

SP MANWEB

Reinforcement to the North Shropshire Electricity Distribution Network



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Summary of Environmental Effects

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SP MANWEB

**Reinforcement to the North Shropshire
Electricity Distribution Network**

CHAPTER 13

SUMMARY OF ENVIRONMENTAL EFFECTS

Environmental Statement

DCO Document 6.13

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PINS Reference EN020021

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The Planning Act 2008

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

Regulation 5(2)(a)

Reinforcement to the North Shropshire Electricity Distribution Network

Environmental Statement: Chapter 13 – Summary of Environmental Effects

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SP Manweb plc, Registered Office: 3 Prenton Way, Prenton, CH43 3ET. Registered in England No. 02366937

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CHAPTER 13: SUMMARY OF ENVIRONMENTAL EFFECTS

13.1 INTRODUCTION

13.1.1 This chapter summarises the likely significant effects identified within the Environmental Statement (the 'ES') for the Reinforcement to the North Shropshire Electricity Distribution Network.

13.2 OVERVIEW OF THE PROPOSED DEVELOPMENT

13.2.1 The Proposed Development comprises a new 22.5 km 132kV electrical circuit between the existing SP Manweb Substations at Oswestry and Wem in North Shropshire, together with associated temporary construction works. The circuit would be a combination of underground cables and overhead line. Works are also required at the existing Oswestry and Wem Substations to accommodate the new circuit.

13.2.2 The Proposed Development includes the following elements:

- Works within the boundary of the existing SP Manweb Substation at Oswestry including underground cable and the installation of electrical switchgear and associated equipment;
- Approximately 1.2km of 132kV underground cable between Oswestry Substation and a 132kV terminal structure at Long Wood (SJ 31132 29877);
- Approximately 21.3km of 132kV of overhead line supported by Trident wood poles from the terminal structure at Long Wood (SJ 31132 29877) to the existing SP Manweb Substation at Wem; and
- Works within the existing SP Manweb Substation at Wem including the installation of a new 132kV to 33kV transformer.

13.2.3 The Proposed Development also includes work to facilitate the new electrical circuit including:

- Undergrounding six short sections of existing SP Manweb lower voltage overhead lines in order to ensure safe electrical clearance for the new overhead line; and
- Temporary works required for the construction of the new overhead line including seven temporary laydown areas, welfare unit, security cabin, access tracks, vegetation clearance and reinstatement planting.

13.2.4 The construction compound for the Proposed Development would be located at the existing SP Manweb depot at Maesbury Road, Oswestry Industrial Estate, where site offices and welfare facilities are already in place. As this is an existing depot this compound is not included within the application. The construction compound would cater for the following:

- Bulk delivery (HGV) and storage of materials, the main components being wood poles, wood baulks, conductor, stay wire, crossarm assemblies and insulators; and
- Storage of construction plant and equipment.

13.2.5 A brief summary of the baseline is provided for each topic followed by a table listing those receptors likely to experience significant effects.

13.3 BASELINE SUMMARY

Landscape and Visual

13.3.1 Most of the study area comprises level or gently undulating pastoral and arable farmland, with fields bounded by hedgerows with mature hedgerow trees. It is a scenic rural landscape with a mixture of villages, hamlets and scattered individual properties, connected by a network of roads and lanes. The local landform is generally level, but there are small pockets of higher ground including a north-south ridge of higher land through the centre of the study area. There are lower-lying flat areas around the Rivers Perry and Roden that are categorised as flood zones by the Environment Agency.

Ecology and Biodiversity

13.3.2 The habitats along the survey corridor of the Proposed Development are dominated by agricultural land supporting a mixture of arable and (largely improved) grassland fields with scattered ponds. The route crosses the Montgomery Canal, River Perry and River Roden, and land to either side of these waterways includes ditch-lined fields within the floodplain. Field boundaries predominantly comprise species-poor hedgerows, many with hedgerow trees, or post-and-wire fences. Tree lines, scattered mature trees and small broadleaved woodland copses are also present.

Historic Environment

13.3.3 Assessment work has identified, within the 5km study area, there are a total of 1,786 assets that comprise 763 designated assets (including non-statutory registered assets) and 1,023 non-designated assets.

13.3.4 The designated assets include 34 Scheduled Monuments, seven Conservation Areas, 720 Listed Buildings and two Registered Parks and Gardens. These assets are all of high significance.

13.3.5 Of the 34 scheduled monuments two are prehistoric, twelve are early medieval, and the remainder are buildings and other structures dating from medieval through to modern. There are no scheduled monuments within the Study Area dating to the Roman period.

13.3.6 Of the 720 listed buildings nine are Grade I and 33 are Grade II*. The listed buildings mostly date to the post-medieval and early modern periods and a small number are medieval.

13.3.7 The two registered parks and gardens within the Study Area are post-medieval to early modern.

13.3.8 Of the 1,023 non-designated assets eight have been assigned high significance by virtue of their relationship with designated assets. Thirty-four

non-designated assets have been assigned medium significance by virtue that they have the potential to address regional research priorities.

- 13.3.9 Former river channels and peat deposits of potential palaeo-environmental importance are recorded in the Study Area and there is the potential for below-ground archaeology, as yet undiscovered, along the route of the Proposed Development.

Flood Risk, Water Quality and Water Resources

- 13.3.10 The Proposed Development lies entirely within the Severn catchment and features many small watercourses and drainage channels, particularly to the west of the study area. There are no large rivers, and each of the watercourses crossed by the Proposed Development would be spanned without requiring support within watercourse channels. The new overhead line would cross two watercourses recognised by the Environment Agency as main rivers: the Rivers Perry and Roden. In addition the route crosses a drainage channel, which flows alongside the Roden across low lying land and then flows separately to the north of the Roden, before joining it on the outskirts of Wem. The overhead line would also cross the Montgomery Canal. All other watercourses crossed by the route are classed as ordinary watercourses.

Socio-Economic

- 13.3.11 Wem and Oswestry are market towns located in North Shropshire. The route extends between the towns through a rural area with agricultural businesses and some isolated commercial premises. There are a total of 11,631 residents within the identified super-output areas with an average density of 5.2 persons per hectare. There are a number of Public Rights of Way (PRoW) within the area.
- 13.3.12 Shropshire has a high proportion of the population past the retirement age and comparatively low levels of unemployment. Net out-commuting is significant, with more resident workers than job availability. Overall there is a

level of underemployment within the county. Shropshire supports a primarily small business economy, with more than nine out of 10 enterprises employing less than 10 and with comparatively few large employers.

Land Use and Agriculture

13.3.13 The predominant land use is agriculture. Arable and pastoral farmland is interspersed with small settlements including Lower Hordley, Bagley, Cockshutt, Noneley and Loppington. Farming is generally medium scale arable and dairying, with some larger scale fields set aside for arable farming in proximity to some of the low-lying areas associated with flood risk near the River Perry, Wackley and Sleaf Brook, and the River Roden.

13.4 SUMMARY OF LIKELY SIGNIFICANT EFFECTS

13.4.1 All likely significant environmental effects are listed in the table below:

Table 13.1 – Summary of Likely Significant Effects		
Landscape and Visual		
Receptor	Sensitivity	Summary of Potential Significant Effects
Viewpoint 14: PRoW 0207/14/13 near Kenwick Oak	Medium-high	View south from a slightly elevated location on a PRoW looking out across attractive arable farmland, with expansive views across neighbouring landscapes and beyond to the distant hills along the Welsh border. Up to eight new poles would be visible from the viewpoint extending from the near to middle distance. Poles 92 to 95 would be visible on the skyline, but the remainder would be seen against a backdrop of landform and vegetation which would reduce their perceptibility. Although a single turbine is present within the view, the

Table 13.1 – Summary of Likely Significant Effects		
		<p>introduction of the new overhead line would bring a new and contrasting feature into the landscape.</p> <p>It is anticipated that the magnitude of change in the view would be medium and the level of effect moderate adverse.</p>
<p>Viewpoint 23: PRoW 0217/4/2 near Malt Kiln Farm (listed building)</p>	<p>High</p>	<p>View north from PRoW near residential properties. Poles 123-125 would be close to the viewpoint. Pole 124 would be particularly noticeable as it would be situated on the rising ground to the west of the viewpoint where it would be seen on the skyline. Other poles, although visible, would be mostly screened by intervening vegetation in the summer months but potentially visible (although not prominent) during the winter months. The new overhead line would bring a new and contrasting feature into the landscape.</p> <p>It is anticipated that the magnitude of change in the view would be medium and the level of effect moderate adverse.</p>
<p>Viewpoint 70: Dandyford Farm, Lower Hordley</p>	<p>High</p>	<p>View across level and relatively open farmland across neighbouring landscapes including the slightly elevated Woodhouse Estate and the elevated wooded hill at Tedsmore, and beyond to more distant</p>

Table 13.1 – Summary of Likely Significant Effects		
		<p>uplands. Up to eight new poles would be visible from this viewpoint, most of which would be visible on the skyline. All the poles would benefit, to a varying degree, from some level of screening and/or be backdropped by landform and vegetation. The overhead line would be visible within the context of the existing baseline which includes a telegraph pole line, wind turbines and in the distance a 400kV pylon line. Views from within Dandyford Farm would benefit from greater screening than the actual viewpoint.</p> <p>It is anticipated that the magnitude of change in the view would be medium and the level of effect moderate adverse.</p>
Viewpoint 72: PRow 0217/12/1 near The Shayes (listed building)	Medium	<p>In views south and east from this PRow the overhead line would be visible across the view and on the skyline, particularly between poles 150 and 151. To the east, poles 152-154 would be partially visible through the intervening vegetation. To the south-west, angle pole 150 would be prominent and appear noticeably taller than the existing 33kV and 11kV wood pole lines currently present within the view. Wood poles 149-146 would also be visible heading away from the viewpoint, where multiple poles would be</p>

Table 13.1 – Summary of Likely Significant Effects		
		<p>seen ‘stacked’ behind one another, which increases their perceptibility.</p> <p>It is anticipated that the magnitude of change in the view would be medium and the level of effect moderate adverse.</p>
<p>PRoW 0217/5/1</p>	<p>Medium</p>	<p>PRoW 0217/5/1 is a 205m long PRoW adjacent to the B4397 to the east of Malt Kiln Farm. The western end of this PRoW is approximately 100m south of wood pole no. 127, and the PRoW runs south-west to north-east across a single arable field, with the eastern end of the PRoW directly adjacent to wood pole no. 128. There would be clear unobstructed views of the overhead line for the full length of this PRoW at a maximum distance of 100m. It is noted, however, that this is a minor PRoW (Shropshire Council Category D) that is unlikely to be walked by tourists or visitors to the area.</p> <p>The magnitude of change in the visual amenity would be medium and the overall level of effects moderate adverse.</p>
<p>Residential Amenity: Lower Lees</p>	<p>High</p>	<p>Occupants of Lower Lees would have open northerly views from the front of the property and its eastern garden, where the overhead line and closest two wood poles would be</p>

Table 13.1 – Summary of Likely Significant Effects		
		<p>approximately 100m from the building. The Proposed Development would be visible across the view heading east to west and at least eight wood poles would be visible in the foreground and middle distance, although not all within the same view. Whilst existing overhead line structures are an accepted element in views in this location, the addition of another line could result in significant effects on the residential visual amenity of Lower Lees, particularly as the overhead line would introduce a new feature into the agricultural field within which the property is located and from the main outlook of the property (although steel pylons are close to the property they are at an oblique angle to the property). Views towards the Proposed Development would be open with limited or no screening, although hedgerows in the distance may provide a partial backdrop. The introduction of the Proposed Development would mean that the property would be almost encircled by overhead lines. The magnitude of change would be medium, as such the effects are considered to be moderate adverse.</p>
Ecology		
No likely significant effects identified.		

Table 13.1 – Summary of Likely Significant Effects
Historic Environment
No likely significant effects identified.
Flood Risk, Water Quality and Water Resources
No likely significant effects identified.
Socio-economic
Likely significant beneficial effects for local businesses, as a result of the required increased electricity capacity in the area.
Land Use and Agriculture
No likely significant effects identified.
Cumulative Effects Assessment
No likely inter- or intra-cumulative effects identified.