

PROPOSED REINFORCEMENT TO THE ELECTRICAL DISTRIBUTION SYSTEM

132kV Overhead Line Between Legacy and Oswestry

Environmental Statement Non - Technical Summary



Preface

An Environmental Statement has been prepared, on behalf of ScottishPower Manweb, in support of an application for a 132kV overhead line reinforcement to the distribution network between Legacy (Wrexham) and Oswestry.

The Environmental Statement comprises the following documents:

- Non-Technical Summary
- The Environmental Statement (Volume 1)
- The Environmental Statement: Figures (Volume 2)
- Technical Appendices (Volumes 3 and 4)
- Confidential Technical Appendices: Protected Species (Volume 5).

Further copies of all these reports may be obtained from:

SP Energy Networks
Environmental Planning
3 Prenton Way
Prenton
Merseyside
CH43 3ET
Tel: 0151 609 2568

Copies of the Environmental Statement may be obtained from SP Manweb (tel: 0151 609 2568) at a charge of £150 hard copy and £10 on DVD. Copies of the Non-Technical Summary are available free of charge.

Copies of the documents will be available for public viewing at the following locations:

Council Offices	Libraries		Other Locations
Wrexham Planning Offices Lambpit Street Wrexham	Wrexham Library Rhosddu Road Wrexham	Overton Library Cocoa Rooms Pen Y Llan Street Overton	St Martin's Centre Overton Road St Martin's
Shropshire Planning Offices Development Services Shirehall, Abbey Foregate Shrewsbury	Rhosllannerchrugog Library Princess Road Rhos	Gobowen Library St Martin's Road Gobowenn	
Oswestry Planning Offices Castle View Oswestry	Ellesmere Library Fullwood House Victoria Street Ellesmere	Ruabon Library High Street Ruabon	
North Shropshire Planning Offices Edinburgh House, New Street Wem	Chirk Library Chapel Lane Chirk	Oswestry Library Arthur Street Oswestry	

Any representations to the application should be made by post to the **Department of Energy and Climate Change**, Energy Development Unit, Energy Group, Bay 2123, 1 Victoria Street, London SW1H 0ET, identifying the proposal and specifying the grounds for representation.

Representations should be dated and should clearly state the name (in block capitals) and full return email or postal address of those making representation. All representations to the Government will be copied in full to the planning authority, and made available to the public on request, unless individuals request otherwise.

Introduction

- 0.1 This Non-Technical Summary forms part of the Environmental Statement (ES) prepared under The Electricity Works (Environmental Impact Assessment) (England and Wales) (Amendment) Regulations 2007 on behalf of ScottishPower Manweb (SP Manweb).
- 0.2 SP Manweb is the licensed Distribution Network Operator for an area covering Cheshire, North and Mid-Wales and parts of Merseyside. It is required under the Electricity Act 1989 and under the terms of its Electricity Supply Licence 'to develop and maintain an efficient, co-ordinated and economical system of electricity supply'.
- 0.3 The ES has been prepared in support of an application under Section 37 of the Electricity Act 1989 for a 132kV overhead line reinforcement of the distribution network between Legacy (Wrexham) substation and Oswestry substation. This application under Section 37 is made direct to the Minister for Energy and Climate Change, rather than the local planning authorities. However the Minister consults with local planning authorities when considering the application.
- 0.4 The Section 37 application includes a request that deemed planning permission is granted for the overhead line in accordance with Section 90(2) of the Town & Country Planning Act 1990.
- 0.5 The proposed route is shown on Figure NTS 1: The Proposed Route.
- 0.6 The ES sets out the background to how the route was chosen, the relevant planning policies and other issues. It presents details of the proposed connection and the results of specific studies undertaken to assess the likely significant environmental effects of the proposal.
- 0.7 The reinforcement is required to ensure SP Manweb complies with its statutory duties to develop and maintain an efficient, co-ordinated and economical system of electricity supply, and to secure supplies to 80,000 customers in the area south of Wrexham.
- 0.8 In identifying the proposed route, SP Manweb has sought to combine sensitive routeing with appropriate mitigation measures. The measures would be taken to avoid or reduce environmental effects. SP Manweb has consulted frequently with relevant local, regional and national bodies. Project information has been made available to the public at different stages of the project so that SP Manweb could listen to and respond to public concerns regarding the proposal.

Legal and Policy Framework

- 0.9 The proposed overhead line will be within the boundaries of Shropshire Council (within the boundaries of the former Oswestry Borough Council and North Shropshire District Council) and Wrexham County Borough Council.
- 0.10 SP Manweb has accepted that Environmental Impact Assessment (EIA) is required for this overhead line and has prepared the ES to report the findings of the EIA. The process of EIA seeks to identify the 'likely significant effects' of the proposal.

Route selection, community consultation and scoping

- 0.11 The overhead line is needed in this area to reinforce the electricity distribution network between the substations at Legacy (Wrexham) and Oswestry.
- 0.12 SP Manweb holds a licence under the Electricity Act 1989. An obligation under this licence is to preserve the environment and amenity. SP Manweb has been mindful of this obligation as it designed the line and chose the route.
- 0.13 Extensive studies have been undertaken to identify the most suitable route and technical design for the overhead line. This has been undertaken in stages through the process of EIA to allow the balance of technical and environmental issues to be fully understood.
- 0.14 The routing exercise was initially undertaken on the basis of well established rules used in the electricity industry. The process was modified to reflect the growing understanding of the specific local constraints identified through the EIA process.

Alternatives considered

- 0.15 A number of route alternatives for the proposed overhead line were examined before confirming a preferred route option. Different locations (substations) were considered from which the reinforcement of the network could be made. These included connections from Shrewsbury, Whitchurch, Connah's Quay, Crewe and Trawsfynydd.
- 0.16 In addition to alternative locations for an overhead line to reinforce the supply to areas south of Legacy, alternative methods of reinforcing the network within the area between Legacy and Oswestry were also considered. These included upgrading existing 132kV distribution lines between Legacy and Oswestry and providing the reinforcement using underground cables, rather than overhead lines.
- 0.17 An overhead line reinforcement of the 132kV network between Legacy and Oswestry is the most economic and environmentally acceptable solution.
- 0.18 Four broad options for the overhead line route were examined initially:
- East of the A483(T)/A5;
 - West of the A483(T)/A5;
 - Following the A483(T)/A5 road corridor; and
 - Parallel to the existing 132kV overhead line between Legacy and Oswestry.
- 0.19 The option east of the A483(T)/A5 offered greater opportunities for assimilation of an overhead line within the landscape and had fewer constraints than other options. Further detailed route selection concentrated on this area.
- 0.20 The principal issues which needed to be addressed in routing were:
- Crossing the Dee valley, steep sided and densely wooded;
 - Presence of several historic parklands in the area: Erddig, Wynnstay, Brynkinalt
 - Shropshire Union Canal (Llangollen branch);
 - Offa's Dyke and Wat's Dyke;

- Special areas of conservation (SAC sites), internationally important wildlife sites, at Johnstown Newt Sites and the River Dee; and
- undulating terrain with plentiful mature tree cover and a dispersed settlement pattern.

- 0.21 The overhead line route was developed through a number of options to the 'Preferred Route', which represented SP Manweb's understanding of the most appropriate way to provide the reinforcement. It considered options bearing in mind its two obligations to operate an efficient and cost-effective network and to have regard to the environment and amenity.
- 0.22 Public consultation on the Preferred Route was undertaken in February 2007. Exhibition material and a Consultation Document were produced. The Consultation Document was issued to a wide range of consultees to seek their opinions on the proposal.
- 0.23 Following concerns raised during public consultation on the scheme, an alternative was identified for the southern part of the route. After a second round of consultation, the comments of those responding to the proposal were considered and the alternative was confirmed as the 'Proposed Route'.
- 0.24 SP Manweb asked the relevant government department for its view on the issues that should be considered within the EIA (the Scoping Opinion). Local planning authorities were consulted and gave their opinions. The EIA has been undertaken on this basis.

The proposed overhead line

- 0.25 Typically 132kV connections take the form of overhead lines carried on steel lattice towers of up to 26m height. A new design of overhead line, supported by wood poles of up to 16m in height, has been proposed for this reinforcement. Shorter supports result in shorter span lengths (the distance between supports). For wood pole lines of this type the average span is 80m, as compared to an average of 280m for a 132kV steel lattice tower system. It was considered that the wood pole design would be more easily assimilated within the landscape between Legacy and Oswestry which has a generous amount of mature tree cover.
- 0.26 Each wood pole support typically comprises two poles with steel work above supporting the insulators and 3 conductors and the earth wire. (Conductors are the wires that carry the electricity.) See Figure NTS2: Proposed Support Types.
- 0.27 The proposal was developed to provide a route between the substations which minimised the required length and also respected the environmental constraints as far as possible.
- 0.28 Space constraints at each end of the connection mean that the proposed reinforcement would be connected to the substations at Legacy and Oswestry by underground cables.
- 0.29 The proposed reinforcement comprises an overhead line of 20.6km length, with a total of 3km of underground cables connecting to substations. The proposed route is shown on Figure NTS1: The Proposed Route.

The route

- 0.30 The proposed route follows a broadly north-south alignment through Wrexham Borough and the Shropshire Council area, through the former borough of Oswestry and a small part of the former North Shropshire district, in the vicinity of St Martin's village.
- 0.31 The route runs from Legacy substation using underground cables for approximately 1.6km. East of Wrexham Road, it transfers to wood pole overhead line and continues in a south-easterly direction across open farmland, around the northern boundary of Johnstown Newt Sites SAC. One support pole would be sited within the boundary of Johnstown Newt Sites SAC.
- 0.32 The route continues in a generally south easterly direction through agricultural land, crossing Wat's Dyke (Scheduled Monument) near Gyfelia.
- 0.33 The route runs east of Wynnstay Park (Grade I Registered Parkland), and then takes a southerly direction through agricultural land following a clough woodland into the Dee valley. The overhead line would cross the River Dee using an existing break in the valley woodland on the north bank.
- 0.34 South of the River Dee, the route follows the natural contours of the valley of the River Ceiriog to Tenement, where it spans the river, and crosses an unscheduled section of Wat's Dyke at the top of the eastern valley side.
- 0.35 East of the valley, the route continues in a south-easterly direction around the eastern edge of St Martin's village, then follows a south-westerly alignment through the Upper Wigginton area. It crosses low-lying land around the Shropshire Union Canal to the north of New Marton Locks.
- 0.36 From here, the route runs in a generally south-westerly direction, to the west of the small settlements of Henlle and Hindford. The route is adjacent to Fernhill Pastures SSSI. It passes to the west of the listed building of Great Fernhill, then follows a westerly alignment towards the A5 between Oswestry Orthopaedic Hospital and Park Hall Farm Countryside Experience.
- 0.37 The overhead line would end adjacent the A5, and the final 1.4km connection to Oswestry substation would be made by underground cable alongside the A5.

Environmental effects

- 0.38 The process of EIA has been undertaken to identify the likely significant effects of the proposed overhead line. These are described in the following sections. The effects may result either from the construction of the overhead line or through its operation over the period of its life.
- 0.39 Through the process of the EIA, SP Manweb has sought to limit the effects of the proposed overhead line. Where likely significant environmental effects were identified, the proposal may have been amended to avoid them, or measures may have been developed to reduce or offset the effects. These actions are known as mitigation.
- 0.40 Much of the routeing process was undertaken to avoid potential environmental issues.

- 0.41 The routeing and technical solutions adopted have avoided or reduced the effects of the overhead line to such an extent that there are few residual significant effects. These are described below.

Visual effects

General visual context

- 0.42 The majority of the area is gently undulating farmland with a generous amount of tree cover. It is a rural landscape with few settlements, but a scattering of farmsteads and hamlets, connected by a network of narrow, often single track, winding lanes. The majority of these are bounded by tall (over 2m high) hedgerows. These are important in affecting views and visibility from the road network, as often it is only possible to appreciate the wider view through field gates. Elsewhere tree cover is important in reducing the area over which the overhead line may be visible. The 'layering effect' of numerous field boundary trees is particularly important.
- 0.43 There are, however, additional features of the landscape which affect visibility and opportunities for views.
- 0.44 Land rises to the west of the study area, to the foothills of the Clwydian Range. Whilst these are too distant to have views of the overhead line, they form a noticeable feature and elevated horizon or backdrop in many views westwards.
- 0.45 The steeply incised valley of the River Dee and its tributaries also influence visibility. Views within the valleys are largely enclosed, whilst the valleys themselves may be hidden from view in the wider surroundings.
- 0.46 In the north of the study area, the artificially elevated landforms of former colliery spoil heaps at Bersham and Hafod form features within many views and are also vantage points from which panoramic views can be obtained. To the south, the embanked ramparts of Old Oswestry hill fort offer a similar, publicly accessible viewpoint.
- 0.47 The chimney and associated smoke plume of the Kronospan factory at Chirk is a noticeable feature in many views. The A483/A5 trunk road passes through the area. Although the road surface is not often visible, the road lighting columns and roundabouts, the movement of vehicles and the roadside woodland strips are noticeable in views. Most people who will have views of the overhead line will be using the A483/A5(T).
- 0.48 The Shropshire Union Canal forms a linear feature in views from the surrounding higher ground.
- 0.49 The landscape is crossed by narrow winding lanes and a network of footpaths. Although relatively few people use the lanes and footpaths compared to the busy trunk road, their attention is more likely to be focussed on appreciation of the landscape and views.

Extent of visibility of the overhead line

- 0.50 The proposed route has been chosen to minimise effects on the landscape character and in views. An overhead line inevitably will be visible in the landscape. However the nature of the wood pole support chosen as opposed to a steel tower (pylon) line will significantly limit the scale of effects.
- 0.51 The majority of the proposed overhead line would be likely to be visible over relatively short distances as trees, hedges and woodlands screen views.
- 0.52 In some areas there would be a less screening than typically occurs in this landscape. These areas are:
- between Pentre Bychan (B5605) and the A483(T), where there are opportunities for downhill views from rising land to the west, and from the former colliery spoil heaps at Hafod and Bersham;
 - in the Park Eyton area, around the A539 crossing, where the landscape is less undulating and more open;
 - where the line crosses the upper, eastern slope of the Ceiriog valley in the vicinity of Bramble Wood to Pen-y-Bryn it is likely to be visible from both within the Ceiriog valley and from rising land to the west, in the vicinity of Halton, some 2kms distant, east of the A5(T);
 - in the Pentre Morgan area northeast of St Martin's village, where the landscape is more open;
 - within the shallow valley occupied by the Shropshire Union canal, where there are opportunities for views from higher land to the east and west, and the landscape of the valley floor is relatively open;
 - around Henlle, near Hindford, the landscape is relatively elevated, flat and open; and
 - in the area between Park Hall and the Orthopaedic Hospital, land is flat with a lower amount of tree cover than generally is the case, and there is rising land to the west (west of the A5(T)), including Old Oswestry fort.

Effects on views

- 0.53 Changes to the view have been assessed from 36 viewpoints which were agreed with the local planning authorities, likely to be the most sensitive viewpoints along the proposed route. The visual effects of the proposal would be significant in a third of the viewpoints assessed, but there would be no major adverse visual effects.
- 0.54 Only four of the 13 viewpoints where the visual effects are significant are at a distance greater than 250m from proposed route. As would be expected, the assessment shows that the greatest effects would occur in views close to the proposed overhead line, rather than from more distant viewpoints.
- 0.55 Moderate visual effects have been predicted in views from the following locations:
- the eastern edge of settlement at Pentre Bychan;
 - the public footpath (Wat's Dyke Way Heritage Trail) along Wat's Dyke, near Gyfelia, where the route crosses the dyke;
 - the edge of Wynnstay Park registered historic parkland;
 - within the valley of the River Ceiriog, a locally designated Special Landscape Area, in the vicinity of Tenement;
 - public footpaths with panoramic views over more open landscapes north of St Martin's village, west of Wigginton and south of Rhosygadfa;
 - within the relatively open, shallow valley of the Shropshire Union Canal; and

- 0.56 The viewpoints chosen are a selection of the most sensitive viewpoints near the proposed overhead line, so visual effects experienced from other locations are likely to be less. Much of the proposed overhead line would only be seen when the viewer is relatively close, as intervening trees and hedgerows would screen views.
- 0.57 Overall, significant visual effects are limited in number and geographical spread.

Effects on the landscape

Landscape character

- 0.58 The area through which the proposed overhead line would be routed is partly the Welsh borderlands between the Clwydian Hills and the River Dee, and partly the extensive, gently rolling Shropshire plain. This is a rural landscape with fields bounded by hedgerows and abundant hedgerow trees, mostly oak, giving a well-wooded appearance.
- 0.59 The proposed overhead line would not affect any nationally designated areas of landscape value. Approximately 5 kilometres of the overhead line would be within an area close to the Dee valley which is designated for its local landscape value.
- 0.60 The overhead line would be within 1km of Erddig, Wynnstay, Pen-y-lan and Brynkinalt Registered Historic Parklands.

Effects on landscape character

- 0.61 The proposed overhead line would have effects of minor or moderate significance upon the locally designated areas of landscape within its immediate vicinity. The alignment has been selected to avoid effects upon the highly sensitive steeply wooded banks of the River Dee – and would have an effect of minor significance upon the character of this area.
- 0.62 The route does not directly affect any registered historic parks or gardens, or their essential settings, and would have no effect on the landscape character of these areas.
- 0.63 The proposed overhead line is likely to have an effect upon the landscape character within its immediate vicinity of minor significance for the most part.
- 0.64 Effects upon landscape character have been assessed as being of moderate significance at a local scale for approximately one third of the length of the proposed overhead line. Generally these are sections where the landscape is judged to have a moderate or higher sensitivity to the type of development proposed. These sections have been identified as:
- around Park Eyton;
 - the upper slope on the eastern side of the Ceiriog valley;
 - between St Martin's and Pentre Morgan, around the Ellesmere Road area;
 - around the Shropshire Union Canal;
 - within the River Perry valley; and
 - the relatively open landscape between the River Perry and the A5.

- 0.65 The effects upon landscape character would occur in very local areas rather than over wide areas. Effects for the majority of the route will be minor, with no effects of greater than moderate significance.

Effects on ecology and nature conservation

- 0.66 An assessment has been undertaken of the potential effects on ecological interests (habitat, flora and fauna receptors) arising from the construction and operation of the proposed overhead line. Information was drawn from a number of sources. A range of ecological field surveys were undertaken by experienced and qualified ecologists to establish which habitats and species (focussing on protected fauna) are present within the proposed route corridor. Additional historical information on ecological interests was provided by a range of nature conservation organisations.
- 0.67 The proposed overhead line would pass through primarily agriculturally improved grassland subdivided by hedgerows. There are other less extensive habitats along the proposed route including broad-leaved woodland, marshy grassland, scrub and arable land. There are also numerous field ponds.
- 0.68 Johnstown Newt Sites SAC and the Rivers Dee and Ceiriog (part of the River Dee and Bala Lake SAC) are internationally important wildlife sites within the survey area. Two nationally important sites, Nant-y-Belan and Prynella Woods SSSI and Fernhill Pastures SSSI, are located adjacent to the route corridor. The proposed overhead line would cross Moor Wood County Wildlife Site and Bramble Wood (an area of Ancient Semi-Natural Woodland), both of county value for nature conservation.
- 0.69 The proposed overhead line would cross an area of lowland fen habitat, considered to be of county-national importance because of its rarity. Other habitats within the survey area were determined to be of local importance.
- 0.70 Fauna that have been individually assessed in the context of this development include:
- otter (of county value);
 - great crested newt, farmland birds, barn owl, water vole (of district value); and
 - badger, bats, brown hare and dormouse (of value in the immediate locality).
- 0.71 Fish species in the River Dee have not been individually assessed but are considered as part of the SAC as a whole, which is of international value.
- 0.72 As part of the iterative development of the proposed overhead line route, various identified ecological constraints have been taken into consideration. Designated sites and areas of more sensitive habitat have been avoided where possible.
- 0.73 Potentially significant effects were identified on 17 ecological receptors. These include designated sites, important habitats and fauna. Mitigation measures will be put in place to reduce these effects to non-significant levels. A 'best practice' approach will be adopted for construction works and mitigation measures will also be used in some instances where there are no significant effects.
- 0.74 The overhead line will have a significant effect in the short to medium term upon lowland mixed deciduous woodland (and individual trees) which comprise a habitat of local importance. It is estimated that the overhead line would affect 119 trees and an area of 1.34 hectares of woodland tree groups, although some of these would require lopping or reducing in height, rather than felling. In the medium to

long term, replacement woodland planting will mature and the effect will be reduced to a non-significant level. If it does not prove possible to undertake replacement planting, the long term effect would remain significant, but at a local scale. SP Manweb would make a contribution to an appropriate local wildlife trust to compensate for this loss.

- 0.75 The proposed mitigation measures will ensure that the construction and operation of the proposed overhead line will have no significant effect on any other sensitive habitats or fauna.

Effects on archaeology and cultural heritage

- 0.76 The archaeology assessment considers the likely effects of the construction and operation of the proposed route on cultural heritage assets, including archaeological sites, historic buildings, registered historic parklands and historic landscapes. Archaeological desk-based assessment, consultation and field survey were undertaken to identify those cultural heritage assets that might be affected by the proposed development. The potential for the ground beneath the proposed overhead line and underground cables to contain buried and as yet undetected archaeological remains was also considered
- 0.77 A total of 79 archaeological and cultural heritage features have been identified within a 1km corridor centred on the proposed route. In the 100m corridor within which direct effects could potentially occur, there are two Scheduled Ancient Monuments, one listed building, and four undesignated sites. In addition, the 100m corridor contains 126 historically important hedgerows. Wat's Dyke is an archaeological feature with some sections designated as Scheduled Monument. The proposed route crosses Wat's Dyke twice. One crossing is over a section which is scheduled.
- 0.78 Direct effects on the scheduled section of Wat's Dyke have been avoided through siting of supports as far as possible from the monument, resulting in a residual direct effect that is of minor significance. The position of the unscheduled section of the dyke in relation to topography means that siting a support pole in close proximity to the monument is likely to prove unavoidable. Mitigation measures will be put in place, including a programme of controlled archaeological excavation of any areas to be affected by support foundations. However this is likely to remain a major adverse and significant effect upon this section of Wat's Dyke.
- 0.79 The assessment identified five cultural heritage sites that would experience a significant effect upon the quality of their settings as a result of the proposed overhead line. These are two scheduled monuments (Wat's Dyke south of Black Brook bridge and Hafod-y-Bwch tumulus), a Grade II listed building (Bryn House), and two undesignated sites (the Shropshire Union Canal (Llangollen branch) and the unscheduled section of Wat's Dyke described previously).
- 0.80 A comprehensive programme of mitigation is proposed to reduce the effects on the archaeological resource, known and unknown. Implementation of such a programme will generally reduce any other potential residual effects of the scheme to minor adverse.

Effects on land management

- 0.81 There will be some interference with farming activities along the proposed overhead line during the construction period. Pole supports in fields are likely to cause some inconvenience to farming activities but maintenance of the overhead line would cause minimal disruption. The overall effect of the overhead line on agricultural interests along the route corridor is considered to be minor and not significant.

Effects on recreation and tourism

- 0.82 Careful routeing to avoid specific recreation and tourist facilities has prevented direct effects upon the majority of identified resources. Potential effects on recreation and tourism occur where the proposed overhead line crosses recreational routes including the Shropshire Union Canal, the Maelor Way and Wat's Dyke Way. In general, these effects are considered minor and therefore not significant.

Effects on mineral resources and landfill sites

- 0.83 The proposed overhead line would cross areas where mineral resources are protected and where consultation is required for development. An overhead line would have a very small level of effect on resources.
- 0.84 The proposed overhead line would have no effects upon landfill sites.

Effects on infrastructure

- 0.85 The proposed overhead line would have no significant effect on road, rail or canal communications or general infrastructure along the route corridor.

Effects of electro-magnetic fields on human health

- 0.86 It has been suggested that exposure to power-frequency magnetic fields could be linked with various health problems. SP Manweb considers that even a remote possibility of a health risk must be taken seriously and will continue to act upon the current advice of the Government and HPA in this matter. The design and operation of the overhead line is consistent with this advice and no adverse effects are anticipated.

Noise effects

- 0.87 Noise levels generated during construction of the wood pole line are likely to be low, and all activities which give rise to appreciable noise will be subject to the requirements of best practice in terms of both

Health and Safety Requirements and Environmental Health Requirements.

- 0.88 During operation of the overhead line audible-noise levels due to the line will be imperceptible at the nearest property, and not significant.

Effect on development proposals and planning policy

- 0.89 The proposed route would not pass through any areas allocated for development. No applications for planning permission which would be affected by the proposed line were under determination prior to submission of the application.

Control of environmental effects

- 0.90 SP Manweb is committed to implementing the mitigation measures contained in the Environmental Statement. An environmental management plan (EMP) will be produced to control and guide working practices as the project is built. Risk assessments and environmental audits will be undertaken. A representative of SP Manweb will be based on site during construction.

Summary

- 0.91 The addition of an electrical circuit between Legacy and Oswestry will provide essential reinforcement to the high voltage distribution system in the Cheshire, Merseyside, North and Mid-Wales area. SP Manweb proposes to construct a new 132kV overhead line which would be supported on wood poles.
- 0.92 A route for this new overhead line has been identified following detailed examination of a number of route alternatives and extensive consultation with both the public and statutory authorities.
- 0.93 SP Manweb is a licensed Distribution Network Operator with obligations to provide a technically feasible and economically viable reinforcement which has appropriate regard to the environment and amenity. The routeing and technical solutions adopted for this reinforcement of the 132kV network have resulted in a proposal that would give rise to only limited significant effects within localised areas. The limited number of significant effects (which cannot be avoided in a development of this nature), indicates that SP Manweb has complied with these obligations.



WREXHAM/
WRECSAM

Legacy Substation

Rhoslanerchrugog

Ruabon/ Rhiwabon

Cefn-mawr

Overton/ Owrtyn

Chirk

St Martin's

Weston Rhyn

Gobowen

Oswestry Substation

OSWESTRY/
CROESOSWALLT

OSWESTRY/
CROESOSWALLT

0 0.5 1 1.5 Km



NTS1

Proposed Route



132kV Wood Pole Line

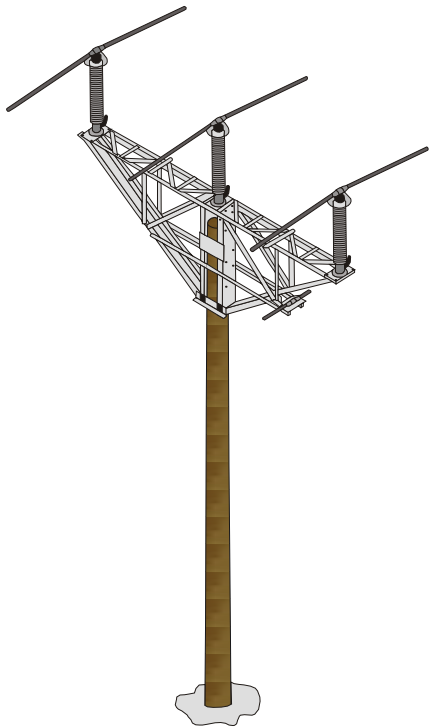


132kV Underground Cable

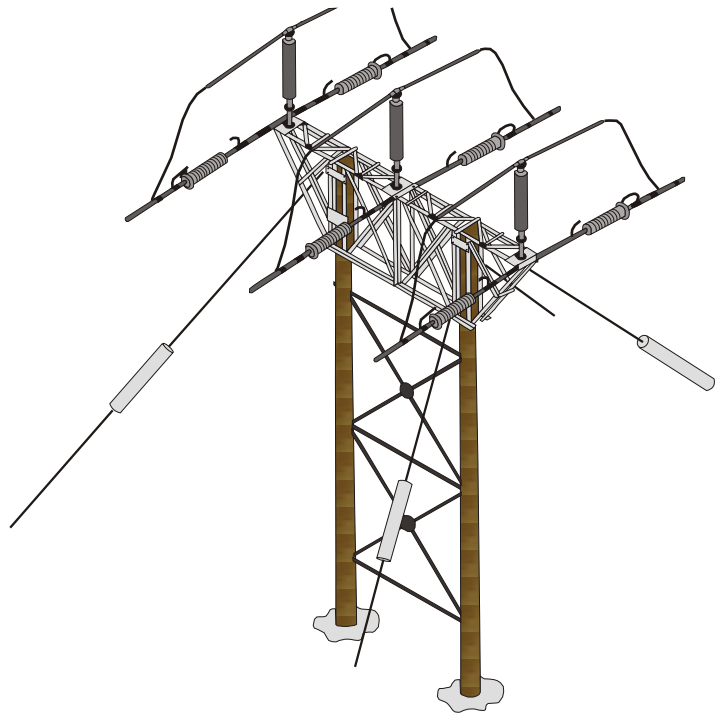


SP MANWEB

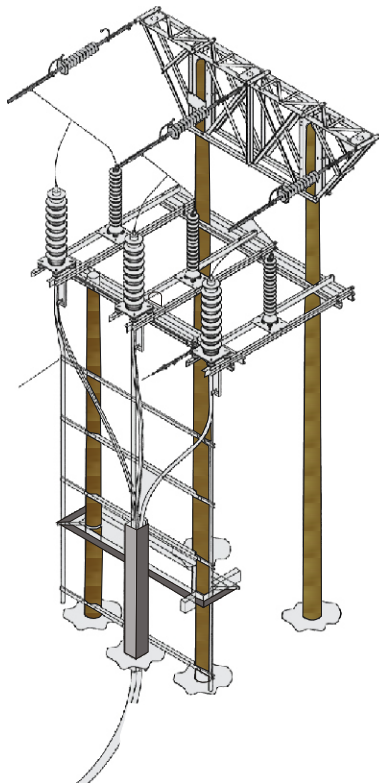
Single Pole



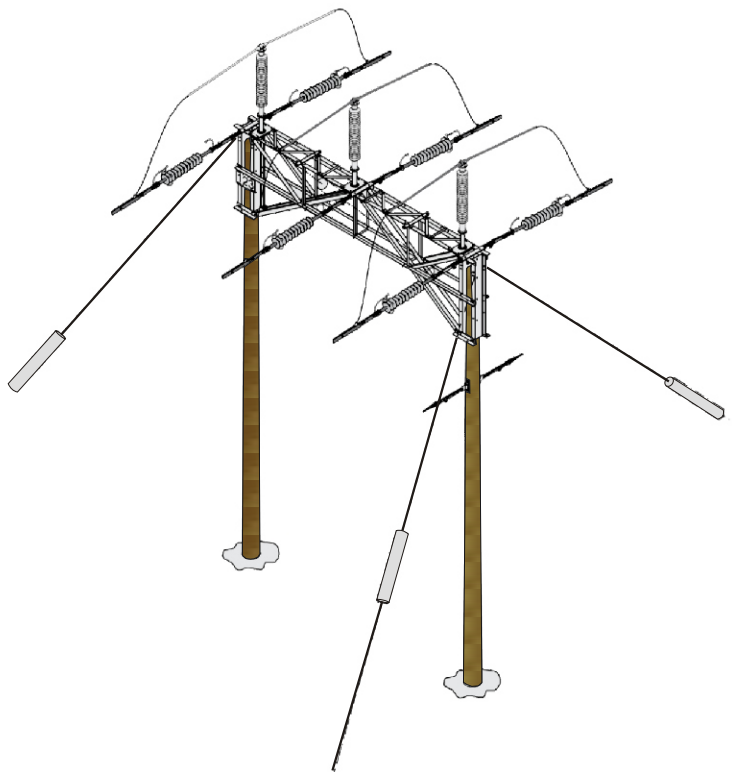
H Pole



Terminal Structure



Failure Containment Structure



0.88 Tra bydd y llinell uwchben yn gweithredu, ni fydd modd clywed y lfeleau sŵn-clywadwy o'r eiddo agosat, ac nid ydynt yn arwyddocaol.

bydd unrhyw weithgaredd sy'n creu cryn dipyn o sŵn yn ddarostyngedig i'r gofynion ymarfer gorau o safbwynt Gofynion Iechyd a Diogelwch a Gofynion Iechyd yr Amgylchedd.

Yr effaith ar gynigion datblygu a pholisi cynllunio

0.89 Ni fyddai'r llwybr arfaethedig yn mynd drwy unrhyw ardaloedd sydd wedi cael eu dyrannu ar gyfer datblygu. Nid oedd unrhyw geisiadau am ganiatâd cynllunio a fyddai'n effeithio ar y llinell arfaethedig yn disgwyl am benderfyniad cyn i'r cais gael ei gyflwyno (cynhaliwyd chwillad ym mis Ionawr 2009).

Rheoli effeithiau amgylcheddol

0.90 Mae SP Manweb wedi ymrwymo i roi'r mesurau lliniaru sy'n gynwysedig yn y Datganiad Amgylcheddol ar waith. Caiff cynllun rheolaeth amgylcheddol ei gynhyrchu i reoli a chyfeirio'r arferion gwaith i'r prosiect gael ei adeiladu. Byddir yn cynnal asesiadau risg ac archwiliadau amgylcheddol. Bydd cynrychiolydd o SP Manweb ar y safle yn ystod y gwaith adeiladu..

Crynodeb

0.91 Bydd ychwanegu cylched trydanol rhwng Legacy a Chroesoswallt yn darparu atgyfnerthiad hanfodol i'r system ddosbarth foltedd uchel yn ardal Swydd Gaer, Glannau Mers, Gogledd a Chanolbarth Cymru. Mae SP Manweb yn bwriadu adeiladu llinell uwchben 132kV newydd a gâi ei chynnal ar bolion pren.

0.92 Mae llwybr wedi cael ei nodi ar gyfer y llinell uwchben newydd ar ôl archwilio nifer o lwybrau amgen yn fanwl ac yn dilyn ymgynghori helaeth â'r cyhoedd a'r awdurdodau statudol.

0.93 Mae SP Manweb yn Weithredwr Rhwydwaith Dosbarthu trwyddedig ac mae rhwymedigaeth arno i ddarparu atgyfnerthiad sy'n ddichonadwy yn dechnegol ac yn hyfryw yn economaidd, gan roi ystyriaeth briodol i'r amgylchedd a mwynderau. Mae'r llwybr a'r atebion technegol a fabwysiadwyd ar gyfer yr atgyfnerthiad hwn o'r rhwydwaith 132kV wedi arwain at gynniig na fyddai ond yn creu effeithiau arwyddocaol cyfyngedig mewn ardaloedd lleol. Mae'r nifer gyfyngedig o effeithiau arwyddocaol (na ellir eu hosgoi mewn datblygiad o'r math hwn) yn dangos bod SP Manweb wedi cydymffurfio â'r rhwymedigaethau hyn.

Yr effaith ar reolaeth tir

effeithiau gweddilliol posibl yn deillio o'r cynllun fel nad ydynt yn ddim ond effeithiau andwyl bach.

- 0.81 Tarftr rhywfaint ar weithgareddau ffermio ar hyd llwybr y llinell uwchben arfaethedig yn ystod y cyfnod adeiladu. Mae polion cynnal mewn caeau yn debygol o achosi rhywfaint o anhwyliustod i weithgareddau ffermio ond ychydig iawn o dartu a gâi ei achosi gan gynnal a chadw'r llinell uwchben. Ystyfir mai bychan fyddai effaith y llinell uwchben drwyddi draw ar fuddiannau amgylcheddol ar hyd coridor y llwybr ac na fyddai'n arwyddocaol.

Yr effaith ar adloniant a thwristiaeth

- 0.82 Mae cynllunio'r llwybr yn ofalus i osgoi cyfleusterau adloniant a thwristiaeth penodol wedi atal effeithiau uniongyrchol ar y mwyafrif o adnoddau cydnabyddedig. Mae'n bosibl yr effeithir ar adloniant a thwristiaeth lle mae'r llinell uwchben arfaethedig yn croesi llwybrau adloniadol, yn cynnwys Camlas Shropshire Union, Llwybr Maelor a Llwybr Clawdd Wat. Yn gyffredinol, caiff yr effeithiau hyn eu hystyried yn rhai bach ac nid ydynt felly yn arwyddocaol.

Yr effaith ar adnoddau mwynol a safleoedd tirlenwi

- 0.83 Byddai'r llinell uwchben arfaethedig yn croesi ardaloedd lle mae'r adnoddau mwynol yn cael eu gwarchod a lle mae gofyn ymgynghori cyn datblygu. Lefe'l fach iawn o effaith a gâi llinell uwchben ar yr adnoddau.
- 0.84 Ni châi'r llinell uwchben arfaethedig unrhyw effaith ar safleoedd tirlenwi.

Yr effaith ar seilwaith

- 0.85 Ni châi'r llinell uwchben arfaethedig unrhyw effaith arwyddocaol ar gysylltiadau ffordd, rheilffordd na chamlas na seilwaith cyffredinol ar hyd coridor y llwybr.

Effaith meysydd electro-magnetig ar iechyd dynol

- 0.86 Mae wedi cael ei awgrymu y gallai fod cysylltiad rhwng amryw o broblemau iechyd mewn pobl a chael cysylltiad â meysydd magnetig amled-dŵer. Mae SP Manweb o'r farn fod rhaid cymryd hyd yn oed bosibllwydd bach iawn o risg i iechyd o ddifrif a bydd yn parhau i weithredu ar gynngor cyfredol y llywodraeth a'r Asiantaeth Dïogelu Iechyd yn y mater hwn. Mae cynllun a gweithrediad y llinell uwchben yn gyson â'r cynngor hwn ac ni ragwellir unrhyw effeithiau andwyl.

Yr effaith o ran sŵn

- 0.87 Mae'r lefelau sŵn a gynhyrchir yn ystod gwaith adeiladu'r llinell ar bolion pren yn debygol o fod yn isel, a

0.75 Bydd y mesurau lliniaru arfaethedig yn sicrhau na chaiff y gwaith o adeiladu a gweithredu'r llinell uwchben arfaethedig unrhyw effaith arwyddocaol ar unrhyw gynffnïoedd na ffawna sensitif eraill.

Manweb yn gwneud cyfraniad i ymddiriedolaeth byd natur priodol i wneud iawn am y golled cwmpo, byddai'r effaith tymor hir yn parhau'n arwyddocaol, ond ar raddfa leol. Byddai SP lleihau i un anarwyddocaol. Os canfyddir nad oes posibil plannu coed yn lle'r rhai sy'n cael eu canoli i hir, bydd coed a bliannir yn lle'r rhai a gaiff eu cwmpo yn aeddfedu a chaiff yr effaith ei neu ostwng uchder rhai o'r rhain fyddai'n ofynnol, yn hytrach na'u cwmpo. Yn y tymor uwchben yn effeithio ar 1.9 o goed ac ardal o 1.34 hectar o grwpiau coed coetir, er mai tocio

0.76 Mae'r asesiad archeoleg yn ystyried effeithiau tebygol adeiladu a gweithredu'r llwybr arfaethedig ar asedau'r drefnadaeth ddiwylliannol, yn cynnwys safleoedd archeolegol, adeiladau hanesyddol, parcdiroedd hanesyddol cofrestredig a thirweddau hanesyddol. Gwnaed asesiadau archeolegol yn y swyddfa, buwyd yn ymgynghori a chynhaliwyd arolwg maes er mwyn nodi'r asedau trefnadaeth ddiwylliannol hynny y gallai'r datblygiad arfaethedig effeithio arnynt. Ystyriwyd hefyd y potensial fod y tir o dan y llinell uwchben arfaethedig yn cynnwys oilion archeolegol wedi'u claddu, nad ydynt eto wedi cael eu canfod.

0.77 Mae cyfanswm o 79 o nodweddion trefnadaeth archeolegol a diwylliannol wedi cael eu nodi o fewn coridor 1km o amgylch y llwybr arfaethedig. Yn y coridor 100m y gallai effeithiau uniongyrchol ddigwydd ynddo o bosibl, mae dwy Heneb Gofrestredig, un adeilad rhestredig, a phedwar safle nad ydynt wedi cael eu dynodi. Mae'r coridor 100m hefyd yn cynnwys 126 o wrychoedd o bwys hanesyddol. Mae Clawdd Wat yn nodwedd archeolegol ac mae rhai rhannau ohono wedi cael eu dynodi'n Heneb Gofrestredig. Mae'r llwybr arfaethedig yn croesi Clawdd Wat ddwywaith. Mae un o'r croesiadau dros ddarn cofrestredig.

0.78 Osgowyd effeithiau uniongyrchol ar y darn cofrestredig o Glawdd Wat drwy leoli'r unedau cynnal mor bell â phosibl oddi wrth yr heneb, gan arwain at effaith uniongyrchol weddilliol o arwyddocâd bach. Mae safle'r darn anghofrestredig o'r clawdd mewn perthynas â'r topograffï yn golygu ei bod yn annhebygol y gellir osgoi lleoli polyn cynnal yn agos at yr heneb. Bydd mesurau lliniaru'n cael eu rhoi ar waith, yn cynnwys rhaglen o gloddio archeolegol o dan reolaeth mewn unrhyw ardaloedd y bydd seiliau'r unedau cynnal yn effeithio arnynt. Fodd bynnag, mae'n debygol y bydd hon yn parhau i fod yn effaith andwyol ac arwyddocaol o bwys ar Glawdd Wat.

0.79 Nododd yr asesiad bum safle trefnadaeth ddiwylliannol y byddid yn effeithio'n arwyddocaol ar ansawdd eu gosodiad o ganlyniad i'r llinell uwchben arfaethedig. Y rheini yw'r ddwy heneb gofrestredig (Clawdd Wat i'r de o bont Black Brook a gwyddfa Hatod-y-Bwch), adeilad rhestredig Gradd II (Bryn House), a dau safle nad ydynt wedi cael eu dynodi (Camlas Shropshire Union (cangen Llangollen) a'r rhan anghofrestredig o Glawdd Wat a ddisgrifiwyd yn gynharach).

0.80 Mae rhaglen lliniaru gynhwysfawr yn cael ei chynnig i leihau'r effaith ar yr adnodd archeolegol, hysbys ac anhysbys. Bydd rhoi rhaglen o'r fath ar waith yn lleihau'n gyffredinol unrhyw

0.65 Byddai'r effaith ar gymeriad y tirwedd yn digwydd mewn ardaloedd lleol iawn yn hytrach na thros ardaloedd ehangach. Bydd yr effaith ar y rhan fwyaf o'r llwybr yn fach, heb unrhyw effaith ag arwyddocaâ mwy na chanolig

Yr effaith ar ecoleg a chadwraeth natur

0.66 Mae asesiad wedi cael ei wneud o'r effaith bosibl ar fuddiannau ecolegol (cynffynedd, derbynyddion ffiora a ffawna) yn sgîl adeiladu a gweithredu'r llinell uwchben arfaethedig. Cafwyd gwybodaeth o nifer o setydlu pa gynffynedd a rhywogaethau (gan ganoibwynio ar ffawna a warchodir) sy'n bresennol ar hyd coridor y llwybr arfaethedig. Darparwyd gwybodaeth hanesyddol ychwanegol am fuddiannau ecolegol gan nifer o gyrrff cadwraeth natur.

0.67 Byddai'r llinell uwchben arfaethedig yn mynd yn bennaf drwy laswelltir sydd wedi cael ei wella'n amaethyddol, sy'n cael ei isranu gan wrychoedd. Mae cynffynedd eraill i'w helaelth ar hyd y llwybr arfaethedig yn cynnwys coetiroedd llydandail, glaswelltîr corsïog, prysg a thîr â. Ceir hefyd nifer o llynedd mewn caeau.

0.68 Mae Safleoedd Madfallod Ardal Cadwraeth Arbennig Johnston ac atonydd Dyfrdwy a Cheiriog (rhan o Ardal Cadwraeth Arbennig a Llyn Tegid) yn safleoedd bywyd gwyllt o bwys rhyngwladol o fewn ardal yr arolwg. Mae dau safle o bwys cenedlaethol, SDDGA Nant-y-Belan a Choed Frynella a SDDGA Fernhill Pastures, wedi'u lleoli yn ymyl coridor y llwybr. Byddai'r llinell uwchben arfaethedig yn croesi Safle Bywyd Gwyllt Moor Wood a Bramble Wood (ardal o Goetir Hydnafol Lled-naturiol), i'w dau o werth sirol o ran cadwraeth natur.

0.69 Byddai'r llinell uwchben arfaethedig yn croesi ardal o gynffyn ffen tîr isel, sy'n cael ei hystyried o bwys sirol-cenedlaethol oherwydd prinder. Pennwyd bod cynffynedd eraill yn ardal yr arolwg o bwys lleol.

0.70 Ymysg y ffawna a aseswyd yn unigol yng nghyd-deslun y datblygiad hwn mae:

- dyfrgwn (gwerth sirol);
- madfallod dŵr cribog, adar tîr ffermio, y dyluan wen, y llygoden ddŵr (gwerth dosbarth); a
- moch daear, ystlumod, ysgyfarnogod a'r pathew (o werth yn y cyffiniau agos).

0.71 Nid yw'r rhywogaethau pysgod yn aton Dyfrdwy wedi cael eu hasesu'n unigol ond cânt eu hystyried yn rhan o'r Ardal Cadwraeth Arbennig yn ei chyfanrwydd, sydd o werth rhyngwladol.

0.72 Fael rhan o ddatblygiad graddol llwybr y llinell uwchben arfaethedig, mae amryw o gyffynigiadau ecolegol cydnabyddedig wedi cael eu hystyried. Osgowyd safleoedd dynodedig ac ardaloedd o gynffynedd mwy sensitif lle'r oedd hynny'n bosibl.

0.73 Nodwyd effeithiau a allai fod yn arwyddocaol ar 17 o dderbynyddion ecolegol. Mae'r rhain yn cynnwys safleoedd dynodedig, cynffynedd pwysig a ffawna. Caffi mesurau lliniaru eu sefydlu i leihau'r effeithiau hyn i lefelau anarwyddocaol. Bydd dulliau gweithredu 'ymarter gorau' yn cael eu mabwysiadu yn y gwaith adeiladu a bydd mesurau lliniaru yn cael eu defnyddio hefyd mewn rhai achosion lle nad oes effeithiau arwyddocaol.

0.74 Bydd y llinell uwchben yn cael effaith arwyddocaol yn y tymor byr i ganolig ar goetiroedd collddail cymysg ar dir isel (a choed unigol) sy'n gynffyn o bwysigrwydd lleol. Amcangyfrifir y byddai'r llinell

0.56	Mae'r golygfannau a ddewiswyd yn ddecholiad o'r golygfannau mwyaf sensitif gerllaw'r llinell uwchben arfaethedig, felly mae'r effeithiau gwledol a brofir o fannau eraill yn debygol o fod yn llai. Ni fyddai llawer o'r llinell uwchben arfaethedig ond i'w gweld pan fydd y sawl sy'n edrych yn gymharol agos ati, gan y byddai'r coed a'r gwrychoedd yn cuddio'r golygfeydd.
0.57	Drwyddi draw, mae'r effeithiau gwledol arwyddocaol yn gyfyngedig o ran eu nifer a'u dosbarthiad daearyddol.

Yr effaith ar y tirwedd

Cymeriad y tirwedd

0.58	Yn rhannol, yr ardal yr ai llwybr y llinell uwchben arfaethedig drwyddi yw gororau Cymru rhwng Bryniau Clwyd ac afon Dyfrdwy ac, yn rhannol, wastadedd eang Swydd Arwythig. Tirwedd gwledig yw hwn gyda chaeau a gwrychoedd yn derfynu o'u hamgylch a llawer o goed yn tyfu o'r gwrychoedd, coed derw gan mwyaf, sy'n gwneud i'r ardal ymddangos yn bur goediog.
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0.59	Ni fyddai'r llinell uwchben arfaethedig yn effeithio ar unrhyw ardaloedd o werth cadwraethol a ddynodwyd yn genedlaethol. Byddai tua 5 cilometr o'r llinell uwchben o fewn ardal sy'n agos ar ddyffryn Dyfrdwy sydd wedi'i dynodi am ei gwerth cadwraethol lleol.
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0.60	Byddai'r llinell uwchben o fewn 1km i Barcdiroedd Hanesyddol Cofrestredig Erddig, Wynnstay, Pen-y-lan a Brynkinalt.
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Yr effaith ar gymeriad y tirwedd

0.61	Byddai'r llinell uwchben arfaethedig yn cael effaith fach neu ganollig ei harwyddocâd ar yr ardaloedd tirwedd a ddynodwyd yn lleol yn ei chyffiniau agos. Dewiswyd yr amlinad er mwyn osgoi effeithio ar lannau serth, coediog, hynod sensitif afon Dyfrdwy ac effaith fach o ran arwyddocâd a gâi ar gymeriad yr ardal hon.
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0.62	Nid yw'r llwybr yn effeithio'n uniongyrchol ar unrhyw barciau hanesyddol cofrestredig na gerddi, na'u gosodiad hanfodol, ac ni fyddai'n cael unrhyw effaith ar gymeriad tirwedd yr ardaloedd hyn.
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0.63	Arwyddocâd bach gan mwyaf a fyddai i'r effaith y mae'r llinell uwchben arfaethedig yn debygol o'i chael ar gymeriad y tirwedd yn y cyffiniau agosaf ati.
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0.64	Aseswyd bod yr effaith ar gymeriad y tirwedd o arwyddocâd canollig ar raddfa leol am un rhan o dair yn fras o hyd y llinell uwchben arfaethedig. Yn gyffredinol, adrannau yw'r rhain lle bernir bod i'r tirwedd sensitiftrwydd canollig neu uwch i'r math o ddatblygiad a awgrymir. Nodwyd y rhannau hyn fel:
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- cyffiniau Park Elyton;
- y llethr uchaf ar ochr ddwyreiniol dyffryn Ceirrog;
- rhwng St Martin's a Phentre Morgan, yng nghyffiniau Ellesmere Road;
- o amgylch Camlas Shropshire Union;
- Yn nyffryn afon Perry; a'r
- Tirwedd cymharol agored rhwng afon Perry a'r A5.

I ba raddau y mae'r llinell uwchben yn weladwy

0.50 Dewiswyd y llinell arfaethedig er mwyn lleihau'r effaith ar gymuned y tirwedd a'r goligfeydd. Mae'n anochel y bydd llinell uwchben yn weladwy yn y tirwedd. Fodd bynnag, bydd natur y polion pren a ddewiswyd i gynnal y llinell yn hytrach na thyrâu dur (peillionau) yn cyfyngu'n sylweddol ar faint yr effaith hon.

0.51 Byddai'r rhan fwyaf o'r llinell uwchben arfaethedig yn debygol o fod yn weladwy dros bellteroedd cymharol fyr gan fod coed, gwrychoedd a choetiwoedd yn cuddio'r goligfeydd.

0.52 Mewn rhai ardaloedd, mae llai o sgrinio nag a geir fel arfer yn y tirwedd hwn. Yr ardaloedd hynny yw: rhwng Pentre Bychan (B5605) a'r A483(T), lle mae cyfleoedd i weld goligfeydd ar i lawr o dir sy'n codi tua'r gorllewin, ac o hen domenni rwbwl y pyliau glo yn Hafod a'r Bers; yn ardal Parc Elyton, o amgylch croestfan yr A539, lle mae'r tirwedd yn llai bryniog a mwy agored; lle mae'r llinell yn croesi llethr dwyreiniol, uchaf dyffryn Ceirion yng nghyffiniau Bramble Wood i Ben-y-Bryn, mae'n debygol o fod yn weladwy o ddwyffryn Ceirion ei hun ac o'r tir sy'n codi tua'r gorllewin, yng nghyffiniau Halton, rhyw 2km i ffwrdd, i'r dwyrain o'r A5(T); yn ardal Pentre Morgan i'r gogledd-ddwyrain o bentref St Martin's, lle mae'r tirwedd yn fwy agored; yn y dyffryn bas lle safi camlas Shropshire Union, lle mae cyfleoedd i weld goligfeydd o dir uwch tua'r dwyrain a'r gorllewin, ac mae'r tirwedd llawr y dyffryn yn gymharol agored; o gwmpas Henlle, ger Hindford, mae'r tirwedd yn gymharol uchel, gwastad ac agored; ac yn yr ardal rhwng Park Hall a'r Ysbyty Orthopedig, lle mae'r tir yn wastad gyda llai o orchudd coed nag a geir yn gyffredinol, ac mae'r tir sy'n codi tua'r gorllewin (i'r gorllewin o'r A5(T)), yn cynnwys caer Hen Groesoswallt.

Yr effaith ar y goligfeydd

0.53 Mae'r newidiadau i'r goligfeydd wedi cael eu hasesu o 36 o olygfannau y cytunwyd arnynt gyda'r awdurdodau cynllunio lleol fel y goligfannau sy'n debygol o fod yn fwyaf sensitif ar hyd y llwybr arfaethedig. Byddai effeithiau gwleddol y cynnig yn arwyddocaol mewn unrhan o dair o'r goligfannau a aseswyd, ond ni fyddai effeithiau gwleddol andwylol difrifol.

0.54 Dim ond pedwar o'r 13 o olygfannau lle mae'r effeithiau gwleddol yn arwyddocaol sydd ymhellach na 250m o'r llwybr arfaethedig. Fel y byddid yn disgwyl, mae'r asesiad yn dangos y byddai'r effeithiau mwyaf yn digwydd mewn goligfeydd sy'n agos at y llinell uwchben arfaethedig, yn hytrach nag o'r goligfannau sydd ymhellach oddi wrthi.

0.55 Rhagwelwyd effeithiau gwleddol canolig yn y goligfeydd o'r manau canlynol:

- ymyl ddwyreiniol yr anheddiad ym Mhenre Bychan;
- y llwybr cyhoeddus (Llwybr Treftadaeth Clawdd Wat) ar hyd Clawdd Wat, ger Gyfeilia, lle mae'r llwybr yn croesi'r clawdd;
- ymyl parcdir hanesyddol cofrestredig Parc Wynnastay;
- yn nffryn afon Ceirion, Ardal Tirwedd Arbenig a ddynodwyd yn lleol, yng nghyffiniau Tenement;
- llwybrau cyhoeddus gyda goligfeydd panoramig dros dirweddau mwy agored i'r gogledd o bentref St Martin's, i'r gorllewin o Wigginton ac i'r de o Rosygadfa;
- yn nffryn bas, cymharol agored, Camlas Shropshire Union; a'r
- B5009 ger adeilad rhestredig Great Fernhill.

0.41 Mae'r atebion pennu llwybr neu'r atebion technegol wedi osgoi neu leihau effeithiau'r llinell uwchben i'r fath raddau fel mai prin yw'r effeithiau arwyddocaol sy'n weddill. Disgrifir y rhain isod.

Effeithiau gwledol

Y cyd-destun gwledol cyffredinol

0.42 Tirifferm bryniog yw'r rhan fwyaf o'r ardal gyda chryn lawer o orchudd coed. Tirwedd gwledig ydyw a phrin yw'r pentrefi, er bod rhaid ffermydd a phentrefannau bach wedi'u gwasgaru yma ac acw, wedi'u cysylltu gan lonydd cul, troelllog, un trac yn aml. Gwrychoedd tal (dros 2m o uchder) sy'n ffurfio terrybau'r mwyafrif o'r rhan. Mae'r rhain yn bwysig, yn effeithio ar y golygfeydd ac ar weleddedd o'r rhwydwaith ffyrdd, gan nad oes posibl gwerthfawrogi'r olygfa ehangach yn aml ond drwy glwydi caeau. Mewn mannau eraill, mae'r gorchudd coed yn bwysig o ran lleihau'r ardal y gellir gweld y llinell uwchben ohoni. Mae 'effaith haenog' y coed niferus ar derfynau caeau yn neilltuoel o bwysig.

0.43 Mae yna, fodd bynnag, nodweddion ychwanegol yn y tirwedd sy'n effeithio ar weleddedd a'r cyfleoedd i weld golygfeydd.

0.44 Mae'r tir yn codi'r tua'r gorllewin o'r ardal dan sylw, tua godreion Bryniau Clwyd. Er bod y rhain yn rhy bell i weld y llinell uwchben, maent yn ffurfio nodwedd amlwg a gorwel neu gefnlen uwch mewn llawer o'r golygfeydd tua'r gorllewin.

0.45 Mae dyffryn aton Dyfrdwy, gyda'i hafnau serth a'i lednentydd, hefyd yn dylanwadu ar weleddedd. Mae'r golygfeydd o fewn y dyffrynnoedd yn amgaaeedig gan mwyaf, ac nid yw'r dyffrynnoedd eu hunain yn y golwg efallai o'r cyffiniau ehangach.

0.46 Yng ngogledd yr ardal dan sylw, mae tiffurfuriau uwch, artiffisial, hen domenni rwbél y Bers a Hafod yn nodweddion mewn llawer o olygfeydd ac maent hefyd yn fannau da i gael golygfeydd panoramig ohonynt. Tua'r de, mae rhagfuriau arglawnedd bryngaer Hen Groesoswallt yn cynnig man tebyg, hygyrch i'r cyhoedd, y gellir mwynhau golygfeydd ohono.

0.47 Mae simnai a phlufyn mwg cysylltiol ffatri Kronospan yn y Wauun yn nodwedd amlwg mewn llawer o olygfeydd. Mae cefnffordd yr A483/A5 yn mynd drwy'r ardal. Er nad yw wyneb y ffordd yn y golwg yn aml, mae'r polion goleuadau ffordd a'r cylchfannau, cerbydau'n symud a'r strîbedi coetir wrth ymyl y ffyrdd yn amlwg mewn golygfeydd. Bydd y rhan fwyaf o'r bobl a tydd yn gweld y llinell uwchben yn defnyddio'r A483/A5(T).

0.48 Mae Camlas Shropshire Union yn nodwedd llinol mewn golygfeydd o'r tir uwch o'i amgylch.

0.49 Caiff y tirwedd ei groesi gan lonydd troelllog cul a rhwydwaith o lwybrau troed. Er mai cymharol ychydig o bobl sy'n defnyddio'r lonydd a'r llwybrau troed o'u cymharu â'r gefnffordd brysur, mae eu sylw yn fwy tebygol o fod yn canolbwyntio ar werthfawrogi'r tirwedd a'r golygfeydd.

Y llwybr

0.30	Mae'r llwybr arfaethedig yn dilyn llinell sy'n rhedeg o'r gogledd i'r de yn gyffredinol drwy Fwrdeistref Wrecsam a bwrdeistref Croesoswallt, yn Swydd Amwythig. Mae'n mynd drwy ran fach o ddosbarth Gogledd Swydd Amwythig, yng nghyffiniau pentref St Martin's.	0.31	Mae'r llwybr yn rhedeg o is-orsaf Legacy gan ddefnyddio cebau dan ddaear am 1.6km yn fras. I'r dwyrain o Ffordd Wrecsam, mae'n trosglwyddo i llinell uwchben ar bolion pren ac yn parhau tua'r de-ddwyrain ar draws tir fferm agored, o amgylch ffin ogleddol Ardal Cadwraeth Arbennig Safleoedd Madfallod Johnstown. Byddai un polyn cynnal yn cael ei leoli o fewn ffin Ardal Cadwraeth Arbennig Safleoedd Madfallod Johnstown.	0.32	Mae'r llwybr yn mynd yn ei flaen tua'r de-ddwyrain drwy dir amaethyddol, gan groesi Clawdd Wat (Henneb Gofrestredig) ger Gyfeilia.	0.33	Mae'r llwybr yn mynd i'r dwyrain o Barc Wynnstay (Parcdir Cofrestredig Gradd I), ac yna'n troi tua'r de drwy dir amaethyddol gan ddilyn coetir ceunant i mewn i ddyffryn Dyfrdwy. Byddai'r llinell uwchben yn croesi afon Dyfrdwy dan ddefnyddio toriad presennol yng nghoetir y dyffryn ar y lan ogleddol.	0.34	I'r de o afon Dyfrdwy, mae'r llwybr yn dilyn cyfuchlinnedau naturiol dyffryn afon Ceiriog i Tenement, lle mae'n pontio'r afon ac yn croes darn anghofrestredig o Glawdd Wat ar ben ochr ddwyreiniol y dyffryn.	0.35	I'r dwyrain o'r dyffryn, mae'r llwybr yn parhau tua'r de-ddwyrain o amgylch ymyl ddwyreiniol pentref St Martin's, yna mae'n dilyn llinell dde-orllewinol drwy ardal Upper Wiggington. Mae'n croesi tir uchel yng nghyffiniau Camlas Shropshire Union i'r gogledd o New Marton Locks.	0.36	O'r fan hon, mae'r llwybr yn rhedeg tua'r de-orllewin yn gyffredinol, i'r gorllewin o bentrefi bach Henlle a Hindford. Mae'r llwybr yn ffinio â Safle o Ddiddordeb Gwyddonol Arbennig Fernhill Pastures. Mae'n mynd heibio i'r gorllewin o adeilad rhestredig Great Fernhill, yna mae'n teithio tua'r gorllewin tuag at yr A5 rhwng Ysbyty Orthopedig Croesoswallt a Park Hall Farm Countryside Experience.	0.37	Byddai'r llinell uwchben yn gorffen wrth ymyl yr A5, a châi'r cysylltiad 1.4km terfynol ag is-orsaf Croesoswallt ei ddarparu drwy gebi dan ddaear ochr yn ochr â'r A5.	0.38	Ymgymeryd â'r broses o Asesu'r Effeithiau Amgylcheddol er mwyn canfod effeithiau arwyddocaol tebygol y llinell uwchben arfaethedig. Disgrifir yr effeithiau hyn yn yr adrannau dilynol. Gallant fod yn effeithiau sy'n deillio o'r gwaith o adeiladu'r llinell uwchben neu o'i gweithredu yn ystod ei hoes ar ei hyd.	0.39	Drwy gydol y broses o Asesu'r Effeithiau Amgylcheddol, mae SP Manweb wedi ceisio cyfyngu ar effeithiau'r llinell uwchben arfaethedig. Lle nodwyd effeithiau amgylcheddol arwyddocaol, efallai i'r cynig gael ei newid i'w hosgoi, neu fod mesurau wedi cael eu datblygu i leihau neu wneud iawn am yr effeithiau hynny. Gelwir y camau hyn yn lliniaru.	0.40	Ymgymeryd â llawer o'r gwaith o bennu'r llwybr er mwyn osgoi problemau amgylcheddol posibl.
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Effeithiau amgylcheddol

- Ardaloedd cadwraeth arbennig safleoedd bywyd gwyllt o bwys rhwyngwladol, sef Safleoedd Madfallod Johnstonw ac afon Dyfrdwy; a'r
- Tŷr bryniog gyda gorchudd helaeth o goed aeddfed a phatrwm anheddu gwasgaredig.

0.21 Catfod llwybr y llinell uwchben ei ddatblygu drwy nifer o opsiynau nes cyrraedd y 'Llwybr a Gai ei Ffatrio', a oedd yn cynrychioli dealltwriaeth SP Manweb o'r ffordd fwyaf priodol i ddarparu'r atgyfnerthiad. Ystyriwyd opsiynau gan gadw mewn cof y ddwy rwyngwladol i redeg rhydwailth effeithlon a chost effeithiol ac i ystyried yr amgylchedd a mwynnderau.

0.22 Cynhaliwyd ymgynghoriad cyhoeddus ynglŷn â'r Llwybr a Gai ei Ffatrio ym mis Chwefror 2007. Cynhyrchwyd deunydd arddangos a Dogfen Ymgynghori. Anfonwyd y Ddogfen Ymgynghori at amrywiaeth eang o ymgynghoreion i geisio'u barn ar y cynnig.

0.23 Yn dilyn pryderon a godwyd yn ystod yr ymgynghoriad cyhoeddus ynglŷn â'r cynllun, nodwyd cynnig amgen i ran ddeheuol y llwybr. Ar ôl ail glych ymgynghori, ystyriwyd sylwadau'r rhai a ymatebodd i'r cynnig a chadarnhawyd y cynnig amgen fel y 'Llwybr Arfaethedig'.

0.24 Gofynnodd SP Manweb i'r adran berthnasol o'r llywodraeth am ei barn ynglŷn â'r materion a ddylai gael eu hystyried yn yr Aseiad o'r Effaith Amgylcheddol (y Farn Gwmpas). Ymgynghorwyd â'r awdurdodau cynllunio lleol a rhoddasant eu barn. Ymgwymerwyd â'r Aseiad o'r Effaith Amgylcheddol ar y sail hon..

Y llinell uwchben arfaethedig

0.25 Fel arfer, mae cysylltiadau 132kV ar ffurf llinellau uwchben sy'n cael eu cludo ar dryrau o ddelithwailth dur hyd at 26m o uchder. Cafodd math newydd o llinell uwchben, a gynhelir gan bolion pren hyd at 16m o uchder, ei awgrymu ar gyfer yr atgyfnerthiad hwn. Mae unedau cynnal byrrach yn golïgu bod y rhychwant rhwng y polion yn fyrrach. Gyda llinellau o'r math hwn sy'n cael eu cynnal gan bolion pren, y rhychwant ar gyfartaledd yw 80m, o'i gymharu â chyfartaledd o 280m gyda system tyrau dellithwailth dur 132kV. Tybiwyd y byddai'n haws cymathu'r polion pren i'r tirwedd rhwng Legacy a Chroesoswallt, lle mae gorchudd helaeth o goed aeddfed.

0.26 Mae pob uned gynnal bren yn cynnwys dau bolyn fel arfer gyda gwaith dur uwchben yn cynnal yr ynysyddion a 3 dargludwyd a'r wifren ddaearu. (Y dargludyddion yw'r gwifrau sy'n cario'r trydan). Gwelir Ffigur NTS2: Mathau Arfaethedig o Unedau Cynnal.

0.27 Datblygwyd y cynnig fel ei fod yn darparu llwybr rhwng yr is-orsofodd sy'n cwtogi'r hyd gofynnol i'r eithaf ac, ar yr un pryd, yn parchu'r cyfyngiadau amgylcheddol cyn belled â phosibl.

0.28 Mae cyfyngiadau lle ar y naill ben a'r llall o'r cysylltiad yn golïgu y câr'r atgyfnerthiad arfaethedig ei gysylltu â'r is-orsofodd yn Legacy a Chroesoswallt gan geblau dan ddaear.

0.29 Mae'r atgyfnerthiad arfaethedig yn cynnwys llinell uwchben 20.6km o hyd, gyda chyfanswm o 3km o geblau dan ddaear yn cysylltu â'r is-orsofodd. Dangosir y llwybr arfaethedig ar Ffigur NTS1: Y Llwybr Arfaethedig.

Dewis llwybr, ymgynghori â'r gymuned a chwmpasu

0.11	Mae angen y llinell uwchben yn yr ardal hon i atgyfnerthu'r rhwydwaith dosbarthu trydan rhwng yr is-orsafodd yn Legacy (Wrecsam) a Chroesoswallt.
0.12	Mae gan SP Manweb drwydded dan Ddeddf Trydan 1989. Un rhwymedigaeth o dan y drwydded hon yw diogelu'r amgylchedd a mwynnderau. Mae SP Manweb wedi bod yn ymyrbodol o'r ddyletswydd hon wrth gynllunio'r llinell a dewis y llwybr.
0.13	Ymgymrwyd ag astudiaethau helaeth i gantod y llwybr a'r cynllun technegol mwyafraddas ar gyfer y llinell uwchben. Gwnaed hyn fesul cam drwy'r broses o Asesu Effeithiau Amgylcheddol er mwyn deall y cydbwysedd rhwng ystyriaethau technegol ac ystyriaethau amgylcheddol yn llawn.
0.14	Ymgymrwyd â'r gwaith pennu llwybr i ddechrau ar sail rheolau sydd wedi hen ennill eu plwyf yn y diwydiant trydan. Cafodd y broses ei haddasu i adlewyrchu'r ddealltwriaeth gynyddol o'r cyfyngiadau lleol penodol a nodwyd drwy'r broses Asesu Effeithiau Amgylcheddol.

Dewisiadau amgen

0.15	Edrychwyd ar nifer o lwybrau gwahanol i'r llinell uwchben arfaethedig cyn cadarnhau'r llwybr sy'n cael ei ffafrio. Ystyriwyd gwahanol leoliadau (is-orsafodd) y gellid atgyfnerthu'r rhwydwaith ohonynt. Roedd y rhain yn cynnwys cysylltiadau o Amwythig, yr Eglwys Wen, Cei Connah, Crewe a Thrawsfynydd.
0.16	Yn ogystal â lleoliadau amgen i llinell uwchben i atgyfnerthu'r cyflenwad i ardaloedd i'r de o Legacy, ystyriwyd dulliau amgen hefyd o atgyfnerthu'r rhwydwaith yn yr ardal rhwng Legacy a Chroesoswallt. Roedd y rhain yn cynnwys uwchraddio'r llinellau dosbarthu 132kV presennol rhwng Legacy a Chroesoswallt a darparu'r atgyfnerthiad drwy ddefnyddio cebiau dan ddaear, yn hytrach na llinellau uwchben.
0.17	Atgyfnerthu'r rhwydwaith 132kV drwy llinell uwchben rhwng Legacy a Chroesoswallt yw'r ateb mwyafronomaid a mwyaf derbyniol yn amgylcheddol.
0.18	Archwiliwyd pedwar opsiwn cyffredinol o ran llwybr y llinell uwchben i ddechrau; - I'r dwyrain o'r A483(T)/A5; - I'r gorllewin o'r A483(T)/A5; - Dilyn coridor ffordd yr A483(T)/A5; ac - Yn gyfochrog â'r llinell uwchben 132kV presennol rhwng Legacy a Chroesoswallt.
0.19	Cynigiai'r opsiwn i'r dwyrain o'r A483(T)/A5 fwy o gyflleoedd i gymathu llinell uwchben yn y tirwedd ac roedd iddo lai o gyfyngiadau na'r opsiynau eraill. Canolbwytwyd ar yr ardal hon wrth wneud gwaith manwl pellach i ddewis llwybr.
0.20	Y prif faterion yr oedd angen rhoi sylw iddynt wrth bennu'r llwybr oedd: - Croesi dyffryn Dyfrdwy, sydd ag ochrau serth ac yn goedlog iawn; - Presenoldeb sawl parcdir hanesyddol yn yr ardal: Erddig, Wynnstay, Brynkinalt; - Camlas Shropshire Union (cangen Llangollen); - Clawdd Offa a Chlawdd Wat;

Rhagymadrod

0.1	Mae'r Crynodeb Annhechnegol hwn yn rhan o'r Crynodeb Amgylcheddol a baratowyd o dan Reoliadau Gwaith Trydan (Aseu Effeithiau Amgylcheddol) (Cymru a Lloegr) (Diwygio) 2007 ar ran ScottishPower Manweb (SP Manweb).
0.2	SP Manweb yw'r Gweithredwr Rhwydwaith Dosbarthu dros ardal sy'n cwmpasu Swydd Gaer, Gogledd a Chanolbarth Cymru a rhannau o Lannau Mersi. Mae'n ofynnol iddo o dan Ddeddf Trydan 1989 ac o dan delerau ei Drwydded Cyflenwi Trydan 'ddatblygu a chynnal system cyflenwi trydan effeithlon, cydgyssylltiedig a diwasttraff.
0.3	Cafodd y Datganiad Amgylcheddol ei baratoi yn gefn i gais o dan Adran 37 o Ddeddf Trydan 1989 am atgyfnerthu'r rhwydwaith dosbarthu 132kV rhwng is-orsat Legacy (Wrecsam) a Chroesoswallt. Gwneir y cais hwn o dan Adran 37 yn uniongyrchol i'r Gweinidog dros Ynni a Newid Hinsawd, yn hytrach na'r awdurdodau cynllunio lleol. Fodd bynnag, mae'r Gweinidog yn ymgynghori â'r awdurdodau cynllunio lleol wrth ystyried y cais.
0.4	Mae'r cais Adran 37 yn cynnwys cais ar i ganiatâd cynllunio tybiedig gael ei roi i'r llinell uwchben yn unol ag Adran 90(2) o Ddeddf Cynllunio Gwlad a Thref 1990.
0.5	Dangosir y llwybr arfaethedig ar Ffigur NTS 1: Y Llwybr Arfaethedig.
0.6	Mae'r Datganiad Amgylcheddol yn egluro'r cefndir o ran sut y dewiswyd y llwybr, y polisiâu cynllunio perthnasol a materion eraill. Mae'n rhoi manylion y cysylltiad arfaethedig ynghyd â chanlyniadau astudiaethau penodol yr ymgymeryd â nhw i aseu effeithiau amgylcheddol arwyddocaol tebygol y cynnig.
0.7	Mae angen yr atgyfnerthiad i sicrhau bod SP Manweb yn cydymffurfio â'i ddyletswyddau statudol i ddatblygu a chynnal system cyflenwi trydan effeithlon, cydgyssylltiedig a diwasttraff, ac i ddiogelu'r cyflenwad i 80,000 o gwsmeriaid yn yr ardal i'r de o Wrecsam.
0.8	Wrth bennu'r llwybr arfaethedig, mae SP Manweb wedi ceisio cyfuno sensitifrwyd o ran y llwybr a ddewiswyd gyda mesurau lliniartu priodol. Câi'r mesurau eu cymryd i osgoi neu leihau'r effeithiau amgylcheddol. Mae SP Manweb wedi ymgynghori'n aml â chyrff lleol, rhanbarthol a chenedlaethol perthnasol. Mae gwybodaeth am y prosiect wedi cael ei darparu i'r cyhoedd ar wahanol gamau o'r prosiect fel y gallai SP Manweb wrando ar bryderon y cyhoedd ynglŷn â'r cynnig ac ymateb iddynt.
0.9	Bydd y llinell uwchben arfaethedig o fewn ffiniau Cyngor Bwrdeistref Sirol Wrecsam, Cyngor Bwrdeistref Croesoswallt a Chyngor Dosbarth Gogledd Swydd Amwythig.
0.10	Mae SP Manweb wedi derbyn bod angen Aseiad o Effaith Amgylcheddol y llinell uwchben hon ac mae wedi paratoi Datganiad Amgylcheddol i adrodd canfyddiadau'r Aseiad. Mae'r broses Aseu Effeithiau Amgylcheddol yn ceisio nodi 'effeithiau arwyddocaol tebygol' y cynnig.

Rhagair

Mae Datganiad Amgylcheddol wedi cael ei baratoi, ar ran ScottishPower Manweb, yn gefn i gais am atgyfnerthu'r rhwydwaith dosbarthu 132kV rhwng Legacy (Wrecsam) a Chroesoswallt.

Mae'r Datganiad Amgylcheddol yn cynnwys y dogfennau canlynol:

- Crynodeb Annhechnegol
- Y Datganiad Amgylcheddol (Rhan 1)
- Y Datganiad Amgylcheddol: Ffigurau (Rhan 2)
- Atodiadau Technegol (Rhannau 3 a 4)
- Atodiadau Technegol Cyfrinachol: Rhwygogaethau a Marchodir (Rhan 5).

Gellir cael rhagor o gopiau o'r adroddiadau hyn oddi wrth:

SP Energy Networks
Environmental Planning
3 Panton Way
Penton
Glannau Mersi
CH43 3ET
Ffôn: 0151 609 2568

Gellir cael copïau o'r Datganiad Amgylcheddol oddi wrth SP Manweb (ffôn: 0151 609 2568) am dâl o £150 am gopi papur a £10 ar DVD. Mae copïau o'r Crynodeb Annhechnegol ar gael yn rhad ac am ddim.

Bydd copïau o'r dogfennau ar gael i'r cyhoedd eu gweld yn y manau canlynol:

Swyddfeydd Cyngor			
Wrecsam	Llyfrgell Wrecsam	Ffordd Rhosddu	Wrecsam
Stryd y Lampint	Llyfrgell Wrecsam	Ffordd Rhosddu	Wrecsam
Swyddfeydd Cynllunio Wrecsam	Llyfrgell Wrecsam	Ffordd Rhosddu	Wrecsam
Swyddfeydd Cynllunio Swydd Amwythig			
Y Gwasanaethau Datblygu	Princes Road	Rhos	Llyfrgell Gobowenn
Neuadd y Sir, Abbey Foregate			St Martin's Road
Amwythig			Gobowenn
Swyddfeydd Cynllunio Croesoswallt			
Castle View	Fullwood House	Victoria Street	Llyfrgell Rhwabon
Croesoswallt	Ellesmere		Y Stryd Fawr
Swyddfeydd Cynllunio Gogledd			
Edinburgh House, New Street	Llyfrgell y Waun	Chapel Lane	Llyfrgell Croesoswallt
Wem		Y Waun	Croesoswallt

Dylai unrhyw sylwadau ynglyn â'r cais gael eu hanfon drwy'r post at yr **Adran Ynni a Newid Hinsawdd**, Yr Uned Datblygu Ynni, Y Grŵp Ynni, Bae 2123, 1 Victoria Street, Llundain SW1H 0ET, gan enw'r cynnig a nodi'r rhesymau am gyflwyno sylwadau.

Dylai sylwadau gael eu dyddio a dylent ddatgan yn glir enw (mewn prif lythrennau) a chyfeiriad dychwelyd e-bost neu bost llawn y sawl sy'n gwneud y sylwadau. Bydd copi llawn o bob sylw a gyflwynir i'r llywodraeth yn cael ei anfon at yr awdurdod cynllunio, a byddant ar gael i'r cyhoedd os gwneir cais amdanynt, oni fydd unigolion yn gofyn yn wahanol.

Y CYNLLYN I ATGYFNERTHU Y RHWYDWAITH TRYDAN

132kV rhwng Legacy a Croesoswallt

Datganiad Amgylcheddol
Crynodeb Annhechnegol



Ebrill 2009