# PROPOSED REINFORCEMENT TO THE ELECTRICAL DISTRIBUTION SYSTEM

# 132kV Overhead Line Between Legacy and Oswestry

# **Report on Consultation**

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#### 1. Executive Summary

SP Manweb (SPM) has a statutory duty and a licence obligation to develop and maintain an efficient, co-ordinated and economic system of electricity supply to its customers. To meet these requirements, SP Manweb proposes to reinforce the 132kV distribution system between Legacy substation and Oswestry substation with a new wood pole overhead electricity line. This reinforcement will ensure compliance with its statutory duties and secure supplies to 80,000 customers.

SPM is required under the Electricity Act 1989 to consider environmental, technical and economic matters when developing a new overhead electricity line proposal, and to reach a balance between them. A Routeing Study has been carried out prior to a full Environmental Impact Assessment (EIA) for the new overhead line. The Consultation Document, published in February 2007, is a result of the Routeing Study and identifies the relevant environmental issues considered during the routeing process and compares route options, with the justification for the preferred route's selection.

SPM carried out a voluntary consultation on the preferred route identified in the Consultation Document in February 2007. The aim of the consultation was to give all interested parties the opportunity to comment on the Preferred Route for the overhead line. Information was provided through the Consultation Document, via 2 public exhibitions and on the Company website. Meetings were also held with local authorities, nature conservation groups, cultural heritage bodies and parish councils.

A total of 80 responses were received following the release of the Consultation Document in February 2007. Of these 80 responses, 59% were received from the Oswestry borough and 6% from the Wrexham borough area. The remaining responses were received from consultee groups based across the UK and from individuals outside of the Oswestry and Wrexham areas.

Following the consultations in February 2007, SPM reviewed the Preferred Route in light of comments received. After considering environmental and technical issues an alternative route was selected for the southern section of the Preferred Route. A second round of consultations was undertaken on the Alternative Route including a further public exhibition held at St Martins.

This document explains the consultation process undertaken to date, but focuses mainly on the release of the Consultation Document and the subsequent public consultation. The distribution of the document and advertisement of the public exhibitions are also described.

The main statutory bodies (Local Authorities, conservation and heritage groups) all replied with comments on the Preferred Route and the Alternative Route. This document summarises the main issues raised during the public consultation and seeks to address the comments received, setting out proposals as a result of the consultation process

Consultee groups and members of the public raised concerns regarding the crossing of Ifton Meadows Local Nature Reserve. The main concerns were the potential effects upon nature conservation, but also possible adverse effects upon recreational use of the site. Following an internal review by the design team, an Alternative Route was identified and taken forward to a second stage of consultation.

Oswestry Borough Council Scrutiny Committee, along with members of the general public and a Parish Council stated a preference for the overhead line to follow the A483(T)/A5 road. For a variety of technical, economic, environmental and legislative reasons, the

A483(T)/A5 was discounted at the strategic option stage. This option was subsequently revisited in light of the consultation but following further review and discussion with North Wales Trunk Road Agency and the Welsh Assembly the original decision to discount the option was reconfirmed.

A number of residents raised concerns regarding the routeing of the overhead line through the Pont-y-Blew/Glyn Morlas area. An internal review has confirmed the route through this area is still the preferred option. Careful micrositing of pole positions through this location will aim to reduce the potential impact on visual amenity.

As stated above, following comments received during the first stage of consultation, an internal review of the route was undertaken. The conclusions of this review resulted in an Alternative Route for a section of the overhead line route. A second stage of consultation was therefore undertaken in September 2007 based on an alternative route option that avoided crossing Ifton Meadows. A second public exhibition was held and letters were sent to landowners and interested parties contacted previously. The exhibition was publicised as before in the local press.

General issues relating to undergrounding, visual amenity, nature conservation, perceived health effects from electro magnetic fields have been raised by members of the public as reasons for objecting to the route. These issues will be assessed in detail during the next stage of the project, the Environmental Impact Assessment (EIA) process, and described further in the Environmental Statement (ES).

SPM have considered all the comments and responses made during the consultation process on the Preferred Route and Alternative Route and have selected a Proposed Route. This Proposed Route is based on the Preferred Route in the borough of Wrexham with the Alternative Route section through the county of Shropshire.

The Proposed Route represents on balance the best route for the overhead line which meets the requirements of the Electricity Act 1989 to develop and maintain an efficient, co-ordinated and economic system of electricity supply. The route selection process has identified a technically feasible and economically viable overhead line route which causes the least disturbance to people and the environment.

This Proposed Route will be taken forward to the EIA stage and an Environmental Statement (ES) produced which will report on the anticipated environmental effects of the proposed connection and identify methods to be used to minimise any such effects. The ES will accompany an application to the Department of Business, Enterprise and Regulatory Reform for consent to construct the overhead line, at which time the project will be the subject of statutory consultation to allow interested parties to comment on the proposals.

#### 2. Introduction

Environmental consultants, The Environment Partnership (TEP), were appointed by SPM to carry out a Routeing Study prior to a full Environmental Impact Assessment for a new 132kV overhead line. The Consultation Document published in February 2007 is a result of the Routeing Study and records the environmental issues identified to develop and compare route options, with the justification for the Preferred Route's selection.

SPM carried out a voluntary consultation on the preferred route identified in the Consultation Document earlier this year (Figure 1). The consultation resulted in a review of the preferred route and the identification of an alternative route over a section of the line. A second stage of consultation was carried out in September 2007 based on this alternative proposal. SPM has compiled this Report on Consultation as a record of the main consultation process with the aim of informing stakeholders and interested parties as to the outcome of the consultation.

#### 3. Stage 1 Consultation - February 2007

#### 3.1 Consultation Process

There is no requirement within the provisions of the EIA Regulations or the Electricity Act 1989 for widespread consultation on such a project during the early planning and development stages prior to an application for consent being made; however, the company believes that an ongoing consultation process assists all parties and leads to the development of good overhead line route design.

The consultation process undertaken is described in full in sections 1 and 3 of the Consultation Document. Consultation is undertaken at several stages during the routeing process. Initial consultation is undertaken on the basis of the broad principles of the project requirements and based on an identified study area prior to the determination of any route option corridors. This initial consultation informs the consultees of the broad project proposals and gives them an opportunity to make comments at an early stage in the project including their views on the boundaries of the study area. It also forms an important part in gathering baseline environmental information used to inform the routeing process and raises awareness of the project long before finalising the Proposed Route to be subject to the statutory consents application.

Letters were initially sent to over 50 consultees including local authorities within the study area, statutory consultees, other environmental bodies and interested parties and utility companies requesting relevant baseline environmental information. Initial meetings to discuss the proposals were also offered to the local planning authorities and the key statutory consultees. A list of consultees is included in Appendix 1A of the Consultation Document. The information gathered during this initial stage of consultation is crucial to the routeing process and the preparation of the Consultation Document that was produced after these initial consultations.

SPM published the Consultation Document in February 2007 for public inspection over a 6-week period that ran between 26<sup>th</sup> February and 13<sup>th</sup> April 2007.

The consultation process was advertised for 2 weeks in advance via a public notice placed in local newspapers including the Wrexham Leader, North Shropshire Chronicle, Wrexham Mail and Oswestry Advertizer. The press notice outlined the public exhibitions and directed the reader to locations where the consultation document could be viewed.

The Consultation Document was deposited at 8 local libraries throughout the region and Wrexham and Oswestry planning offices, it was also published on the SP Energy Networks

website. As part of this consultation, two public exhibitions were held in Ruabon and St Martins. Meetings took place with the relevant Local Authorities and Statutory Bodies and letters were sent out to landowners, local parish and community councils and a number of other environmental bodies, interested parties and utility companies. During the consultation period, SP Energy Networks, on behalf of SPM, met with a number of parish councils and local authorities.

SPM produced a leaflet outlining the project and containing contact details for the public to comment on the proposals. Members of the public were also able to fill in comments sheets during the public exhibitions.

In response to the consultation a number of letters have been received about the Preferred Route. These include responses from local people living near to the Preferred Route, people from the surrounding area, parish councils and consultees such as Natural England and CCW.

#### 3.2 Record of Comments Received

#### 3.2.1 Outline

This section is a summary of all of the responses received from the consultation outlined in Section 2 above.

All responses received since the start of the consultation period were logged and organised into broad groups based on the views expressed. Written responses were logged along with emails, phone calls and comments made during the exhibitions. All members of the public who sent in letters during the consultation were issued an acknowledgement letter confirming receipt of their comments and detailing the next stages of the project. All correspondence received was forwarded on to TEP for review against the routeing criteria outlined in the Consultation Document.

A total number of 80 written responses were received during the consultation process, 24 of which were from consultee groups and 56 from members of the public.

Wrexham County Borough Council	Clwyd Powys Archaeology Trust (CPAT)
Oswestry Borough Council	RSPB
Countryside Council for Wales	
Natural England	National Trust Wales
Cadw	The Ramblers' Association
English Heritage	North Wales Wildlife Trust
Environment Agency	Shropshire Wildlife Trust
Environment Agency Wales	Wales & West Utilities
Defra	National Grid Transmission
Forestry Commission Wales	National Grid Distribution Network

Table 1. Comments were received from the following consultee groups.

# 3.2.2 Responses from Local Councils

Following meetings with Wrexham County, Shropshire County, Oswestry Borough and North Shropshire District planning and landscape officers, letters have been received from Wrexham and Oswestry Borough Councils.

#### Wrexham Council

Wrexham Council commented on the need for an update on the study area environmental inventory. An alternative to the Preferred Route through the Park Eyton area was suggested

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and potential impacts on Johnstown Newts site (a designated Special Area of Conservation (SAC)) and on Listed buildings were highlighted.

#### **Shropshire Council**

No formal response was received from Shropshire Council. It was agreed during a meeting with council representatives that the Council would reply formally at the section 37 application and EIA stage.

#### Oswestry Council

Oswestry Council commented on the potential visual and ecological impact of the Preferred Route in the vicinity of Ifton Meadows Local Nature Reserve (LNR).

# 3.2.3 Responses from Statutory Consultees

#### Countryside Council for Wales

Countryside Council for Wales (CCW) commented on the need for method statements and consent required for working in SAC sites. The organisation was satisfied with routeing in terms of landscape and requested to view ecological survey information along the route when complete.

# Natural England

Natural England suggested the design team re-assess the routeing criteria and weighting applied to Ifton Meadows LNR as the recreational aspect of site was not assessed. Also advised were breeding bird surveys at Ifton Meadows LNR and Higher Stewardship Scheme farms. Natural England also requested ecological survey information along the route and method statements for river crossings.

# <u>Cadw</u>

Cadw provided information on Scheduled Monuments (SMs) in the study area and stated that it felt the Consultation Document adequately addressed the concerns of statutorily protected SMs and Listed buildings.

#### **English Heritage**

English Heritage felt it unnecessary for them to comment at this stage of the process. It was recommended that an appropriately qualified organisation is used to carry out the archaeological section of the EIA.

# **Environment Agency England & Wales**

The Environment Agency requested a more detailed study of potential contaminated sites during the EIA and provided information on required vertical and horizontal clearances from waterways. Guidance on pollution prevention was also provided by the Environment Agency.

#### 3.2.4 Responses from Other Consultees

This consultation exercise has also provided an opportunity for other consultees to comment and the following responses have been received.

Table 2. Summary of comments received from consultees

Consultee	Date	Comment
RSPB	18/04/07	Concerns over route crossing Ifton Meadows LNR and farm managed under the higher stewardship scheme (HSS).

Defra	15/03/07	No comment from Defra at this stage.	
Clwyd-Powys Archaeological Trust	14/03/07	Highlight impact of routes on previously unrecorded archaeology and request walkover survey of Preferred Route. Contact details for Cadw and suggestions for further detailed study in EIA.	
Forestry Commission Wales	20/03/07	Letter passed to Area Land Agent.	
Forestry Commission Wales	27/03/07	Site poles to ensure mature and veteran trees are not removed.	
National Trust Wales	13/04/07	Reply for NT Wales and England. Chosen route stays clear of NT land. Recommend contact with Welsh Historic Gardens Trust and Garden History Society.	
The Ramblers' Association	31/03/07	Preferred Route won't impact on any PROW. Would like to be contacted if any PROW are to be diverted.	
North Wales Wildlife Trust	02/04/07	Listed number of Wildlife Sites.	
Shropshire Wildlife Trust	04/04/07	Concerns over routeing across Ifton Meadows LNR and Ebnal Lodge Wildlife Site.	
Wales & West Utilities	17/04/07	Low, medium and high pressure apparatus throughout study area.	
National Grid Transmission	30/04/07	Deeside-Trawsfynydd 400kV Overhead Line identified in study area.	
National Grid Distribution Network	03/04/07	Area not covered by NGDN, correct details given for Wales & West Utilities.	

Following these responses, SP Manweb has continued a dialogue with Natural England and CCW in respect of agreeing approaches to baseline ecological surveys that will be required along the proposed route.

No response has been received from the following consultees:

Forestry Commission (England)
North Wales Fire Service
National Farmers Union
Highways Agency
National Farmers Union Wales
Department of Trade & Industry

North Wales Fire Service
Highways Agency
Dee Valley Water

#### 3.2.5 Comments Received from Parish Councils

Written responses have been received from St Martins Parish Council who raised concerns over the route crossing Ifton Meadows LNR and questioned why the A483 hadn't been considered as an option. Informal feedback was also received during attendance of the Selattyn and Gobowen Parish Council meeting. Selattyn & Gobowen PC asked for the line route to avoid Wat's Dyke and for further consideration to be given to the A483/A5 road route. No responses have been received from the other Parish Councils consulted.

#### 3.2.6 Responses from Members of the Public

Exhibition attendance Feb 2007

Ruabon exhibition: 27 people St Martin's exhibition: 26 people

Of the 56 written responses received from members of the public, 52 were objections. Many responses recognised the need for reinforcement of the electricity network in the Oswestry area and therefore, nearly all of the objections raised were related to the routeing of the overhead line. The majority of the 52 objection letters received were concerned with the routeing of the overhead line across Ifton Meadows LNR.

#### 3.3 Consultation Outcomes

#### 3.3.1 Summary of Main Issues Arising From This Consultation

This section seeks to address the issues raised by members of the public and consultee groups during the consultation on the preferred route described above. Having carried out

the consultation based on the routeing proposals as set out in the Consultation Document, the main issues raised are as follows:

- Route through Ifton Meadows LNR.
- Why the A483/A5 road route option was rejected during the strategic routeing stage.
- Why the road bridges cannot be utilised to carry cables.
- Route through Pont-y-Blew and Glyn Morlas.

#### 3.3.2 Routeing Across Ifton Meadows Local Nature Reserve

Natural England, RSPB, Oswestry Council and Shropshire Wildlife Trust along with the majority of the public responses raised concerns regarding the crossing of Ifton Meadows LNR. The Main concerns were the potential effects upon ground nesting birds, such as skylark and meadow pipit, but also possible adverse effects upon recreational use of the site. It was concluded from the public consultation that Ifton Meadows LNR is highly valued by the local community as a resource for informal recreation and enjoying wildlife.

It was therefore considered appropriate to reappraise how Local Nature Reserves are considered in the routeing process. In the initial assessment, they were considered as local designations for nature conservation, but not as local recreational resources. It has always been acknowledged that these sites had public access and could be used for recreation, but to avoid 'double-counting' they were considered only in terms of their nature conservation value. In the assessment review carried out by TEP, the importance of Ifton Meadows LNR as a recreation area, as well as a site of nature conservation interest, is now taken into account.

In order to avoid Ifton Meadows LNR TEP identified a link between the original Preferred Route at the Ceiriog Valley, and the eastern route options considered in the initial route evaluation in the Consultation Document. This Alternative Route was considered to offer a diversion around both Ifton Meadows and other constraints identified in the Consultation Document. The link follows a northwest-southeast alignment to connect between the Ceiriog Valley and Route C3 (as described in the Consultation Document) immediately east of St Martin's. In the initial evaluation of route options against the routeing criteria set out in the Consultation Document, Route C3 combined with C1(B) (also described in the Consultation Document) was assessed as being on balance the best 'eastern' option between St Martin's and Oswestry substation, and was therefore selected for this diversion. This route follows a generally north-south alignment, through sparsely settled areas near Wigginton, New Marton and Henlle (Figure 2). It crosses the Shropshire Union canal in the vicinity of New Marton Lock and joins with the Preferred Route south of Gobowen, near Great Fernhill.

TEP's assessment of the original Preferred Route against the Alternative Route which avoids Ifton Meadows LNR is finely balanced, with the original route performing better in terms of visual amenity (from private property), and ease of assimilation within the landscape, and the more eastern Alternative Route having a lesser effect on several designations and trees/woodlands. In balancing these differing impacts, the avoidance of direct effects on Ifton Meadows LNR and upon trees and woodlands, is considered sufficient to outweigh the limited effects upon landscape character and upon individual visual amenity likely to arise from the Alternative Route.

# 3.3.3 Following A483(T)/A5 Road Corridor and Utilising Road Bridges

A number of issues have been highlighted by those consulted during the February 2007 round of consultations on the Preferred Route. In particular, during discussions with the

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Oswestry Borough Council Scrutiny Committee, SP Manweb were asked to further explain the reasons for not choosing the strategic option of following the A483(T)/A5 road corridor for the Legacy to Oswestry route. No other consultee groups questioned the early strategic rejection of this as a route option but a large number of the general public stated a preference for the overhead line to follow the A483(T)/A5 road. The A483(T)/A5 road route was also suggested during the consultation as a suitable route for an underground cable.

The main technical and environmental considerations which should be considered in order to route a distribution line which on balance has least visual intrusion and least disturbance to people and the environment are determined from a study of likely effects and established routeing practice. SP Manweb's approach to routeing is based on the principle that the best method of mitigating the impact of an overhead line is through careful routeing. These routeing considerations include topography, landscape character and areas of amenity value and scientific and historical interest. The degree of visual intrusion can be reduced, for example, by utilising topography and trees to provide screening and backgrounding and by seeking to retain appropriate distances from settlements and viewpoints. In addition, routeing also takes account of other environmental considerations by seeking to avoid the most sensitive and valued natural and man made features. SPM must balance all these issues to identify a suitable overhead line route.

The Consultation Document identified 4 strategic options for routeing an overhead line through the study area. These were:

- Option 1 a location to the east of the A483(T)/A5;
- Option 2 a location to the west of the A483(T)/A5;
- · Option 3 following the main north south road corridor; and
- Option 4 paralleling the existing 132kV overhead line.

These broad route options are shown on Figure 5.1 in the Consultation Document.

The area relating to Option 3 is described fully in the Consultation Document. For a variety of technical, economic, environmental and legislative reasons, the A483(T)/A5 was discounted at the strategic option stage. This option was subsequently revisited in light of the consultation but following further review and discussion with North Wales Trunk Road Agency and the Welsh Assembly the original decision to discount the option was reconfirmed. This option was discounted due to the following constraints:

- The key issues affecting the routeing of an overhead line along the existing road in the northern half of the study area are the substantial areas of land supporting existing built development. The town of Ruabon and the Johnstown Newt Sites Special Area of Conservation restrict options for routes next to the road through this area. Developed areas immediately abut the road in places, and in the case of Ruabon development abuts the road corridor on both sides.
- In the central part of the study area the key constraints are the areas of historic parkland associated with the Wynnstay and Brynkinalt Estates. The A483(T)A5 runs through the Wynnstay estate for over 2km and the Brynkinalt Estate for approximately 1.5km. Historic parklands have been identified as a key strategic constraint to routeing, to be avoided where possible. Within the parklands, areas of woodland abut the road corridor in places.
- The A483(T)A5 crosses the River Dee through the Nant-y-Belan and Prynela Woods SSSI. An overhead line next to the road at this point would be required to pass through the two areas of ancient woodland, identified as key constraints to routeing. A large number of trees would have to be removed.

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- The steep river valleys of the Dee and Ceiriog, in the vicinity of the two bridges, would make construction of an overhead line very difficult. A wood pole line would need to be routed down to the valley floor through these densely wooded areas resulting in significant clearance of ancient woodland and the crossing of the SSSI for the River Dee crossing as stated above. The Ceiriog Valley crossing would also require a large amount of woodland clearance, some of which is ancient woodland. The alternative would be the construction of large steel pylon structures on either side of the valleys to support a long span of overhead line. These resulting structures would also require significant tree clearance and be visually more obtrusive than the proposed wood pole line.
- It should be noted that it is not possible to erect wood poles along the viaducts.
- Original consultation with the local authority previously responsible for the viaducts (Conwy County Borough Council) confirmed that there was no provision for utility services in the construction of the viaducts. Subsequent discussions have been held with North Wales Trunk Road Agency, the party now responsible for the viaducts, and the Welsh Assembly Government who have overall responsibility for the roads and bridges. Both parties have reconfirmed the previously stated position that electricity cables would not be permitted in the voids of the two viaducts or along the A483/A5 road.
- There are six road junctions with the A483(T)/A5 between Wrexham and Oswestry, and numerous bridges over the main road. Should an overhead line be situated adjacent to the road corridor, it is likely that these would have to be crossed by local deviation.
- Built development either side of the roundabouts at Halton (including Chirk Airfield) and Gledrid form restrictions on routeing in these areas. There are no viable options for routeing an overhead line past these areas without considerable deviations from the road corridor.
- There are fewer constraints to the south adjacent the A5, however the settlements of Gobowen and Rhoswiel lie alongside the road restricting opportunities for routeing an overhead line in this area.

#### 3.3.4 Routeing through Pont-y-Blew and Glyn Morlas

A number of residents in the Pont-y-Blew/Glyn Morlas area raised concerns regarding the routeing of the overhead line through this area and also about the lack of consultation.

The routeing criteria have been reviewed and amended and the subsequent route options reviewed following comments received about recreation from Natural England. This review has confirmed the route through this area is still the preferred option. It is acknowledged that the route will have an impact on the visual amenity of residents in the vicinity of the line but careful micrositing of pole positions through this location will aim to reduce this impact.

It is considered that the approach to advertising, the public exhibitions and consultation was carried out in line with industry best practice and was appropriate for this stage of consultation. Attempts to inform all residents in the vicinity of the Preferred Route would not normally be carried out in this type of linear development consultation. Those residents who have responded to the consultation have been registered on the communication database for this project. They will be contacted with details of subsequent stages of the project, and have further opportunities to register their comments.

#### 3.4 Conclusion

The issues identified during consultation and described above have been reviewed by the SPM design team. An Alternative Route option was identified which avoided Ifton Meadows LNR. This route was taken forward to a second stage of consultation. The review of routeing through Pont-y-Blew/Glyn Morlas and following the A483/A5 road corridor ruled out any

alternatives and therefore these issues were not taken forward to the second stage of consultation.

# 4. Stage 2 Consultation – September 2007

As a result of a number of concerns raised with regards to the preferred route SPM undertook a review of the southerly section of the route. As described above, an Alternative Route was identified which avoided the need to cross Ifton Meadows and SPM carried out a second stage of consultation on this Alternative Route option.

A second public exhibition was held in St Martins with the information boards on display 3 weeks prior to representatives from SPM being present for one afternoon and evening to discuss the project further. Letters were sent to landowners along the Alternative Route, interested parties contacted previously and members of the public that had written in regarding the original Preferred Route, informing them of the public exhibition. The exhibition was publicised as before in the local press.

#### 4.1 Record of comments received

#### 4.1.1 Responses from Local Councils

# Oswestry Council

On the Alternative Route, Listed buildings in Wigginton were identified and recommendations were made to contact Natural England and landowners.

#### North Shropshire District Council

No formal response was received from North Shropshire District Council.

#### 4.1.2 Responses from Statutory Consultees

# Natural England

On the Alternative Route Natural England welcomed the rerouteing of the line to avoid Ifton Meadows LNR but noted that SPM must ensure that no damage occurs to Fernhill Pastures Site of Special Scientific Interest (SSSI) which the Alternative Route passes close to.

# Cadw

No concerns were raised regarding the Alternative Route as no SMs or historic landscapes would be affected and the nearby registered park and garden of Brynkinalt would not be affected.

# **Environment Agency England & Wales**

On the Alternative Route, guidance was given on river and canal crossings and details of Fernhill Pastures SSSI were provided.

# 4.1.3 Responses from Other Consultees

Responses from other consultees were received on the 2<sup>nd</sup> stage consultation on the Alternative Route and are detailed in the table below.

Table 3. Summary of comments received from consultees

Consultee	Date	Comment	
RSPB	29/08/07	Pleased that Ifton Meadows LNR is be avoided by Alternative Route. Description of a locally important area for breeding waders.	
RSPB Cymru	08/10/07	Mitigation package that produces net gain is suggested.  Details of guidance documents/policy given. Offer to read draft ecology chapter of ES.	
Clwyd-Powys Archaeological Trust	28/08/07	Alternative Route lies close to areas of archaeological significance but no known features will be affected by the intended work.	
Forestry Commission Wales	13/09/07	Site poles to ensure mature and veteran trees are not removed.	
National Trust Wales	28/08/07	No comment to make on Alternative Route.	
Shropshire Wildlife Trust 17/10/07		The Alternative Route appears to be acceptable as it avoids Ifton Meadows LNR and Ebnal Wildlife site. Note to contact Natural England regarding Fernhill Pastures SSSI, as route lies adjacent.	
British Waterways	13/06/07	Alternative route would have a direct effect on users of the Shropshire Union canal which is a very attractive area.	

#### 4.1.4 Comments Received from Parish Councils

Chirk Town Council wrote to object to the overhead line on visual amenity grounds and recommended that the line be placed underground.

# 4.1.5 Responses from Members of the Public

Exhibition attendance Sept 2007

St Martin's exhibition: 63 people

73 were received from members of the public following the public exhibition on the 2<sup>nd</sup> stage consultation on the Alternative Route. 56 of these letters were objections to the Alternative Route. Comments received focussed mainly on the preference for the route to follow the A483/A5 road corridor.

# 4.2 2<sup>nd</sup> Stage Consultation Outcomes

The issues raised by members of the public and consultee groups during the 2nd stage of consultation described above related again to the routeing along the A483(T)A5 road corridor. The reasons for discounting the road corridor are described above. A number of more general issues were raised during the second stage of consultation and are covered in the next section.

# 4.2.1 Broad Issues Arising from Consultation

A number of general issues relating to undergrounding, visual amenity, nature conservation, perceived health effects from EMFs have been raised by members of the public as reasons for objecting to the route. These issues are general to both stages of consultation and are covered briefly below.

Some minor route alterations were also suggested by the general public to take the route further away from properties. A number of responses also questioned why existing overhead lines in the area couldn't be rationalised to take the extra electricity cables.

#### Undergrounding

No comments were received from statutory consultee groups regarding the placement of the line underground. St Martin's and Chirk Parish Councils both stated that undergrounding would be preferable to an overhead line.

The wording on undergrounding in the Consultation Document has been revised in light of comments received as to why SPM are looking at building overhead rather than underground:

- SPM is sensitive to public preference to place assets underground rather than overhead, however, there are environmental, economic and technical reasons against this approach in this instance. SPM is obliged to comply with the requirements of the Electricity Act 1989 to develop and maintain an efficient, coordinated and economical system of electricity supply.
- For economic reasons, as previously stated, other UK Distribution Network Operators
  would also propose an overhead circuit in similar circumstances. It should be
  recognised the relative cost for an underground circuit would be between 5 to 10
  times that of similarly rated overhead option. The variation would be dependent on a
  number of factors such as manufacturing costs, ground conditions for excavation and
  associated traffic management issues.
- Whilst the main advantage of underground cable (UGC) when compared to overhead line is the reduction in effects on visual amenity and landscape character, this advantage is likely to be reduced by effects of underground cable on ground cover and habitats, other than in high productivity agricultural areas. The main disadvantages of UGC when compared to OHL relate to: the greater impact on habitats and natural heritage interests; unknown archaeology; drainage and land use for construction, in terms of the extent of the area disturbed, the equipment required and the volume of materials involved.

As a result SPM policy is to attempt to find an overhead line route for all new high voltage distribution circuits.

#### Visual Amenity

Section 3 of the Consultation Document outlines SPM's approach to routeing and details how the visual intrusion of an overhead distribution line can be reduced by careful routeing, for example by utilising topography and trees to provide screening and backgrounding. Responses received from the general public suggested that because of the perceived impact on the visual amenity the overhead line should be placed underground or the existing network be rationalised to take the new line.

#### **Existing Network**

The existing overhead 132kV pylon line cannot be modified to take further cables as the steel towers already carry the maximum number of conductors (wires). Pylon lines are designed to carry one or two circuits, each made up of 3 conductors plus an additional earth wire. The pylon line that runs between Wrexham and Oswestry already carries two circuits. Section 2 of the Consultation Document explains why an additional single circuit overhead line is required.

#### **Nature Conservation**

A number of responses from the general public raised concerns over the impact the new overhead line may have on nature conservation interests in the area. Section 4 of the Consultation Document details the nature conservation sites taken into consideration during the routeing study. The next stage of the project, the EIA, will involve TEP carrying out more

detailed ecological surveys along the route of the overhead line. The ES will report on the anticipated environmental effects of the proposed overhead line and will identify any appropriate mitigation to avoid, reduce or offset adverse effects.

# Electric and Magnetic Fields

Electric and magnetic fields can be produced naturally or through human activity and are always present when electricity is used. EMFs can be harmful at very high levels but the fields produced by overhead lines and substations are relatively low.

Electric fields are produced by voltage (the pressure of the flow of electricity) whereas magnetic fields are produced by current (the flow of electricity). Higher voltages produce higher electric fields and higher currents produced higher magnetic fields.

SPM ensures all electrical infrastructure stays within Government guidance for exposure to EMFs. The Health Protection Agency (HPA) advises the Government on exposure levels for EMFs. In 2004 the HPA recommended the adoption of the International Commission on Non-Ionizing Radiation Protection (ICNIRP) 'reference levels' for public exposure to EMFs. The ICNIRP levels are:

- 5000 volts per metre for electric fields
- 100 microteslas for magnetic fields.

Typical field levels from 132kV overhead electricity lines are detailed in the table below.

		Electric Field	Magnetic Field
		(volts per metre)	(microteslas)
132kV overhead lines	Maximum	4,000	40
(smaller steel pylons	Typical (under line)	1,000 - 2,000	0.5 - 2
and largest wood	Typical (25m to side of line)	100 – 200	0.05 - 0.2
poles)	Typical (100m to side of line)	2 - 20	0.01 - 0.04

Additional information and a fact sheet on EMFs can be found on the Energy Networks Association website <a href="https://www.energynetworks.org">www.energynetworks.org</a>.

#### 4.3 Conclusion

The general broad issues of concern highlighted during the consultation process relating to visual amenity, nature conservation and EMFs will be assessed in detail during the next stage of the project, the environmental impact assessment process, with the outcome of the assessment reported in the Environmental Statement (ES). The ES will identify the measures to be undertaken to avoid reduce and offset such effects on the environment.

#### 5. Selection of the Proposed Route

SPM have considered all the comments and responses made during the consultation process on the Preferred Route and Alternative Route and have selected a Proposed Route. This Proposed Route is based on the Preferred Route in the borough of Wrexham with the Alternative Route section through the county of Shropshire (Figure 3).

The Proposed Route represents on balance the best route for the overhead line which meets the requirements of the Electricity Act 1989 to develop and maintain an efficient, coordinated and economic system of electricity supply. The route selection process has identified a technically feasible and economically viable overhead line route which causes the least disturbance to people and the environment.

The Proposed Route follows a broadly north-south alignment through Wrexham Borough and the borough of Oswestry, in Shropshire. It passes through a small section of the district of North Shropshire, in the vicinity of St Martin's village. It is approximately 20.6km overhead line, with 3km underground cable to facilitate entries into the two electricity substations. The Proposed Route avoids settlements, areas of high amenity, cultural or nature conservation value, whilst maximising the potential of the existing landform and vegetation for screening purposes.

This Proposed Route will be taken forward to the EIA stage and an Environmental Statement produced which will report on the likely environmental effects of the proposed connection, focusing appropriately detailed assessments on the key issues that the Secretary of State will identify in the Scoping Opinion which will be requested by SPM as part of the EIA process.

#### 6. Conclusions

The route consultation approach has engaged consultee groups and members of the local community. The 3 exhibitions attracted people across the local authority areas and over 165 comments were received. Twenty of the 37 consultee groups approached replied with all statutory bodies responding. Of the 165 responses received, 108 were objections to the overhead line with the remainder being comments on specific aspects of the project.

The main issues raised by consultee groups and members of the public have been addressed in this document. The issues surrounding Ifton Meadows LNR resulted in the route options being re-evaluated and an Alternative Route being identified for further investigation and consultation. The Alternative Route raised no objections from consultee groups, but 56 objection responses were received from local members of the public and Parish Councils.

The Proposed Route, which incorporates the Alternative Route, is considered to be a technically and economically feasible route, which on balance causes the least disturbance to people and the environment.

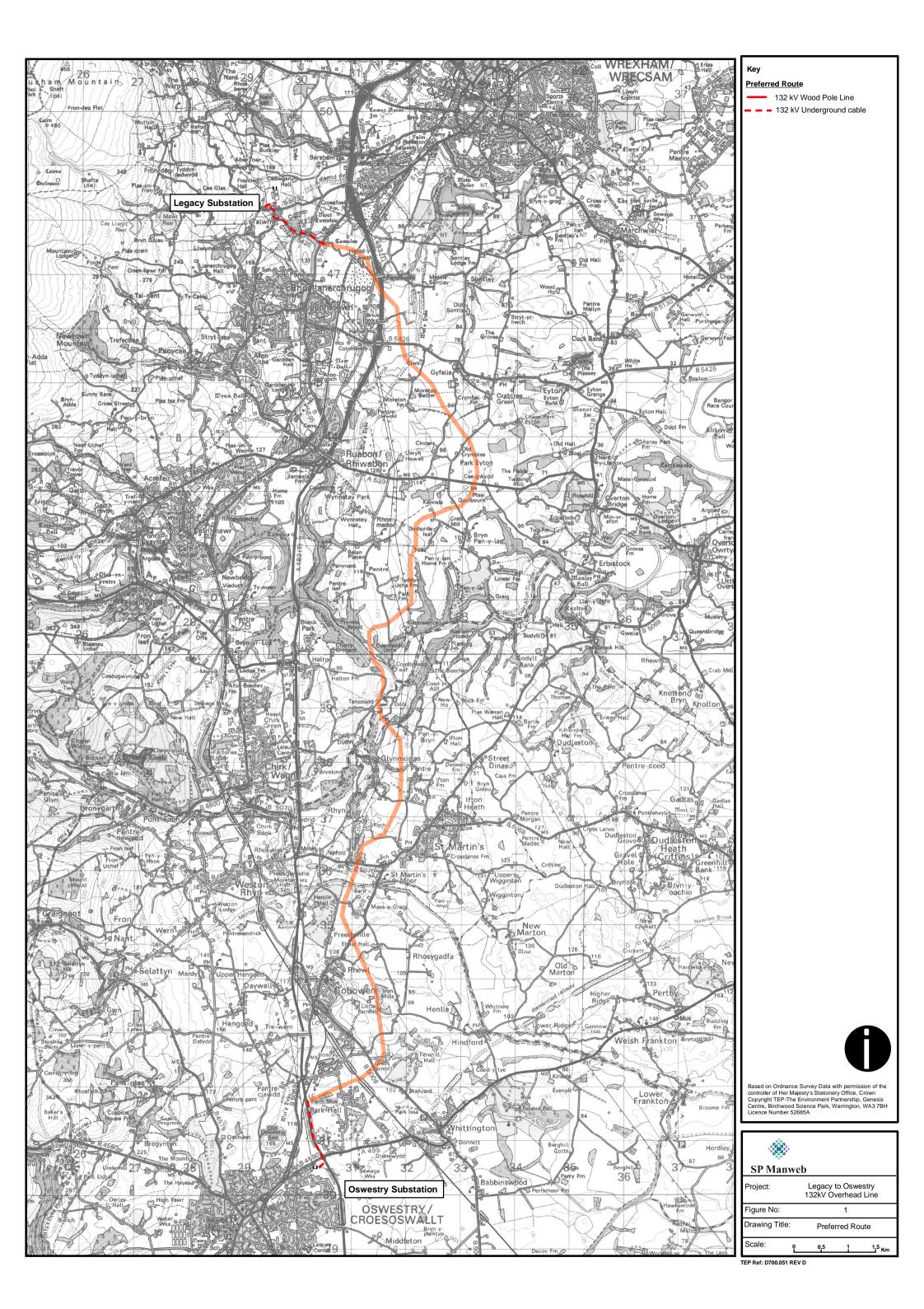
#### 7. Next Stages

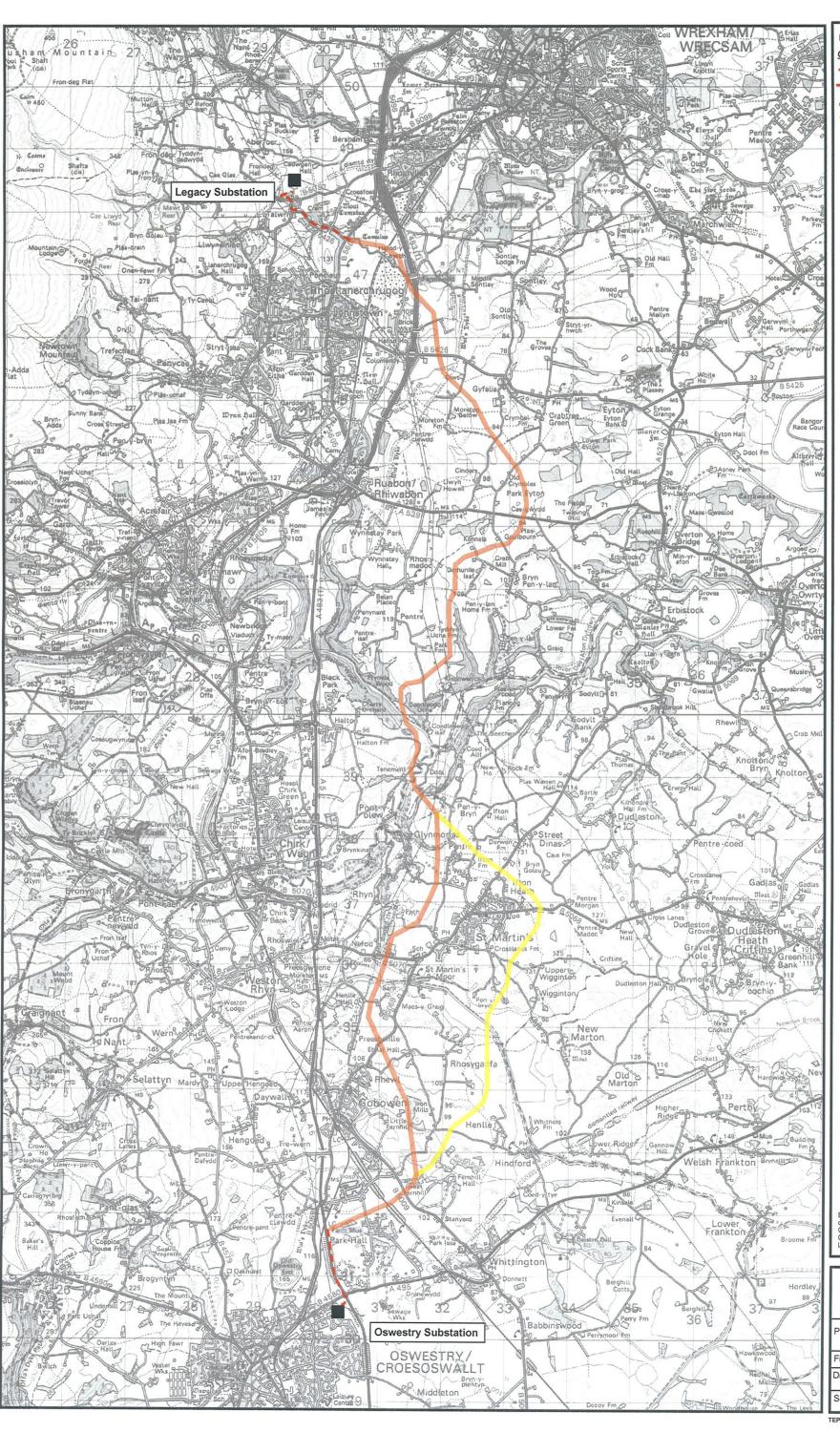
Further work will be carried out in the form of the EIA and ES to ensure all potential environmental effects of the proposed connection are identified and where appropriate proposed mitigation to avoid, reduce or offset any adverse effects will be described.

Consultation with Local Authorities and other Statutory Consultees such as CCW and Natural England will continue regarding the proposed route.

Wayleaves and detailed line design are required and will commence in due course.

The ES will accompany a section 37 application under the Electricity Act to the Secretary of State for Business, Enterprise and Regulatory Reform for consent to construct the overhead line. At this time formal statutory consultation will also take place where stakeholders and interested parties can comment further on the proposals. The application will be made in the New Year.





Key

Original Preferred Route

132 kV Wood Pole Line
132 kV Underground cable

Alternative Route

132 kV Wood Pole Line



1.5 Km

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