



**SP MANWEB**

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

Environmental Statement Chapter  
13 - Emissions  
Technical Appendix 13.2

Application reference: EN020014

March 2015



Regulation reference: The Infrastructure Planning  
(Applications: Prescribed Forms and Procedure)  
Regulations 2009 Regulation 5(2)(a)

Document reference 6.25.2



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# **North Wales Wind Farms Connection Project**

## **Environmental Statement**

### **Appendix 13.2 Construction Details – Proposed Development**

March 2015

PINS Reference: EN020014

Document Reference: 6.25.2

The Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009 – Regulation 5(2)(a)

Final Draft-



**The Planning Act 2008**

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

**Regulation 5(2)(a)**

**The North Wales Wind Farms Connection Project**

**Environmental Statement**

**Appendix 13.2 Construction Details Proposed Development**

<b>Document Reference No.</b>	<b>6.25.2</b>
<b>Regulation No.</b>	<b>Regulation 5(2)(a)</b>
<b>Author</b>	<b>Acousticair</b>
<b>Date</b>	<b>March 2015</b>
<b>Version</b>	<b>Final Draft</b>
<b>Planning Inspectorate Reference No.</b>	<b>EN020014</b>



## Construction Details - Proposed Development

(Extracted from Appendix 10.1 Geotechnical Desk Study (DCO Document Ref 6.22))





## Poles Within Poor or Rocky Ground Conditions

North Wales Wind Farm Connection  
Geotechnical Desk Study  
325657/TND/TDN/3/A



Towers	Approximate Chainage	Anticipated Ground Conditions at OHL Tower Locations	Justification for Classification	*Classification of ground conditions P / S / R
88 - 114	6.5km – 8.4km	Till comprising sand, silt, clay and gravel.	Devensian till shown to be present underlying OHL route. However, the depth to bedrock is unknown.	M
115 – 120	8.5km – 9.0km	Alluvial deposits comprising sand, silt, clay and gravel.	Potential for poor ground due to compressible alluvial deposits. Identified as area of compressible ground in Ground Stability review. Historical sand and gravel quarrying approximately 450m west of Towers 117 and 118. Towers 118 – 120 cross a stream and located in an area at risk to flooding. Note moderate-high risk of landslide at Towers 115 – 117.	P
121 – 135	9.1km – 10.2km	Alluvial deposits comprising sand, silt, clay and gravel.	Potential for poor ground due to compressible alluvial deposits. Identified as area of compressible ground in Ground Stability review.	M
136 – 137	10.3km – 10.4km	Alluvial deposits comprising sand, silt, clay and gravel.	Potential for poor ground due to compressible alluvial deposits. Identified as area of compressible ground in Ground Stability review. Towers located near a stream in an area at risk to flooding. Note moderate-high risk of landslide at Tower 136.	P
138 – 139	10.45km – 10.5km	Till comprising sand, silt, clay and gravel.	Devensian till shown to be present underlying OHL route. However, the depth to bedrock is unknown.	M
140 – 141	10.6km – 10.7km	Alluvial deposits comprising sand, silt, clay and gravel.	Potential for poor ground due to compressible alluvial deposits. Identified as area of compressible ground in Ground Stability review.	P
142 – 150	10.85km – 11.5km	Till comprising sand, silt, clay and gravel.	Devensian till shown to be present underlying OHL route. However, the depth to bedrock is unknown.	M
151 - 164	11.6km – 12.5km	Shallow bedrock	No superficial deposits indicated on geology maps.	R
165 – 170	12.6km – 13.0km	Till comprising sand, silt, clay and gravel.	Devensian till shown to be present underlying OHL route. However, the depth to bedrock is unknown.	M
171 – 174	13.1km – 13.3km	Alluvial deposits comprising sand, silt, clay and gravel.	Potential for poor ground due to compressible alluvial deposits. Identified as area of compressible ground in Ground Stability review.	P
175 – 193	13.4km – 14.9km	Till comprising sand, silt, clay and gravel.	Devensian till shown to be present underlying OHL route. However, the depth to bedrock is unknown. Note that Nant-Y-Graig river flows nearby Tower 193 so indicates the potential for saturated ground conditions.	M

## North Wales Wind Farm Connection

Geotechnical Desk Study  
325657/TND/TDN/3/A



Towers	Approximate Chainage	Anticipated Ground Conditions at OHL Tower Locations	Justification for Classification	*Classification of ground conditions P / S / R
194 – 196	15.0km – 15.15km	Shallow bedrock	No superficial deposits indicated on geology maps. Historical quarrying recorded approximately 10 - 20m from Towers 194 – 196 and identified during the site walkover.	R
197 – 202	15.2km – 15.6km	Till comprising sand, silt, clay and gravel.	Devensian till shown to be present underlying OHL route. However, the depth to bedrock is unknown.	M
203 - 204	15.7km – 15.8km	Alluvial deposits comprising sand, silt, clay and gravel.	Potential for poor ground due to compressible alluvial deposits. Identified as area of compressible ground in Ground Stability review. Towers are located on either bank of the River Elwy and in an area at risk to flooding.  Note high risk of landslide at Towers 203 – 204.	P
205 – 213	15.9km – 16.5km	Till comprising sand, silt, clay and gravel.	Devensian till shown to be present underlying OHL route. However, the depth to bedrock is unknown. Note high risk of ground dissolution.	M
214 - 218	16.6km – 17km	Shallow bedrock	No superficial deposits indicated on geology maps between Towers 215 - 217. Numerous historical quarrying recorded within 250m – 500m of Towers 214 – 218. Note high risk of ground dissolution.	R

\* Classification of Ground Conditions

P – Poor

M – Moderate

R – Rock

Based on the summary in Table 4.1, the preliminary geotechnical assessment indicates the following:

- 30 no. OHL towers located on poor ground.
- 145 no. OHL towers located on moderate ground.
- 43 no. OHL towers located on shallow rock.

Total = 218 towers for West Route Alignment