

**LANDSCAPE AND VISUAL APPRAISAL
RESERVE POWER PLANT EXTENSION**

**LAND TO THE SOUTH OF MINERS ROAD,
LLAY INDUSTRIAL ESTATE,
WREXHAM**

Prepared for



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Project Quality Assurance Information Sheet



Reserve Power Plant Extension Landscape and Visual Appraisal

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1.0 Introduction

1.1 Landscape and Visual Appraisal

1.1.1 This landscape and visual appraisal (LVA) considers the potential effects of the proposed development on the landscape and visual resource in the vicinity of the site in accordance with the Guidelines for Landscape and Visual Impact Assessment, Third Edition (hereafter referred to as GLVIA3), (Landscape Institute and IEMA, 2013).

1.1.2 The main objectives of the LVA, in relation to this development, are as follows:

- To identify, evaluate and describe the current landscape character of the site and its local surroundings and also any notable individual landscape elements within the site;
- To determine the sensitivity of the landscape to the type of development proposed;
- To identify potential visual receptors (i.e. people who would be able to see the development) and evaluate their sensitivity to the type of changes proposed;
- To identify and describe any effects of the development in so far as they affect the landscape and/or views of it and to evaluate the magnitude of change due to these effects; and
- To assess the effects of the development in consideration of the significance of potential effects be assessed, mitigation proposals identified and the residual effect (with mitigation in place) and to demonstrate the effectiveness of the mitigation proposed.

1.2 The Site

1.2.1 A visit was undertaken both to the site and the wider study area in 2017. The site is located within an existing industrial estate and the local area is as described within the Planning Statement.

1.2.2 Planning permission (P/2017/0937) was granted on 4th June 2018 for a Reserve Power Plant (RPP) and associated infrastructure located to the south of Miners Road within Llay Industrial Estate, Wrexham. Sirius Planning Limited have prepared a planning application to extend the RPP facility to add an additional generating capacity of 9.95MW.

1.2.3 The proposed development is for an extension to an RPP facility, to add an additional generating capacity of 9.95MW of electricity at any one time and store an additional 10MWh, within the Llay Industrial Estate site. The application site comprises two linked rectangular plots measuring approximately 0.17ha in total which was formally used as a storage facility for a road haulage business.

1.2.4 The site is approximately 1km to the north-west of the village of Llay and 6.5km north of Wrexham. Access to the site is via an existing access point of Miners Road.

1.2.5 Drawing SRE1082/17/01 illustrates the site location and drawing SRE1082/17/03 shows the general site layout.

1.2.6 The proposed extension, as shown on drawing SRE1082/17/03, will consist of:

- 6 generator sets and 3 transformers;
- 3 Battery Storage Units (contained within ISO containers);
- Lube oil storage container;
- Below ground cabling linking transformers to the compounds;
- Paladin perimeter fencing 2.4m high and inward facing infra-red CCTV;
- Internal service road; and
- Crushed stone surfacing.

1.2.7 The proposed development will comprise up to 6 generator sets providing 9.95MW of gas generated power and 3 battery storage units capable of storing in the region of 10MWh. The batteries will provide instant electricity to the grid when demand is required, however, the batteries can only provide this power for a limited period and are only designed to work while the gas engines are warming up to reach their optimal working capacity. The gas engines and batteries will not send power to the grid the same time, and the generating capacity will be limited to a maximum of 9.95MW. 3 transformers will control the electricity to the on-site substation.

1.2.8 Further detail on the proposed site layout, specification and connections is contained within the Planning Statement.

1.2.9 No vegetation (excluding scrub ground level) will be removed to facilitate the proposals however should it be required additional tree and scrub planting (enhancement) will be provided to infill gaps upon the site boundary.

1.2.10 **Photograph 1:** Photograph of the current site entrance as viewed from Miners Road (looking west):



- 1.2.11 **Photograph 2:** Illustrates the internal 'brownfield' nature of the established urban site (view looking west):



1.3 Study Area

- 1.3.1 It is accepted practice within landscape and visual assessment work that the extent of the study area for a development is broadly defined by the visual envelope of the proposed development and the anticipated extent of the Zone of Theoretical Visibility (ZTV) arising from the development itself. The study area for this appraisal is limited to a 500m radius from the boundary of the site. The study area considers the actual visibility to the existing industrial development within the area, the local setting of industrial buildings and colliery spoil heaps beside the site and the scale of the proposed RPP extension. The ZTV is discussed in Section 3. Drawing LVA-01 illustrates the study area and local brownfield context.
- 1.3.2 Despite the allowance of a 500m study area, due to the topography of the site and established industrial features, and considering the scale of development, the likelihood of the development being substantially perceptible over 500m from the site is very low, however it is considered within this appraisal.

2.0 Methodology

2.1 Landscape and Visual Appraisal (LVA)

- 2.1.1 The LVA process typically considers the effects of the development on local landscape character and landscape designations, as well as the potential effects on views experienced by people (receptors) from (but not limited to); settlements, public rights of way, designated landscape areas and transportation corridors. The scope of the LVA is tailored to the particular application type and scale of development, in this case a visual appraisal only (no landscape assessment) is considered appropriate.
- 2.1.2 LVA is a tool used to identify and assess the effect of change resulting from development on both the landscape as an environmental resource in its own right and on people's views and visual amenity.
- 2.1.3 In accordance with published guidance, landscape (elements and character) and visual impacts are assessed separately, although the procedure for assessing each is closely linked. A clear distinction has been drawn between landscape and visual impacts as described below:

Landscape effects – An assessment of landscape effects deals with the effects of change and development on landscape as a resource. How the proposal will affect the elements that make up the landscape, the aesthetic and perceptual aspects of the landscape and its distinctive character. (GLVIA 2013 para 5.1).

Visual effects – An assessment of visual effects deals with the effects of change and development on the views available to people and their visual amenity. Assessing how the surroundings of individuals or groups of people may be specifically affected by changes in the content and character of views as a result of the change or loss of existing elements of the landscape and/or introduction of new elements. (GLVIA 2013 para 6.1).

2.2 Scope of the Landscape and Visual Appraisal

- 2.2.1 Considering the established brownfield and industrial setting of the proposed RPP extension and the scale of the development, it is concluded that there would be no potential for landscape effects of a substantial nature (or of any level) upon the site and local area. An appraisal of landscape effects is therefore scoped out of this assessment. The potential visual effects will be assessed.

2.3 Level of Effect

- 2.3.1 The assessment will consider the visual baseline characteristics within the defined study area, together with an assessment of visual effects, and development of a scheme of mitigation / enhancement where applicable. Effects will be considered to be either 'substantial' or 'not substantial' in accordance with the standard methodology. 'Substantial' effects are those that should be considered in the eventual decision, effects that are 'not substantial' are of a lesser concern.
- 2.3.2 As this assessment is for a "non-EIA project", the Landscape Institute has issued advice in relation to L&V Appraisals (Assessments) outside a formal EIA process in its "Statement of Clarification 1/13":

"In carrying out appraisals, the same principles and process as LVIA may be applied but, in so

doing, it is not required to establish whether the effects arising are or are not significant given that the exercise is not being undertaken for EIA purposes. ... The emphasis on likely 'significant effects' in formal LVIA stresses the need for an approach that is proportional to the scale of the project that is being assessed and the nature of its likely effects. The same principle – focussing on a proportional approach – also applies to appraisals of landscape and visual impacts outside the formal requirements of EIA”.

- 2.3.3 When considering LVAs it should be noted that whilst the methodology is designed to be robust and transparent, in line with best practice, professional judgement is finally applied to determine the level of effects, and whether the effects are considered 'substantial' or 'not substantial', and the level and scope of assessment is tailored to meet the appraisal context.

2.4 Appraisal Limitations

- 2.4.1 This landscape and visual appraisal is undertaken from publicly accessible locations only including; roads, parks and public rights of way to represent potential effects upon a range of receptors and then additionally considered through the analysis of map data and aerial photography. The appraisal does not consider or assess effects from every theoretical location where the development would be visible and from within private properties / upon private land.

3.0 Baseline Description

3.1 Visual Assessment –

Zone of Theoretical Visibility (ZTV)

- 3.1.1 Land that may potentially be visually connected with the Proposed Development is usually identified and mapped at the outset (of a full landscape and visual assessment) in accordance with paragraph 6.6 of GLVIA3. Zone of Theoretical Visibility (ZTV) mapping is produced to determine the area over which the proposed development could theoretically be seen. ZTV maps are generated by computer from a Digital Terrain Model (DTM) representing the bare ground topography overlaid on a map base without significant areas of screening vegetation and built form.
- 3.1.2 Due to the local topography of the Miners Road site area being generally flat, combined with an engineered mound directly to the south it is considered that a ZTV plan would present an incorrect representation of the actual visibility at a local level. Local features such as embankments, tree blocks and the industrial urban development would not be included in any baseline modelling, it would therefore produce an incorrect representation of localised visibility. Due to the nature of the assessment, a visual appraisal only, it is not considered appropriate to undertake detailed 3D mapping to supplement the ZTV so for this level of assessment a ZTV plan is not provided. The likely zone of visibility is instead assessed based on site assessment and the analysis of map and aerial photography data.

Geographical Extent

- 3.1.3 The geographical extent of effects is influenced by the setting of the site, with established tall vegetation and landform features around the site, and the scale of the proposed development (predominantly 6 gas generators with 7m high exhausts), next to an approved RPP development.
- 3.1.4 General visibility to the site and Miners Road area is restricted by the established industrial setting of the site, bordered by areas of built form within the industrial estate to the west, north and east and the historic Llay Main Colliery tip mound to the south. Within the wider landscape, a ridge of hills rise c.1.5km to the west above the River Alyn valley however due to the scale of development the site would be indiscernible in the industrial context from this distance.
- 3.1.5 Although there is the potential for distant visibility from the rising ground to the distant west effects are considered to be indiscernible due to established brownfield setting of the wider site area. Near views from within the Miners Road Industrial Estate would be limited to receptors passing the site entrance and northern site boundary only. A neutral level of effect is therefore concluded when considering the geographical extent of effects of the development.

Key Receptors

- 3.1.6 Although the geographical extent of effects is considered to be localised and of a neutral level, key receptors within the study area are duly considered to reaffirm this.
- 3.1.7 The key visual receptors within the study area typically will consist of (people at) residential properties, users of public rights of way (national trails, cycle ways and footpaths), and users

of recreational facilities and transportation networks. The receptors have been identified through site appraisal and desk top surveys.

Residential Properties

- 3.1.8 Residential properties are considered to have a high sensitivity to visual change as there is the potential for large numbers of receptors (people) to be concentrated in the properties / settlements with continuous fixed views. It should be noted that many individual dwellings and dwellings within settlements, even when close to other proposed developments, may have 'no' or 'limited visibility' of the proposed development. For each individual property close to the development site, the exact degree of visibility will depend on the orientation of the property, the orientation of the windows in the property, and the degree of screening provided by localised landform, trees, hedgerows and surrounding built features.
- 3.1.9 The residential receptors/settlement groups considered in detail within the study area are listed (distances quoted to the site centre) and are shown with reference to Drawing LVA-01 Study area and Receptor Plan.
- 3.1.10 Main residential receptor groups:
- R1, Llay Road (B5102) properties, c.300m south;
 - R2, Rackery Lane (B5373) properties, c.490m north-east;

Recreational Routes

- 3.1.11 There are no public rights of way or defined routes within the study area. The closest footpath is c.650m to the west; all visibility would be screened by intervening development and vegetation.

Transport Routes

- 3.1.12 Visibility from the two main 'A roads' would be the same as the two identified residential receptors as the properties front the roads. The closest road is Miners Road which passes beside the northern site boundary within the industrial estate.

4.0 Level of Effects

4.1 Assessment of Predicted Visual Effect on Residential Receptor Groups

4.1.1 As outlined within the baseline section, the residential receptor groups with potential visibility to the proposed development are assessed as follows:

Table 4.1.1 Residential Receptors Visual Assessment

R1, Llay Road (B5102) properties, c.300m south	
Visual receptor / susceptibility to change	Residents, High susceptibility to change.
Value of view	Views likely to be valued by residents only.
<u>Sensitivity of visual receptor</u>	HIGH
Scale of visual effect	Views north from all the properties to the development area would be screened by the intervening mass of the former Llay Colliery tip and scrub vegetation upon it.
Geographical extent	As all views screened – not applicable
Duration and reversibility of effect	Not applicable
<u>Magnitude of visual effect</u>	No Change
LEVEL OF VISUAL EFFECT	Neutral, a NOT SUBSTANTIAL visual effect



View north, through the properties, from Llay Road

R2, Rackery Lane (B5373) properties, c.490m north-east	
Visual receptor / susceptibility to change	Residents, High susceptibility to change.
Value of view	Views likely to be valued by residents only.
<u>Sensitivity of visual receptor</u>	HIGH
Scale of visual effect	All views to the site area considered to be screened by intervening industrial buildings of the Miners Road estate (including the '2Agriculture' silos) on the opposite side of the road to the properties.
Geographical extent	As all views screened – not applicable
Duration and reversibility of effect	Not applicable
<u>Magnitude of visual effect</u>	No Change
LEVEL OF VISUAL EFFECT	Neutral, a NOT SUBSTANTIAL visual effect
	
View south west from Rackery Lane properties	

4.2 Assessment of Predicted Visual Effect Roads within the Study Area

- 4.2.1 As established in the baseline section there are no public rights of way within the study area and only the following road is assessed:

Table 5.2 Recreational Routes

Miners Road	
Visual receptor / susceptibility to change	Travellers upon the road. Not considered a scenic route, road serves the industrial estate only. Negligible susceptibility to change.
Value of view	No recognition in planning terms, very low value.
<u>Sensitivity of visual receptor</u>	Low
Scale of visual effect	Visibility from road will be possible when passing along the northern boundary of the site, however assuming the consented scheme is constructed, it is likely that this would screen all views to the proposed RPP in the west of the site. In the current situation, the verge and northern boundary contain areas of scrub and small trees which combine to filter and screen views into the site area. This vegetation will be retained with only weed and scrub species upon the ground layer removed. Development within the site area will be of a taller vertical scale than the existing stacked shipping containers (due to the exhaust stacks), and over a greater horizontal scale but overall of a scale appropriate to the site area, viewed against the vegetated backdrop of the former colliery spoil heap. Development is considered appropriate to the setting, the scale of effect focused to the site area only, and a limited scale of effect.
Geographical extent	Focused to the road corridor only as it immediately adjoins the site boundary
Duration and reversibility of effect	Short term, small scale effects to the locality only.
<u>Magnitude of visual effect</u>	Negligible
LEVEL OF VISUAL EFFECT	Neutral, a NOT SUBSTANTIAL visual effect



View west along Miners Road encompassing the site entrance and existing views into the site.



View south east along Miners Road illustrating screened views.

5.0 Summary and Conclusion

- 5.1.1 This Visual Appraisal (VA) has demonstrated that the proposed extension to the RPP facility located to the south of Miners Road could be successfully assimilated into the established industrial and brownfield context without adverse visual effects upon receptors within the study area. Excluding Miners Road views to the facility from surrounding publicly accessible areas and properties would be screened by the existing industrial buildings of the Miners Road Industrial Estate and the historic Llay Colliery tip. The limited views from Miners Road would be further screened assuming the consented RPP is constructed.
- 5.1.2 As discussed within the assessment, landscape effects are not considered as the site is previously developed and located within an established industrial area, bordered by adjoining industrial land uses, which extend out to c.250m.
- 5.1.3 This LVA demonstrates that the proposed development could be successfully assimilated into the current industrial landscape context without causing substantial harm to the landscape character, visual amenity or landscape setting of the study area.



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NOTES

KEY



SITE BOUNDARY



STUDY AREA - 250m and 500m
OFFSET FROM DEVELOPMENT

RR-2



RESIDENTIAL RECEPTOR -
VIEW ALIGNMENT

JOB TITLE

MINERS ROAD RESERVE
POWER PLANT EXTENSION

DRAWING TITLE

VISUAL APPRAISAL STUDY
AREA AND RECEPTOR PLAN

DRAWN

DATE

A.S.

20/6/2018

APPROVED

DATE

J.B.

20/6/2018

SCALE

1:1

SHEET

1

DRAWING NUMBER

LVA-01

REVISION

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