhead line. The Ecological Walkover comprised an Extended Phase 1 Habitat Survey combined with a desk-based review of available online information.

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4.2.6 The Ecological Constraints report is provided in Appendix 2

VISUAL IMPACT ASSESSMENT

4.2.7 A Visual Impact Assessment has been undertaken as part of this appraisal and accompanies this report in Appendix 2. The purpose of the assessment is to identify the potential changes that would arise in views and visual amenity at nearby residential properties.

4.2.8 The methodology which has been followed for the assessment is described in Appendix 2. However, in brief, the assessment was undertaken via a desktop exercise and a site survey in November 2016.

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Table 1– Environmental Features

Environmental Aspect	Feature	Description
Landscape and Visual	National Parks	There are three National Parks in Wales, the Brecon Beacons, Pembrokeshire Coast, and Snowdonia which are protected areas because of their beautiful countryside, wildlife and cultural heritage. People live and work in the national parks and the farms, villages and towns are protected along with the landscape and wildlife.
	Area of Outstanding Natural Beauty (AONB)	Areas of Outstanding Natural Beauty (AONBs) are designated under the National Parks and Countryside Act 1949 (as amended) and have been confirmed by the Government as having the highest status of protection in relation to landscape and scenic beauty. New overhead lines, which lie outside of but close to an AONB, must be carefully considered in terms of their potential impact on the landscape of the AONB to avoid compromising the objectives of the designation.
	Special Landscape Areas (SLAs)	A Special Landscape Area (SLA) is a non-statutory conservation designation which may be applied by Local Planning Authorities where there is a good reason to believe that normal planning policies cannot provide the necessary protection. In Gwynedd, eleven Landscape Conservation Areas (equivalent to SLAs) have been designated in the current Unitary Development Plan (2001-2016). The Isle of Anglesey’s Unitary Development Plan (2005) had chosen not to identify SLAs in Anglesey, and although work on this UDP was stopped, it is given weight as a material consideration in planning decisions as it had reached the advanced proposed modifications stage. Anglesey and Gwynedd are currently preparing a Joint Local Development Plan (JLDP), however until this is adopted, the Ynys Môn Local Plan 1996 remains the key guidance, which designated the whole of the island (outside the AONB and settlement boundaries) as a Special Landscape Area under Policy 31. In a 2012 review of SLAs in Gwynedd and Anglesey, it was concluded that 16 SLAs would be designated (10 in Gwynedd and 6 in Anglesey). Any development proposals within the SLA will need to account for the ‘special qualities’ set out in the prepared Statements of Significance for each SLA. The SLAs identified for Anglesey are listed below.

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Table 1– Environmental Features

Environmental Aspect	Feature	Description
		<ul style="list-style-type: none"> • Malltraeth Marsh & Surrounds; • Parys Mountain and Slopes; • Mynydd Mechell & Surrounds; • Beaumaris Wooded Slopes and Llangoed Vale; and • Southern Anglesey Estate lands. <p>A special landscape area is a non-statutory conservation designation used in areas whereby scenery is highly valued locally. The designation is used to ensure that the landscape is not damaged through inappropriate development.</p>
	Heritage Coasts	Heritage Coasts are stretches of outstanding, unspoilt coastline, usually cared for by local authorities. They account for nearly half of Wales' coastline
Biodiversity and Geological Conservation	RAMSAR Sites	A Ramsar Site is a wetland site designated of international importance under the Ramsar Convention.
	Special Protection Area (SPA)	A Special Protection Area (SPA) is a site designated under the EU Directive on the Conservation of Wild Birds; the designation safeguards the habitats of migratory birds and certain particularly threatened species.
	National Nature Reserves (NNR)	NNRs were set up to conserve and to allow people to study their wildlife, habitats or geological features of special interest. All NNRs in Wales are legally protected as Sites of Special Scientific Interest (SSSI). Most are also declared under the EU Habitats Directive as Special Areas of Conservation (SAC), Special Protection Areas (SPA) or Ramsar (wetlands).

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Table 1– Environmental Features

Environmental Aspect	Feature	Description
	Site of Special Scientific Interest (SSSI)	<p>Sites of Special Scientific Interest (SSSIs) are the most important sites for Wales’ natural heritage. They help conserve and protect the best of wildlife, geological and physiographical heritage for the benefit of present and future generations.</p> <p>SSSIs in Wales include coastline, freshwater, upland and lowland sites and range from small fens or sand dunes to woodlands and vast reaches of mountain. They contain important types of land, plants and wildlife. Geological sites range from quarries to rocky outcrops and massive sea-cliffs.</p>
	Special Areas of Conservation (SACs)	<p>A Special Area of Conservation (SAC) is a strictly protected site for conservation of habitats and species designated under the EC Habitats Directive.</p>
	Local Nature Reserve (LNR)	<p>Local Nature Reserves (LNRs) are places with wildlife or geological features that are of special interest locally. They offer people special opportunities to study or learn about nature or simply to enjoy it.</p>
	Marine Nature Reserve	<p>Marine Nature Reserves (MNRs) have similar status and protection to National Nature Reserves, but are particularly concerned with a marine environment. MNRs are created to conserve marine flora and fauna and geological or physiographical features of special interest, while providing opportunities for study of the systems involved.</p>
	RSPB Reserves	<p>These are usually also designated as NNRs (as detailed above) RSPB Cymru helps to protect special places for wildlife in a wide variety of ways. The RSPB manages 18 nature reserves in Wales, ranging from offshore islands to mountain tops, and from wetlands to woodlands. The conservation work on these sites includes managing the existing habitat, keeping it in good condition for wildlife. There is also new creation of habitat, for example at the Malltraeth Marsh reserve on Anglesey there has been reedbed, marshes, wet grassland and small pools created out of an area of farmland.</p>
	Biosphere Reserves	<p>Biosphere Reserves are areas designated under the UNESCO Man and the Biosphere programme, an intergovernmental science programme focused on three different aims: conservation of genetic resources, species, and ecosystems; scientific</p>

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Table 1– Environmental Features

Environmental Aspect	Feature	Description
		<p>research and monitoring; and promoting sustainable development in communities of the surrounding region. The Biosffer Dyfi area is currently the only Biosphere Reserve in Wales, and is located approximately 78 Kilometres to the south east of the study area.</p> <p>Biosphere Reserves are terrestrial, marine and coastal ecosystems model regions for sustainable development and test sites for conservation approaches where communities collaborate to live in harmony with their environment.</p>
	Local Wildlife Sites	Local Wildlife Sites are identified and selected locally using robust, scientifically-determined criteria and detailed ecological surveys. As a result, these spaces play a part in the natural green fabric of our towns and countryside. They make up a web of stepping stones and corridors for wildlife, forming key components of ecological networks.
	Ancient Semi Natural Woodland	Ancient Semi Natural Woodland is woodland which has existed at least since 1600 and are of ecological and cultural importance.
	Welsh Ancient Woodlands Inventory	The Ancient Woodland Inventory identifies woodlands that have had continuous woodland cover for some centuries and so are typically more ecologically diverse and of a higher nature conservation value than those developed recently or where woodland cover on the site has been intermittent.
	National Forest Inventory (NFI)	The National Forest Inventory (NFI) programme monitors woodland and trees within Great Britain and provides an extensive and unique record of key information about our forests and woodlands.
	Tree Preservation Orders	TPOs are an order made by a local planning authority which in general makes it an offence to cut down, top, lop, uproot, wilfully damage or wilfully destroy a tree protected by an Order without the planning authority's permission.

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Table 1– Environmental Features

Environmental Aspect	Feature	Description
	Geological Conservation Review Sites (GCR)	The Geological Conservation Review (GCR) is an initiative which began in 1977 to identify and compile a comprehensive list of the most important geological sites in Britain. The GCR was designed to identify sites of international and national importance which show key scientific elements of the Earth's heritage.
Water / Flood Risk	Water Courses (Main Rivers)	Main Rivers are typically larger streams and rivers and are legally designated by Natural Resources Wales. Every other watercourse in Wales is known as an 'ordinary' watercourse.
	Flood Risk Zones	Flood zones refer to the probability of river and sea flooding, ignoring the presence of defences. Flood Zone 2 – land that has a 1 in 100 and 1 in 1,000 annual probability of river flooding (1% – 0.1%), or between a 1 in 200 and 1 in 1,000 annual probability of sea flooding (0.5% – 0.1%) in any year Flood Zone 3 - land that has a 1 in 100 or greater annual probability of river flooding (>1%), or a 1 in 200 or greater annual probability of flooding from the sea (>0.5%) in any year
Historic Environment	World Heritage Sites	A World Heritage Site is a landmark which has been officially recognized by the United Nations. Sites are selected on the basis of having cultural, historical, scientific or some other form of significance, and they are legally protected by international treaties. UNESCO regards these sites as being important to the collective interests of humanity.
	Scheduled Ancient Monuments (SAMs)	Scheduled monuments are sites of archaeological importance with specific legal protection against damage or development. For an archaeological to be scheduled it must be a site of national importance, being a site that characterises a period or category in Welsh history, with consideration given to rarity, good documentation, group value, survival/condition, fragility/vulnerability, diversity and potential.
	Landscapes on the Register of Landscape of Historic Interest	To recognise the value of historic landscapes, and raise awareness of their importance, Cadw has compiled a Register of Landscape of Historic Interest in Wales. It identifies landscapes of outstanding or special historic interest, which are considered to be the best examples of different types of historic landscapes in Wales.

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Table 1– Environmental Features

Environmental Aspect	Feature	Description
	in Wales	
	Sites listed on the Register of Parks and Gardens of Historic Interest in Wales	The Register of Parks and Gardens of Special Historic Interest in Wales was compiled in order to aid the informed conservation of historic parks and gardens by owners, local planning authorities, developers, statutory bodies and all concerned with them. Parks and gardens on the Register range from medieval to late twentieth century. Many are multi-period, with features of different styles and periods.
	Listed Buildings	A listed building or listed structure, is one that has been placed on the Statutory List of Buildings of Special Architectural or Historic Interest. A listed building may not be demolished, extended, or altered without special permission from the local planning authority.
	Conservation Areas	Conservation Areas are areas which are designated for their special architectural or historical interest, the character of which is desirable to preserve or enhance.
	Inventory Battlefields	In 2011 Cadw held a public consultation to identify and establish a Register of Historic Battlefields in Wales so these battlefields could be protected and managed. There appears to be no established Register of Historic Battlefields as of yet.
	Regionally Important Archaeological Sites	Regionally important archaeological sites are locations or sites which serve of local or regional archaeological interest.

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Land Use, Tourism and Recreation	National Trails	National Trails are recognised long distance footpaths and bridleways. They are administered in Wales by Natural Resources Wales.
	Cycle Routes	Cycle routes include routes which are locally designated, as well as routes which are part of the National Cycle Network, which is a series of traffic-free paths and quiet on-road cycling and walking routes.
	Public Right of Ways (PRoWs)	PRoW are paths whereby the public have a legally protected right of passage and re-passage. Rights of way can be on any land, including privately owned land, and landowners have the right to allow other uses of a highway.
	Bridleways	A bridleway, or bridle path, is a path or trail used by equestrians as well as cyclists, walkers and hikers.
	National Trust Land	National Trust Land is land which is owned and/or maintained by the National Trust.
	Country Parks	Country Parks are areas of countryside set aside for public recreation and enjoyment.
	Woodland Parks and Forest Parks	Woodland or forests which can be enjoyed by the public which are created or protected by the Woodland Trust conservation charity.
	Land Allocations	Areas of land which have been designed or allocated as part of a policy in the JLDP.
Tourism and Recreational Areas	<p>The Anglesey and Gwynedd Joint Local Development Plan – Deposit Plan (2015) sets out framework to managing growth and development for the area for the period 2011 – 2026. Policy PS11 of the Plan sets out the vision to strengthen the area’s visitor economy. Anglesey’s greatest tourism assets lie with its distinctive historic and natural environment; however the unspoilt coastline, countryside and historic features are also Anglesey’s most sensitive resources.</p> <p>Areas or facilities designed for open recreational use, such as golf courses, holiday areas or playing fields</p>	

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	Agricultural Land Classification	Classification of agricultural land into five categories (Grade 1 – 5) according to the land's versatility and suitability for growing crops.
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4.3 Limitations and Assumptions

- 4.3.1 Provisional Agricultural Land Classification (ACL) maps have been produced for Wales, however these maps predate the Ministry of Agriculture, Fisheries and Food (MAFF) ALC guidelines 1988¹ and are therefore not suitable for assessing individual sites. Work is understood to now be underway by the Welsh local authorities and Government to provide ALC maps for Wales. The Land Quality Advisory Service was therefore consulted on the 2nd November 2016 to request any data currently held on ALC classifications for land within the study area of both lines. A response was received by James Cooke, who undertook a desk based assessment on the provisional ALC data as it currently stands. As this data is not yet finalised and published, it is of a draft and inaccurate state and should be viewed as indicative only. Nonetheless, it provides the most current view of ALC within the study area and has therefore been presented in Figure 1.
- 4.3.2 Whilst data was able to be obtained for Rivers and Sea flood risk areas and is shown in Figure 5, surface water and reservoir flood risk data was not able to be obtained. Surface water and reservoir flood risk areas have therefore only been appraised in this report, using online data viewer² but these areas are unable to be illustrated in Figure 5.

¹ <http://gov.wales/topics/environmentcountryside/farmingandcountryside/agricultural-land-classification/maps/?lang=en>

² <https://naturalresources.wales/our-evidence-and-reports/maps/flood-risk-map/?lang=en>



5. Study Area

5.1 Overview

- 5.1.1 The extent of the study area of the proposed line has been based upon the route of the Proposed Development provided by SP Energy Networks and professional judgement on the extent of potential environmental impacts.
- 5.1.2 The extent of study area used for the proposed line is outlined in Table 2 below and is illustrated in the accompanying environmental constraints maps.

Table 2: The extent of study areas used for each environmental aspect area:

Environmental Aspect	Study Area ³
Landscape Designations	1km
Biodiversity and Geological Conservation	500m
Historic Environment	500m
Land Use, Tourism and Recreation	500m
Watercourses and Flood zones	500m

- 5.1.3 It should be noted the study areas stated in Table 1 apply to this environmental appraisal only and that different study area extents are used for the Visual Impact Assessment (Appendix 1) and the Extended Phase 1 Ecological Survey (Appendix 2), which are referenced in this appraisal. Therefore, the respective appendices should be referred to for detail of the study areas used within each accompanying report.

5.2 132 KV Overhead Line

- 5.2.1 Located within western Anglesey, the proposed 132kV line is within an area of predominantly open rolling lowland. The land use is mostly made up of agricultural fields and farmland, along with the urban village settlement of Caergeiliog and associated minor roads and the A5, which intersects the village. Skirting Caergeiliog approximately 500m to the north is the east-west running A55 North Wales expressway. At the southern extent of the study area is the Llanfairfechan to Holyhead railway line, running south-east north-west.

³ Measured from the centre line to the edge of the area of search



6. Baseline Environment

6.1.1 This section describes the environmental features (outlined in Table 2) which currently exist within the study area. This section is supported by Figures 1 – 7, which form the accompanying environmental constraints maps and illustrate the identified areas of constraints. In instances whereby constraints have been identified, the relevant figure is referenced within each environmental aspect section below for reference.

6.1 Landscape and Visual

6.1.1 The following text presents an overview of the landscape and visual baseline including any designations which are applied. It should be read alongside Appendix 1 – Visual Impact Assessment.

6.1.2 The route of the proposed 132kV overhead line would lie within an open undulating landscape with some distant views to Holyhead Mountain and Mynydd Bodafon in Anglesey AONB, where overhead transmission lines are widespread and frequent.

Landscape Character

6.1.3 The proposed route is located within the southernmost extent of the North West Anglesey Landscape Character Area, which broadly extends from Llanfair-yn-neubwll (approximately 2.5km south-west of Caergeiliog) to Cemaes, northern Anglesey, covering the majority of the north-west Anglesey area. A summary of the key characteristics and key issues of the North West Anglesey LCA are provided in **Table 3** below.

Table 3: Key Landscape Characteristics

Key Characteristics: North West Anglesey LCA

This new LCA covers the north-west of the island from Amlwch down to the A5/A55 corridor between Valley and Caergeiliog. The key feature of its landscape character is the extensive drumlin field; this has resulted in the classic “basket of eggs” description for the landscape. The majority of the landscape is characterised by improved grassland,



especially in the drumlin field. However there are a number of marshy grasslands amongst the drumlins as well as small scattered areas of scrub. There are also extensive areas of scattered rocky outcrops associated with the Carreglefn quartzite deposits. The LCA also contains the largest water body on the island, Llyn Alaw, which is a reservoir and of importance to breeding birds and wintering wildfowl. Another, more distinctive feature of the landscape is the development of wind farms, particularly to the north of Llyn Alaw.

Key Issues

Coastal Landscapes

Abutting LCA 4, any development or management proposals should:

- Have regard to the AONB Management Plan.

Settlement Edge

Any proposals for development or landscape management should reflect:

- The development pattern of the area;
- Seek to use landform, vegetation patterns to mitigate impacts;
- Ensure scale, form and materials respect the local vernacular;
- Utilise and retain local field boundary patterns – cloddiau, fences, and hedgerows; and
- Have regard to Cemaes Bay Conservation Area and Llanfechell Conservation Area SPGs.

Habitat Management

Although a relatively intensely farmed area, there are a range of semi-natural habitats throughout the LCA. It includes Llyn Alaw which is an important biodiversity resource. Any development or management proposals should:

- Provide for the management of semi-natural habitat features, including open water; and
- Develop and enhance network of sites and link to local BAP targets.

Energy Landscapes

The area is characterised by a number of wind farms. In considering any further developments particular emphasis should be given to cumulative effects upon the



landscape character.

National Parks

- 6.1.4 There are no National Parks located within the study area.
- 6.1.5 The closest National Park is Snowdonia which is located 31 km to the south-east.

Areas of Outstanding Natural Beauty

- 6.1.6 There are no AONBs within the study area.
- 6.1.7 The Anglesey (Ynys Mon) AONB is located approximately 1.1 km west of the proposed overhead Line at its closest point. Almost the entire coastline of Anglesey is designated as an AONB measuring 221 sq. km, covering one third of the island. Although predominantly a coastal designation, the AONB encompasses Holyhead Mountain and Mynydd Bodafon. Some of the main features are low cliffs alternating with coves and pebble beaches, limestone cliffs scattered with fine sandy beaches and stretches of sand dunes.

Special Landscape Areas

- 6.1.8 There are no proposed Special Landscape Areas (as part of the draft JDLP) within the study area.

Heritage Coasts

- 6.1.9 There are no Heritage Coasts within the study area; however the Anglesey AONB incorporates three sections of coastline which have been designated as Heritage Coast. These non-statutory designations cover approximately 50 km of the coastline. The closest Heritage Coast to the proposed location of the overhead line is Holyhead Mountain which measures 28.6 km and is located approximately 6.5 km to the west.



6.2 Biodiversity and Geological Conservation

- 6.2.1 This section provides an overview of the ecological, biodiversity and geological designated sites and features within and close to the study area, and should be read alongside Appendix 2 – Ecology Constraints Report.
- 6.2.2 The most important sites for biodiversity are those identified through international conventions and European Directives. They include Special Protection Areas, Special Areas of Conservation and Ramsar sites. The Habitats Regulations 2010 provides statutory protection for these sites.
- 6.2.3 The survey area for the Ecological Constraints Report does not form part of or lie adjacent to any statutory wildlife site. The surveyed area comprised a mosaic of marshy, improved and semi-improved grassland with areas of dense scrub and young woodland habitats. Several wet ditches and wetland features are present within the survey area.

Ramsar Sites

- 6.2.4 There are no Ramsar sites within or nearby to the study area.

Special Protection Areas

- 6.2.5 There are no SPAs inside or within close proximity to the study area.
- 6.2.6 The nearest SPA is Glannau Ynys Gybi (Holy Island Coast) which is located approximately 4 km south-west of the study area.

National Nature Reserve

- 6.2.7 There are no National Nature Reserves (NNR) within close proximity to the study area.
- 6.2.8 The closest is Newborough Warren and Ynys Llanddwyn National Nature Reserve located approximately 13.8 km to the south-east.

Sites of Special Scientific Interest

- 6.2.9 There are no SSSIs within the study area.



- 6.2.10 The nearest SSSI is The Llynnau Y Fali (Valley Lakes) which is located approximately 900 m south of the study area and measures over 100 hectares. This SSSI is made up of two lakes (Llyn Penrhyn and Llyn Dinam) along with smaller water bodies interspersed by areas of fen, marshy grassland and scrub. The site supports a clear-water aquatic plant community characterised by a wide variety of pondweeds and is habitat for breeding and wintering wildfowl and bittern.
- 6.2.11 The Beddmanarch-Cymyran SSSI is located approximately 1.8 km west of the study area at its closest point. The SSSI includes over 900 hectares of coastal salt-marshes, mud-flats and shallow coastal water lying between Holy Island and the mainland of Anglesey. The site supports a wide variety of wintering coastal birds, especially ringed plover, red-breasted merganser and goldeneye. At both the northern and southern end are areas of rare dune heathland, and the whole site supports a range of rare plants such as sea lavender, dwarf rush and golden samphire. This site is also a Marine Protected Area.

Special Areas of Conservation

- 6.2.12 There are no SACs within the study area.
- 6.2.13 The Llyn Dinam SAC is located approximately 900 m south of the study area, and covers roughly a third of the area designated in Llynnau Y Fali (Valley Lakes) SSSI, measuring 36 hectares. Llyn Dinam is a coastal eutrophic lake, and is habitat to a rich variety of aquatic plants.

Local Nature Reserve

- 6.2.14 There are no Local Nature Reserves within the study area.
- 6.2.15 The closest is Nant Y Pandy (The Dingle) located approximately 14 km to the east of the study area.

Marine Nature Reserve

- 6.2.16 There are no Marine Nature Reserves within or near to the study area.

RSPB Reserves

- 6.2.17 There are no RSPB Reserves within the study area.



6.2.18 There are three RSPB (Royal Society for the Protection of Birds) Reserves in Anglesey: The Valley Wetlands, South Stack Cliffs and Malltraeth Marsh. The Valley Wetlands RSPB is the closest of these reserves to the study area is the Valley Wetlands, which is located approximately 500 metres to the south of the study area.

Biosphere Reserves

6.2.19 There are no biosphere reserves within or nearby the study area.

Local Wildlife Sites

6.2.20 Two Local Wildlife Sites have been identified in the study area; as illustrated in Figure 2.

- Gwely Cyrs Caergeiliog – located at the SW extent of the study area, where the A5 meets the A55.
- Rhostir a Phwll Caergeiliog – located at the southern extent of the study area, south of Tyn Rhos.

Ancient Semi Natural Woodland

6.2.21 There are no ancient woodlands within proximity of the study area.

6.2.22 The nearest is approximately 2 km to the north.

Welsh Ancient Woodlands Inventory

6.2.23 There are no Welsh Ancient Woodland Inventory sites within or within close proximity to the study area

National Forest Inventory

6.2.24 There is one woodland registered in the NFI which borders the study area at the SE. This is a broadleaf woodland, as shown in Figure 4.

Tree Preservation Orders

6.2.25 The information on Tree Preservation Orders (TPOs) provided by the Isle of Anglesey County Council indicates that TPO 69: Frondeg, Caergeiliog is the only TPO present in the study area. TPO 69 is located approximately 400m SE of the southernmost extent of the overhead line, off Holyhead Road.

Geological Conservation Review Sites

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6.2.26 There are no GCR sites within the study area.

6.2.27 There are twenty-seven GCR sites within Anglesey; however none are within or in close proximity to the study area.

6.3 Historic Environment

6.3.1 This section provides an overview of the designated sites and features within and close to the study area. The location of identified features is shown in Figure 3: Historic Environment.

World Heritage Sites

6.3.2 There are no World Heritage Sites within or close to the study area.

6.3.3 The closest is Caernarfon Castle which is located approximately 22.6 km to the south-east.

Scheduled Ancient Monuments

6.3.4 There are no Scheduled Ancient Monuments within the study area.

6.3.5 The closest is Felin Wen Tide Mill located approximately 1.9 km to the south-west.

Listed Buildings

6.3.6 There are four Grade II listed buildings within the study area, as illustrated in Figure 3. The listed buildings are:

- Pencaledog – located on the SW edge of the study area;
- Milestone – Located off Holyhead road, approximately 300m south of the southern extent of the overhead line;
- Caergeiliog Tollhouse – Located off Holyhead road, approximately 300m south of the southern extent of the overhead line; and
- Siloh Baptist Chapel and Chapel House, – Located off Holyhead Road, approximately 300m south of the southern extent of the overhead line. 237 m south of the study area.

Conservation Areas

6.3.7 There are no conservation areas within close proximity of the study area.



- 6.3.8 The closest is Holyhead Mountain Conservation Area which is located approximately 7.1 km to the north west of the study area.

Landscapes on the Register of Landscape of Historic Interest in Wales

- 6.3.9 There are no Registered Historic Landscapes within or nearby the study area.

Sites listed on the Register of Parks and Gardens of Historic Interest in Wales

- 6.3.10 There are no Registered Historic Parks and Gardens within or nearby the study area.

Inventory Battlefields

- 6.3.11 There are no known historic battlefield sites within or in close proximity to the study area.

Regionally Important Archaeological Sites

- 6.3.12 There are no Regionally Important Archaeological Sites designated in the draft JDLP within the study area.



6.4 Land Use, Tourism and Recreation

6.4.1 This section describes notable land uses with respect to tourism, public access and recreation. The locations of the sites mentioned within the sections below are provided in Figure 6.

National and Regional Trails and Cycle Routes

6.4.2 There are no National Trails within the study area.

Public Rights of Way and Footpaths

6.4.3 Several Public Rights of Way (PRoW)/ footpaths exist within the study area, as illustrated in Figure 6.

- Footpath 32/005/1 falls marginally within the southern extent of the study area; running E-W on a path opposite Tyn Rhos road;
- Footpath 32/025/1 runs N-S at the eastern extent of the study area, following the unnamed path which leads to Gwynlys and Ysbyllidir; and
- Branching from the northern extent of Footpath 32/025/1 at the NE extent of the study area are Footpaths 32/026/1 and 32/025/2.

6.4.4 Approximately 1km south-west of the route is the Coastal Path (footpath 32/036/1), which runs generally parallel to the coastline of Anglesey.

Bridleways

6.4.5 There are no bridleways within, nor in close proximity to, the study area.

National Trust Land

6.4.6 There are no National Trust Land sites within or in close proximity to the study area.

Country Parks

6.4.7 No country parks have been identified within, nor in close proximity to, the study area.



Woodland Parks and Forest Parks

- 6.4.8 There are no Woodland Trust sites or known forest parks within or nearby the study area.

Recreation and Tourism

- 6.4.9 The area north-west of the Caergeiliog grid substation, far north as Tyn Rhos road and far west as The Mill is locally designated as 'Open Country' as illustrated in Figure 6. Under the Countryside and Rights of Way Act 2000, 'open country' areas (such as mountain, moor, heath and down) give public right of access.
- 6.4.10 No sites of tourist interest or facilities have been identified within the study area.

Land Allocations

- 6.4.11 The Stopped UDP – December 2005 contains an Allocated Site for Housing (T16) which extends north from Holyhead Road and east of Tre Ifan. The northern extent of the allocated site is approximately 130m south of the southern extent of the Proposed development; separated by agricultural fields and boundary hedgerows.
- 6.4.12 There is a site which has been allocated for housing in the JLDP (Ref: T41) located approximately 1.5 km to the west in Valley (Y Fali).

Agricultural Land Classification

- 6.4.13 Based upon Agricultural Land Classification (ALC) information from a desk assessment undertaken and provided by Isle of Anglesey County Council, the indicative route passes entirely through Grade 3b land, as shown in Figure 1.

Existing Electrical Infrastructure

- 6.4.14 The study area already contains multiple forms of delectrical infrastructure, including underground cables, substations and overhead lines (as shown on Figure 7).
- 6.4.15 Notably, an existing overhead line route runs parallel to the west of the Proposed Development by approximately 50-75m.

6.5 Water / Flood Risk

- 6.5.1 This section details the main rivers and flood risk areas which are present in the study area.



Water Courses (Main Rivers)

- 6.5.2 Three main rivers are located within the study area (see Figure 5), these are:
- River Caergeiliog;
 - Maes y Wrach; and
 - Cleifog
- 6.5.3 Tributaries of Maes Y Wrach continue south, through Caergeiliog to Llyn Dinam. Further small tributaries are located approximately 100m south of the starting point of the new overhead line adjacent to the existing NGET tower.

Flood Risk Zones

- 6.5.4 The appraisal of flood risk areas has considered areas at risk of flooding from rivers and the sea, surface water and reservoir flooding.
- 6.5.5 The study area contains several areas of Flood Zone 3 - high risk (1 in 30 year) of river and sea flooding (see Figure 5). These areas are contained to approximately 100m corridors parallel to the majority of the length of the Main Rivers within the study area, particularly within the area between the north of the A55 and south of the NGET connection. Areas of Medium risk of flooding (1 in 100 year) fall within the extent of the Flood Zone 3 areas. Areas of high (1 in 30 year occurrence) and medium (1 in 100 year occurrence) surface water flood risk areas are within the study area; falling within the Flood Zone 3 area between the overhead line route and Ysbylltir/Gwynlys.
- 6.5.6 Small isolated areas of high risk (1 in 30 year) of surface water flooding exist within the nearby area of the Caergeiliog sub station and within the urban areas of Caergeiliog. The main areas of high risk of surface water flooding are located within an approximate 400m wide corridor between the north-south access road from the A55 to Ysbylltir (farmhouse) and the existing 132kV line, which extends north from the A55 to the NGET connection. Further large areas of high risk of surface water flooding are located west of the existing 132kV line, between A5 and A55 and continuing north-west of the A55.
- 6.5.7 An area of Reservoir flood risk is within the study area, associated with Llyn Alaw. The extent of the area of risk falls within the eastern extent of the study area; from the northern extent of the study area, continuing as far south as the A55 and continuing west along the alignment of Maes Y Wrach.



7. Environmental Appraisal

Environmental Aspect	Feature	Potential Impact			Description of Potential Impact	Implications to Route / Recommendations
		Yes	No	Unknown		
Landscape and Visual	National Parks		✓		No impacts anticipated	None
	Area of Outstanding Natural Beauty (AONB)		✓		No impacts anticipated	None
	Special Landscape Areas (SLAs)		✓		No impacts anticipated	None
	Heritage Coasts		✓		No impacts anticipated	None
	Visual (summary of Appendix 1)		✓		Visual effects for nearby residential receptors from the proposed 132kV overhead line would be either Neutral or Slight adverse. No significant visual effects were predicted for any residential receptors within approximately 0.25km of the proposed development.	None – Best Practicable Means to minimise construction visual impacts and retain vegetation wherever possible.

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Environmental Aspect	Feature	Potential Impact			Description of Potential Impact	Implications to Route / Recommendations
		Yes	No	Unknown		
Biodiversity and Geological Conservation	RAMSAR Sites		✓		No impacts anticipated	None
	Special Protection Area (SPA)		✓		No impacts anticipated	None
	National Nature Reserves (NNR)		✓		No impacts anticipated	None
	Site of Special Scientific Interest (SSSI)	✓			The Llynnau Y Fali (Valley Lakes) SSSI is located approximately 900m to the south of the study area. Impact unlikely due to the distance from the study area, however there is potential for the SSSI to be hydrologically linked to the watercourses within the study area and for construction related risks (i.e. pollution) to impact the SSSI. May also lead to breeding birds being present in the area of the Proposed Development	Potential construction related impacts can be mitigated through implementation of strict control measures in the CEMP (see section 8) and SP Energy Networks BPM (appendix 3).
	Special Areas of	✓			The Llyn Dinam SAC is located approximately 900m to the south	Potential construction related impacts can be mitigated through the implementation of strict control measures in the

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Environmental Aspect	Feature	Potential Impact			Description of Potential Impact	Implications to Route / Recommendations
		Yes	No	Unknown		
	Conservation (SACs)				of the study area. Potential for the SAC to be hydrologically linked to the watercourses within the study area and for construction related risks (i.e. pollution) to impact the SAC	CEMP (see section 8) and SP Energy Networks BPM (appendix 3).
	Local Nature Reserve (LNR)		✓		No impacts anticipated	None
	Marine Nature Reserve		✓		No impacts anticipated	None
	RSPB Reserves		✓		No impacts anticipated due to the distance of the nearest reserve and presence of nearby existing overhead line structures.	Implementation of proposed breeding bird mitigation.
	Biosphere Reserves		✓		No impacts anticipated	None
	Local Wildlife Sites		✓		No impacts anticipated	None
	Ancient Semi Natural Woodland		✓		No impacts anticipated	None
	Welsh Ancient Woodlands		✓		No impacts anticipated	None

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Environmental Aspect	Feature	Potential Impact			Description of Potential Impact	Implications to Route / Recommendations
		Yes	No	Unknown		
	Inventory					
	National Forest Inventory (NFI)		✓		Impacts upon the Broad Leaf Woodland within the study area unlikely due to the distance	None
	Tree Preservation Orders		✓		TPO 69: <i>Frondeg, Caergeiliog 2006</i> protects eight trees in an area located approximately 372.2 m to the south of the proposed 132kV route.	None
	Geological Conservation Review Sites (GCR)		✓		No impacts anticipated	None
	Protected and notable species (summary of Appendix 2)	✓			Possibility for Great Crested Newts, common reptile species, otter and water vole.	Potential requirement for protected species mitigation (involving licence application). Further surveys and construction best practice are recommended, Refer to Appendix 2 for further information.
Water / Flood Risk	Water Courses	✓			Three main rivers and several tributary ordinary watercourses are located within the study area. Potential for works to result in siltation, direct and/or indirect pollution (during construction),	Appropriate mitigation and Best Practical Measures (Appendix 3) must be implemented during the construction phase of the development in order to reduce contaminants and soils getting into the water course. Impacts likely manageable through mitigation and control measures

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Environmental Aspect	Feature	Potential Impact			Description of Potential Impact	Implications to Route / Recommendations
		Yes	No	Unknown		
					<p>creation or worsening of existing pollution pathways or impacts upon the hydromorphology of the water courses.</p> <p>Impacts have the potential to arise from the construction of the overhead line route and its associated works and to result in local and/or downstream impacts.</p>	
	Flood Risk Zones	✓			<p>The study area contains areas at risk of river and surface and reservoir flooding.</p> <p>Built development within flood risk areas has the potential to increase the risk locally or elsewhere.</p> <p>The siting of overhead line poles may impact flood water conveyance.</p> <p>Construction areas and workers may be at risk of flooding.</p>	<p>Appropriate mitigation must be implemented during the construction phase of the development in order to avoid impacting the soils and increasing surface water run-off which in turn increases any flood risk.</p> <p>Recommend that any construction areas and access avoid being located within areas at risk of flooding so as to minimise worker's risk, as well as the introduction of impermeable surfaces or ground compaction which may increase the risk of flooding.</p> <p>It is recommended that the overhead line route design avoids siting poles within areas at risk of flooding, so as to avoid impacting surface or groundwater conveyance and thus impact the risk of flooding locally or elsewhere.</p>

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Environmental Aspect	Feature	Potential Impact			Description of Potential Impact	Implications to Route / Recommendations
		Yes	No	Unknown		
						It is recommended that the route design crosses the flood risk areas, which are associated with the main rivers, at areas of their shortest extent.
Historic Environment	World Heritage Sites		✓		No impacts anticipated	None
	Scheduled Ancient Monuments (SAMs)		✓		No impacts anticipated	None
	Landscapes on the Register of Landscape of Historic Interest in Wales		✓		No impacts anticipated	None
	Sites listed on the Register of Parks and Gardens of Historic Interest in Wales		✓		No impacts anticipated	None

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Environmental Aspect	Feature	Potential Impact			Description of Potential Impact	Implications to Route / Recommendations
		Yes	No	Unknown		
Environmental Aspect	Listed Buildings		✓		Not impacts anticipated due to the distance between the receptors and the proposed development	None
	Conservation Areas		✓		No impacts anticipated	None
	Inventory Battlefields		✓		No impacts anticipated	None
	Regionally Important Archaeological Sites		✓		No impacts anticipated	None
	National Trails		✓		No impacts anticipated	None
Land Use, Tourism and Recreation	Cycle Routes		✓		No impacts anticipated	None
	Public Right of Ways (PRoWs) and footpaths		✓		Visual Impact Assessment (Appendix 1) outlines that visual impacts from the area of footpath32/025/1 will be neutral or slight. No impacts upon amenity are predicted	None
	Bridleways		✓		No impacts anticipated	None
	National Trust Land		✓		No impacts anticipated	None
	Country Parks		✓		No impacts anticipated	None
	Woodland Parks and		✓		No impacts anticipated	None

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Environmental Aspect	Feature	Potential Impact			Description of Potential Impact	Implications to Route / Recommendations
		Yes	No	Unknown		
	Forest Parks					
	Land Allocations		✓		The Allocated Site (T16) presents the potential for additional residential visual receptors in future, however it is understood that there is no planning application or planning permission for residential development on the site at present. As an allocation, and without any details of how this site would be brought forward and designed (including layout and landscaping), it is not possible to determine the number of and extent to which any future residential dwellings would experience views of the Proposed Development. However given the distance between the allocation site and the proposed development, it is unlikely that it will have a significant impact on future occupants of this site.	None
	Agricultural Land	✓			The indicative route passes through Grade 3b land.	During construction, appropriate measures will have to be taken in order to reduce compaction and contamination of

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Environmental Aspect	Feature	Potential Impact			Description of Potential Impact	Implications to Route / Recommendations
		Yes	No	Unknown		
	Classification				The siting of overhead line, by virtue of the physical characteristics of the infrastructure involved, is unlikely to impact the quality of the land however any presence of overhead line poles could reduce the area of workable land.	agricultural land. Recommend that overhead line poles should be located so as to minimise impacts to existing and/or potential agricultural practices, such as by locating poles upon or near to field boundaries wherever possible.
	Tourism and Recreation		✓		None	None

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8. Mitigation / Actions

8.1 In addition to the mitigation embedded in the design of the Proposed Development, this section outlines the further mitigation and actions which will reduce the potential impacts of the Proposed Development.

SP Energy Networks' Best Practice Measures

8.2 Potential construction phase mitigation will be minimised through the implementation of SP Energy Networks' construction best practice measures (Appendix 3).

8.3 The measures ensure that SP Energy Networks will undertake construction activities in accordance with all relevant legislation, codes of practice and guidance.

8.4 In doing so, impacts upon the following areas will be controlled and minimised:

- Noise;
- Air Quality;
- Vegetation;
- Waste;
- Biosecurity; and
- Watercourses.

8.5 Further discussion of these elements is presented below, with additional detail in Appendix 3.

Construction Environmental Management Plan

8.6 SP Energy Networks will prepare a Construction Environmental Management Plan (CEMP) for the Proposed Development.

8.7 The CEMP will detail the potential environmental constraints, works and activities which may present a risk and set out methods and measures to control potential construction related impacts. The CEMP will be the method which ensures good environmental site practices and arrangements are governed.

8.8 Compliance with the CEMP will be a contractual requirement, and the document will set out roles and responsibilities for ensuring its implementation.

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- 8.9 It is recommended that the CEMP specifies construction laydown/compound area/s which, along with having due environmental regard (i.e. measures stated in Appendix 3) is located as such to minimise any potential impacts upon the current use of the land; that is, avoids or minimises impacts upon agricultural land use and accesses.
- 8.10 Upon completion of the construction works, areas of temporary land use should be restored to a quality that is no less than that prior to works commencing.

Ecological mitigation and further actions

- 8.11 This section presents a summary of the further actions and mitigation identified in the Ecology Constraints Report, and therefore Appendix 2 should be referred to for further detail.

Breeding birds

- 8.12 The Ecological Report (Appendix 2) recommends that any vegetation removal take place outside of the breeding bird season (March to August inclusive). If vegetation works are unavoidable during the breeding season, potential nesting habitat should be checked and confirmed as clear of nests by a suitably experienced ecologist prior to works commencing.
- 8.13 If breeding birds are suspected further assessment by a suitably qualified person(s) is required.

Great Crested Newt and Reptiles

- 8.14 As the proposed area of development lies in close proximity to a small wetland feature, the possible presence of great crested newts (GCN) and small numbers of common reptile species cannot be ruled out.
- 8.15 Appendix 2 states that it is therefore recommended that further survey is recommended in the appropriate season for great crested newts. Should GCN be identified, works would need to progress under Reasonable Avoidance Measures agreed with Natural Resources Wales (NRW) or a European Protected Species licence (issued from NRW).
- 8.16 With the implementation of good construction practice (i.e. that which is outlined in Appendix 3), no reptile surveys are considered necessary.

Otter and Water Vole

- 8.17 Several ditches within the survey area were considered to be suitable for otter and water vole.
- 8.18 It recommended that any works close to ditch systems be avoided and bank side



areas are protected by a stand-off buffer of several metres.

Badger

- 8.19 No evidence of Badgers was identified during the ecology survey (Appendix 2), however recommendations are made for a pre-construction check for any new evidence of badger activity prior to works commencing.
- 8.20 Routeing will be the initial mitigation measure by avoiding flight lines across flight paths wherever possible to reduce collisions and bird strikes. Making lines more visible by fitting coloured bird diverters will be considered where necessary and appropriate.

Works near or adjacent to hedges

- 8.21 Further to SP Energy Networks' BPM for vegetation removal, as several hedgerows are crossed by the Proposed Development further mitigation and agreement may be required for the removal of any protected hedgerow.
- 8.22 The removal of any protected hedgerow must be authorised by the Local Planning Authority (Hedgerow Regulations 1997).
- 8.23 A countryside hedgerow may be protected for a variety of reasons, including if it is over 20m in length (with gaps of 20m or less in its length) or based upon the hedgerow location; notably including if it is on or next to land used for agriculture or forestry.

Invasive Plants

- 8.24 No invasive species have been noted in Appendix 2, however the CEMP should specify control measures (Referring to Environment Agency Code of Practice on the notification, handling and disposal of invasive plants in the event that invasive species are identified on site).

Works on or near Watercourses (rivers, streams, ditches and ponds)

- 8.25 SP Energy Networks BPM for Watercourses (Appendix 3) will minimise the potential for impacts upon the multiple water bodies in the study area and should be incorporated into the CEMP to ensure contractual compliance.
- 8.26 The following measures should also be incorporated into the CEMP:
- Do not use any chemical sprays on bankside vegetation without prior approval of Environment Agency.
 - Do not store or tip any materials on river/stream banks or within 5m of bank top



- Ensure all vehicles are parking within a designated parking area, which is at least 5m away from a watercourse;
- Avoid vehicle refuelling near to watercourses;
- Use silt traps to avoid sediment reaching watercourses, if works are considered to present such a risk.

Flood Risk

- 8.27 As areas within the study area are at risk of flooding, it is recommended that the CEMP specifies measures to avoid locating laydown areas and works within flood risk areas and implements steps to communicate flood warnings.
- 8.28 Where poles are located in flood risk areas, it is recommended that ground compaction and re-profiling are avoided, in order to avoid increasing the risk of flooding.



9. Conclusions

Landscape and Visual

- 9.1.1 There are no designated landscapes within the study area. The Visual Impact Assessment concluded residual visual effects for nearby residential receptors from the proposed 132kV overhead line would be either Neutral or Slight adverse. No significant visual effects were predicted for any residential receptors within approximately 0.25km of the proposed development.

Ecology and Nature Conservation

- 9.1.2 The proposed route of the overhead line does not form part of or lie adjacent to any statutory protected wildlife sites. Although there is a possibility of the presence of great crested newts, otters and water voles, the assessment has not identified any significant impacts on biodiversity and nature conservation sites/habitats. It is anticipated that the main issues will arise during construction but any impacts associated with this can be appropriately mitigated.
- 9.1.3 Therefore, the proposed development is unlikely to have any impacts in the long term.

Heritage

- 9.1.4 Following the implementation of appropriate mitigation for each development, it is anticipated that there will be a no effect on the archaeological asset within the construction works site.

Noise

- 9.1.5 Noise from the construction of the overhead lines will be for a short period of time only and therefore, along with the controls outlined in Appendix 3, there are no expected impacts.

Air Quality

- 9.1.6 All of the project works to construct the overhead line are expected to be undertaken by approved SP Energy Networks' construction companies, adhering to strict emission controls to minimise air quality impacts and the CEMP. Therefore, it is expected that any impact will be negligible.

Land Use, Tourism and Recreation

- 9.1.7 The identified PRoW will not be obstructed and the amenity or views expected to be significantly affected. The land temporarily required for construction will be restored upon completion of the construction works.
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Watercourses and Flood Risk

- 9.1.8 Areas of river, surface and reservoir flood risk have been identified in the study area, and fall within the route of the Proposed Development.
- 9.1.9 With the correct implementation of mitigation (including construction design and mitigation managed through the CEMP) it is not predicted that the Proposed Development would be the subject of, or cause, significant flood risk effects.
- 9.1.10 With the correct control measures to avoid the risk of works causing impacts to watercourses, no impacts are predicted.

9.2 Conclusion

- 9.2.1 The construction of the 132kV overhead line would bring about the needed reinforcement of electrical infrastructure to Anglesey.
- 9.2.2 The Proposed Development is within open landscape with improved grassland, several watercourses, hedgerows, scrub woodland and some residential receptors at the eastern and southeastern extent of the study area.
- 9.2.3 With consideration of embedded and proposed mitigation (including further actions), the potential impacts upon flood risk, species and land use will be minimised and therefore the Proposed Development is not predicted to result in significant effects.

9.3 Next Steps

- 9.3.1 SP Energy Networks will review the potential impacts and proposed mitigation and actions outlined within this report.
- 9.3.2 The proposed mitigation will then be incorporated into the detailed design of the Proposed Development and the proposed actions will be undertaken /arranged by SP Energy Networks.

