



# **The North Wales Wind Farms Connection Project**

Option B Submission  
Environmental Report

September 2015



Document reference OPTIONB ER DOCUMENT 1



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## **Environmental Report in Support of Option B**

September 2015

PINS Reference: EN020014

Document Reference: Option B ER Document 1

The Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009 – The Infrastructure Planning (Compulsory Acquisition) Regulations 2010



**The Planning Act 2008**

**The Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009**

**The Infrastructure Planning (Compulsory Acquisition) Regulations 2010**

**The North Wales Wind Farms Connection Project**

**Environmental Report in Support of Option B**

<b>Document Reference No.</b>	<b>Option B ER Document 1</b>
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<b>Date</b>	<b>September 2015</b>
<b>Version</b>	<b>01</b>
<b>Planning Inspectorate Reference No.</b>	<b>EN020014</b>



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# 1 INTRODUCTION

## 1.1 Overview

- 1.1.1 On 20 March 2015, SP Manweb plc ("**SP Manweb**") submitted to the Secretary of State its application for development consent ("**Application**") to construct and install, operate and maintain an approximately 17.3 kilometre 132kV electric line above ground from a collector substation at Clocaenog Forest, Denbighshire to a terminal point located to the south of the unnamed Groesford Marli to Glascoed Road and the B5381 near to St Asaph, Denbighshire. This Application followed consultation with various parties over a prolonged period of time, as well as three stages of non-statutory and statutory consultation.
- 1.1.2 SP Manweb has been asked by various affected landowners to consider a series of amendments to the Application that was made in March 2015. These requested changes are more fully described below in section 2.2 of this document.
- 1.1.3 Whilst SP Manweb considers that its Application made in March 2015 is acceptable and should be granted development consent as the Application currently stands, SP Manweb has considered the landowner suggestions and compiled an "Option B" application collating various changes that SP Manweb would like the Examining Authority and Secretary of State to consider.
- 1.1.4 This 'Environmental Report in Support of Option B' considers the proposed amendments to the Application and confirms that the conclusions of the Environmental Statement (DCO Document Refs 6-1 – 6.28) do not change as a result of the amendments to the Order Limits / Order Land included in Option B.
- 1.1.5 As stated within the Environmental Statement Chapter 1 'Introduction' (DCO Document Ref 6.1) the Proposed Development comprises the following principal elements:
- Construction of an approximately 17.3km 132 kV overhead electricity distribution connection between Clocaenog Forest and St Asaph, both in Denbighshire;
  - A temporary construction compound at Broadleys Farm, A453, Denbighshire and temporary storage or 'laydown areas' along the alignment, without which the overhead line could not be constructed;
  - Access points for pedestrians and vehicles along the length of the Proposed Development for the duration of construction, without which the overhead line could not be constructed;
  - Mitigation planting, and;
  - Other integral works such as site preparation and clearance, earthworks, alteration of existing services, vegetation removal/ planting and minor street works.

- 1.1.6 The main component of the Proposed Development is a new approximately 17.3km 132,000 volt (132 kV) Overhead Line from the proposed Collector Substation near Clocaenog Forest and which terminates in a field to the south of Trebanog, Groesffordd Marli (which is south of Glascoed Road, B5381), which is located approximately 1.8km from St Asaph substation.
- 1.1.7 The Order Limits also includes the land from an un-named highway to the south of Trebanog, Groesffordd Marli to the terminal point of the 132 kV Overhead Line. The DCO includes the land rights to install (and keep installed), retain, use, inspect, maintain, renew, remove and relocate an underground cable in this land. The DCO application does not include the development consent for the underground cable.
- 1.1.8 The proposed 132kV Overhead Line would comprise conductors supported by double wood poles. The wood poles are generally no larger than 470mm in diameter, and would range between 11m and 16.4m in length. Taking into account that the nominal depth of the poles is 2.5m and the steel bracings and insulators add typically 2.3m to the length, the net result is that the actual conductor height above ground (at pole positions) is about 0.2m less than the pole length referred to. The average span between poles is 79m.
- 1.1.9 The Order Limits for the Proposed Development contain a Limit of Deviation (LoD) within which the 132kV Overhead Line would be located. The LoD provides a degree of flexibility to ensure that any environmental constraints, technical constraints or landowner requests can be accommodated. The LoD varies between 20m in areas with good ground conditions and 40m in areas with poor ground conditions.
- 1.1.10 Further detail is included within Chapter 2 'Description of Proposed Development' of this Environmental Statement (DCO Document Ref 6.2).
- 1.1.11 The Proposed Development does not include all elements of the North Wales Wind Farms Connection Project. This is because the following elements are considered to be "Associated Development", which, in Wales, cannot be included in an application for a development consent order. Those elements not included within the Proposed Development are known as the Wider Scheme and comprise:
- proposed works to St Asaph substation, including the development of an underground cable taking the connection point at St Asaph to the terminal point of the Proposed Development located in a field to the south of Trebanog, Groesffordd Marli (which is south of Glascoed Road, B5381) (see Appendices 1.1 and 1.2 (DCO Document Ref 6.17));
  - a new 132 kV electrical substation at Clocaenog Forest to act as the collector substation for four consented wind farms (see Appendix 1.3 (DCO Document Ref 6.17)). A planning application for the Collector Substation was submitted to Denbighshire County Council in December 2014 (Ref 23/2014/1440);
  - temporary storage areas within the existing St Asaph substation and the Collector Substation at Clocaenog Forest; and

- diversions of existing of lower voltage overhead line crossings (see Appendix 1.4 (DCO Document Ref 6.17)).

## **1.2 Purpose of this Document**

- 1.2.1 Since submission of the application for a DCO in March 2015, SP Manweb has been negotiating with the landowners along the route regarding the locations of individual pole positions. These negotiations have resulted in the Option B - Scheme as Amended in August 2015 (referred to in the remainder of this document as Option B).
- 1.2.2 The revised Order Limits and indicative pole locations are illustrated on the Options A and B Comparison Plans (DCO Document Ref Option B CP). These plans illustrate Option A (the Order Limits as included within the DCO application made in March 2015 (referred to as Option A) and the revised Order Limits (referred to as Option B) submitted in August 2015).
- 1.2.3 This document has been prepared to demonstrate that the provisions of Regulation 17 of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2009 (as amended) are not engaged. It is submitted that the Environmental Statement (Document Reference 6.1 - 6.28) is adequate and no new environmental information is required.

## 2 BASIS OF ASSESSMENT

### 2.1 Limits of Deviation

2.1.1 Chapter 4 of the ES 'Methodology' (DCO Document Ref 6.4) provides an explanation of the Limits of Deviation and the approach to the assessment. This is reproduced below:

4.7.1 *As is common for major infrastructure projects it is necessary for a limited degree of flexibility to be included within the application for development consent, by way of defining both lateral and vertical limits of deviation, which will allow the Proposed Development to take place within those limits. The reasons why limits of deviation are required are included in Chapter 2 'Description of the Proposed Development.'*

4.7.2 *In summary the Limits of Deviation (LoD) identify a maximum distance or measurement of variation within which all the permanent works must be sited. The LoD provide a degree of flexibility which is required as:*

- *following consent, during pre-construction environmental constraints would be reviewed;*
- *following consent and pre-construction, micro-siting would take place involving more detailed technical survey information, particularly for unconfirmed ground conditions; and*
- *minor alterations may be requested by landowners.*

4.7.3 *The lateral LoD are 20m wide in areas of good ground conditions, with some areas widened to 40m, due to poor ground conditions, or to accommodate changes in direction. The extent of the lateral LoD are shown on the Works Plans (DCO Document Ref 2.3).*

4.7.4 *The vertical LoD are designed to take account of standard 132kV wood pole design. The double wood pole design varies from 10.8m above ground height to 16.4m above ground height with the average height of the structures being 13m. The vertical LoD is +4m based on the average height of 13m. As with the lateral LoD the variation in height between adjacent structure positions is generally limited to 2m as this would greatly impact on the uplift force at adjacent poles. The final design of poles may be lower in height; there is no restriction placed on a reduction in height.*

4.7.5 *The ES has assessed the 'likely worst case' in instances where flexibility is applied for. This is referred to as the 'Rochdale Envelope' after the legal cases which established its precedent. PINS Advice Note 9 addresses the use of the 'Rochdale Envelope' approach under the Act.*

4.7.6 *The approach adopted is therefore as follows:-*

- *Where linear features are crossed (for example hedgerows) it has been assumed that no more than 20m will be required for construction;*
- *For point receptors (for example an archaeological asset or tree groups) it is assumed that these are affected (where a separate commitment to retain/protect does not exist);*
- *Distances to receptors beyond the boundaries of the LoD have been calculated to the closest point along the boundary (although due to technical considerations, for example conductor swing and failure containment structures, it would never be possible to locate a pole along this boundary).*

4.7.7 *This approach has been adopted as it is necessary to identify all of the receptors that could potentially be affected by the Proposed Development, should the pole positions change. The alternative would be to consider the effects of all permutations of pole positions within the Limits of Deviation, which is not feasible.*

## **2.2 Proposed Changes to Limits of Deviation and Order Limits**

2.2.1 In accordance with good practice as well as the requirements of compulsory acquisition guidance, SP Manweb has continued to engage with interested parties, including affected landowners.

2.2.2 SP Manweb has been asked by various affected landowners to consider a series of amendments to the Application that was made in March 2015. These requested changes have been received during the course of SP Manweb's negotiations with landowners. Whilst SP Manweb considers that its Application made in March 2015 is acceptable and should be granted development consent as the Application currently stands, SP Manweb has considered the landowner suggestions and compiled an Option B application collating various changes that SP Manweb would like the Examining Authority and Secretary of State to consider. As such, SP Manweb is requesting that the Examining Authority accepts a proposal for an Option B that takes the March 2015 Application scheme and incorporates the various collated landowner requests.

2.2.3 The proposed changes which comprise Option B are listed in the table below:

**Table 1: Description of Changes to the Application**

	<b>DESCRIPTION OF CHANGE</b>	<b>POLE NUMBERS REQUIRING A DIFFERENT LOCATION AS A RESULT OF THE REQUESTED AMENDMENT</b>	<b>COMMENT</b>
1	Amend indicative location of pole 7 including additional pole 9b so that the pole is not in the corner of the field.	2-14	<p>The change in position of the illustrative location for pole 7 is limited to approximately 47 metres to the south west (and now on the opposite side of Hafodty Ddu Road).</p> <p>The relocation in pole 7 has resulted in changes to the Order Limits /Order Land surrounding pole positions 6 to15 and indicative pole positions of poles 2 to 14. This has necessitated a new indicative pole 9b. The amendment is minor and will not result in any material change.</p>
2	Amend indicative location of pole 24 to the south – west so that it is closer to the boundary of the field	24, 25	<p>The indicative locations of poles 24 and 25 have been moved within the existing limits of deviation, as per landowner request.</p> <p>Within the Limits of Deviation of Option A</p>
3	Amend indicative locations of poles 38-41, including additional pole 38b such that pole 39 can be placed on the field boundary	38, 38b, 39, 40 and 41	<p>The indicative location of poles 38, 39, 40 and 41 have been moved within the existing limits of deviation to the boundary, as per landowner request. This has necessitated a new indicative pole 38b.</p> <p>Within the Limits of Deviation of Option A</p>

	<b>DESCRIPTION OF CHANGE</b>	<b>POLE NUMBERS REQUIRING A DIFFERENT LOCATION AS A RESULT OF THE REQUESTED AMENDMENT</b>	<b>COMMENT</b>
4	Amend indicative location of pole 59 away from the hedge to allow access south from the pole.	55-61	<p>The change in position of the illustrative location for pole 59 is limited to approximately 15 metres to the north.</p> <p>The relocation in pole 59 has resulted in changes to the Order Limits / Order Land surrounding pole positions 54 to 60 and indicative pole positions of poles 55 to 61. The amendment is minor and will not result in any material change.</p>
5	Amend indicative location of pole 64 and 66 south approximately 6m so that they are closer to the hedgerow.	62-69	<p>The change in position of the illustrative location for angle pole 64 is limited to 16 metres to the south.</p> <p>The change in position of the illustrative location for pole 66 is limited to 9 metres to the south west.</p> <p>The reposition of the angle pole has necessitated changes to the indicative locations of poles 62-69. It has also resulted in amendment to the Order Limits /Order Land surrounding poles 62 and 69. The amendment is minor and will not result in any material change.</p>
6	Amendment to the Order limits around pole 71	N/A – change to mitigation only	The tenant farmer has removed the landscaping in this location and therefore no mitigation planting is now required. The Order Limits /Order Land has been reduced.
7	Amend indicative location of Pole 80 to be moved north – west to the hedge	80	<p>The indicative location of pole 80 has been moved within the existing limits of deviation, as per landowner request.</p> <p>Within the Limits of Deviation of Option A</p>
8	Amend indicative location of pole	88, 90, 91, 92, 93, 94, 95 and	The indicative locations of poles 88 to 96 have been moved within the existing limits of deviation to accommodate landowner

	<b>DESCRIPTION OF CHANGE</b>	<b>POLE NUMBERS REQUIRING A DIFFERENT LOCATION AS A RESULT OF THE REQUESTED AMENDMENT</b>	<b>COMMENT</b>
	90, 92 and 96 such that they are placed on hedgelines	96	requests in respect of poles 90 and 92 and 96. The relocation in pole 96 has resulted in changes to the Order Limits /Order Land surrounding pole position 96 and indicative pole position of pole 96. The amendment is minor and will not result in any material change.  The change in position of the illustrative location for pole 96 is limited to approximately 3 metres to the north west.
9	Amend indicative location of Pole 99 line to the hedgeline.	99	The indicative location of pole 99 has been moved within the existing limits of deviation, as per landowner request.  Within the Limits of Deviation of Option A
10	Amend indicative location of poles 111 and 112 to allow pole 112 to be closer to the field boundary.	111 and 112	The indicative location of poles 111 and 112 have been moved within the existing limits of deviation, as per landowner request.  Within the Limits of Deviation of Option A
11	Amend indicative location of pole 119 to the east side of the hedgerow	118-120	The change in position of the illustrative location for pole 119 is limited to approximately 10 metres to the east.  This change will result in changes to the Order Limits /Order Land surrounding poles 117 to 121 as well as indicative poles positions of poles 118 to 120. The amendment is minor and will not result in any material change.

	<b>DESCRIPTION OF CHANGE</b>	<b>POLE NUMBERS REQUIRING A DIFFERENT LOCATION AS A RESULT OF THE REQUESTED AMENDMENT</b>	<b>COMMENT</b>
12	Amend indicative location of pole 139 to the hedgerow	139	The indicative location of pole 139 has been moved within the existing limits of deviation, as per landowner request.  Within the Limits of Deviation of Option A
13	Amend indicative location of pole 176 – to 177 to avoid poles in the middle of future building plot. Proposed pole in the corner of the plot.	176-177	The change in position of the illustrative location for pole 176 is limited to approximately 16 metres to the south west. This change will result in changes to the Order Limits /Order Land surrounding poles 175 to 177 as well as indicative position of pole 176 - 177. The amendment is minor and will not result in any material change.
14	Amend indicative location of Poles 178 to 179 to be moved to the boundary and Poles 182 and 184 to be moved north to the field boundaries	178 to 188	The change in position of the illustrative location for pole 179 is limited to approximately 22 metres to the south east.  The change in position of the illustrative location for poles 182 and 184 is limited to 22 metres to the north east at its largest positional change.  This change will result in changes to the Order Limits /Order Land surrounding poles 178 to 188 as well as indicative poles positions of pole 178 to 187. The amendment is minor and will not result in any material change.

	<b>DESCRIPTION OF CHANGE</b>	<b>POLE NUMBERS REQUIRING A DIFFERENT LOCATION AS A RESULT OF THE REQUESTED AMENDMENT</b>	<b>COMMENT</b>
15	Amend indicative location of pole locations 211 to 213 including additional pole 212a to move the line further to the east of the field.	211-213	<p>The change in position of the illustrative location for poles 211-213 is limited to approximately 40 metres to the north east at the point of the greatest positional change.</p> <p>This change will result in changes to the Order Limits /Order Land surrounding poles 209 to 214 as well as indicative poles positions of pole 211 to 213. This has necessitated new pole positions 212a. The amendment is minor and will not result in any material change.</p>
16	Amend indicative location of poles 215, 216, 217 and 218 and new pole position 217b to allow stays to be removed from poles 216 and 217	215- to 218	<p>The indicative location of poles 215 to 218 has been moved within the existing limits of deviation, as per landowner request. This has necessitated new pole position 217b.</p> <p>Within the Limits of Deviation of Option A</p>

## **3 REVIEW OF ENVIRONMENTAL IMPACT ASSESSMENT**

### **3.1 Introduction**

- 3.1.1 As noted in Table 1 above a number of the proposed changes can be accommodated within the Limits of Deviation for Option A. As set out in Section 2 above (Basis of Assessment) these locations were assessed and the findings reported in the Environmental Statement (DCO Document Refs 6.1 – 6.27).
- 3.1.2 Changes referenced 2, 3, 6, 7, 9, 10, 12 and 16 have therefore not been considered further in this Report.

### **3.2 Topics Considered**

- 3.2.1 For changes referenced 1, 4, 5, 8, 11, 13, 14 and 15 in Table 1 the following topics were considered:
- Ecology and Biodiversity;
  - Landscape and Visual;
  - Historic Environment;
  - Flood Risk and Water Resources;
  - Land Use and Agriculture;
  - Socio-Economics and Tourism;
  - Traffic and Transport;
  - Emissions;
  - Electric and Magnetic Fields;
- 3.2.2 For a number of these topics, more detailed consideration of the alternative was not required:-
- Flood Risk and Water Resources – the Option B Limits of Deviation did not result in a greater number of pole positions within floodplains and there is no change in the outcome of the assessment;
  - Socio-Economics and Tourism – as the changes to the Order Limits are negligible and relatively minor in terms of the location of the Proposed Development within its wider geographical context, they do not affect the outcome of the assessment;
  - Traffic and Transport – as the anticipated numbers of vehicles associated with the construction and operation of the Proposed Development would not change as result of Option B, the changes to the Order Limits do not affect the outcome of the assessment;
  - Emissions – the construction methods would not change as a result of Option B and the changes to the Order Limits do not affect the outcome of the assessment; and
  - Electric and Magnetic Fields – the changes to the Order Limits are relatively minor and do not affect the outcome of the assessment.

- 3.2.3 In terms of these technical topics, the changes to the Order Limits in Option B would not result in any changes to the assessment of significant effects.

### 3.3 Ecology and Biodiversity

- 3.3.1 The Study Areas considered within the assessment included areas beyond the Limits of Deviation for Option A, and beyond the 100m corridor which was the subject of the statutory consultation.
- 3.3.2 The land which falls within the Option B Order Limits / Order Land was within the original Study Areas for the ecological impact assessment
- 3.3.3 With respect to statutory designated sites the Study Areas comprised a 10km buffer from the Final Route Alignment. The Option B amendments to the Order Limits / Order Land do not result in any further sites falling within the Study Area.
- 3.3.4 The Option B Order Limits would not result in any changes in the significance of effects from Option A.

### 3.4 Historic Environment

- 3.4.1 The Study Areas considered within the assessment include land beyond the the Order Land /Order Limits for Option A and the 100m corridor which was the subject of the statutory consultation.
- 3.4.2 The land which falls within the Option B Order Limits / Order Land was within the original Study Areas for the assessment of potential impacts on the historic environment.
- 3.4.3 With respect to statutory designated sites the Study Areas comprised a 4km wide Study Area. The Option B amendments to the Order Limits / Order Land do not result in any further sites falling within the Study Area.
- 3.4.4 The Option B Order Limits would not result in any changes in the significance of effects from Option A.

### 3.5 Land Use and Agriculture

- 3.5.1 The changes to the specific location of the Order Land / Order Limits in a few locations, result in a slightly greater land take when compared to the land within the Option A Order Limits. This has resulted in a minimal increase in the total area of the Order limits/Order land as illustrated in the table below:

	Order Limits	Limits of Deviation
Option A	899238.16 m <sup>2</sup>	421368.50 m <sup>2</sup>
Option B	900663.60 m <sup>2</sup>	422108.89 m <sup>2</sup>
Net Change	1425.44 m <sup>2</sup>	740.39 m <sup>2</sup>

- 3.5.2 Many of the proposed amendments have resulted from requests from landowners for minor changes in pole locations in order to assist with their agricultural activities. These amendments and the slightly greater land take are minor and do not affect the outcome of the assessment, however they are a positive benefit to the individual landowners concerned.

## 3.6 Landscape and Visual Effects

- 3.6.1 Based on Option B the following locations may experience a change in the significant effects than those predicted in the ES.

### **Change 1 - Amend indicative location of pole 7 including additional pole 9b so that the pole is not in the corner of the field.**

- 3.6.2 The change in position of the illustrative location for pole 7 is limited to approximately 47 metres to the south west (and now on the opposite side of Hafodty Ddu Road). Its relocation has necessitated changes in the location of poles 2-14 and the introduction of an additional pole 9B on the Tir Mostyn Ridge. The amendment is minor.

#### *Landscape Effects*

- 3.6.3 The effects of the realignment and the introduction of an additional pole on the landscape around the Tir Mostyn Ridge are that, although the magnitude of effect would increase very slightly, the overall significance of landscape effects on the following LANDMAP VSAs would remain as assessed and presented in Table 7.20 of Chapter 7 'Landscape and Visual' (DCO Document Ref 6.7):

- Clocaenog Forest – Minor
- Llyn Brenig Moorland Forest – Minor
- Denbigh and Derwen Hills – Moderate

#### *Visual Effects*

- 3.6.4 The effects of the realignment and the introduction of an additional pole in this location are that, although the magnitude of effect would increase very slightly, the overall significance of visual effects would remain as assessed and presented in Section 7.7 of Chapter 7 'Landscape and Visual' (DCO Document Ref 6.7). The conclusion of Section 7.7 is that moderate and therefore significant effects would be experienced by the following visual receptors:

- from the settlements, hamlets, clustered properties and footpaths on the western slopes of the Lliwen valley (including Nantglyn), where there are distant but skylined views of the alignment, as it runs across the shoulder of the Tir Mostyn ridge (Viewpoints 42 and 47);
- from the Open Country Region (Open Access Land), the clustered properties and public footpath network on the southern slopes of Foel Gasyth and the adjacent B4501, where there are long views over the surrounding landscape and of the alignment as it runs (backclothed) along the shoulder of the Tir Mostyn ridge and close to the network of footpaths located on the Tir Mostyn ridge (Viewpoint 3); and

- from footpaths in the more exposed upland areas to the south of the route near Foel Gasyth and Tir Mostyn that are likely to experience more prolonged views of the Proposed Development.

#### *Residential Visual Amenity Effects*

3.6.5 The effects of the realignment and additional pole on residential visual amenity at Hafod Olygfa would remain as assessed and presented in Section 7.7 of Chapter 7 'Landscape and Visual' (DCO Document Ref 6.7) and Appendix 7.1: Residential Visual Amenity (DCO Document Ref 6.20.1). The conclusion is as follows:

- Views of the Proposed Development would be oblique, and other development (including a wind farm and agricultural buildings) are present in existing views, and as such the effects would be minor.

3.6.6 It is noted in Section 7.7, however, that effects on views from this property would become more significant if the poles were positioned on the edge of the Limits of Deviation, closer to the receptor, and could become moderate.

3.6.7 Since the effects of the realignment are to move poles to the edge of the Limits of Deviation, the overall significance is judged to be moderate, and therefore significant. This conclusion was included in the Environmental Statement submitted with the Application and therefore it does not represent a change to the conclusions of that document.

#### **Change 4 - Amend indicative location of pole 59 away from the hedge to allow access south from the pole**

3.6.8 The relocation in pole 59 has resulted in changes to the Order Limits / Order Land surrounding pole positions 54 and 60 and indicative pole positions of poles 55 to 61. The amendment is minor.

#### *Landscape Effects*

3.6.9 The effects of the realignment on the landscape around the northern slope of the ridge east of Foel Gasyth, would result in no change in the magnitude of landscape effect. The overall significance of landscape effects on the following LANDMAP VSAA would remain as assessed and presented in Table 7.20 of Chapter 7 'Landscape and Visual' (DCO Document Ref 6.7):

- Denbigh and Derwen Hills – Moderate

#### *Visual Effects*

3.6.10 The effects of the realignment on the northern slopes of the ridge east of Foel Gasyth would result in no change on the overall significance of visual effects. Effects on visual receptors would remain as assessed and presented in Section 7.7 of Chapter 7 'Landscape and Visual' (DCO Document Ref 6.7). The conclusion of Section 7.7 is that moderate and therefore significant effects would be experienced by the following visual receptors:

- from the northern slopes of the ridge east of Foel Gasyth and Peniel, and close to the alignment (part of the Denbigh and Derwen Hills) at Viewpoint 50; and

- from hamlets, clustered properties and linear routes which cross or lie close to the Proposed Development as it heads towards the Llanefydd Lowlands via Peniel, Segrwyd, and Eriviat. These are represented by viewpoints at the B4501 northeast of Peniel (Viewpoint 5), the local lane northeast of Segrwyd (Viewpoint 8) and the A543 between Denbigh and Groes (Viewpoint 11).

#### *Residential Visual Amenity Effects*

3.6.11 The effects of the realignment in this area are such that the magnitude of effects is unlikely to increase and the overall significance of effects on Residential Visual Amenity would remain as assessed and presented in Section 7.7 of Chapter 7 'Landscape and Visual' (DCO Document Ref 6.7) and Appendix 7.1: Residential Visual Amenity (DCO Document Ref 6.20.1).

- Hendy College, College Farm, Pen Y Buarth – Minor

#### **Change 5 - Amend indicative location of pole 64 and 66 south approximately 6m so that they are closer to the hedgerow**

3.6.12 The repositioning of the angle pole (pole 64) has necessitated changes to the indicative locations of poles 62 - 69. It has also resulted in a slight amendment to the Order Limits/ Order Land east of Peniel surrounding poles 62 - 69. The amendment is minor.

#### *Landscape Effects*

3.6.13 The effects of the realignment in this area are that the magnitude of effect is unlikely to increase and the overall significance of landscape effects on the following LANDMAP VSAA would remain as assessed and presented in Table 7.20 of Chapter 7 'Landscape and Visual' (DCO Document Ref 6.7):

- Denbigh and Derwen Hills – Moderate

#### *Visual Effects*

3.6.14 The effects of the realignment in this location are that, although the magnitude of effect is unlikely to increase and may even reduce due to the angle pole being located closer to the field boundary, the overall significance of visual effects would remain as assessed and presented in Section 7.7 of Chapter 7 'Landscape and Visual' (DCO Document Ref 6.7). The conclusion of Section 7.7 is that moderate and therefore significant effects would be experienced by the following visual receptors:

- from the northern slopes of the ridge east of Foel Gasyth and Peniel, and close to the alignment (part of the Denbigh and Derwen Hills) at Viewpoint 50; and
- from hamlets, clustered properties and linear routes which cross or lie close to the Proposed Development as it heads towards the Llanefydd Lowlands via Peniel, Segrwyd, and Eriviat. These are represented by viewpoints at the B4501 northeast of Peniel (Viewpoint 5), the local lane northeast of Segrwyd (Viewpoint 8) and the A543 between Denbigh and Groes (Viewpoint 11).

*Residential Visual Amenity Effects*

3.6.15 The effects of the realignment in this area are such that the magnitude of effects is unlikely to increase and the overall significance of effects on Residential Visual Amenity would remain as assessed and presented in Section 7.7 of Chapter 7 'Landscape and Visual' (DCO Document Ref 6.7) and Appendix 7.1: Residential Visual Amenity (DCO Document Ref 6.20.1).

- Hendy College, College Farm, Pen Y Buarth – Minor

**Change 8 Amend indicative location of pole 90, 92 and 96 such that they are placed on hedge lines**

3.6.16 The indicative locations of poles 88 to 96 have been moved within the existing limits of deviation to accommodate landowner requests in respect of poles 90 and 92 and 96. The relocation in pole 96 has resulted in changes to the Order Limits /Order Land surrounding pole position 96 and indicative pole position of pole 96. The amendment is minor.

*Landscape Effects*

3.6.17 The effects of the realignment in this area are that the magnitude of effect is unlikely to increase and the overall significance of landscape effects on the following LANDMAP VSAA would remain as assessed and presented in Table 7.20 of Chapter 7 'Landscape and Visual' (DCO Document Ref 6.7):

- Llanefydd Lowlands – Moderate
- Limestone Plateau: Denbigh/Henllan - Minor

*Visual Effects*

3.6.18 The effects of the realignment in this location are unlikely to change and the overall significance of visual effects would remain as assessed and presented in Section 7.7 of Chapter 7 'Landscape and Visual' (DCO Document Ref 6.7). The conclusion of Section 7.7 is that moderate and therefore significant effects would be experienced by the following visual receptors close to this area:

- from hamlets, clustered properties and linear routes which cross or lie close to the Proposed Development as it heads towards the Llanefydd Lowlands via Peniel, Segrwyd, and Eriviat. These are represented (in this area) by the A543 between Denbigh and Groes (Viewpoint 11)

*Residential Visual Amenity Effects*

3.6.19 The effects of the realignment in this area are such that the magnitude of effects is unlikely to increase and the overall significance of effects on Residential Visual Amenity would remain as assessed and presented in Section 7.7 of Chapter 7 'Landscape and Visual' (DCO Document Ref 6.7) and Appendix 7.1: Residential Visual Amenity (DCO Document Ref 6.20.1).

- Bach, Bodeiliog Uchaf, Bryn Amlwg, Goppa Hall – Minor

**Change 11 - Amend indicative location of pole 119 to the east side of the hedgerow**

- 3.6.20 This change will result in changes to the Order Limits / Order Land surrounding poles 117 to 121 as well as indicative poles positions of poles 118 to 120. The amendment is minor.

*Landscape Effects*

- 3.6.21 The effects of the realignment in this area (Eriviat Park) are that the magnitude of effect is unlikely to increase (assuming tree losses along the adjacent watercourse and field boundary are minimised). The overall significance of landscape effects on the following LANDMAP VSAs would remain as assessed and presented in Table 7.20 of Chapter 7 'Landscape and Visual' (DCO Document Ref 6.7):

- Llanefydd Lowlands – Moderate
- Limestone Plateau: Denbigh/Henllan – Minor

*Visual Effects*

- 3.6.22 The effects of the realignment in this location are unlikely to change and the overall significance of visual effects would remain as assessed and presented in Section 7.7 of Chapter 7 'Landscape and Visual' (DCO Document Ref 6.7). The conclusion of Section 7.7 is that moderate and therefore significant effects would be experienced by the following visual receptors close to this area:

- from hamlets, clustered properties and linear routes which cross or lie close to the Proposed Development as it heads towards the Llanefydd Lowlands via Peniel, Segrwyd, and Eriviat. These are represented (in this area) by the A543 between Denbigh and Groes (Viewpoint 11); and
- from clustered properties, local roads and footpaths close to the route as it crosses more open areas of landscape. These are represented (in this area) by the localised section of the B5428 near Eriviat Hall where the Proposed Development briefly skylines (Viewpoint 12).

*Residential Visual Amenity Effects*

- 3.6.23 Since there are no assessed residential properties in proximity to this section of the Proposed Development, the Residential Visual Amenity Assessment would remain as assessed and presented in Section 7.7 of Chapter 7 'Landscape and Visual' (DCO Document Ref 6.7) and Appendix 7.1: Residential Visual Amenity (DCO Document Ref 6.20.1).

**Change 13 – Amend indicative location of pole 176 – to 177 to avoid poles in the middle of future building plot. Proposed pole in the corner of the plot**

- 3.6.24 This change will result in changes to the Order Limits/ Order Land surrounding poles 175 to 177 as well as indicative position of pole 176. The amendment is minor.

### *Landscape Effects*

3.6.25 The effects of the realignment of one pole in this area (near Croen Llwm Mawr) are that the magnitude of effect is unlikely to increase. The overall significance of landscape effects on the following LANDMAP VSAs would remain as assessed and presented in Table 7.20 of Chapter 7 'Landscape and Visual' (DCO Document Ref 6.7):

- Llanefydd Lowlands – Moderate
- Afon Elwy Valley East - Moderate

### *Visual Effects*

3.6.26 The effects of the realignment on visual receptors in this location (near Croen Llwm Mawr) are unlikely to change and the overall significance of visual effects would remain as assessed and presented in Section 7.7 of Chapter 7 'Landscape and Visual' (DCO Document Ref 6.7). The conclusion of Section 7.7 is that moderate and therefore significant effects would be experienced by the following visual receptors close to this area:

- from clustered properties, local lanes and footpaths close to the route as it crosses well treed areas of landscape (where tree felling is required) and small localised undulations on the approach to the Elwy Valley, including near the North Wales Pilgrim's Way Long Distance Trail (Viewpoints 27 and 32).

### *Residential Visual Amenity Effects*

3.6.27 The effects of the realignment in this area are such that the magnitude of effects is unlikely to increase and the overall significance of effects on Residential Visual Amenity would remain as assessed and presented in Section 7.7 of Chapter 7 'Landscape and Visual' (DCO Document Ref 6.7) and Appendix 7.1: Residential Visual Amenity (DCO Document Ref 6.20.1).

- Tyddyn Bartley – Minor (not significant)
- Croen-Llwm-Mawr – Minor (not significant)
- Plas Buckley – Negligible (not significant)

### **Change 14 – Amend indicative location of Poles 178 to 179 to be moved to the boundary and Poles 182 and 184 to be moved north to the field boundaries.**

3.6.28 This change will result in changes to the Order Limits / Order Land surrounding poles 178 to 188 as well as indicative poles positions of pole 178 to 187. The amendment is minor.

### *Landscape Effects*

3.6.29 The effects of the realignment in this area (near Croen Llwm Mawr) are that the magnitude of effect is unlikely to increase. The overall significance of landscape effects on the following LANDMAP VSAs would remain as assessed and presented in Table 7.20 of Chapter 7 'Landscape and Visual' (DCO Document Ref 6.7):

- Llanefydd Lowlands – Moderate
- Afon Elwy Valley East - Moderate

### *Visual Effects*

3.6.30 The effects of the realignment in this location (near Croen Llwm Mawr) could result in a slight increase in the magnitude of effects experienced by users of the North Wales Pilgrims' Way, due to increased proximity of pole 178 to the footpath. However, pole 177 has moved further away from the footpath (decreasing the effects), and as such, the overall significance of visual effects would remain as assessed and presented in Section 7.7 of Chapter 7 'Landscape and Visual' (DCO Document Ref 6.7). The conclusion of Section 7.7 is that moderate and therefore significant effects would be experienced by the following visual receptors close to this area:

- from clustered properties, local lanes and footpaths close to the route as it crosses well treed areas of landscape (where tree felling is required) and small localised undulations on the approach to the Elwy Valley, including near the North Wales Pilgrim's Way Long Distance Trail (Viewpoints 27 and 32).

### *Residential Visual Amenity Effects*

3.6.31 The effects of the realignment in this area are such that the magnitude of effects is unlikely to increase and the overall significance of effects on Residential Visual Amenity would remain as assessed and presented in Section 7.7 of Chapter 7 'Landscape and Visual' (DCO Document Ref 6.7) and Appendix 7.1: Residential Visual Amenity (DCO Document Ref 6.20.1).

- Tyddyn Bartley – Minor
- Croen-Llwm-Mawr – Minor
- Plas Buckley – Negligible

### **Change 15 - Amend indicative location of pole locations 211 to 213 including additional pole 212a to move the line further to the east of the field.**

3.6.32 The eastward realignment of indicative pole locations 211 – 213 by a maximum of approximately 40 metres, and the introduction of an additional pole (212a) has resulted in an eastwards shift of the Order Limits/ Order Land south of the property known as Plas Hafod.

### *Landscape Effects*

3.6.33 The effects of the realignment and the introduction of an additional pole on the landscape of the Afon Elwy Valley and Cefn Meiriadog Ridge is that the magnitude of effect is unlikely to increase and the overall significance of landscape effects on the following LANDMAP VSAs would remain as assessed and presented in Table 7.20 of Chapter 7 'Landscape and Visual' (DCO Document Ref 6.7):

- Limestone Cefn – Moderate
- Afon Elwy Valley East – Moderate
- Upper Elwy Valley - Moderate

### *Visual Effects*

3.6.34 The effects of the realignment and the introduction of an additional pole on the visual receptors in this location are that the magnitude of effect is unlikely to increase and may even reduce due to the angle pole being located closer to the field boundary. The overall significance of visual effects on the following receptors would remain as assessed and presented in Section 7.7 of Chapter 7 'Landscape and Visual' (DCO Document Ref 6.7). The conclusion of Section 7.7 is that moderate and therefore significant effects would be experienced by the following visual receptors:

- from clustered properties, local lanes and footpaths in the north of the Lower Elwy Valley, close to the route as it crosses well treed areas of landscape on the slopes of the Lower Elwy Valley (Viewpoint 37) and as the Proposed Development crosses the ridges on approach to the valley from the south (Viewpoint 34).

### *Residential Visual Amenity Effects*

3.6.35 The effects of the realignment and the introduction of an additional pole in this area are such that the magnitude of effects is unlikely to increase. The alignment moves further away from Plas Hafod, and closer to Maes, but intervening vegetation is likely to screen the views from Maes. The overall significance of effects on Residential Visual Amenity would therefore remain as assessed and presented in Section 7.7 of Chapter 7 'Landscape and Visual' (DCO Document Ref 6.7) and Appendix 7.1: Residential Visual Amenity (DCO Document Ref 6.20.1).

- Plas Hafod – Moderate
- Maes – Minor

## 4 CONCLUSIONS

- 4.1.1 The proposed changes do not affect the conclusions of the Environmental Impact Assessment.
- 4.1.2 The changes to the Order Limits/ Order Land required by Option B are negligible and with respect to 'Flood Risk and Water Resources', 'Socio-Economics and Tourism', 'Traffic and Transport', 'Emissions' and 'Electric and Magnetic Fields' the proposed changes do not affect the outcome of the assessment.
- 4.1.3 With respect to 'Ecology and Biodiversity' and Historic Environment', the Study Areas considered within the assessments were extensive enough to have included the Option B Order Land / Order limits Therefore the proposed amendments would not result in any changes in the significance of effects from Option A.
- 4.1.4 Many of the proposed changes have resulted from requests from landowners for minor changes in pole locations in order to assist with their agricultural activities. These amendments are minor and do not affect the outcome of the assessment for 'Land Use and Agriculture' however they are a positive benefit to the individual landowners concerned.
- 4.1.5 When considering the Landscape and Visual Assessment, whilst there are likely to be small increases and small decreases in the magnitude of effects resulting from shifts in pole positions and additional poles, the judgement of the overall significance of the assessments reached in the Environmental Statement remains unchanged. It was concluded in the Environmental Statement, where the poles are moved to the edge of the limits of deviation this would result in the increased significance of effect in residential amenity terms for 5 properties. Proposed amendment 1 will result in moving the poles on the ridge at Tir Mostyn to the edge of the Limits of Deviation nearest Hafod Olygfa and this results in the overall significance of residential visual amenity effects being moderate, where as it would be minor if the poles stayed in the middle of the original Limits of Deviation. This conclusion was already included in the Environmental Statement and does not represent a change to the Environmental Impact Assessment.

## GLOSSARY

132kV Overhead Line	132,000 volts overhead line from the Collector Substation to the Terminal Point
Above Ordnance Datum (AOD)	Elevation of land above sea level (at Newlyn)
Agricultural Land Classification (ALC)	The classification system used by the Department for Environment Food and Rural Affairs based on its quality and versatility. The classification ranges from Grade 1 (the best and most versatile) through Grades 2, 3a, 3b, 3c and 4, down to Grade 5 (least versatile)
Agri-environment scheme / agreement	A UK government undertaking in which farmers are paid to farm in an environmentally sensitive way
Alluvium	Material transported by rivers and deposited along its course
Air Quality Management Area (AQMA)	Declared by local authorities for areas where objectives specified in the national Air Quality Strategy are not predicted to be met
Air Quality Action Plan (AQAP)	Produced by local authorities for AQMAs, setting out measures to improve air quality
Ancient Semi-Natural Woodland (ASNW)	Woodland composed of native tree species that have not obviously been planted
Aquifer	A body of permeable rock that is capable of storing significant quantities of water; is underlain by impermeable material, and through which groundwater moves
Area of Outstanding Beauty (AOB)	Non statutory designation to categorise sensitive landscapes - designated by Denbighshire County Council
Area of Outstanding Natural Beauty (AONB)	An area designated under the National Parks and Access to Countryside Act 1949 for its particularly attractive landscape and unspoilt character, which should be protected and enhanced as part of the national heritage
Area of Search	The term given to a wide area within which the route corridors are identified and for the purposes of the Proposed Development is shown on the Location Plan (document reference 2.1)
Assessment of the Significance of Impacts of Development on Historic Landscape areas (ASIDOHL)	A method of assessment of the effect of a development on Historic Landscapes

Associated Development	Development which is associated with a Nationally Significant Infrastructure Project as defined by the Planning Act 2008
Authority	The Gas and Electricity Markets Authority established under Section 1 of the Utilities Act 2000
Baseline	Existing environmental conditions which are described in the ES
Best and most versatile (BMV)	Defined by the ALC as Grades 1, 2 and 3a. Provisional reclassification has removed sub-classifications within Grade 3, considering Grades 1 and 2 as 'Best and Most Versatile' (BMV) land
Biodiversity	The variety and abundance of species, their genetic composition, and the natural communities, ecosystems, and landscapes in which they occur
Biodiversity Action Plan (BAP)	A strategy for conserving and enhancing wild species and wildlife habitats in the UK. Now replaced by Country Biodiversity Strategies
British Trust for Ornithology (BTO)	
Broad Route Corridor(s)	Initial strategic corridors identified for the Proposed Development and shown on Figure 3.1 in the ES (document reference 6.16)
Cable	An insulated conductor designed for laying underground
Cadw	The historic environment service of the Welsh Government
Collector Substation	The new collector substation which will be located in the Clocaenog Forest and will connect the wind farms into the electricity distribution network
Conductor	Overhead wire(s) attached to wood poles which conduct electricity
Connection and use of system code (CUSC)	<p>Defined within Transmission Licence Standard Conditions. Condition C1 and C10 states the meaning of the Connection and Use of System Code (CUSC) as:</p> <p>The licensee shall establish arrangements for connection and use of system in respect of matters which, other than those to which standard conditions C14 (Grid Code) and C5 (Use of system charging methodology) to C9 (Functions of the Authority) relate are calculated to facilitate the achievement of the following objectives:</p> <p>(a) the efficient discharge by the licensee of the obligations imposed upon it under the Act and by this licence;</p> <p>(b) facilitating effective competition in the generation and supply of electricity, and (so far as consistent therewith) facilitating such competition in the sale, distribution and purchase of electricity; and</p> <p>(c) compliance with the Electricity Regulation and any relevant legally binding decision of the European Commission and/or</p>

	the Agency
Conservation Area	Designated by local authorities on account of their special architectural or historic interest, the character and appearance of which it is intended to preserve and enhance
Construction Environmental Management Plan (CEMP)	Sets out management measures required of contractors for any construction works associated with the Proposed Development
Construction phase	Is when preparatory works or construction works are taking place until commissioning of the Proposed Development
Consultation Corridors	100m wide corridor(s) within which 132 kV Overhead Line could be constructed and which were the subject of pre-application consultation pursuant to the Planning Act 2008
Consultation zone	For the purpose of the pre application consultation pursuant to the Planning Act 2008 a broad geographic consultation zone was defined and is shown in Appendix 7.1 of the Consultation Report (document reference 5.2.1)
Countryside and Rights of Way Act (CROW)	Act, dated 2000, which provides for public access on foot to certain types of land
Cumulative Effects	The effects of other development schemes (whether under construction, consented, or there are firm proposals for) assessed cumulatively with the Proposed Development and the Wider Scheme. These effects can be temporal (e.g. construction phases occur at the same time) or spatial (e.g. the same area is affected)
Decibel (dB)	The scale on which sound pressure level is expressed. It is defined as 20 times the logarithm of the ratio between the root-mean-square pressure of the sound field and a reference pressure ( $2 \times 10^{-5} \text{Pa}$ )
Decommissioning phase	The final phase of the Proposed Development covering all activities to remove the Proposed Development from the environment once it is no longer in operational use and the undertaking of restoration works
Designated area	Area designated and protected by national or international law for its landscape, biodiversity, or historic interest
Development Consent Order (DCO)	The order made when an application has been made pursuant to section 37 of the Planning Act 2008 for a NSIP and the Secretary of State determines that the order should be made
Distribution Code	A code required to be prepared by a DNO pursuant to condition 9 (Distribution Code) of a Distribution Licence and approved by the Authority as revised from time to time with the approval of, or by the direction of, the Authority.
Distribution	A distribution licence granted under Section 6(1)(c) of the Act.

Licence	
Distribution Network Operator (DNO)	Distribution Network Operators own and operate the electricity distribution network that brings electricity from the national transmission network to the consumer. SP Manweb is the DNO for North and Mid Wales, Cheshire and Merseyside
Easement	Allowing another person to use your land for a specific purpose, such as installing utilities
Ecological Impact Assessment (EcIA)	Ecological Impact Assessment is part of an EIA and assesses the potential effects of a development on habitats and species, particularly those protected national and international legislation or considered to be of particular nature conservation importance
Electromagnetic Fields (EMFs)	Electric and magnetic fields generated by electricity
Electricity Act 1989 (The 1989 Act)	The Electricity Act 1989 (as amended by the Utilities Act 2000 and the Energy Act 2004)
EN-1	National Policy Statements set out national policy against which proposals for major infrastructure projects will be assessed and decided by the Secretary of State. EN-1 is the Overarching National Policy Statement for Energy
EN-5	National Policy Statements set out national policy against which proposals for major infrastructure projects will be assessed and decided by the Secretary of State. EN-5 is the National Policy Statement for Electricity Networks Infrastructure
Environment Agency Wales (EAW)	Environment Agency Wales, now part of NRW, was the environmental regulator for Wales
Environmental Impact Assessment (EIA)	A statutory process whereby a project is assessed through the collection and consideration of environmental information with the aim of taking account of the predicted effects of the proposed development on the environment in the decision making process. The findings are published in an Environmental Statement
Environmental Statement (ES)	Report documenting the outcome of an Environmental Impact Assessment
Environmentally Sensitive Area (ESA)	An agricultural area which needs special protection because of its landscape, wildlife or historic value
Final Route Alignment	Current pole positions along the centreline of the Limits of Deviation identified following consultation, technical and environmental appraisal
Flood Consequence	Required for developments in flood zones. It is an assessment of the potential impact of a development on flooding

Assessment (FCA)	
Flood Zone (FZ)	Areas at risk of flooding, divided into subcategories / zones
Floodplain	The area that would naturally be affected by flooding if a river rises above its banks
Grid Code	The code which NGC is required to prepare under its Transmission Licence and have approved by the Authority as from time to time revised with the approval of, or by the direction of, the Authority.
Grid Supply Point (GSP)	Any point at which electricity is delivered from the National Electricity Transmission System to the DNO's Distribution System
Groundwater	Water flowing through or contained beneath the ground surface
Guidelines for Landscape and Visual Impact Assessment (GVLIA)	Guidelines for Landscape and Visual Impact Assessment (Third Edition) published by the Landscape Institute and Institute of Environmental Management & Assessment
Habitat Suitability Index (HSI)	A numerical index that represents the capacity of a given habitat to support a selected species. Most commonly used for great crested newts
Habitats Directive	EC Directive on the conservation of natural habitats of Wild Fauna and Flora (92/43/EEC)
Habitats Regulations Assessment (HRA)	Assessment undertaken of the impacts of a project on Natura 2000 sites in accordance with the requirements of The Conservation of Habitats and Species Regulations 2010
Heavy Goods Vehicle (HGV)	A good vehicle greater than 3.5 tonnes gross weight
Historic Environment Record (HER)	A register of known archaeological sites, monuments and finds
Holford Rules	A series of planning guidelines for the routing of overhead lines first developed in 1959 by Lord Holford, advisor to the then Central Electricity Generating Board (CEGB) on amenity issues. They were reviewed in the 1990s by National Grid
Institute for Archaeologists (IfA)	The Chartered Institute for Archaeologists
Insulator	Used to safely connect the conductors to wood poles or pylons
International Commission on Non-Ionizing Radiation	Provides scientific advice and guidance on the health and environmental effects of non-ionizing radiation

Protection (ICNIRP)	
kV	kilovolt (1000 volts)
LANDMAP	LANDMAP a tool developed by CCW (now NRW) to assess the diversity of all landscapes within Wales, identifying and explaining the characteristics and qualities
Landscape and Visual Impact Assessment (LVIA)	Assessment methodology used to assess the potential effects of a proposed development on the landscape
Landscape Character Assessment (LCA)	A standard methodology for identifying, describing, classifying and mapping what is distinctive about our landscapes
Landscape Institute (LI)	The Chartered Institute for Landscape Architects
Light Goods Vehicle (LGV)	Goods vehicles not exceeding 3.5 tonnes gross vehicle weight
Limits of Deviation (LoD)	Works 1A and 1B of the Proposed Development will be carried out within Limits of Deviation which are shown on the Works Plans. The LoD provide a degree of flexibility which is required because following the making of the DCO, micro-siting may take place in response to detailed technical survey information, particularly for unconfirmed ground conditions and / or minor alterations requested by landowners LoD have been defined laterally and vertically
Listed Building	A building of special architectural or historic interest which has been included on a list approved by the Secretary of State under the Planning (Listed Buildings and Conservation Areas) Act 1990 (known as the 'Statutory List of Buildings of Special Architectural or Historic Interest'). Buildings are classified in grades (I, II* and II) and to show their relative importance
Local Biodiversity Action Plan (LBAP)	A set of action plans for habitats and species
Local Development Plan (LDP)	A statutory document which guides future development
Local Nature Reserve (LNR)	A site with features of nature conservation interest controlled by a local authority
Local Planning Authority	Is defined by S.1 of the Town and Country Planning Act 1990 and, in the case of the Proposed Development is Denbighshire County Council and Conwy County Borough Council
Local Wildlife Site (LWS)	Sites identified and selected for their local nature conservation value

Magnitude of potential effect	The degree of change that a receptor is anticipated to experience as a result of the Proposed Development
Megawatts (MW)	Energy generated by wind farms is described in MW
Mitigation	Measures to avoid, reduce and offset environmental effects
National Grid Reference (NGR)	A system of grid references used in Great Britain
National Monuments Record (NMR)	Unscheduled archaeological sites and features recorded by Cadw
National Nature Reserve (NNR)	A protected area of importance for wildlife, flora, fauna reserved and managed for conservation
National Policy Statements (NPS)	Sets out national policy against which proposals for major infrastructure projects will be assessed and decided by the Secretary of State
National Vegetation Classification (NVC)	Classification and description of the plant communities of Great Britain
Nationally Significant Infrastructure Project (NSIP)	Means a project designated under the Planning Act 2008
Natura 2000 sites	A European-wide network of sites protected under the Habitats and Birds Directives, and made up of Special Areas of Conservation and Special Protection Areas
Natural Resources Wales or Cyfoeth Naturiol Cymru	An amalgamation of CCW, EAW and Forestry Commission Wales, operational from 1st April 2013
NGC	National Grid Electricity Transmission plc
Nitrate Vulnerable Zones (NVZ)	Areas where land drains and contributes to the nitrate found in "polluted" waters
North Wales Wind Farms Connection	Means the Proposed Development and the Wider Scheme
NSP	Noise sensitive premises
Order Limits	Means the limits shown on the works plans within which the Proposed Development may be carried out
Palaeo-channel	Ancient relict watercourse
Permitted Development	Part III of the Town and Country Planning Act provides that the Secretary of State may grant planning permission by way of development order. The principal development order is the Town and Country Planning (General Permitted Development) Order 1995 which provides that planning permission for certain developments is granted subject to specified conditions. It provides specified permitted development rights for statutory undertakers

Persons with an Interest in the Land (PILS)	Section 57 of the Planning Act 2008 defines persons with an Interest in the Land which includes: (1) owners, lessees, tenants or occupiers of land; (2) persons with an interest in land or who have a power to sell land or to release land; and (3) persons who may be able to make a claim for compensation as a result of the DCO being made and implemented.. Land for these purposes means land to which the application for development consent relates
Photomontage	A collection of images used to create an overall image. The objective of a photomontage is to simulate the likely visual changes that would result from the Proposed Development, and to produce printed images of a size and resolution sufficient to match the perspective in the same view as would occur in reality
Planning Act 2008 (the Act)	The legislation for Nationally Significant Infrastructure Projects and the requirements for development consent
Planning Inspectorate (PINS)	The Planning Inspectorate administers the examination of applications for development consent
Planning Policy Wales (PPW)	The document that sets out the Welsh Government's policies on different aspects of land use planning
Preferred Route Corridor	Is identified as the preferred route corridor for the Proposed Development and is set out in the Route Corridor Study
Preliminary Environmental Information Report (PEIR)	The report of the initial environmental impact assessment findings for the Proposed Development
Prescribed Consultees	Means persons to be consulted pursuant to the Planning Act 2008 and set out in Schedule 1 of the Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009
Proposed Development	The 132kV Overhead Line together with required pedestrian and vehicular accesses, temporary construction compound, construction laydown areas, mitigation planting and other integral works
PRoW	Public Right of Way which is a footpath or track over which the public have a right of access
Ramsar sites	Wetlands of international importance designated under the Ramsar Convention (Convention on Wetlands of International Importance, especially as Waterfowl Habitats) (1971) and ratified in the UK in 1976). The convention was held in the town of Ramsar, Iran

Red Data book	The IUCN (International Union for Conservation of Nature) Red List of threatened bird species categorised as Extinct, Extinct in the Wild, Critically Endangered, Endangered, Vulnerable, Near Threatened or Least Concern
Regionally Important Geological Site (RIGS)	Designated sites of local, regional and national importance for geodiversity in the UK
Registered Park and Garden (RPG)	Parks and gardens which have been classified by grade to show their relative importance: Grade I – international historic interest, Grade II* - exceptional historic interest, Grade II – national historic interest
Reinstatement	The actions undertaken to return a temporary working area to its previous condition, as far as reasonably practicable
Requirement	A requirement in Schedule 2 of the Development Consent Order
Residual effects	Effects remaining after mitigation measures have been taken into account
Route corridor	Search area used to provide a degree of flexibility in which to develop a route alignment, usually approximately 1km wide and shown in respect of the Proposed Development in Figure 3.1 of the ES (document reference 6.16)
Route Corridor Study (RCS)	An appraisal to identify potential route corridors within a defined study area
Royal Commission on the Ancient and Historical Monuments of Wales (RCAHMW)	Records and interprets built and landscape heritage
Royal Society for the Protection of Birds (RSPB)	Large nature conservation charity
Scheduled Ancient Monument	An archaeological site of national importance, which is included on a schedule compiled by the Secretary of State for National Heritage under the terms of the Ancient Monuments and Archaeological Areas act 1979 (as amended by the National Heritage Act 1983)
Scoping	An early stage within the Environmental Impact Assessment (EIA) process where the scope of the environmental studies are determined

Scoping Opinion	A person who makes an application for an order granting development consent may ask the Secretary of State his opinion as to the information to be provided in an ES and this is known as a Scoping Opinion
Scoping Report	The scoping report prepared by SP Manweb and submitted to the Secretary of State to support its application for a Scoping Opinion
Screening	Initial process by which project proposals are assessed to decide whether they require a formal Environmental Impact Assessment
Secretary of State (SOS)	The Secretary of State for Energy and Climate Change
Significance	The significance of effects considers the value (or sensitivity) of the receptor and the magnitude and likelihood of potential effects
Site of Importance for Nature Conservation (SINC)	Sites of substantive local nature conservation value
Site of Special Scientific Interest (SSSI)	An area of land of special interest by reason of its flora, fauna, geology or geographical features notified under Section 28 of the Wildlife and Countryside Act 1981
Sites and Monuments Record (SMR)	List of known archaeological sites
Source Protection Zone (SPZ)	A zone surrounding an aquifer where the contamination of the groundwater flow due to surface spills could pollute the aquifer
SP Manweb	The DNO for North and Mid Wales, Cheshire and Merseyside. The promoter of the Proposed Development
Special Area of Conservation (SAC)	Sites chosen to conserve the natural habitat types and species of wild flora and fauna listed in Annex I and II of the Habitats Directive. They are the best areas to represent the range and variety of habitats and species within the European Union.
Special Landscape Area (SLA)	Non statutory designation to categorise sensitive landscapes - designated by Conwy County Borough Council
Special Protection Area (SPA)	Area designated under article 4 of the European Communities Council Directive on Conservation of Wild Birds for the protection of particularly sensitive bird species, or for regularly migrating birds: to help protect and manage areas which are important for rare and vulnerable birds because they use them for breeding, feeding, wintering or migration
St Asaph Substation	Means the substation located in St Asaph and which the North Wales Wind Farms Connection will connect into

Statement of Community Consultation (SOCC)	A statement setting out how the applicant proposes to consult the local community in respect of the Proposed Development and as required by section 47 of the Planning Act 2008
Statutory consultees	Organisations that SP Manweb is required to consult by virtue of the Planning Act 2008
Statutory undertakers	Companies with regulatory powers and duties, such as gas, electricity, water and transport providers / transmitters
Strategic Options Report (SOR)	Sets out the initial technical options for the Proposed Development, and an appraisal of each option identifying the preferred technical option for the Proposed Development
Strategic Search Area (SSA)	Associated with Welsh Government Technical Advice Note 8
Substation	Generated electricity is fed into the electrify 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
Technical Advice Note (TAN)	Welsh Government Technical Advice Notes provide supplementary guidance document on a number of planning policy matters. Welsh Government Technical Advice (TAN) 8: Planning for Renewable Energy (2005) sets out renewable energy, planning, technologies and design considerations
Terminal Point	Location at which the 132 kV Overhead Line terminates and is shown on Work Plan Sheet 13 (document reference 2.3.13)
The Wider Scheme	The Wider Scheme incorporates the Collector Substation, underground cables from the Terminal point to St Asaph Substation, proposed works at St Asaph Substation, temporary storage areas within St Asaph Substation and the Collector Substation and diversions of existing lower voltage overhead line crossings
Traffic Impact Assessment	Examines the potential impact of a development on the surrounding transport network
Tree Preservation Order (TPO)	Made by a local planning authority if it appears that it is expedient in the interests of amenity to make provision for the preservation of trees or woodlands in their area in order to protect such trees, groups of trees or woodlands as may be specified in the order
Undergrounding	Electricity cables laid underground
United Kingdom Biodiversity Action Plan (UKBAP)	Describes biological resources and provides detailed plans for conservation
United Kingdom Habitat Action Plan (UKHAP)	Describes habitats and provides detailed plans for conservation

Vantage Point Survey (VPS)	A survey method designed to record flight activity of bird species
Wales National Monument Record (WNMR)	Cadw National Monuments Record of sites and events
Wind Farms	the four wind farms at Nant Bach, Derwydd Bach, Clocaenog Forest and Brenig
Wireframe	Computer generated line drawing based on a digital terrain model, that illustrates the three dimensional shape of the landscape and any features within it
Wood poles	Wooden poles used to support an overhead electricity line (either single or double)
World Health Organisation (WHO)	The United Nations public health arm
Written Scheme of Investigation (WSI)	A method statement setting out archaeological investigations
Zone of Theoretical Visibility (ZTV)	A map which illustrates the potential (or theoretical) visibility of a development