Reinforcement to the North Shropshire Electricity Distribution Network: 132kV Electrical Circuit from Oswestry to Wem

NON-TECHNICAL SUMMARY

Preliminary Environmental Information Report

November 2017

G		PROJECT TITLE		DOCUMENT TITLE	
		Reinforcement to the North Shropshire Electricity Distribution Network		Preliminary Environmental Information Report	
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CHAPTER 1: INTRODUCTION

1.1 PURPOSE OF THE PRELIMINARY ENVIRONMENTAL INFORMATION REPORT

1.1.1 This document is the summary, in non-technical language, of the Preliminary Environmental Information Report (PEIR) for the Proposed Development which is being developed by SP Manweb plc (SP Manweb).

1.2 SP MANWEB

1.2.1 The Proposed Development is being promoted by SP Manweb, which manages and operates the electricity network at 132kV and below in Cheshire, Merseyside, North and Mid Wales, and North Shropshire. SP Manweb holds the Electricity Distribution License (issued under the Electricity Act 1989 (the 1989 Act)[1]. The 1989 Act, Section 9 requires SP Manweb to develop and maintain an efficient, coordinated and economical system of electricity distribution. It also has an obligation under Schedule 9 of the same 1989 Act to have regard to preserving the natural and built heritage environment, and to do what it can to mitigate any effects which proposals would have on these.

1.3 NEED FOR THE PROJECT

1.3.1 From its analysis of the electricity network in North Shropshire, SP Manweb has identified a need to develop a new 132kV circuit to reinforce the electricity network in this area. This is supported by Shropshire Council, who in 2015 also acknowledged the need to upgrade the electricity network[2]. Following further discussions with Shropshire Council, SP Manweb secured investment approvals for an £18m scheme to reinforce the network by installing a new 132kV electrical circuit from Oswestry substation to the Wem primary substation. This was identified as the preferred scheme after consideration

[1] HM Government (1989), Electricity Act. HMSO, London

[2] http://shropshire.gov.uk/media/2201631/Shropshire-s-Implementation-Plan-2016-17.pdf

had been given in 2015 to a number of alternative design and route options. SP Manweb refers to this new electrical circuit and the associated development as the 'Proposed Development'.

1.4 PROJECT OVERVIEW

1.4.1 At this stage the proposals (which remain subject to further development and consultation) include:

- Approximately 1.2km of new 132kV underground cable exiting Oswestry substation;
- Approximately 21.1km of new 132kV single circuit overhead Trident wood pole line;
- Five locations where existing lower voltage overhead lines are diverted underground, where they would otherwise cross the new overhead line;
- Integral temporary construction works and accesses for the above works; and
- Integral mitigation works which will be identified as the assessment progresses (e.g. screen planting, habitat enhancement), if applicable.

1.4.2 The installation of the new overhead electric line (and its associated works) is defined as a Nationally Significant Infrastructure Project (NSIP) under Sections 14 (1)(b) and 16 (1)(b) of the Planning Act 2008 (as amended by the Localism Act in 2011)[3] (the Planning Act 2008). Under the Planning Act 2008, and following consultation, SP Manweb must submit an application for a development consent order (DCO) (which may include the compulsory acquisition of land rights) to the Secretary of State (SoS) through the Planning Inspectorate (PINS). Following acceptance of an application, PINS undertakes an examination of the submitted documents and may hold public hearings to consider the material and issues brought forward by interested

[3] HM Government (2008), Planning Act. HMSO, London

parties. PINS appointed examining authority then reports its recommendations to the SoS. The SoS subsequently determines whether to grant a DCO for the NSIP.

1.4.3 In support of the application for a DCO, an Environmental Impact Assessment (EIA) is being undertaken, which will be reported in an Environmental Statement (ES), in accordance with the requirements of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2009 (as amended). Prior to the ES being a submitted a statutory consultation period will take place between 23 November 2017 and 2 February 2018. The will be informed by the information provided in the PEIR.

1.5 WHAT IS ENVIRONMENTAL IMPACT ASSESSMENT (EIA)?

1.5.1 EIA is the process of identifying, evaluating and mitigating likely significant environmental effects of a project. It promotes the early identification and evaluation of likely significant effects and enables appropriate mitigation (i.e. measures to avoid, reduce or offset negative effects or enhance beneficial effects) to be identified and incorporated into the design of a project, or commitments to be made to other mitigation, such as environmentally sensitive construction methods and practices.

1.5.2 The assessment is designed to help produce an environmentally sympathetic project and to provide decision makers and statutory consultees with the environmental information they require during the determination of applications for development consent and/or planning permission.

1.5.3 The results of the EIA are reported in an ES.

1.6 WHAT IS THE PRELIMINARY ENVIRONMENTAL INFORMATION REPORT (PEIR)?

1.6.1 The PEIR presents preliminary information about the potential significant environmental effects of the Proposed Development, as they are understood at this point (November 2017) in the pre-submission/design process. It presents the current findings of the, as yet incomplete, EIA process and

gives an indication as to whether any identified environmental effects are likely or unlikely to be significant.

1.6.2 The PEIR has been prepared to aid consultation with the local community, landowners and other consultees affected by the Proposed Development.

1.7 THE NON TECHNICAL SUMMARY

1.7.1 Although the PEIR is written in a way that is clear and as understandable as possible, it is nevertheless a large document, which includes some detailed technical information and language. The Non-Technical Summary (NTS) therefore provides an outline of the content of the PEIR in a way which is intended to be readily accessible to all readers by avoiding, where possible, the use of overly technical language.

1.7.2 The remainder of the Non-Technical Summary is structured as follows:

- Section 2: Project Description. This section provides a description of each element of the Proposed Development, including how it would be constructed.
- Section 3: About EIA. This section describes the EIA process including how effects are identified, assessed and mitigated and explains how the PEIR relates to this process.
- Section 4: Results of the PEIR. This section describes the results of the PEIR for each environmental topic.
- Section 5: Next Steps. The section explains the next steps in the application process.

CHAPTER 2: PROJECT DESCRIPTION

2.1 PROJECT OVERVIEW

2.1.1 The Proposed Development exits the Oswestry substation, which is located on the north-eastern edge of Oswestry, as an underground cable. This is to avoid physical constraints and visual intrusion arising from a new overhead line close to two existing 132kV overhead lines. It also avoids land allocated for extending an employment area to the north-east of the town. The route runs parallel to the western edge of the A5 for a distance of approximately 1km before turning east, passing under the A5 and to the south of Round Wood where it transfers to an overhead line.

2.1.2 The overhead line runs east for approximately 21km before entering Wem substation.

2.1.3 The Proposed Development requires modifications to Oswestry and Wem substations, including the installation of a 60 megavolt amperes (MVA) grid transformer in the Wem substation. This work is permitted development (under the Town and Country Planning (General Permitted Development) (England) Order 2015). As permitted development, none of the work to the substations will be included with the application for DCO consent and therefore will not be reported in the ES or discussed further in the PEIR.

2.1.4 At this stage only preliminary environmental information is being provided, therefore the limits to be applied for may differ from those illustrated as the design of the Proposed Development develops and is finalised for the application.

Construction and Operation Corridor

2.1.5 The focus of the PEIR, around which information has been gathered and assessed, is a Construction and Operation Corridor (also known as the 'Draft Order Limits' for which DCO consent will be sought). This is an 'envelope' within which the works would be constructed and operated. It contains the permanent installation of the new 132kV circuit along the Preferred Line Route (the overhead Trident wood pole line), sections of undergrounding (both the proposed 132kV circuit and existing

sections of lower voltage line), and temporary construction works and construction accesses, including along existing farm tracks. The width of the corridor varies but is on average 25m wide for the overhead line section and 10m wide for the underground cable section.

For consultation purposes, the Construction and Operation Corridor is set within a 40m wide Consultation Boundary. This is to ensure there is additional land included to accommodate possible amendments that might be made by SP Manweb where it considers feedback received on the consultation warrants changing the proposals. The Consultation Boundary is shown in Figures 1.1 and 1.2 'Proposed Project Boundary'

2.2 DESCRIPTION OF THE PREFERRED LINE ROUTE

2.2.1 The Proposed Development is situated within the administrative county area of Shropshire. It passes through a scenic, farmed landscape of arable fields and pasture, with occasional villages, scattered residential properties and woodland.

2.2.2 Shropshire's geology is diverse and includes a large amount of mineral wealth, with active quarrying of aggregates, sand and gravel. There are some large areas where mineral deposits are safeguarded from future development. The Proposed Development crosses part of the Shropshire Plain, which covers much of North Shropshire. The plain is a basin of Permian and Triassic New Red Sandstone, overlain by a small area of Jurassic Sandstone near Wem.

2.2.3 The topography of the area through which the Proposed Development passes is typical of the Shropshire Plain, being low lying and relatively flat or gently undulating. There are some areas of higher ground (between 90 – 105m AOD) in the north-west, close to Oswestry, and in the central areas of the study area, close to Stanwardine in the Wood.

2.2.4 In terms of ground conditions, parts of the area fall within the floodplain of the Rivers Perry and Roden.

2.2.5 The area through which the proposed overhead line would run is mostly agricultural. The Trident wood pole design is lower in height and has a more slender and simple appearance than steel lattice towers or heavy duty wood poles and would be more

sympathetic to the mainly rural and well-treed landscape through which the line would be routed.

2.2.6 The Trident line design comprises three conductors with a statutory minimum ground clearance for a 132kV overhead line of 6.7m. The line will be designed to afford this clearance in all circumstances. The overall height of the line is also dependent on a number of criteria, including geographical location, topography, height above sea level, wind and ice loading, span length and conductor type.

2.2.7 Pole heights are selected to maintain the 6.7m statutory clearance. The standard above ground pole height is approximately 12m, including the 2m high steel work and insulators to support the conductors (wires), which will be fitted above. Approximately 2.5m of pole is installed below the ground. Pole heights may be reduced where there are short spans or if they are located on a hillock, or they may be increased to provide adequate clearance for conductors over elevated or sloping land, structures or features.

2.2.8 The span length depends on similar criteria as line height. The span length between poles would be on average 130m, with a maximum of 200m.

2.3 CONSTRUCTING THE PREFERRED LINE ROUTE

Construction Compound

2.3.1 The existing SP Manweb depot at Maesbury Road Industrial Estate, to the south-east of Oswestry, would be used for the construction compound. As an existing facility it is not included in the EIA process.

Temporary Laydown Areas

2.3.2 In addition to the main construction compounds there would be 11 areas where more temporary working areas would be required. These areas would be used for the temporary storage of materials and plant. The laydown areas have been selected to service the construction of sections of the overhead line (approximately 16 spans per laydown area). Materials for construction of that section will be collected from the main compound and distributed to the laydown areas. From the laydown areas, smaller all-terrain vehicles will take poles, steelwork, cable and

plant to individual pole locations. The duration of the construction of specific sections of the overhead line and use of each laydown area, would be for approximately one month, rising to a three month maximum. The laydown areas would be located along the length of the Preferred Line Route, either adjacent to the access tracks or nearby agricultural outbuildings. Proposed laydown areas are shown on Figures 1.1 and 1.2 'Proposed Project Boundary Overview'.

Overhead Line

2.3.3 Construction activities would involve three broad areas of work – enabling work, main construction activities and reinstatement work.

2.3.4 It is anticipated that the works would involve the following activities:

- Enabling Works –
    - Establish main construction compound
    - Take delivery of materials
    - Make required improvements to access tracks, gateways and bell-mouths
    - Tree and hedgerow trimming/removal (where works are sensitive to ecological constraints, these may be carried out at times outside those indicated in paragraph 2.4.5 below).
    - Permanent and temporary diversions of existing utilities (including electricity)
- Main Construction Activities –
    - Deliver materials to temporary laydown areas
    - Pole/steelwork erection and installation
    - Install stays (temporary and permanent)
    - Conductor stringing
    - Testing and commissioning
- Reinstatement Works –
    - Reinstatement of access tracks/gateways/bell-mouth improvements
    - Improvement/replacement planting
    - Demobilise main construction compound

2.3.5 It is further anticipated that the works will be undertaken during the following months:

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Enabling Works											
		Main Construction Activities									
						Reinstatement Works					

Undergrounding

2.3.6 The same construction access roads and laydown areas as used for the overhead line would be used.

2.3.7 The undergrounding work would be within a 10m wide Constructions and Operations Corridor. Generally the cables would be installed in 200mm diameter polyethylene ducts, which are laid in trefoil at a depth of about 1.4m in agricultural land to ensure a final minimum depth of 975mm can be maintained. The cable trench would be excavated by a JCB type excavator.

2.4 MAINTENANCE AND OPERATION

2.4.1 The operational lifetime for 132kV overhead line circuits is typically 40 years. Throughout this time, maintenance and repair of the asset would be required. This would include regular inspection to identify any unacceptable deterioration of components so that they can be replaced. Examples of deterioration include wood pole rot or unacceptable line sag. After 40 years, Trident wood pole line is likely to require significant refurbishment, depending upon the severity of pollution and local weather conditions.

2.4.2 Cables do not require regular inspection or replacement, unless there is a cable fault which could be caused by external damage. In this case the length of damaged cable would need to be identified and replaced.

2.5 DECOMMISSIONING

2.5.1 Decommissioning of an overhead line is the reverse of construction, with the components being removed and then recycled where possible. Wood poles are cut down just above ground level, and then removed or recycled. Unless there is no

requirement for the overhead line after the 40 year period, the line would be refurbished rather than decommissioned. Therefore, decommissioning is not anticipated because it is highly likely that the overhead line would be refurbished and be operated in perpetuity.

CHAPTER 3: ABOUT EIA

3.1 INTRODUCTION

3.1.1 The PEIR is based upon the interim findings of the EIA process as of November 2017. The PEIR provides details of the information gathered to date and the assessment work undertaken at this stage. It also gives an indication as to whether any identified adverse (negative) effects would be significant. Where possible it provides an indication of the level of significance. Although the PEIR does not contain the full assessment, there is sufficient information to inform consultation responses.

3.2 SCOPING

3.2.1 Scoping helps to ensure that the topics covered, baseline information and methods of assessment to be used in the EIA are appropriate and have taken into account the views of consultees and decision makers.

3.2.2 A Scoping Report for the Proposed Development was prepared and issued to PINS in March 2017. This identified the scope of issues that SP Manweb considered should be covered in the ES, based on initial consultation, data searches and baseline surveys. A Scoping Opinion was issued by the Secretary of State (SoS) in April 2017. This sets out the topics and information which the SoS requires the ES to cover, having consulted with a range of statutory bodies and taken into account the information provided in the Scoping Report.

3.3 THE EIA PROCESS

3.3.1 An EIA is undertaken to identify the likely significant effects of a project, which are then reported in an Environmental Statement (ES). The main stages in the assessment process are as follows:

- Describe the existing baseline environment and make a judgement as to its relative value.
- Identify different receptors and make judgements as to their sensitivity to the type of development proposed (defined in terms of the relationship between

value and susceptibility to change);

- Predict the nature or magnitude of change likely to arise, taking into account measures integrated into the design and specific construction methodologies to avoid and manage any negative effects;
- Assess whether a likely significant effect would affect a receptor, by considering the predicted magnitude of change together with the sensitivity of the receptor, taking into account any proposed mitigation measures;
- Provide a final statement on likely significant effects (i.e. the resulting changes from the impacts).

3.3.2 Construction effects are typically temporary, short term effects limited to the construction phase only. Permanent effects are those that may start during construction, but then continue beyond the construction period, into the medium or long term. Operational effects are those which occur once the development is in operation.

3.3.3 Inter-project effects (the combined effects of the development with other developments) and intra-project effects (the combined effects arising as a result of the development, for example upon a single receptor or resource) are also assessed.

3.3.4 The EIA process and its results will be reported in detail within the ES.

3.4 HOW THE EIA PROCESS RELATES TO THE PEIR

3.4.1 A number of baseline surveys and studies have already been undertaken to make a preliminary assessment of the effects of the Proposed Development. Further data will be gathered and surveys undertaken, where necessary, to provide more information on which to base the final assessments reported in the ES.

3.4.2 Surveys and assessment work have progressed to differing degrees for different topics, and mitigation measures have not all been defined or designed. It is considered, however, that for all topics sufficient information has been gathered and assessed to allow the preliminary identification of potentially significant effects.

3.4.3 In general a cautionary approach has been taken, to ensure that effects reported as unlikely to be significant at this stage, are not then later reported as significant in the ES.

3.4.4 The gathering of information and analysis to inform the EIA will continue and an ES will be published alongside the DCO application.

3.5 MITIGATION

3.5.1 Through the EIA Process, a range of mitigation measures have been and will continue to be identified and incorporated into the design, construction, operation, maintenance and decommissioning of the Proposed Development. A standard approach to developing mitigation has been adopted:

- Avoid or prevent – in the first instance mitigation aims to avoid sensitive receptors or prevent negative effects from occurring. Such measures are typically incorporated into the design of the Preferred Line Route for example routeing the overhead line to avoid sensitive locations. This is the key mitigation process for this type of linear infrastructure development.
- Reduce – if the effect is unavoidable, mitigation aims to reduce the magnitude and/or the significance of effect. This could include measures that control how the Proposed Development is constructed as well as measures that form part of its design, such as careful routeing.
- Compensate – If the effect can neither be avoided nor reduced, measures to offset the effect elsewhere, or in a different way are sometime promoted.

3.5.2 The mitigation measures would be committed to through specific requirements included in the DCO.

CHAPTER 4: RESULTS OF THE PEIR

4.1 OVERVIEW

4.1.1 The PEIR is based upon the current findings of the EIA process. The PEIR provides details of the information gathered to date and the assessment work undertaken at this stage. This gives an indication as to the likely significant effects of the Proposed Development. Information is provided in sufficient detail to inform consultation responses.

4.1.2 The following topics are included in the PEIR and will be included in the subsequent EIA:

- Landscape and Visual Assessment;
- Ecology;
- Historic Environment;
- Flood Risk, Water Quality and Resources;
- Socio-Economic (Leisure and Tourism); and
- Land Use.

4.2 LANDSCAPE AND VISUAL ASSESSMENT

Introduction

4.2.1 This section presents preliminary information about the potential effects of the Proposed Development on the character and key features of the existing landscape and visual amenity, within a 5km study area.

Summary of Baseline

4.2.2 Almost the entire 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, which are categorised as flood zones by the Environment Agency.

Preliminary Assessment of Potential Effects

4.2.3 Construction effects are anticipated to result from the loss or change to landscape elements and features, such as areas of farmland or the removal of trees or hedgerows along the route. Effects due to the introduction and use of construction vehicles, equipment and accesses are also predicted.

4.2.4 Operational effects are related to the permanent presence of the overhead line within the landscape and the pruning of trees and shrubs along the route to maintain safety clearances. These changes could potentially cause longer-term effects by changing the existing views.

4.2.5 The main receptors where people would be likely to experience significant effects from the Proposed Development include:

- Settlements and properties along the route of the overhead line particularly within 200m;
- Properties in elevated locations within 1km with long distance views of the Preferred Line Route;
- People using public rights of way and cycle routes that would be crossed by the overhead line or where the overhead line would run broadly parallel; and
- Users of the roads in close proximity to the Preferred Line Route or where the route over-sails a road.

4.2.6 The maintenance of the Proposed Development is considered unlikely to have significant effects on visual amenity. Although some activities may have localised effects, such as the presence of vehicles, equipment and accesses, these would be very temporary in nature.

4.2.7 Due to the substantial design work and consultation undertaken by SP Manweb, very few likely significant landscape and visual effects are identified.

4.2.8 The receptors where potentially significant landscape effects have been identified are:

- LCA Estate Farmlands: Woodhouse Estate.

4.2.9 Although, it should be noted that this landscape effect is very localised and temporary during construction only.

4.2.10 The receptors where likely significant visual effects during operation have been identified are:

- Viewpoint 14: PRoW 0207/14/13 near Kenwick Oak;
- Viewpoint 23: PRoW 0217/4/2 near Malt Kiln Farm (listed building);
- Viewpoint 70: Dandyford Farm, Lower Hordley; and
- Viewpoint 72: PRoW 0217/12/1 near The Shayes (listed building).

4.2.11 A preliminary Residential Amenity Assessment has been carried out to assess likely visual amenity impacts on properties within 200m of the Constructions and Operations Corridor. This work has identified potentially significant effects on the following properties:

- Residential Amenity: Misty Meadows;
- Residential Amenity: Avondale; and
- Residential Amenity: Harley House;

4.3 ECOLOGY AND NATURE CONSERVATION

4.3.1 This section presents preliminary information about the potential effects of the Proposed Development on plants and animals, and areas protected for their nature conservation value.

Summary of Baseline

4.3.2 The Preferred Line Route passes through lowland agricultural land primarily comprising improved species-poor grassland or arable fields interspersed with a network of hedgerows, ditches, watercourses, mature trees, including

hedgerow trees, and scattered tracts of woodland. Many ponds and other waterbodies are also present, often associated with wet/marshy grasslands.

4.3.3 These habitats are suitable to support a range of species, including protected or notable species such as badger, bats, great crested newt, otter, water vole, reptiles and brown-hare.

4.3.4 The Preferred Line Route crosses an area which includes large open fields likely to be subject to seasonal flooding, the waterways of the Montgomery Canal, Rivers Perry and Roden and the many ponds, all of which have some potential to be used by geese and other wildfowl, species considered to be potentially at risk of collision with overhead power lines.

Preliminary Assessment of Potential Effects

4.3.5 The routeing of the Proposed Development has sought to avoid direct effects on designated sites and other key habitats, such as trees and hedgerows. Habitat loss due to ground and vegetation clearance works and temporary land take would be negligible due to the design and routeing of the Proposed Development.

4.3.6 The preliminary ecological assessment indicates that during the operational phase of the Proposed Development there would be no significant ecological effects at a local, regional or national scale. Furthermore, no significant ecological effects are currently predicted during the construction, maintenance or decommissioning phases of the Proposed Development.

4.4 HISTORIC ENVIRONMENT

4.4.1 This section summarises the preliminary effects of the Preferred Line Route on archaeology and cultural heritage that have been identified to date.

Summary of Baseline

4.4.2 The route of the Proposed Development passes a number of archaeological and cultural heritage assets. Old Oswestry Hillfort is the most well-known of these assets, but lies over 1km from the Preferred Line Route.

4.4.3 Assessment work to date has identified a total of 1,058 heritage assets within the 5km study area. Of these, 13 non-designated assets, which comprise historic landscape features and sub-surface archaeology, have sections within the Proposed Project Boundary. No designated assets are located within the footprint of the Proposed Development.

4.4.4 Within the 1km study area, approximately one third of the assets are designated, and of these approximately 90% are Grade II listed buildings. Conservation areas, listed buildings (Grade I and Grade II*) and scheduled monuments collectively account for approximately 10% of the designated assets.

4.4.5 The non-designated assets include a wide range of sub-surface archaeology, historic landscape features and extant buildings. Within the 1km study area approximately 90% of non-designated assets are of low significance. Non-designated assets of medium significance account for most of the remainder, with three non-designated assets of high significance.

4.4.6 The relative percentage of designated asset types within the 2km and 5km study areas is almost identical to that within the 1km study area.

Preliminary Assessment of Potential Effects

4.4.7 The likely effects on historic environment receptors are summarised as:

- Direct physical impacts on below ground archaeology;
- Indirect below ground impacts, such as de-watering or desiccation of archaeological deposits, and
- Visual impacts on the settings of heritage assets resulting from construction activities.

4.4.8 Preliminary assessment suggests that the operational phase of the Proposed Development may result in some localised significant effects on two Grade II listed buildings, Malt Kiln Farmhouse and The Shayes Farmhouse. No significant effects are currently predicted during the construction, maintenance or decommissioning phases of the Proposed Development.

4.5 FLOOD RISK, WATER QUALITY AND RESOURCES

4.5.1 This section provides preliminary environmental information regarding potential effects on water quality, resources and flood risk receptors resulting from the Preferred Line Route.

Summary of Baseline

4.5.2 The study area lies entirely within the upper reaches of the Severn catchment and features many small watercourses and drainage channels, particularly at the western end of the Proposed Development. There are no large rivers, and each of the watercourses crossed by the overhead line would be spanned without requiring support within watercourse channels. The new overhead line would cross two watercourses recognised by the EA as main rivers. These are the Rivers Perry and Roden, though the latter is spilt into two separate channels resulting in three main watercourse channels which have to be crossed.

4.5.1 Groundwater resources are significant within bedrock in the area, although substantial areas of less permeable superficial deposits exist in many areas, which offer protection to the groundwater.

Preliminary Assessment of Potential Effects

4.5.2 Potential effects on the surface water environment could include changes in water quality as a result of construction works, the accidental release of pollutants, changes in the volumes of water flowing along watercourses from site drainage or dewatering works, works in or near to watercourses changing the volume of water and how it flows along the watercourse, increases in runoff rates and volumes (the speed and volume of rainfall that 'runs off' as surface water) as a result of changes in land cover type, changes in the ability of the floodplain to deal with floodwater and the indirect effects that these could have on ecology, people, property and infrastructure.

4.5.3 It is anticipated however that, assuming the good design and construction principles set out in the Construction and Environmental Management Plan

(CEMP) are implemented, significant hydrology and flood risk effects would be avoided during any phase of the Proposed Development.

4.6 SOCIO-ECONOMICS

4.6.1 This section presents preliminary information about the socio-economic effects that have been identified to date, that could result from the Proposed Development.

4.6.2 Socio-economic effects can be caused by social impacts such as changes to ways in which people live, work and interact; and economic impacts such as employment, expenditure and impacts on certain economic sectors. However, this section focuses on the effects on leisure and tourism only, as other potential socio-economic areas have been scoped out.

Baseline Summary

4.6.3 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 PRoW within the area.

4.6.4 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.

Preliminary Assessment of Potential Effects

4.6.5 The key potential socio-economic effects are limited to beneficial effects on business in terms of the monetary expenditure within Shropshire and the effect this could have on the local economy and employment; beneficial effects in terms of greater electricity capacity for local businesses and the population to expand; and potentially any negative effects in terms of reduced

visitor numbers as a result of the Proposed Development affecting tourist numbers.

4.6.6 The preliminary assessment undertaken suggests that the operational phase of the Proposed Development may result in significant, beneficial effects for local businesses. No significant adverse effects are currently predicted during the construction, maintenance or decommissioning phases of the Proposed Development.

4.7 LAND USE

4.7.1 This section presents preliminary information about the potential environmental effects that have been identified to date, on the land and how it is used along the Proposed Development.

Baseline Summary

4.7.2 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 close to some of the low-lying areas associated with flood risk near the River Perry, Wackley and Sleap Brook, and the River Roden.

Preliminary Assessment of Potential Effects

4.7.3 The majority of effects on farming operations would arise during the construction phase. Potential temporary effects include:

- Loss of grazing and cropping area. The temporary loss of limited areas of cropping and grazing will occur along temporary access tracks and within working areas surrounding pole locations. This will be during the construction phase and for a short period following reinstatement as the ground settles and re-establishes;
- Timings of construction works. This may impact on seasonally dependent agricultural operations such as harvesting, sowing and lambing and calving;

- Disruption to field drainage and water supplies, which may require diversion or repair;
- Compaction of soil due to tracking by heavy vehicles;
- Temporary removal of field boundaries for access, which will require reinstatement on completion (although this is currently not anticipated);
- Impact on the commitments made by the farmers/landowners, etc. with regard to agri-environmental schemes; and
- Increased risk of disease transmission and transfer of invasive weeds associated with vehicle movements along the temporary access tracks and working corridor.

4.7.4 Longer term potential operational effects on agriculture as a result of the Proposed Development are associated with the permanent loss of small areas of operational agricultural land associated with the footprints of the wood poles and stays. The presence of wood poles within the fields causes inconvenience to agricultural operations, for example during grass cutting, spraying and irrigation operations.

4.7.5 Preliminary assessments have identified a range of potential temporary effects as a result of the Proposed Development including the temporary loss and disruption to agricultural land use practices during the construction of the overhead line.

4.7.6 To date no potentially significant effects on land use and agriculture have been identified during the operational phase of the Proposed Development. However, the likely effects on agriculture, as a result of the Proposed Development, will be assessed in full as part of the EIA.

CHAPTER 5: NEXT STEPS

5.1 NEXT STEPS

5.1.1 The next stage is to consult on the Proposed Development, including the supporting PEIR, obtain consultation feedback and incorporate it into the final ES process where appropriate.

5.1.2 Further assessments will be undertaken and the resulting ES will be submitted as part of the application for a Development Consent Order. After this there will be an examination in public, including general and topic specific public hearings, before the examiners appointed by PINS makes a recommendation to the Secretary of State.