



# North Wales Wind Farms Connection Project

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## Overview Report

March 2014





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## 1. Introduction

This report provides a non-technical overview of the North Wales Wind Farms Connection Project including a project overview, how SP Manweb makes its decisions, details of the consultations carried out to date, responses to frequently asked questions, a detailed description of the proposed Route Alignment(s), plans showing the extent of development, information on where to find out more and how to have your say on the Project (see description below).

The UK faces a major challenge with increasing demands for energy at a time when ageing power plants are closing and there is an urgent need to tackle climate change by reducing carbon emissions. To meet this challenge, the UK and Welsh Governments are seeking to cut emissions and increase new low carbon energy generation.

North Wales has been identified as an important location for new renewable energy generation. Four wind farms are proposed for Strategic Search Area A – one of the seven areas identified in the Welsh Government's Technical Advice Note (TAN) 8: Planning for Renewable Energy. The planned wind farms are Clocaenog Forest (developed by RWE npower renewables), Brenig (Brenig Wind Ltd), Nant Bach (Vattenfall) and Derwydd Bach (Tegni).

SP Manweb has a legal duty as the distribution network operator in North Wales to connect new sources of electricity to the network. We have identified that the most appropriate point of connection is SP Manweb's existing substation at St Asaph. The reasons for this selection are set out in our Strategic Options Report (May 2013), which is available as part of this consultation.

Between **20 March 2014** and **18 May 2014**, SP Manweb will be undertaking statutory consultation on the North Wales Wind Farms Connection Project. The project involves the construction of a new 132 kilovolt (kV) overhead line connection (the 132kV Overhead Line) between the Clocaenog Forest area in Denbighshire to a terminal pole to the south of Glascoed Road, B5381; together with required accesses, construction laydown areas and other integral works (the Project). The proposed line would be built on wood poles for the length of the route.

This is the final round of public consultation before SP Manweb submits its proposals to the Planning Inspectorate. It is important that you let us know how the proposals might affect your local area, so that we can take your views into consideration.

A glossary of technical terms used throughout this document can be found on page 26.

This Overview Report and other non-technical documents are also available in Welsh. Please contact us if you would like a copy of the Overview Report in Welsh. You can contact our Welsh call centre on 0808 168 7179.

## 2. Project overview

The statutory consultation that this Overview Report forms part of refers only to SP Manweb's proposals to build a new 132kV overhead line approximately 17km long within a Route Alignment corridor approximately 100m wide together with required accesses, construction laydown areas and other integral works. SP Manweb will also be seeking permission to construct a new collector substation and underground cables (part of the wider scheme).

- The Project consists of proposals for a new 17km long 132kV overhead line between a new collector substation at Clocaenog Forest and a terminal point south of Glascoed Road, the B5381, Cefn Meiriadog. The 132kV Overhead Line is classed as a Nationally Significant Infrastructure Project (NSIP) and an application for a Development Consent Order (DCO) to build and operate will be submitted to the Planning Inspectorate and will be determined by the Secretary of State for Energy and Climate Change. This consultation relates only to the Project and not the wider scheme.
- The new collector substation at Clocaenog Forest (which will collect the power generated by the new wind farms) is part of the wider scheme and forms the start point of the Project. SP Manweb will be seeking planning permission for this under the Town and Country Planning Act 1990.
- The connection will be taken underground from the terminal point south of Glascoed Road, Cefn Meiriadog and run underground to the existing SP Manweb St Asaph substation where it will transmit the power into the local and national electricity network. This is part of the wider scheme. New underground cables are permitted development for SP Manweb under the Town and County Planning (General Permitted Development) Order 1995.

The DCO application will be the Project, which will be the subject of statutory consultation. The new collector substation, sections of underground cable and other associated development will not form part of the proposed DCO application and, accordingly, will not form part of the statutory consultation. These are not covered in detail in the consultation materials but they will be considered as part of an assessment of cumulative effects which will accompany the DCO application.

SP Manweb expects to submit an application in the second half of 2014.

The development of the Project has already involved detailed environmental and technical studies, which have considered a range of alternatives including a number of substation locations and connection corridors. The route proposed for the 132kV Overhead Line has been developed to avoid or reduce potential environmental impacts as much as is practically possible while taking into account technical and economic factors. This has been done in the main by carefully designing the route to avoid sensitive areas.

This statutory consultation and the Preliminary Environmental Information Report (PEIR) is based on the Proposed Route Alignment(s). It is proposed that the DCO application will be made for a Final Route Alignment that reflects the outcome of this statutory consultation, which may indicate some parts of the Proposed Route Alignment(s) are not suitable for poles and/or an overhead line. The final pole and line position will be located within the Final Route Alignment. Indicative line and pole positions have been identified for the purposes of carrying out assessments and preparing indicative visuals. The indicative line and pole positions run down the centre of the Proposed Route Alignment and represent a reasonable and realistic worst case scenario on which to base assessments.

The 132kV Overhead Line would be built on wood poles as the farmland, through which the majority of the connection runs, is considered to be more suitable for wood poles than steel towers. Wood poles are proposed over steel towers as they are less visible, particularly on the skyline, and are more flexible for detailed routeing, providing a better fit with the landscape. Information about the potential connection technologies can be found below. A detailed engineering design review of the 132kV Overhead Line has confirmed that neither steel towers nor steel poles will be required along any part of the route.

Currently a double wood pole design is proposed for the 132kV Overhead Line. A number of studies are underway to see if a lighter single wood pole design would be suitable. SP Manweb consider there to be no material difference between the two designs and present the double wood pole throughout the consultation as a “worse case” illustration. SP Manweb are not consulting on the wood pole design, this will be chosen based on technical feasibility.

### Double wood poles

- Double wood poles can be up to 15m in height and are spaced up to 100m apart.
- The poles carry three cables with an additional earth wire. The conductors are supported on a steel structure which sits on top of the double wood poles.
- This method of connection offers the greatest potential for sensitive routeing, in hilly, small scale landscapes.



## How SP Manweb makes decisions

When designing a new connection to the electricity network, we have to take into account a number of factors including Government policy and legislation, technical engineering requirements, environmental and social impacts and cost. Our electricity distribution licence requires us to balance all these factors when making our route and design decisions.

The DCO application will be determined with regard to the National Policy Statements (NPSs) which set out the Government's objectives and policies for new nationally significant infrastructure. There are two NPSs that are relevant to the proposed application. EN-1 is an overarching statement that explains the need for new energy infrastructure. EN-5 focuses specifically on the development of nationally significant electricity network infrastructure. These NPSs set out national policy against which proposals for major energy projects will be assessed by the Planning Inspectorate and decided by the Secretary of State.

## Mitigation

The benefits of new onshore wind farm developments cannot be achieved without some impacts. These include impacts potentially associated with connecting the wind farm developments to the electricity network. Potential environmental impacts associated with the Project include effects on local biodiversity and geological conservation; landscape and visual amenity; the historic environment; flood risk; land use; socio-economic; traffic and transport; noise and electro-magnetic field (EMF) impacts. We also have a legal duty to consider how local amenities and communities can be protected in developing new connections and are committed to doing all we reasonably can to manage and reduce these impacts.

Mitigation is linked to the design process, as one of the principle aims in the selection and development of an overhead line is to avoid the most environmentally sensitive areas and to limit any significant impacts. Doing so reduces the need for mitigation at a later date. The route corridor is selected to avoid, for example, areas of designated landscape, high population or cultural and recreational areas that are of national significance. The alignment within the selected corridor is then developed to further minimise impacts on residential properties, locally designated landscapes, local footpaths and other sites of local value.

It is possible that there will be some areas that will be subject to significant landscape and visual effects where mitigation may be required to reduce those effects. More information about potential mitigation measures can be found in the PEIR.

SP Manweb acknowledges the wishes of many local residents that any new electricity infrastructure is placed underground. The project is being developed with due regard to SP Manweb's statutory duties and the relevant National Policy Statements (as described on the next page). Final decisions on whether any underground cable is appropriate having regard to the National Policy Statement EN-5 will only be made in light of the completed environmental impact assessment which will be finalised following this consultation.

## Underground cables

Underground cable may be appropriate where there are technical difficulties or serious concerns about the potential adverse landscape and visual effects of an overhead line.

On the basis of the preliminary environmental assessment to date, it is considered an overhead line would be appropriate for the Project but final decision will only be made in light of the final environmental impact assessment which will be completed following the consultation and having regard to the policy position set out in National Policy Statements EN-1 and EN-5.

As a regulated company, SP Manweb is required to provide an economic and efficient connection. Placing cables underground is considered where the benefits of an underground connection is judged to outweigh any extra economic, social and environmental impacts and the technical difficulties are surmountable. SP Manweb will consider:

- The landscape in which the connection will be set, in particular the impact on residential areas and those of natural beauty or historic importance
- The additional cost of underground cables which experience shows are more expensive than overhead lines
- The environmental consequences of any alternatives.

NPS EN-5 sets out the planning policy context for underground cables. It states that Government does not believe that overhead lines are incompatible with a developers' statutory duties. Consent should only be refused for an overhead line in favour of an underground cable if the benefits from the underground cable will clearly outweigh any extra economic, social and environmental impacts and the technical difficulties are surmountable.

*2.8.2 of EN-5 states: "Government does not believe that development of overhead lines is generally incompatible in principle with developers' statutory duty under section 9 of the Electricity Act to have regard to amenity and to mitigate impacts."*

*2.8.9 of EN-5 states: "The Secretary of State should, however only refuse consent for overhead line proposals in favour of an underground or sub-sea line if it is satisfied that the benefits from the non-overhead line alternative will clearly outweigh any extra economic, social and environmental impacts and the technical difficulties are surmountable."*





## Who is SP Manweb?

SP Manweb holds the electricity distribution license for North and Mid Wales, Merseyside, Cheshire and part of Shropshire. It is part of the ScottishPower group, owned by Iberdrola.



## Nationally Significant Infrastructure Projects

### *What is the Planning Inspectorate?*

The Planning Inspectorate is an executive agency of the Department of Communities and Local Government. The work of the Inspectorate includes national infrastructure planning under the Planning Act 2008 process as amended by the Localism Act 2011.

### *What is a Nationally Significant Infrastructure Project?*

Nationally Significant Infrastructure Projects (NSIPs) are defined in the Planning Act 2008; they include new energy generating stations, major new transport infrastructure and a number of other types of infrastructure project. This also includes "installation of an electric line above ground" as long as the voltage of the line is equal or above 132kV. As the voltage required to connect the proposed wind farms is 132kV, this project is defined as an NSIP.

### *Why is this different to a planning application?*

A DCO application differs from a normal planning application in that consent is granted by the Secretary of State for the Department of Energy and Climate Change rather than the local planning authority (for example Denbighshire County Council or Conwy County Borough Council). The voltage required for the line means that this project must be submitted as an application for a DCO to the Planning Inspectorate. More information can be found at [infrastructure.planningportal.gov.uk](https://infrastructure.planningportal.gov.uk).

## Who is OFGEM



SP Manweb is regulated by the Office of Gas and Electricity Markets (OFGEM), which is a non-departmental government body. Its primary duty is to protect the interests of consumers, where possible by promoting competition. Consumers' interests are their interests taken as a whole, including their interests in the reduction of greenhouse gases and in the security of supply. More information can be found at [www.ofgem.gov.uk](https://www.ofgem.gov.uk).

### 3. Consultation so far

SP Manweb has carried out two previous stages of consultation in 2012 and 2013. This current consultation, which is defined as 'statutory' consultation under the Planning Act 2008, is likely to be the last public consultation before an application for a DCO is submitted. More information about the consultations carried out so far can be found in the [Interim Consultation Report](#).

Below is a summary of the three stages of public consultation for the Project:



#### Stage 1 consultation

Consultation on route corridor options. This was carried out between June 2012 and February 2013. Using the feedback collected from Stage 1, a preferred route corridor was selected informed by the consultation.



#### Stage 2 consultation

Consultation on the preferred route corridor. This was carried out between June 2013 and July 2013. Using the feedback collected from Stage 2, approximate proposed route alignment(s) for the connection were produced.



#### Stage 3 consultation

Consultation carried out to help refine the Route Alignment before submission.

SP Manweb is carrying out statutory consultation on the proposed route alignment(s) for the Project between 20 March 2014 and 18 May 2014. This report has been prepared to support this consultation. The details of Stage 3 consultation can be found in the Statement of Community Consultation, which was published before the start of statutory consultation.

A number of common questions and issues were raised during stage 1 and stage 2 of the consultation. Top level answers to these questions have been included below.

## Frequently asked questions

Below are answers to questions which have regularly been asked of us as we have developed our proposals.

### What can't the connection be put underground?

As a regulated business, we must ensure our proposals are economic, efficient and coordinated. This means that an overhead line is usually the starting point for a 132kV connection. For technical, socio-economic or environmental reasons, it may be more appropriate to underground parts of the connection. For this connection, we are proposing to put electricity cables underground for approximately 2km between Glascoed Road, Cefn Meiriadog, and St Asaph (part of the wider scheme). The environmental impact assessment process will be vital in determining any additional areas where underground cable for the 132kV Overhead Line could be appropriate.

### How do you reduce the visual impact of the line on the countryside?

The overhead line would be carried on wood poles which are typically 15m (49 feet) tall. In the past 132kV overhead lines would have been built on steel towers. Advancements in technology mean that wood poles can now be used. One of the advantages of using wood poles is they allow for easier alignment of the line to reduce visual impact, especially in the type of landscape that is found along the proposed route corridor. Visual illustrations of a wood pole overhead line from a number of viewpoints along the proposed route alignment(s) have been produced for the consultation. They can be found at the exhibitions, on the DVDs, at Inspection Boxes and on the Project website. These visual illustrations are based on indicative line and pole locations described above. Photomontages of the *final* route alignment will be published in the Environmental Statement as part of the DCO application.

### How do you reduce the visual impact of the line on properties?

Minimising visual impact on homes is a key design consideration for us. We avoid close proximity of the line to properties wherever possible and design the 132kV Overhead Line to minimise its visual impact. We want you to tell us what you think of the impact of our Project on individual properties so that we can take this into account wherever possible before it is finalised. We have been able to confirm that only wood poles are needed to connect the line, rather than steel towers or steel poles.

### Do you compensate for the impact on views on property values?

There is no compensation for the potential impact of the connection on views. We recognise the visual impact of an overhead line may be an issue for many local communities and our approach is to maximise the distance of the line from properties where we can. Where the 132kV Overhead Line goes through a person's land, detailed one-on-one discussions will be undertaken.

### What will be the effects of Electric and Magnetic Fields (EMF) on my health?

Much research has been conducted into the impacts of EMFs over the last 30 years. The weight of scientific evidence over several decades of research has not proven a causal link between EMFs and cancer or any other disease. The Government sets guidelines for exposure to EMFs in the UK on advice from Public Health England (previously the Health Protection Agency). SP Manweb adheres to the guidelines and will be carrying out an assessment as part of the environmental impact assessment for the 132kV Overhead Line.

### What will be the impact on wildlife and the environment?

Environmental and ecological considerations helped us to avoid sensitive areas when the initial broad route corridors options were identified. Since then, we have carried out more detailed environmental work to help us define the proposed route alignment(s). There is the potential for temporary effects on protected species such as badgers, bats and birds and locally important habitats such as ancient woodlands during the construction phase.

You can review the environmental information collected to date in the Preliminary Environmental Impact Report (PEIR). An Environmental Impact Assessment (EIA), which will include biodiversity and geological conservation, will be submitted as part of the DCO application.

### What will be the impact on agriculture?

We will discuss any potential impact on agriculture with landowners, tenants and anyone with a direct interest in the land on an individual basis as part of the wayleaves process. If you believe your land may be affected, please let us know.

There will be some temporary disturbance during the construction of the 132kV Overhead Line and small loss of land at the pole locations.

Landowners are compensated for the loss of use of land. If you own or have interest in land crossed by the proposed connection and have not already been contacted directly by SP Manweb in this regard, please call the community relations team on **0800 021 7879** who will direct your enquiry as appropriate.

### Will there be noise from the overhead lines?

Overhead lines do create noise occasionally. This is typically at a low level and only in specific weather conditions. We are undertaking a detailed noise assessment as part of the EIA. We do not expect noise to be an issue for a 132kV wood pole overhead line however as this is a key topic for local communities it will be covered in the EIA.

### Why is the proposed connection close to Henllan?

We recognise that the preferred route corridor passes closest to Henllan, the largest settlement along the route. Following the second stage of consultation, a potential additional route alignment further to the east was identified by a number of people. We have studied this area and concluded that this alignment is suitable for an overhead line, and it has been included in this consultation. The area to the east was originally not included within a broad route corridor due to the ancient woodland in the Hafod area.

### How will you manage access during construction?

We are aware that many roads are narrow along the length of the proposed route alignment(s). Installation of an overhead line does not require much large-scale equipment or the use of abnormal loads so we do not envisage that access will be a problem. Access to land will be discussed on an individual basis with landowners/occupiers and the topic will be covered in the EIA.

### Is there a flood risk?

Initial studies have shown that the Project is not expected to pose a flood risk. A Flood Risk Assessment (FRA) will be included as part of the DCO application and will be covered in the EIA.

### What will be the impact on recreational activities / tourism?

Wherever possible, we will seek to minimise impact on local recreational facilities. If you are aware of any potential impact to recreational areas caused by the proposed route alignment(s), please let us know by giving us your comments on the feedback form during consultation. Potential adverse effects may occur during the construction phase but the development may also bring economic benefits to local businesses during this time. An assessment of the potential impacts will be covered in the EIA.

### Will the overhead line withstand extreme weather conditions?

Overhead lines are designed to withstand extreme weather conditions. At this size of voltage (132kV) there tend to be very few faults. As the line will not be carrying electricity directly to homes or businesses, any disruption to the line will only affect the distribution of electricity generated by the wind farms to the national electricity grid.

## 4. Environmental issues

As part of the EIA process, we have been carrying out surveys to establish the potential effects of our proposal. We have now published a report which gives the environmental information we have gathered so far on the Project and which has helped us to reach the design decisions we have made to date. This is called the **Preliminary Environmental Information Report** or PEIR. Below is a non-technical summary by topic of the information presented in the PEIR.

The PEIR also describes the baseline environment in the vicinity of the Proposed Route Alignment in a series of tables and plans. The potential effects of the line on the environment are considered through the construction, operation and decommissioning stages of the Project.

The PEIR forms part of the DCO application process for the 132kV Overhead Line. It describes the Project and its potential environmental effects. The Project may be modified following statutory consultation and consideration of technical requirements. The Final Route Alignment will then be taken forward for EIA, which will be reported in the Environmental Statement.

### Biodiversity and geological conservation

Effects on biodiversity and geological conservation are limited. The EIA will review the adjacency of the Project to the Elwy Valley SAC and RIGs site in the vicinity of the Afon Elwy Valley, to confirm any potential effects on these two designated areas remain insignificant. No specific significant effects have been identified for any protected species or habitats although it is noted that various protected species are present along the route and there are therefore potential impacts.

Birds and waders, great crested newts, bats, otter and dormice have been identified through desk study and field survey at various points along the route. Further ecological survey work is to be undertaken along the Proposed Route Alignment as part of the EIA which will inform any further assessment of effects. A detailed method of working will be identified and implemented through the Environmental Management Plan (EMP) to ensure all significant effects are mitigated as far as possible.

The Habitat Survey is part-complete and has identified primarily improved grassland with hedgerows; some hedgerows are deemed important when assessed under the Hedgerow Regulations. Measures will be in place to ensure that all hedgerows are retained, replaced or replanted and the quality and function of hedgerows will not be compromised.

Ancient and Semi Natural Woodland (ASNW) has been assessed within the Historic Environment chapter and further assessment of this and other woodland areas will be undertaken in the Biodiversity EIA process, with a tree survey being undertaken over the length of the route. Initial appraisal suggests there will be loss of small areas of

ASNW and other woodland together with loss of mature hedgerow trees, however the detailed route design has been undertaken to minimise effects on existing trees and woodland. A detailed method of working will be identified and implemented through SP Manweb's EMP and construction method statements to ensure construction effects are minimised and all significant effects are mitigated as far as possible.

### Landscape and visual amenity

Landscape and visual impact assessment shows there are not likely to be any significant effects on any designated landscapes although there may be limited visual effects on the Lower Elwy Valley Historic Landscape, and Welsh Historic Parks and Gardens at Bodelwyddan and Foxhall Newydd. The Clwydian Way Long Distance footpath is crossed in 1 location (once on the Henllan option and once on the Hafod option) and visual effects on the path may be locally significant although the overall effects over the distance of the path will not. Similarly there are likely to be locally significant effects on public footpaths although these will not be significant overall.

Effects on the local landscape are likely to be highest at Tir Mostyn to Peniel as the Proposed Route Alignment descends from the higher and more exposed hillsides over more open ground and the cumulative effect of the line is likely to be increased by the proximity of the Brenig and Clocaenog wind farm developments. Effects on the landscape may also be significant as the Proposed Route Alignment crosses the locally valued Elwy Valley and the Cefn Meiriadog ridge.

Effects on Residential Visual Amenity are likely to be experienced at Henllan, the nearest settlement to the route

alignment. Two route alignment options have been put forward for this area and assessed. Input from this Stage 3 Consultation and a technical review will aid the selection of the option for the Proposed Route Alignment to the west of the village.

Elsewhere along the Proposed Route Alignment there are likely to be significant visual effects on a number of individual properties, however the significance of these effects will be appraised in more detail through the EIA. A Residential Visibility appraisal will be undertaken along the length of the Proposed Route Alignment.

### Historic environment

The Historic environment is likely to be subject to a low number of significant adverse effects. There are limited visual effects upon designated landscapes. This is similarly the case for registered parks and gardens, with the exception of Fox Newydd, which may be subject to significant effects. Most Scheduled Ancient Monuments are unlikely to be affected with the exception of three which may be subject to minor visual effects. In terms of conservation areas, Henllan may experience locally significant effects. Listed buildings have mid to long distance views of the route alignment, and some of these effects may also be significant. A small number of undesignated assets, including tracts of ancient woodland, may be directly affected by the route alignment. Heritage assets tend to concentrate towards the east side of the region suggesting that the route option via Henllan is likely to give rise to a greater number and magnitude of effects than the Hafod route. The EIA process will focus upon the assessment of the settings, indirect visual effects and inter-visibility of assets, as well as examining the course of the Proposed Route Alignment to determine any potential direct effects upon known or previously unknown assets.

### Flood risk

Effects on flood risk at the three river crossings are likely to be limited as the flood risk areas are under 50m with the exception of the crossing of the River Elwy where the flood risk area is up to 200m in width. Effects on water quality in the construction stages will be considered in more detail during the EIA and a detailed method of working will be identified and implemented through SP Manweb's EMP and construction method statements to ensure construction effects are minimised and any significant effects are mitigated as far as possible.

### Land use

Effects on land use are likely to be limited to the loss of agricultural land where the poles are located. Given the nature of the Project this loss is unlikely to result in significant effects and detailed discussions will be held with landowners to ensure any significant effects are mitigated as far as possible.

### Socio-economic

Socio-economic and tourism effects are likely to be limited with only slight economic effects as a result of construction activity. Effects on tourism are likely to be limited to indirect visual effects, with no permanent direct physical effects upon tourism receptors likely to occur. Some temporary tourism effects might result during the construction period.

The scale of potential tourism effects - temporary and permanent - will be assessed in detail through means of a tourism business survey to determine the local tourism business community's views on such effects occurring, and these responses will be set within the context of comparative research on the likelihood of the occurrence of significant effects resulting from such development.

### Traffic and transport

Levels of traffic associated with the operational phase of the Project will be very low, and although those in construction and decommissioning will be slightly higher, it is not considered that any significant effects are likely to arise. If the construction phases of the schemes included within the cumulative assessment coincide there may be an increase in levels of traffic which could be significant. Similarly levels of noise and vibration will be negligible, if apparent at all during operation although there may be short term and limited effects from tree removal and pole placement during the construction and, to a lesser extent, decommissioning phases of the Project. A detailed method of working will be identified and implemented through SP Manweb's EMP and construction method statements to ensure construction effects are minimised and any significant effects are mitigated as far as possible.

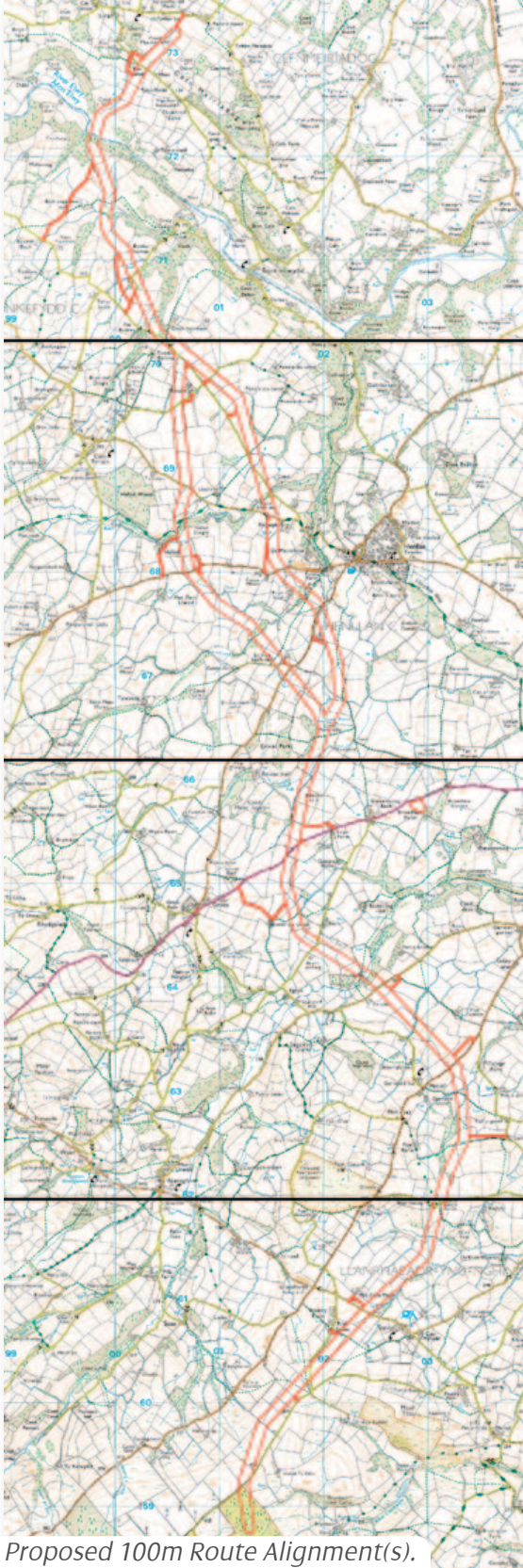
### Electric and Magnetic Fields

Whilst it is not considered likely that there will be any significant environmental effects arising as a result of Electric and Magnetic Fields, SP Manweb will carry out an assessment in line with NPS EN-5.

### Conclusion

The PEIR has identified that there are likely to be significant environmental effects although these will be limited in extent and nature. The Project has eliminated many effects through the Route Assessment process and embedded design mitigation through the selection of pole types and the design of the detailed route alignment. Specific mitigation is limited due to the nature of the project, however the adoption of a best practice approach to construction will further mitigate the effects of the Project.

## 5. Proposed route alignment(s)



Proposed 100m Route Alignment(s).

The Project consists of 17km of new 132kV overhead line, together with required accesses, construction laydown areas and other integral works. Rather than specific pole positions, SP Manweb have identified a 100m proposed route alignment within which the overhead line would be sited. This alignment was developed within the broad route corridor (the selection of which was informed by Stage 1 consultation) and itself informed by the feedback received during Stage 2 consultation.

The Proposed Route Alignment(s) have been divided into four sections in order to make it easier to focus on specific parts of the alignment during consultation.

The Proposed Route Alignment(s) include an option to the west of Henllan in response to non-statutory consultation feedback. This option lies outside the original preferred broad route corridor and both options will be taken forward for Stage 3 consultation. The decision on which option to take forward will be based on comments received during the consultation, environmental and technical considerations. Following Stage 3 statutory consultation, the *Final* Route Alignment with one option identified will be confirmed and taken forward to the EIA stage.

### Section 1: Clocaenog to Bwlch

The 100m proposed route alignment exits the proposed collector substation, located within the Clocaenog Forest immediately adjacent to the Clocaenog wind farm substation. The alignment runs north through the edge of the managed forestry, and crosses open grazing land on the ridge of Tir Mostyn (400m Above Ordnance Datum (AOD)), adjacent to the Tir Mostyn wind farm, before dropping down to 350m AOD. The alignment turns north east to run along the upper Lliwen valley slopes, parallel and above the B4501, through a landscape of small pastoral fields enclosed by hedgerows. After crossing the B5435 the alignment turns further east and drops down to cross a watercourse before rising up to a local ridge near Bron Heulog.

### Section 2: Bwlch to Eriviat

The alignment turns north at the minor road near Bron Heulog, running through a rolling pastoral landscape with medium

sized fields enclosed by hedgerows and pockets of deciduous woodland. The alignment drops down from a ridge at approximately 280m AOD, running past a block of woodland, in a local valley to the west which it then utilises as it runs past College Farm to the east of Peniel village, to cross the B4501 near Plas Captain. To the north of the B4501 past Segrwyd the alignment turns north-west, towards the Afon Ystrad and Pandy Wood. The alignment passes through an open, small to medium scale, undulating pastoral landscape bounded by hedgerows with scattered mature trees, until it drops down to cross the wooded valley of the Afon Ystrad at Pandy. Continuing north-west and crossing a minor road, the alignment turns north at Bodeiliog Uchaf (170m AOD). The alignment crosses the A543 to the east of Eriviat Hall and continues north through a relatively open pastoral landscape, bounded by hedgerows with scattered mature trees with significant blocks of woodland to the west of the alignment, before turning north-east, skirting the base of Beacon Hill, through a shallow valley past Coed-Wern-ddu.

### Section 3: Eriviat to Plas Buckley

At this point two alternative alignments are currently included within the Project. One option runs slightly to the north-west along the valley floor to the west of Henllan within a small to medium scale pastoral landscape, crossing minor roads, watercourses and residential receptors. The fields are bounded by hedgerows with mature trees and areas of predominantly deciduous woodland which increase in cover along the tributaries of the Elwy to the west of Henllan.

The second option also runs broadly north-west to pass to the west of Berain. However the alignment runs across slightly higher land to the west, further from Henllan, crossing undulating farmland with well-kept hedgerows and mature trees. The alignment crosses two well wooded river valleys and passes to the east of Hafod Wood.

To the immediate north of Berain the two alignments join and continue north-west running through a pastoral landscape on slightly rising ground, with a medium scale field pattern to run to the north-east of Berain bounded by hedgerows and mature trees, and broadly parallel to a local road across undulating farmland to Plas Buckley and Bod-ysgawen-isaf (130m AOD).

### Section 4: Plas Buckley to Groesffordd Marli

The alignment turns north to drop down the valley sides of the Afon Elwy where the open valley sides allow extensive views although large blocks of largely deciduous woodland provide screening. The alignment crosses the narrow and well wooded valley bottom and rising to Coed y Fadir (90m AOD) turning north-east and continuing to rise up the valley side to Plas Hafod with a local concentration of attractive mature trees within the fields and hedgerows. The alignment continues past Coed Plas-newydd (140m AOD) to the east of Groesffordd Marli where there are a number of scattered properties, to a point south of Glascoed Road where the 132kV Overhead Line terminates. This marks the end of the overhead line which forms the Project.

After this point an underground cable runs along tracks and road into the SP Manweb St Asaph substation. This is part of the wider scheme not covered in this consultation.

***The 100m Proposed Route Alignment(s) corridor also allows for the potential set down areas required in the construction of the overhead line. Temporary access points for construction are also shown in the accompanying plans.***





*Photograph taken during the recent construction of the 132kV Rhyl Flats connection, which is representative of the double wood pole design considered for this Project.*

## Section 1: Clocaenog to Bwlch



## Section 2: Bwlch to Eriviat



### Section 3: Eriviat to Plas Buckley



## Section 4: Plas Buckley to Groesffordd Marli



## 6. Have your say

We are now carrying out statutory consultation. This is consultation on the Project, which we intend to submit as a DCO application to the Planning Inspectorate, and the preliminary environmental information on which the application is based.

We want to hear your views on things you are happy with or that you want to see changed. We will consider all your comments along with other factors that we need to take into account. We would specifically like your comments on:

- Areas within the 132kV Overhead Line Proposed Route Alignment(s) that would not be suitable for a pole or overhead line to be located.
- The preliminary environmental information which has been compiled to understand the environmental effects of the Project.
- The two route alignments near Henllan.
- Other elements of the Project including measures to reduce the impact of the 132kV Overhead Line.



Please detail your comments on the paper feedback form which can be returned to us using the freepost address **FREEPOST SP MANWEB NW CONNECTION**. To use the freepost address simply write it on an envelope on a single line, no further address or stamp is required. It is also possible to leave feedback on the project website [www.nwwindfarmsconnection.co.uk](http://www.nwwindfarmsconnection.co.uk), by completing the feedback form online.

All responses must be sent by midnight on **Sunday 18th May 2014** in order to be considered by the project team.

## 7. Find out more

All consultation information is available on the project website [www.nwwindfarmsconnection.co.uk](http://www.nwwindfarmsconnection.co.uk). Consultation documents can be downloaded from the website or are available on DVD; printed versions are also available to view at the locations below. If you would like a copy of either the DVD or the Overview Report, please get in contact with the team and one will be sent for free. To cover printing costs, it may be necessary to make a charge of up to £250 for a paper copy of the full suite of technical documents and plans.

**This Overview Report and other non-technical documents are also available in Welsh. Please contact us if you would like a copy of the Overview Report in Welsh. You can contact our Welsh call centre on 0808 168 7179.**

### Inspection boxes

Inspection boxes containing a printed set of all the main reports and plans can be viewed at the locations and opening times below. The full set of documents is unlikely to be on public display at these locations but will be available on request.

### Inspection box locations

	<b>Denbighshire One Stop Shop</b> Denbigh Library Hall Square Denbigh LL16 3NU	<b>Denbighshire County Council, Caledfryn office</b> Smithfield Road Denbigh LL16 3RJ	<b>St Asaph One Stop Shop</b> St Asaph library The Roe St Asaph LL17 0LU	<b>Conwy County Borough Council, Civic Offices</b> Abergele Road, Colwyn Bay, LL29 8AR	<b>SP Energy Networks</b> Rhostyllen Wrexham Road Wrexham LL14 4DU
<b>Monday</b>	9.30am - 7pm	9am - 5pm	9.30am - 4.30pm	8.45am - 5.15pm	9am - 5pm
<b>Tuesday</b>	9.30am - 5pm	9am - 5pm	1pm - 4.30pm	8.45am - 5.15pm	9am - 5pm
<b>Wednesday</b>	9.30am - 5pm	9am - 5pm	9.30am - 4.30pm	8.45am - 5.15pm	9am - 5pm
<b>Thursday</b>	1pm - 5pm	9am - 5pm	Closed	8.45am - 5.15pm	9am - 5pm
<b>Friday</b>	9.30am - 5pm	9.30am - 4.30pm	9.30am - 4pm	8.45am - 4.45pm	9am - 5pm
<b>Saturday</b>	9.30am - 12.30pm	Closed	Closed	Closed	Closed
<b>Sunday</b>	Closed	Closed	Closed	Closed	Closed

### Information points

You can also pick up copies of the feedback form, project newsletter and Overview Report at five unmanned information points when the venues are open.

<b>Information point venues</b>	<b>Address</b>	<b>Opening times</b>
Saron Chapel	Saron, LL16 4TL	Sunday (11am – 2pm)
Bylchau Parish Memorial Hall	Groes, Clwyd, LL16 5RS	With venue
Henllan Church Institute	Llindir Street, Henllan, LL16 5BH	Daily
Llanefydd Village Hall	Llanefydd, LL16 5EA	With venue
Nantglyn Church House	Nantglyn, LL16 5PC	Monday – Friday

## Public exhibitions

We will also be holding public exhibitions where you will be able to find out information about the proposals and the consultation process. Members of the project team will be on hand at the events to answer your questions and guide you through the consultation material. Details of the exhibition dates, times and locations are below.

A full set of consultation materials will be on display at each of the exhibitions and you will also be able to take away paper copies of the feedback form, newsletter and Overview Report.

## Public exhibitions

Venue	Address	Date	Exhibition times
<b>Cefn Meiriadog</b> <i>Chapel Vestry</i>	Groesffordd Marli, Chapel Vestry, LL22 9DR	Thursday 27/03/14	4pm – 8pm
<b>Henllan</b> <i>Church Institute</i>	Llindir Street, Henllan, LL16 5BH	Friday 28/03/14	2pm – 7pm
<b>Denbigh</b> <i>Town Hall</i>	Crown Lane, Denbigh, Clwyd, LL16 3TB	Saturday 29/03/14	10am – 2pm
<b>Nantglyn</b> <i>Church House</i>	Nantglyn, LL16 5PC	Tuesday 1/04/14	4pm – 8pm
<b>Llanefydd</b> <i>Village Hall</i>	Llanefydd, LL16 5EA	Wednesday 2/04/14	4pm – 8pm
<b>St Asaph</b> <i>Community Council Meeting Room</i>	Community Council, Meeting Room, Roe Plas Meadow, St Asaph, LL17 0RD	Thursday 3/04/14	2pm – 7pm

## 8. Next steps

When the consultation has closed, we will consider your comments, finalise our proposals and prepare the documents needed for the DCO application.

A Consultation Report that sets out how comments have shaped the Project throughout the various stages of consultation will be submitted to the Planning Inspectorate as part of the DCO application. Your comments, alongside other consultees, will be submitted to the Planning Inspectorate in their entirety with the application but any publicly accessible information will conform to the Data Protection Act by not detailing names and addresses.

Once the DCO application has been submitted, the Planning Inspectorate has 28 days to decide if our consultation has been adequate and whether our application will be accepted for formal examination. If it is accepted, we will advertise the application and tell you how you can take part in the examination process in the future by registering your interest in the application and to ensure you are kept up to date.



## 9. Project glossary

**The Project** — The 132kV Overhead Line together with required accesses, construction laydown areas and other integral works

**Wider scheme** — The wider scheme incorporates a new collector substation in the Clocaenog Forest area and underground cables from the terminal point to SP Manweb's St Asaph substation

**132kV Overhead Line** — 132,000 volts overhead line from the Clocaenog Forest area to a point south of Glascoed Road, Cefn Meiriadog near the existing substation at St Asaph, Denbighshire. The line would be carried on wood poles (double or single) the length of the route. The Project requires a DCO under the Planning Act 2008

**Broad route corridor(s)** — Initial strategic corridors identified for the Project

**Conductor** — Overhead wire(s) attached to wood poles

**Constraint** — An influence on design and routeing of an overhead line

**Consultation Zone** — For the purpose of section 47 consultation, we have defined a broad geographic consultation zone. The zone extends for at least two kilometres (approximately 1.24 miles) either side of the proposed route alignment which was identified following feedback from previous consultations and detailed environmental and technical work. The consultation zone extends beyond a reasonable buffer for residences and businesses that could experience potential direct impact from the project. We will be consulting with people who live and work within, and otherwise use, this area. A map of the consultation zone can be found in the Statement of Community Consultation

**DCO** — Development Consent Order – the permission required under the Planning Act 2008

**DNO** — Distribution Network Operator. SP Manweb is the DNO for North and Mid Wales, Cheshire and Merseyside

**EIA** — Environmental Impact Assessment – a statutory process whereby the project is assessed through the collection and consideration of environmental information. The findings are published in an Environmental Statement

**EMF** — Electromagnetic fields – fields generated by electricity

**ES** — Environmental Statement – the published documentation containing the findings of an EIA

**Final Route Alignment** — Confirmed route alignment following consultation, technical and environmental appraisal. Will be the basis for the EIA

**The Holford Rules** — A series of planning guidelines for the routeing of overhead lines first developed in 1959 by Lord Holford, adviser to the then Central Electricity Generating Board (CEGB) on amenity issues. They were reviewed in the 1990s by National Grid (NG)

**kV** — Kilovolts (1,000 volts)

**LANDMAP** — Natural Resources Wales have developed LANDMAP as a tool to assess the diversity of all landscapes within Wales, identifying and explaining their characteristics and qualities.

**Local Planning Authority** — Local decision maker for planning applications, for this Project they are Denbighshire County Council and Conwy County Council

**Mitigation** — Measures to avoid, reduce and offset adverse environmental effects

**MW** — Megawatts – energy generated by wind farms is described in MW

**Nationally Significant Infrastructure Project (NSIP)** — Large infrastructure projects designated under the Planning Act 2008 that are considered to support the economy and vital public services

**NPS** — National Policy Statements – set out Government policy for NSIP projects

**Ofgem** — The Office of the Gas and Electricity Markets – the regulator for the UK's gas and electricity industries whose role is to promote choice and value for customers

**Overview Report** — Provides a non-technical overview of the Project. It explains how to get further information and how to give feedback

**PEIR** — Preliminary Environmental Information Report – the initial environmental impact assessment findings for the project are reported in the PEIR

**Permitted Development** — Statutory Undertakers such as SP Manweb have certain permitted development rights under The Town and Country Planning (General Permitted Development) Order 1995

**PIIs** — Persons with an interest in the Land – people who own, occupy or have another interest in the land potentially affected by a development, or who could be affected by a project in such a way that they may be able to make a claim for compensation

**PINs** — Planning Inspectorate – the body responsible for operating the planning process for NSIP projects. PINs examines the application and will make a recommendation to the Secretary of State for Energy and Climate Change who will make the decision on whether to grant or refuse development consent

**Planning Act 2008** — The legislation which sets out the process for a Development Consent Order and defines Nationally Significant Infrastructure Projects

**Prescribed Consultees** — Organisations designated under the Planning Act 2008 who are consulted by PINs on the application

**Proposed route alignment** — 100m wide corridor(s) within which the overhead line will be constructed. Subject to statutory consultation

**SoCC** — Statement of Community Consultation – a description of how SP Manweb intends to consult the community on the project

**SOR** — Strategic Options Report – sets out the initial technical options for the Project and an appraisal of each option identifying the proposed technical option for the Project

**SP Manweb** — The DNO for North and Mid Wales, Cheshire and Merseyside. The promoter of the North Wales Wind Farms Connection project

**Statutory Consultees** — Organisations that SP Manweb is required to consult by virtue of the Planning Act 2008 Regulations

**Statutory Undertakers** — Companies with regulatory powers and duties, such as gas, electricity, water and transport providers/transmitters

**Substation** — Generated electricity is fed into the electricity distribution network through substations. Substations control the flow of power through the network by means of transformers and switchgear, with facilities for control, fault protection and communications

**TAN 8** — Welsh Government Technical Advice Note (TAN) 8: Planning for Renewable Energy (2005) sets out renewable energy planning, technologies and design

**Terminal point** — Location at which the overhead line stops and transfers to an underground cable. The cable will run down the terminal pole underground. No sealing end compounds are required

**Undergrounding** — Electricity cables laid underground

**Wood poles** — Wooden poles used to support an overhead electricity line

## 10. Documents

To explain the proposals we have prepared a series of plans and reports. These are split into four volumes. Below is a list of these documents and where you can find the information you need.

### 1. Summary documents and feedback form

The project newsletter and feedback form will be issued to every household and business within the consultation zone identified in the SoCC. This Overview Report will be issued to anyone who requests it and can also be collected from the exhibitions and information points detailed earlier in the document.

1.1 Project Newsletter

1.2 Feedback Form

1.3 Overview Report

### 2. Preliminary Environmental Information Report

The PEIR contains the environmental information collected to date covering the length of the 132kV Overhead Line and a non-technical summary of the findings.

2.1 PEIR

### 3. Plans

In addition to the plans found in this Overview Report, larger scale plans are available. Plans including the environmental constraints (a major factor in guiding the design of the proposed route alignment(s)) can be found for each section.

3.1a Overview plan

3.1b Overview plan with environmental constraints

3.2a Section 1 plan

3.2b Section 1 plan with environmental constraints

3.3a Section 2 plan

3.3b Section 2 plan with environmental constraints

3.4a Section 3 plan

3.4b Section 3 plan with environmental constraints

3.5a Section 4 plan

3.5b Section 4 plan with environmental constraints

### 4. Other documents

Also included as part of the consultation are a series of background reports. These cover the development of the Project from strategic options, through the selection of the broad route corridor to the Scoping Report sent to the Planning Inspectorate for consideration. Also included is a breakdown of the consultation carried out to date and a copy of our Statement of Community Consultation.

4.1 Interim Consultation Report

4.2 Strategic Options Report

4.3 Route Corridor Report

4.4 Scoping Report

4.5 Statement of Community Consultation

## Contact us

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