Pennant Walters

FOEL TRAWSNANT GRID CONNECTION

EIA Report Volume 4: Non-Technical Summary

MARCH 2024

PUBLIC

Pennant Walters

FOEL TRAWSNANT GRID CONNECTION

Environmental Statement

PUBLIC

PROJECT NO. UK0037904.7662

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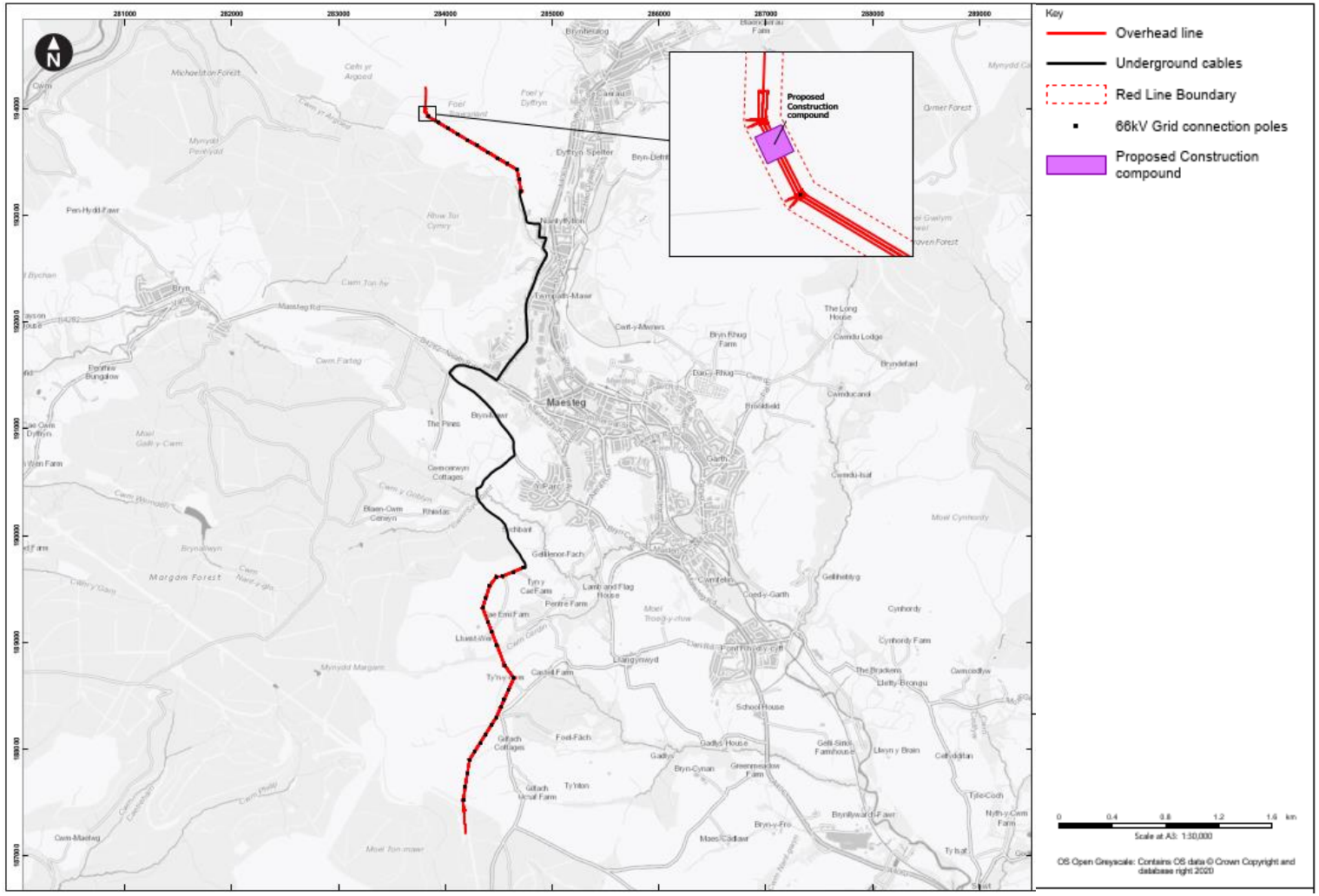
1 INTRODUCTION

1.1.1. Pennant Walters ('the Applicant') is submitting an application to Planning and Environment Decisions Wales (PEDW) seeking consent for the proposed Foel Trawsnant Wind Farm electricity network infrastructure connection, consisting of 66 kilovolts (kV) overhead line (OHL) and underground cables (UGC). The Project is associated with the Foel Trawsnant Wind Farm and will provide a connection between the wind farm and the wider national grid. The application for consent for the Project is accompanied by the Environmental Impact Assessment (EIA) Report ("EIA Report"), which has been prepared by WSP UK Ltd ("WSP") on behalf of the Applicant.

1.1.2. The Project is located in south Wales, to the southwest of Llangynwyd, and travels partially through the town of Maesteg (see Figure 1.1). The proposed grid connection is centred at coordinates easting (E) 284175, northing (N)187428 and falls within two local authorities – the majority being within Bridgend County Borough Council (BCBC), and Neath Port Talbot County Borough Council (NPTCBC), where the start and end sections of the connection are located.

Figure 1-1 - Site Location



1.2 PURPOSE OF THE NTS

1.2.1. This document constitutes the NTS and forms part of the EIA Report.

1.2.2. The EIA Report provides information relating to the Development Site and its surroundings, reasonable alternatives to the Proposed Development, a description of its key features, and a description of any likely significant effects resulting from its construction, operation and decommissioning. Potential cumulative effects as a result of changes due to the Proposed Development and other identified developments in the area are also considered along with measures to reduce potential significant effects.

1.2.3. The EIA comprises the following volumes:

- Volume 1: Main Report;
- Volume 2: Figures;
- Volume 3: Technical Appendices; and
- Volume 4: Non-Technical Summary (NTS).

1.2.4. The aim of the NTS is to provide an overview of the content and main findings of the EIA Report in non-technical language that is easily understandable by individuals who do not have a technical background in the aspects assessed.

1.2.5. Those interested in obtaining more detail about the environmental aspects of the Proposed Development and resulting environmental effects should consult the Main Report in Volume 1.

1.2.6. The EIA Report (including summary of significant effects), NTS, Planning Statement, Green Infrastructure Strategy and Design and Access Statement are available to download from the project website: www.ftgrid.co.uk.

1.2.7. There will also be there public exhibitions events at the following locations, where the draft EIA Report will be available to view:

- St David's Church, Church Place, Maesteg, Bridgend CF34 9PA;
- Nantyffyllon Rugby Football Club, Nant Y Ffyrling, Maesteg CF34 0BU; and
- Llangynwyd Village Hall; Bridgend Rd, Llangynwyd, Maesteg CF34 9SW.

1.2.8. Following submission of the application and accompanying final EIA Report to PEDW, notice will be given in accordance with Regulations 19 of the EIA Regulations (Wales). This will include details of the Project, state that this is subject to EIA and provide details of how the EIA Report can be inspected and copies obtained, including any associated cost for hard copies. The notice under Regulation 19 will also provide details of how representations can be made and detail arrangements for public participation in the decision-making process. The notice will be advertised in the Western Mail local newspaper.

1.3 PLANNING POLICY WALES (EDITION 12)

1.3.1. Planning Policy Wales (Edition 12)[1] was published in July 2024 and sets out the land use planning policies of the Welsh Government. The PPW is also supplemented by a series of Technical Advice Notes (TANs), Welsh Government Circulars, and policy clarification letters.

1.3.2. It is stated that the primary objective of PPW is to *'ensure that the planning system contributes towards the delivery of sustainable development and improved the social, economic, environmental, and cultural well-being of Wales, as required by the Planning (Wales) Act 2015, and other key legislation'*.

1.3.3. In paragraph 3.30, PPW states that *"in 2019, the Welsh Government declared a climate emergency in order to coordinate action nationally and locally to help combat the threats of climate change. The planning system plays a key role in tackling the climate emergency through the decarbonisation of the energy system and the sustainable management of natural resources."*

1.3.4. Paragraph 5.7.7 goes on to state that *"the benefits of renewable and low-carbon energy, as part of the overall commitment to tackle the climate emergency and increase energy security, is of paramount importance".*

1.3.5. There are many references to the electricity grid and energy storage, which is considered of relevance to the Proposed Development. These are:

- The need for appropriate energy infrastructure is contextualised within paragraph 5.7.2, which states *"overall power demand is expected to increase as a result of growing electrification of transport and heat."* This is further solidified by the PPW stating that "*in order to ensure future demand can be met, significant investment will be needed in energy generation, transmission and distribution infrastructure".*
- Paragraph 5.7.8 states that *"an effective grid network is required to fulfil the Welsh Government's renewable and low carbon ambitions".*
- Paragraph 5.7.9 states that the *"Welsh Government's preferred position on new power lines is that, where possible, they should be laid underground. However, it is recognised that a balanced view must be taken against costs which could render otherwise acceptable projects unviable" (bolding is our emphasis).*

[1] The Welsh Government (2024). Planning Policy Wales (Edition 12). (Online) Available at: https://www.gov.wales/planning-policy-wales (accessed 06 February 2025)

2 ENVIRONMENTAL IMPACT ASSESSMENT

2.1 EIA PROCESS

2.1.1. The preparation of the EIA Report is one of the key stages in the EIA process, as it presents the assessment of likely significant environmental effects, which PEDW will use to inform their decision about whether consent should be granted for the Project.

2.1.2. The EIA process culminates in the provision of an Environmental Statement (ES) which provides environmental information in accordance with the Town and Country Planning (Environmental Impact Assessment) (EIA) (Wales) Regulations 2017. The ES provides an assessment of the likely significant effects associated with the Project during its construction, operation, and decommissioning.

2.1.3. This EIA Report has been prepared in accordance with the requirements of the EIA Regulations. The environmental aspect assessments have been carried out using the general approach and processes set out in this chapter. In each topic chapter, specific methodologies for those assessments are explained.

2.1.4. In general, the EIA process is aligned with the following key steps:

- Screening
  - Screening refers to the decision which determines if an EIA is required. This decision is taken by the determining authority, based on the nature and scale of the development as well as its setting, in relation to sensitive environmental features. However, developers can equally voluntarily undertake an EIA. For most projects, the determining authority is likely to be asked for a screening option by the developer. The determining authorities' decision as to whether an EIA is required is based on criteria set out in Annex 3 of the EIA Directive, and detailed guidance from the European Union, Government and other relevant authorities.
- Scoping
  - If an EIA is required, the developer may request a scoping opinion from the determining authority. The aim of scoping is to identify the effects which are most likely to be significant and therefore determine the effects which will be assessed within the EIA Report. Once the request is received, the determining authority will consult relevant agencies and provide their scoping opinion to the developer. Though EIA Scoping is not a mandatory requirement, it helps provide the developer with confidence that the significant effects determined in the EIA are also considered important by the determining authority.
- Environmental Statement
  - Following the scoping report, an EIA Report is prepared and submitted. An EIA Report presents and assesses the relevant information to determine likely significant environmental effects of a development.

2.1.5. The EIA Report has identified the likely effects of the Project on the environment (including people) and a determination has been made as to whether any of these could be significant. Mitigation

measures to reduce or avoid adverse effects were incorporated into the design of the Proposed Development and the assessment of residual effects presented in the EIA Report takes these into account.

2.2 CONSULTATION

2.2.1. PEDW formally issued the Scoping Opinion in response to the Scoping Report on 12th March 2025. The EIA Scoping Opinion has been used to inform and shape the scope of the assessments in the EIA Report, based on responses from the local councils and consultees. At the time of writing the draft EIA Report, further consultations beyond that of PAC have not been requested. However, any additional consultation undertaken with stakeholders will be captured as appropriate within the final EIA report.

3 SCHEME NEED AND ALTERNATIVES

3.1 INTRODUCTION

3.1.1. The Environmental Impact Assessment (EIA) Regulations states that an EIA Report should include:

- In paragraph 17(3)(d) of Part 5: *"a description of the reasonable alternatives studied by the developer, which are relevant to the development and its specific characteristics, and an indication of the main reasons for the option chosen, taking into account the effects of the development on the environment";*
- Paragraph 2 of Schedule 4: *"A description of the reasonable alternatives (for example in terms of project design, technology, location, size and scale) studied by the developer, which are relevant to the proposed project and its specific characteristics, and an indication of the main reasons for selecting the chosen option, including a comparison of the environmental effects."*

3.2 ALTERNATIVES

3.2.1. **Chapter 3: Design Evolution and Alternatives** of the EIA Report provides detail on the consideration of alternative options for the Development Site, which include no development, and technology as summarised in the following sections.

No Development

3.2.2. Without the grid connection, climate change may be negatively impacted, as the wind farm would be unusable and other forms of energy would need to be sought. However, at the very least without the Project, the status quo would be expected to remain.

Technology

3.2.3. The proposed grid connection will be used to connect the consented Foels Trawsnant Wind Farm to the wider national grid; without which, the wind farm would not be able to serve its purpose in providing renewable energy. The requirement for renewable energy is accepted at national policy level with wind energy widely recognised as the most mature renewable energy technology currently available. The Site was identified as being appropriately located to transfer electricity from the wind farm to the national grid.

4 DESCRIPTION OF THE PROPOSED DEVELOPMENT

4.1 DEVELOPMENT SITE

4.1.1. The Project is situated in south Wales, to the southwest of Llangynwyd, and centred at Grid Reference (E) 284175, (N) 187428. The application Site boundary covers an area of 23.5 hectares (ha). The proposed grid connection is approximately 9.5km in length, split into the following sections:

- 1.5km northern OHL;
- 5.1km UGC; and
- 2.9km southern OHL.

4.1.2. The Project falls into two local authorities - Bridgend County Borough Council (BCBC) which the Project mostly resides, and Neath Port Talbot County Borough Council (NPTCBC), where the start and end sections of the connection are located.

4.2 PROPOSED DEVELOPMENT COMPONENTS

4.2.1. The Project comprises of the infrastructure listed in **Table 4-1**.

Table 4-1 - Key Features of the Project

Component	Description
Cable	Length: 27.5km Dimensions: 630mm diameter Description: Cu Cable
Overhead Line Poles	Quantity: 72 wooden poles (at 36 locations) Height: • 10 poles at 11m • 42 poles at 12m • 10 poles at 13m • 4 poles at 14m • 6 poles at 15m
Cable Trenches	Length: 5.1km Dimensions: ~1.5m depth, and between 600mm to 1.5m wide.
Joint Bay Boxes	Quantity: 22 Dimensions: ~2m depth, and 5m x 3m
Temporary Construction Compound	Approximately centred on (E) 283826 (N) 193954 Dimensions: ~20m by 20m Maximum Compound Footprint: ~0.04ha
Watercourse Crossings	Number: One temporary dam

4.3 CONSTRUCTION PROCESS

OVERHEAD LINE POLES

4.3.1. An OHL would be carried on wooden H-poles, consisting of two single wooden poles (most likely Scots Pine) joined by a crossarm with bracing. At the termination points only, two sets of H-poles will be located side-by-side. Terminal ends may be located at the start and end of the underground section of the connection.

4.3.2. Whilst the intention is for the route to be as straight as possible, there will be some deviation to avoid environmental features, such as trees. At points of deviation, angle poles will be used; these are likely to be H-pole structures. In all locations where the line deviates, there will be the requirement to provide cable stays to the poles. The poles are not typically stayed, and do not require concrete foundations. However, pre-cast kicking blocks will be installed below ground, to provide the poles with adequate structural support.

4.3.3. The height of the wooden poles will mostly be 12m above ground level, with a maximum height not exceeding 15m above ground. An assumed minimum clearance to trees from the conductors is 4m from the nearest part of the tree.

4.3.4. The poles are designed to carry the conductor wires. It is currently proposed to install a single circuit made up of one conductor per phase. Telemetry and monitoring capabilities, such as fault detection, will be provided by a microwave link. The poles will carry the cross arms onto which the insulators are attached. Poplar conductor wire will be used for all the OHL sections. Span length between poles will be between 90m to 130m. The actual span between poles will be influenced by topography and the surrounding environment.

4.3.5. The construction and maintenance of OHL will be in accordance with NGED (2024) Policy Document: OH6/4[2].

CABLE TRENCHES

4.3.6. Underground cabling work will involve placing cables within ducts; the ducts themselves will be within a trench. An open cut method will be used, where the duct is laid directly into a trench of up to 1.5m depth. The ducts are placed at the bottom of the trench, and the excavation around the cables is then filled with sand before the remaining excavation is backfilled with the excavated material. Cables are jointed at approximately 500m intervals. The joint boxes are generally 1-2m deep and 5m x 3m. Once the cable ducts are laid, the cable will then be pulled through.

[2] NGED (2024) Policy Document: OH6/4, Construction, Maintenance and Replacement of Low Voltage Overhead Services. Available at: https://www.nationalgrid.co.uk/documents/tech-info/overhead-construction

4.3.7. The creation of trenches, laying of cable ducts and pulling of cable will be in accordance with NGED (2021) Standard Technique: CA6A/73.

TEMPORARY CONSTRUCTION COMPOUND

4.3.8. One temporary construction compound is proposed to be located within the northern section of the Site and will comprise an area measuring 20m x 20m. It will be enclosed by appropriate security fencing and contain a single storey welfare unit powered by an on-site generator. The ground surface will mostly be covered by geogrid matting (or similar). The location of the temporary construction compound is shown on **Figure 1-1.**

4.3.9. Poles and cables will be stored at the temporary construction compound. Poles will be transported to the works area, and laydown within the Site boundary on the day of installation.

4.3.10. A portable welfare facility will temporarily be located along the route as appropriate (i.e. where works are being completed, and when the temporary construction compound is not within a practical distance).

WATERCOURSE CROSSINGS

4.3.11. The Nant Sychbant crossing will be undertaken through installing a temporary dam and laying the cable through an open cut method. Standard best-practice measures will be proposed in the CEMP to manage spillages and the generation of additional sediment being generated along the riverbed.

MICRO-SITING

4.3.12. Micro-siting refers to the precise locating of infrastructure, in this instance OHL poles. The Project has a micro siting allowance of 10m.

4.3.13. Any such repositioning will be limited so as not to involve encroachment into any environmentally or technically constrained areas. In addition, micro-siting provides scope to mitigate potential geo-environmental and geotechnical constraints.

SITE ACCESS

4.3.14. Access to the Site will be primarily provided via the existing access track for the consented Foel Trawsnant Wind Farm, travelling northwards from the B4282 road through the forestry and connecting to the proposed construction compound for the Project.

4.3.15. No new access tracks will be constructed. Access will be from the existing highway network, as well as the forestry track which is part of the consented Foels Trawsnant Wind Farm. The minimal number of vehicles required for erection of the poles will travel within the Site boundary and use geo-grid matting or similar where appropriate.

[3] NGED (2021) Standard Technique: CA6A/7, Relating to the Installation of Underground Cables. Available at: https://www.nationalgrid.co.uk/documents/tech-info/underground-cable-construction/66000-volt

4.3.16. General access along the Site for the OHL sections will be provided via existing farmers gates. The minimal number of vehicles required for erection of the poles will travel within the Site boundary and use geo-grid matting or similar where appropriate (i.e. poor weather conditions creating soft ground). The underground section of the Project will be accessed via the existing road network.

ENVIRONMENTAL MANAGEMENT DURING CONSTRUCTION

4.3.17. The contract between NGED and the civil engineers involved in construction of the Project will specify the measures to be taken to avoid or reduce the potential environmental effects arising from the construction process. These measures will consist of three main types:

- Firstly, conditions to be adhered to under development consent;
- Secondly, the requirements of Natural Resources Wales (NRW); and
- Thirdly, any other relevant environmental measures identified in this ES.

CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN

4.3.18. A CEMP provides an overview of the standard construction management measures that would be implemented as part of the Project (see Appendix 4A). As such it aims to ensure that construction activities for the Project are carried out in accordance with legislation and best practice for minimising the effects of construction on the environment and local communities.

DUST AND AIR QUALITY

4.3.19. Given the adoption of the environmental measures which are outlined below, it is not expected that the change in air quality will be significant. Air quality affects arising from exhaust emissions from construction plant would be so low as to be not significant. Neither dust nuisance nor air quality be assessed as part of the EIA. This was confirmed in the scoping process. Standard mitigation measures will be captured in a CEMP.

4.4 OPERATION

4.4.1. The Project will integrate the consented Foel Trawsnant Wind Farm with the current DNO via a 66kV connection. It will remain active for the duration of the wind farm's operation, assumed to be up to 30 years. However, it is noted the duration of the proposed overhead line and underground cable could extend beyond 30 years, dependant on potential future uses.

4.5 DECOMMISSIONING

4.5.1. Following the operational phase, the connection (underground and overground) will be left in situ as it has the potential to become integrated into the DNOs wider distribution network. This would also avoid further disruption to the surrounding environment.

5 POTENTIAL ENVIRONMENTAL EFFECTS

5.1.1. The emphasis of the EIA Regulations is on the assessment of the likely 'significant' environmental effects which a Project is likely to give rise to.

5.1.2. The environmental topics considered for the Project and reported in the EIA Report are:

- Chapter 6 – Landscape and Visual Impact;
- Chapter 7 - Traffic and Transport;
- Chapter 8 – Ecology;
- Chapter 9 - Historic Environment (including archaeology and cultural heritage); and
- Chapter 10 - Water resource and Flood risk.

5.1.3. The potential significant effects identified for the topics listed above have been assessed by a team of qualified experts, using appropriate methodologies. As part of the assessment, mitigation measures have been identified in order to reduce the residual effects.

5.1.4. The key outcomes of the assessment undertaken for each individual environmental topic considered within the EIA has been summarised in the sections below.

5.2 LANDSCAPE AND VISUAL

BASELINE AND METHODOLOGY

5.2.1. A Landscape and Visual Impact Assessment (LVIA) which considers the potential landscape and visual effects associated with the construction and operation of the project.

5.2.2. The objective of this LVIA has been to determine the landscape and visual effects of the Project on the existing landscape resource and visual amenity. The LVIA has been prepared by Chartered landscape architects at WSP and should be read in conjunction with the Project Description in **Chapter 4: Description of the Project**.

5.2.3. The LVIA assessment considers landscape effects and visual effects within the assessment, as detailed below.

ENVIRONMENTAL EFFECTS AND MITIGATION

Embedded Mitigation through Design

5.2.4. The Project has been developed through an iterative design process which considered balanced environmental, technical and economic factors. Minimising the number of potential visual receptors and reducing landscape effects by avoiding the requirement to create corridors through forested areas where possible, ensuring the Project is generally backdropped by existing forestry and/ or elevated topography and following the existing topography reflecting the guidance provided in the Holford Rules.

Landscape Effects

5.2.5. Landscape Effects are defined by the Landscape Institute in GLVIA 3, paragraphs 5.1 and 5.2 as follows:

- *"An assessment of landscape effects deals with the effects of change and development on landscape as a resource. The concern ... is with how the proposal will affect the elements that make up the landscape, the aesthetic and perceptual aspects of the landscape and its distinctive character. ... The area of landscape that should be covered in assessing landscape effects should include the site itself and the full extent of the wider landscape around it which the Project may influence in a significant manner."*

5.2.6. These effects are assessed by considering the landscape sensitivity (value and susceptibility) against the magnitude of change. The type of effect can also be described as temporary or permanent, direct or indirect, cumulative and positive, neutral, or negative.

5.2.7. The residual landscape effects, assessed here, are those effects remaining after all of the proposed design mitigation has been taken into account. An assessment of the cumulative landscape effects, taking account of other relevant operational and consented development and any relevant current applications has been undertaken.

5.2.8. In considering the effects of the Project (magnitude of change) on landscape character and visual receptors, the following scenarios will be assessed:

- Construction Phase – during the construction period, assuming a maximum perceived change situation (i.e., when construction activity is at its peak), noting how long that period is likely to last; and
- Operational Phase (Winter Year 1)

5.2.9. Decommissioning effects would reflect those arising as a result of construction but may happen at different times or not at all in the case of the UGC. An assessment of the decommissioning effects has been scoped out.

5.2.10. The Project is considered to have a **Moderate and Significant level of effect** at construction and operation stages on LCA 1: Llangynwyd Rolling Uplands and on LANDMAP Visual and Sensory Aspect Area CYNONVS473 Mynydd Baedan (which in part cover the same geographic area) as a result of the UGC (construction phase only) and both the northern and southern OHLs. This LCA and VSAA have a High-Medium Sensitivity. The northern OHL lies within the Foel y Dyfrryn SLA and the southern OHL lies within the Western Uplands SLA. The character area attributes are a strongly rural and tranquil landscape with some panoramic views to more distant hillsides. The construction phase would introduce vehicle movement and construction machinery which would impact the tranquillity. There would also be some direct impacts including a small area of tree removal for the UGC.

5.2.11. The operational phase would result in both the proposed northern and southern OHLs being noticeable in the landscape which in the absence of existing overhead line powerlines, would significantly affect the landscape character to the north and south of the settlement of Maesteg, extending over a small – medium geographic extent. Within the character area the OHLs would be perceived in conjunction with existing pylon lines, telecommunications masts and the settlement of Maesteg and in this context the Project would be less noticeable, and significant effects would be avoided.

Visual Effects

5.2.12. Visual effects are assessed by considering the sensitivity of the receptor (people in the landscape) and the magnitude of change that would affect the view or overall visual amenity. They are defined by the Landscape Institute in GLVIA 3, paragraphs 6.2 as follows:

- *"An assessment of visual effects deals with the effects of change and development on the views available to people and their visual amenity. The concern here is with assessing how the surroundings of individuals or groups of people may be specifically affected by changes in the content and character of views as a result of the change or loss of existing elements of the landscape and/or introduction of new elements."*

5.2.13. In determining the level of effect, the sensitivity to change and magnitude of effect are combined and assessed to give a final judgement on the overall level of the effects on visual receptors. The results of this assessment are set out in **Table 5-1** below:

Table 5-1 - Sensitivity of Viewpoint/ Visual Receptors Summary Table

Viewpoint	Sensitivity of receptors
Viewpoint 1 – Footpath MAE/15/2	High-Medium sensitivity. (Footpath users)
Viewpoint 2 – Bridleway MAE/77/6	High-Medium sensitivity (Views experienced by visitors of the Keepers of the Colliery landmark and users of the footpath/ bridleway)
Viewpoint 3 – Footpath MAE/50/2	High – Medium sensitivity (users of the footpath and nearby residents)
Viewpoint 4 – Cistercian Way Long Distance footpath/ Bridleway LDM/17/1	High-medium sensitivity (users of the Long-distance footpath and Bridleway)
Viewpoint 5 – Junction of Minor Road and Footpath LDM/12/1	High-Medium sensitivity (Residents/ Users of the footpath) and Medium (Road users)
Viewpoint 6 - Minor road, Llangynwyd	High sensitivity (Residents) and Medium (Road users).
Viewpoint 7 - Junction of A4063 and Brynheulog Road and National Cycle Route 885	High-Medium sensitivity (Residents), Medium-Low (NCR and Recreational users) and Low (Road users).

5.2.14. The Project is considered to have a **Major to Moderate and Significant level of effect** at both construction and operation phases on users of Footpath MAE/15/2 (represented by Viewpoint 1) as a result of the proposed northern OHL. During the construction phase there would be visibility of

construction machinery, vehicle movements and the compound area. The footpath, which forms part of a wider local network, passes beneath the proposed northern OHL route and therefore would require a temporary diversion during construction along with several other footpaths/ bridleway in the area. The movement, visual intrusion and noise of construction activity and any diversions along main roads shall have a temporary adverse effect on users of the footpath. At operation there would be near distant views of the northern OHL. From the eastern section of the footpath the northern OHL would be seen in context with the settlement of Maesteg in the valley below whilst from other sections of the footpath the OHL would be visible against hillsides with few manmade features.

5.2.15. The Project is considered to have a **Major to Moderate - Moderate and Significant level of effect** at both construction and operation phases on users of Footpath MAE/50/2 and nearby residents (represented by Viewpoint 3) and users Cistercian Way Long Distance footpath/ Bridleway LDM/17/1 (represented by Viewpoint 4) as a result of the proposed southern OHL. During the construction phase there would be visibility of construction machinery, vehicle movements and lay down areas and therefore there would be a temporary adverse effect on the views experienced and the sense of local tranquillity.

5.2.16. At operation, residents particularly Cae Emi Farm and Lluest-wen, along with users of the footpaths/ bridleways would experience noticeable views of the proposed southern OHL over a wide horizontal field of view. Where viewed in conjunction with existing overhead powerlines and telecommunications masts, the Project would be less noticeable and significant effects but would be at the lower end of significance and be no greater than moderate adverse.

5.3 TRAFFIC AND TRANSPORT

BASELINE AND METHODOLOGY

5.3.1. This sets out the assessment of likely significant traffic and transport effects of the Project. The chapter sets out a summary of relevant policy and baseline information for the traffic and transport study area, identifies highways receptors and presents an assessment of effects and identifies mitigation measures to minimise the impact of the Project on highways receptors.

5.3.2. Environmental Assessment of Traffic and Movement (EATM) outlines that the greatest environmental change will generally be when the project traffic is at the largest proportion of the total flow. Therefore, the assessment of traffic and transport effects, within this ES, will be undertaken for the construction phase of the Project.

ENVIRONMENTAL EFFECTS AND MITIGATION

5.3.3. The potential likely significant traffic and transport effects of the Project that are identified within EATM are summarised below:

- Severance: the separation of people from places and other people and places or impede pedestrian access to essential facilities;
- Driver delay: traffic delays to non-development traffic
- Non-motorised user amenity: the effect on the relative pleasantness of a pedestrian journey resulting from changes in traffic flow, traffic composition and pavement width/separation from traffic;

- Non-motorised user delay: the ability of people to crossroads as a result of changes in traffic volume, composition and speed, the level of pedestrian activity, visibility and general physical conditions of the Project;
- Fear and intimidation: the change in fear and intimidation levels experienced by people as a result of an increase in traffic volume and its proximity or the lack of protection caused by such factors as narrow pavement widths; and
- Road safety: the risk of accidents occurring where the Project is expected to produce a change in the character of traffic.

5.3.4. These effects will be assessed within this traffic and transport chapter for highway sections that are identified as requiring detailed assessment.

5.3.5. Two supporting documents have been prepared which include the key management and mitigation measures which related to traffic and transport:

- An Outline CTMP (**Appendix 7A**) - A CTMP sets out details of the impacts of the Project construction traffic on the road network and the mitigation measures and management strategy for the effects. The Outline CTMP will be developed into a full CTMP in consultation and agreement with the relevant local authority officers.
- An Outline PRoWMP (**Appendix 7B**) – A PRoWMP sets out details of the impacts of the Project on the PRoW network and the mitigation measures and management strategy for the effects. The Outline PRoWMP will be developed into a full PRoWMP in consultation and agreement with the relevant local authority officers

5.3.6. In addition, a Construction Environment Management Plan (CEMP) has been developed as part of the EIA (Appendix 4A).

5.3.7. One road section requires specific mitigation to address potential significant effects:

- Unnamed Road to Sychbant Farm.

5.3.8. The additional mitigation measures for this road link will be incorporated within the full CTMP, to include the following.

5.3.9. The Contractor will consult / agree with the LHA for suitable mitigation measures for Unnamed Road to Sychbant Farm, along with the other narrow single-track roads proposed to be utilised by the Project construction traffic via the development and approval of the full CTMP. This will allow location specific mitigation to be put in place. This will minimise traffic and transport impacts on these road links and therefore result in this effect being reduced to **Not Significant.**

5.3.10. The following sections of the A4063 are should also be highlighted for specific mitigation measures, despite not exceeding the EATM threshold for detailed assessment, based on the transport context of the receptor:

- A4063 - Between Llangynwyd and Coytrahen; and
- A4063 - Maesteg (north of Llan Road north).

5.3.11. The additional mitigation measures for these road links will be incorporated within the full CTMP, to include the following:

- Restriction of construction traffic movements on the A4063 Maesteg (north of Llan Road north) during peak school pick up and drop off times, to be discussed and agreed with the LHA to prevent Project construction traffic impacting on school children. This will minimise impact on pedestrian amenity and therefore result in this effect being reduced to **Not Significant;**
- The section of the A4063 between Llangynwyd and the northern extent of Tondu should be highlighted, as part of mitigation measures, regarding its accident record and mitigation implemented such as driver information and training/awareness. This would be secured through the full CTMP.

5.4 ECOLOGY

BASELINE AND METHODOLOGY

5.4.1. The ecological baseline conditions were defined during the WSP Preliminary Ecological Appraisal (PEA) (WSP, 2025) and the various ecological surveys that have been carried out to inform the Project. As part of the WSP PEA, an ecological desk study was carried out.

5.4.2. The most recent site walkover was carried out over three days in September 2024 and covered the entire Survey Area.

5.4.3. During the desk study, three international statutory designated sites were identified within 10km of the Site. These comprised Glaswelltiroedd Cefn Cribwr/Cefn Cribwr Grasslands Special Area of Conservation (SAC), Kenfig/Cynffig SAC and Blackmill Woodlands SAC. The desk study did not return any national statutory designated sites within 2km of the Site. A total of 22 non-statutory nature conservation sites were located within 2km of the Site.

5.4.4. The PEA also identified:

- Five SINC sites which would be directly impacted by the Project as they lie within the Site. Furthermore, an additional five SINCs lie within 50m of the Site and are therefore vulnerable to air quality related impacts during construction in the absence of mitigation.
- A total of 39 parcels of Ancient Woodland Inventory (AWI) were identified within 1km of the Site as part of the desk study.
- Eight Priority Habitats were identified within the Survey Area during the Phase 1 habitat survey carried out as an element of the WSP PEA
- A total of 19 Phase 1 habitat types were identified within the Survey Area during the Phase 1 habitat survey, carried out as part of the WSP PEA.
- A total of 31 records of at least eight different bat species were returned during the desk study.
- The desk study also returned records of bats that were not identified to species level: pipistrelle bat species *Pipistrellus* sp., myotis bat species *Myotis* sp. and unknown bat species *Chiroptera* sp.
- Three trees were identified with the potential to support roosting bats. These were all in the southern section of the Survey Area, between the Nant Lluest-Wen and Nant y Castell watercourses.
- Two records of badger *Meles meles* within 2km of the Site were returned by the desk study in the last 10 years.

- One record of dormouse *Muscardinus avellanarius* within 2km of the Site was returned by the desk study in the last 10 years, 1.8km east of the southern section of the Site.
- There were no records of water vole Arvicola amphibius within 2km of the Site returned by the desk study in the last 10 years.

ENVIRONMENTAL EFFECTS AND MITIGATION

5.4.5. A range of environmental measures have been embedded into the Project. Embedded measures are measures that will be implemented as part of the Project regardless of the requirement for ecological mitigation/assessment outcomes, for example as a result of legislative requirements and/or standard best practice and, as such, the subsequent Ecological Impact Assessment assumes they are in place.

5.4.6. Environmental measures required to avoid or reduce ecology impacts will be incorporated into a Conservation Plan. The Conservation Plan will set out the objectives for biodiversity protection, mitigation, monitoring and habitat enhancement (where applicable). It will set out a timetable for ecological measures throughout the lifetime of the Project, including any pre-construction measures that are required. The Conservation Plan will be agreed with the planning authority at the pre-construction stage either as part of the CEMP or as a standalone document.

5.4.7. With the implementation of the ecological mitigation measures, captured and implemented within a CEMP and Precautionary Method of Works, it is concluded likely that residual effects will be **Not Significant** in the long-term for those Important Ecological Features (IEFs) which have been fully assessed. On the receipt of the recommended further surveys, the assessments will be revised for these IEFs.

5.4.8. The combination of embedded mitigation and additional measures will minimise effects upon IEFs. Short term effects upon SINCs, Priority Habitats and ancient woodland and those species occupying these habitats including bats, birds, otter, water vole and reptiles cannot be avoided, as temporary habitat loss is necessary within the construction footprint. The significance of this will be confirmed once the data from the further surveys is available. In the longer term, habitat enhancement will improve the condition and provision of Priority Habitat and ancient woodland. The benefits will be realised during the operational phase and offset the short-term adverse effects.

5.4.9. This precautionary assessment reflects the baseline data gathered during bat surveys between 2020-2024. Likely residual effects upon bats, birds and otters will be confirmed following the receipt of surveys undertaken in 2025 (ahead of the Final EIA Report).

5.4.10. No adverse effects are expected to result from the Project, following the application of embedded measures and secondary mitigation. This assessment will be revised on the receipt of further survey data.

5.5 HISTORIC ENVIRONMENT

BASELINE AND METHODOLOGY

5.5.1. An assessment of the direct effects on historic heritage assets such as physical disturbance and damage, as well as effects through change of setting of off-site heritage features and the wider historic landscape, have been considered in the historic environment assessment.

5.5.2. This is represented by features, or assets, including buildings, archaeological remains and artefact scatters. Some historic assets have been designated as Scheduled Monuments, Listed Buildings or Conservation Areas, Registered Park and Gardens, and Registered Historic Landscapes. These and non-designated assets are managed in the planning process in accordance with national and local planning policies and guidance.

5.5.3. A 300m Study Area was applied in the Archaeological Desk-Based Assessment (ADBA) for establishing a historic environment baseline to support an assessment of potential and significance of historic assets which may be impacted by the Project.

5.5.4. A Stage 1 Assessment has been carried out for all the designated historic assets within the 3km Extended Study Area.

5.5.5. All listed buildings within the 300m Study Area were visited for a Stage 2 assessment given their proximity to the scheme, to adequately assess the level of change to wider setting and ensure appropriate mitigation, if required.

ENVIRONMENTAL EFFECTS AND MITIGATION

5.5.6. Subject to the implementation of the environmental measures, which includes archaeological monitoring and recording of potential non-designated archaeological remains situated within the footprint of OHL and UGC footprint, as well as the micro-siting of OHL H-pole foundations to avoid impacting upon known non-designated assets, the Project will avoid significant effects upon the sub-surface aspect of the historic environment.

5.5.7. An assessment of the effects on the settings of off-site historic assets within a 3km study area identified that most of the surrounding designated assets either maintain partial or no views toward the Site and that the Project would not introduce any new or significantly visually intrusive built forms which do not already exist within the landscape. Since the installation works would only take place over 9 months, any impacts to their setting during the construction phase would be temporary and therefore **negligible**.

5.5.8. During the operation phase, the new OHL site would be visible within a landscape in which existing OHL of greater sizes are already prominent and visible, and therefore the impact is also considered negligible.

5.5.9. Following consultation with Cadw, effects upon the potential archaeological remains present within the Mynydd Margam Landscape Historic Landscape has not necessitated the completion of an ASIDOHL.

5.5.10. All effects within this landscape have been decided through assessment of the surrounding potential non-designated assets and the character of the historic landscape.

5.6 WATER RESOURCE AND FLOOD RISK

BASELINE AND METHODOLOGY

5.6.1. The Water Environment and Flood Risk baseline has been developed on the basis of a desk-based assessment of existing data. The understanding obtained from the baseline data was supplemented by subsequent consultation with relevant water and flood risk stakeholders.

5.6.2. A review of OS mapping indicates that the Project crosses a number of surface water features directly, in addition to a number being located within the Study Area. These features comprise a mix of unnamed ordinary watercourses in the northern half of the Project and a number of named rivers in the overhead line section of the Project to the south of Y Parc and Maesteg. Further to the south, there are two additional WFD designated waterbodies within the Study Area.

5.6.3. Review of Data Map Wales indicates no designated sites within the Project boundary or the 1km Study Area of relevance to the Water Resources and Flood Risk assessment.

5.6.4. Plans received from Welsh Water show that Maesteg, Y Parc and Nantyffyllon are served mostly by conventional piped sewerage. This comprises a mix of surface water gravity-fed sewers and some sections of pumped network that outfall into the Afon Llyfi and a foul network that is piped to nearby water treatment works.

5.6.5. Abstraction license data will be requested through consultation with Neath Port Talbot CBC and Bridgend CBC LLFAs and will be used to inform the assessment as the ES progresses as an indication of waterbody sensitivity. Information regarding Permitted Discharges to Controlled Waters is available via NRW and will be used to inform the assessment where it is deemed necessary.

5.6.6. The entirety of the alignment of the Project passes through Secondary (Undifferentiated) Superficial Aquifers and Secondary A Bedrock Aquifer. There are three WFD Groundwater bodies within the Study Area.

5.6.7. The vast majority of the Proposed Development lies outside fluvial Flood Zone 2 and 3 (FMfP) and Flood Zone B and C (DAM). The northern and southern OHL sections of the scheme lie entirely outside these areas and interaction between flood risk zones.

5.6.8. The UG 66kV cable route crosses narrow areas of Flood Zone 2 and 3 (FMfP) and Flood Zone C2 (DAM) along the alignment of the Nant Sychbant to the west of Y Parc. These flood zone areas appear to be mostly confined to within the alignment of the Nant Sychbant. As such, interactions with the flood zones at this location are expected to be minimal.

5.6.9. The FMfP shows the Project and 1km Study Area extent to lie outside of the mapped flood extents of reservoirs should a breach occur. There are also no reservoirs located within the 1km Study Area.

5.6.10. The risk of groundwater flooding across the study area varies with local geology type. For example, Alluvial Fan Deposits can present a higher risk of groundwater emergence due to relatively high porosity, but Sandstone formations generally carry a low-medium risk.

ENVIRONMENTAL EFFECTS AND MITIGATION

5.6.11. Only two hydrological receptors related to surface water were deemed to have a potentially significant effects – the watercourses Nant y Fyllon and Nant Sychbant – due to potential for pollution and/or disturbance. All other hydrological receptors, including groundwater and flooding, were assessed as having a no potentially significant effects.

5.6.12. Suggested additional mitigation measures through the construction phase of the Project are as follows:

- Where necessary, use barriers to adequately capture sediment to allow for disposal in-line with CEMP and OWC requirements, including at the location of temporary dam use;

- Upstream and downstream water quality sampling to be undertaken to gauge potential adverse impacts to the quality of receiving waterbodies, in particular WFD waterbodies;
- Consideration of Phase 1 Ground Investigation data when it comes to incorporating mitigation measures into the contractor's method statement, for example providing adequate lining of underground infrastructure at locations where a shallow water table is discovered to mitigate against groundwater receptor contamination;
- Have discussions with contractor undertaking works on the Welfare Park project (P/12/877/BCB) to discuss and sufficiently mitigate against the potential for cumulative impacts through the construction phases of both projects.

5.6.13. No additional mitigation measures have been identified for the operational phase of the Project.

5.6.14. Following the implementation of embedded mitigation measures along with the additional mitigation measures outlined above, the potential for residual impacts is deemed to be **Neutral** – **Minor** and therefore are not deemed to be significant. As well as the mitigation measures outlined, there is scope for additional measures to be included within the CEMP and method statement as further scheme information is made available.

6 CONCLUSION

6.1.1. The Project and EIA process has resulted in the elimination or mitigation of potentially significant environmental effects in respect of all environmental topic areas considered in the EIA report.

6.1.2. The predicted residual adverse significant effects are limited to Landscape and Visual Amenity. The landscape effects identified are not unusual for an overhead line grid connection development, and are limited by the existing Foel Trawsnant Wind Farm.

6.1.3. The Project will provide a crucial connection for the Foel Trawsnant Wind Farm to the wider national grid, therefore contributing to the production and distribution of renewable energy.

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