

Wrexham Power Limited ♦ Proposed Wrexham Energy Centre

Landscape and visual effects

1. INTRODUCTION

- 1.1. The proposed power station development and associated gas and electricity grid connections will include features that might be visible in the local landscape. Wrexham Power Limited's application to the Planning Inspectorate for a Development Consent Order will be supported by an environmental impact assessment (EIA) that will consider landscape and visual effects. These effects will be reduced where practicable through the sympathetic design and landscape treatment of the power station and the careful location of infrastructure in the route corridors.
- 1.2. This technical note is to support preliminary consultation on the power station proposals. It provides an overview of the landscape and visual aspects of the proposed power station site and the grid connection corridors, and explains how these will be considered in detail as the proposals are developed.

2. SITE SETTING

- 2.1. The potential site for the power station development is off Bryn Lane on the eastern edge of the Wrexham Industrial Estate. Wrexham Industrial Estate is located approximately 2km to the east of the urban edge of the town of Wrexham. The site is within an area of transition from an urban to a rural setting. Beyond the industrial estate to the north, east and south, the landscape is predominantly rural and influenced by the low lying floodplain and river terraces associated with the River Dee and its tributaries.
- 2.2. The potential route corridors for the connections to the electricity and gas networks leave the site and pass around the eastern and southern edges of the industrial estate, crossing the River Clywedog. The gas connection corridors are approximately 3 km long. The electricity grid connections continue west for approximately 11km through an agricultural landscape to the south of Wrexham and connecting to National Grid's Legacy substation to the west of Rhostyllen.
- 2.3. In developing the options for the grid route corridors and going forward with the design of any overhead electrical lines, Wrexham Power Limited will take account of paragraphs 2.8.5 to 2.8.6 of the National Policy Statement for Electricity Networks Infrastructure (EN-5) and what are known as the 'Holford Rules'. These rules, first developed in 1959 but still held to be valid, address landscape and visual impact issues as follows:

- Avoid altogether major areas of highest amenity value such as national Parks (there are no such areas affected by these proposals).
- Avoid smaller areas of high amenity and scientific interest - such as Conservation Areas, Registered Parks and Gardens, Listed Buildings and Sites of Special Scientific Interest – provided this can be done without using too many large structures.
- Choose the most direct line.
- Choose tree and hill backgrounds in preference to sky backgrounds.
- Prefer moderately open valleys with woods.
- Avoid over concentration where a ‘wirescape’ can be created by the convergence of lines, wires, poles and masts.
- Keep within industrial zones where these exist and consider undergrounding through residential and recreational land.

3. LANDSCAPE POLICY IN WREXHAM

3.1. The current development plan for Wrexham is the Wrexham Unitary Development Plan (UDP) which was adopted in February 2005. The following landscape policies and designations will be relevant to the current development proposals:

3.2. **Policy EC1: Green Barrier** - this policy aims to restrict inappropriate development in the areas designated as green barriers. Uses that are considered suitable are agriculture, forestry and essential facilities. The UDP sets out the reasons for including land as a green barrier, which are:

- i). to prevent the coalescence of urban areas and villages with other settlements;
- ii). to assist in safeguarding the countryside from encroachment;
- iii). to protect the setting of urban areas and villages;
- iv). to assist in urban regeneration by encouraging the recycling of derelict and other urban land.

3.3. The identified corridors for a potential electricity grid connection pass through an area designated as a Green Barrier to the south of Rhostyllen, west of the A483. Detailed development of the final route will take account of the purposes of including land within the barrier, as set out above, and will aim to minimise any potential conflict with these.

3.4. **Policy EC5: Special Landscape Area** – these are areas where the quality of the landscape has been assessed to be of high value. These areas are shown on the proposals map and protected from development which could harm that landscape character. Special Landscape Areas cover extensive parts of the countryside surrounding Wrexham, and includes the area immediately around Legacy sub-station.

3.5. Consideration of a detailed electricity connection route will thus take account of the special quality of these landscapes, avoiding them where possible, and sensitively routing the line where there is no option to avoid the area.

- 3.6. Local Planning Guidance Notes were adopted by Wrexham Council in 2004, based upon the Welsh landscape character assessment set out on the LANDMAP website, developed and managed by the Countryside Council for Wales. These provide detailed landscape guidance on different landscape character areas, including an assessment of each individual area's characteristics and recommendations for management of the area. The landscape areas within which the power station and associated grid connections would lie are:
- 7c Rhosllanerchrugog, Rhostyllen, Ruabon, Pen y Cae
 - 11 Wrexham Industrial Estate
 - 13a Welsh Maelor
 - 14 Dee Floodplain
- 3.7. In progressing with the evolution of the schemes design the guidance for each of these areas will be carefully considered to ensure that the proposals reflect the management guidance as far as practicable.
- 3.8. Reference will also be made to Natural England's landscape character guidance for the neighbouring Shropshire, Cheshire and Staffordshire Plain as this is of relevance to the landscape to the east of the River Dee.

4. ASSESSMENT METHODOLOGY

- 4.1. A preliminary landscape and visual impact assessment is currently being undertaken to understand the issues that would arise from the development and how these might be addressed. This will inform the design of the power station and grid connections, and provide a foundation for a full landscape and visual impact assessment.
- 4.2. In considering the potential landscape and visual effects, the following points will be considered:
- features and elements of the physical landscape;
 - the landscape character, including designated landscapes;
 - views and visual amenity experienced by residents, recreational users (including visitors and tourists) and road users.
- 4.3. The zone in which the power station and the grid connections may have a visual influence has been considered by a review of Ordnance Survey maps, aerial photographs and informed by initial field survey work. Within this zone, a preliminary study area has been defined to include the range of potential landscape and visual impacts that would be representative of the scheme. We will be consulting with Wrexham Council's landscape officer on the study area and taking account of opinions from initial consultation with the local

community. Currently, the preliminary study area extends 3km to the north of the main power station site, 5km to the east, 3km to the south and to the edge of the main town of Wrexham in the west. For the electricity and gas connections, the study area will broadly include a corridor approximately 2km wide along the full length of the route options.

- 4.4. Within the preliminary study area, a number of initial typical and critical locations have been identified as the basis of the preliminary assessment of the landscape and visual effects. These are selected as being representative of the type of viewpoints in the locality and the landscape character of the area and also representative of a range of visual receptors. The final location of viewpoints will also be agreed with Wrexham County Borough Council prior to completion of the detailed assessment. The visual receptors subject to potential effects of the development are likely to include the following.
- The scattered individual properties, farmsteads and public rights of way to the east of the site, beyond the River Dee and up to the low ridgeline between Holt and Shocklach.
 - The urban area and the eastern fringe of the town of Wrexham.
 - The landscape character in terms of the rolling countryside between the southern edge of Wrexham and the B5426, including rights of way and settlements/properties such as Marchwiell, Eytton and Sontley.
 - Assets and designations to the south of Wrexham including National Trust land/properties, the Erddig Country Park, Wat's Dyke and the Country Park at Rhosllanerchrugog.
- 4.5. A selection of views within the study area have been recorded during the winter so that we can start to understand the landscape and visual effects when hedgerows, trees and woodland provide less screening. Further, more extensive field surveys will continue to inform the ongoing assessment and design process.

5. POTENTIAL LANDSCAPE AND VISUAL EFFECTS

- 5.1. The potential effects on landscape and visual receptors that could occur during the construction of the power station and the grid connections include the following.
- Site clearance and removal of vegetation in accordance with the proposed layout and footprint of the scheme.
 - Presence of construction plant, including high level features such as cranes for both the main site as well as the pylons for the electricity connections.

- Vegetation clearance, soil stripping and excavation along the linear corridors for the electricity and gas connections.

5.2. Such construction stage effects are temporary and are usually short term as vegetation becomes re-established. Once constructed, the main landscape and visual aspects of the development are likely to include:

- the permanent presence of large building elements would include turbine buildings, heat recovery steam generator buildings, cooling system and vent stacks;
- the permanent presence of other smaller ancillary buildings and infrastructure, for example the station control room, offices, stores and water treatment plant;
- limited residual effects arising from the ground reinstatement of the construction corridors for the gas connections;
- the permanent presence of overhead power lines;
- new landscape and planting to contain views of the power station and to replace vegetation that has been lost during construction.

6. ADDRESSING LANDSCAPE AND VISUAL EFFECTS

6.1. More detailed technical and environmental studies are to be carried out and stakeholder and community views will be important considerations in developing the detailed landscape proposals. These proposals will also be developed by working closely with the ecologists to maximise the ecological value of the landscaping elements. The environmental impact assessment for the project will consider landscape and visual effects and how these might be mitigated.

6.2. In general, WPL will ensure that:

- options for the layout of the power station will seek to minimise the loss of existing trees, hedgerows and other elements of the current landscape structure of the site;
- the design of the power station will consider appropriate architectural styles, heights, materials, finishes and lighting of the built development. The development should, within technical confines, be sympathetic to the surrounding area, providing a modern and clean edge to the industrial estate with a landscaping scheme that is sympathetic to its urban-rural fringe location;

- a comprehensive landscape and planting scheme will be prepared for the power station site that will introduce new tree and shrub planting to create a new belt of native woodland, particularly for the eastern site boundary to screen the development from visual receptors in the east as far as practicable;
 - selection of the routes for the grid connections will seek to minimise vegetation loss and to ensure that the alignments work well with existing overhead power lines in this area to minimise change in the landscape.
 - the siting of new pylons will seek to avoid, as far as practicable, the effects on sensitive visual receptors including the setting of important historic buildings and viewpoints.
- 6.3. These measures will be drawn up in consultation with the corresponding stakeholders and statutory bodies.