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LANDSCAPE AND VISUAL ASSESSMENT

HUNTROYDE HOME FARM E33 - WIND TURBINE

VOLUME 1

EXECUTIVE SUMMARY

The Landscape and Visual Impact Assessment (LVIA) has been prepared for the proposed single wind turbine, 44m to nacelle, 60.7m to blade tip, development at Huntroyde Home Farm, Burnley, Lancashire.

It considers the potential effects of the single turbine for a period of 25 years upon:

- Individual landscape features and elements;
- Landscape character; and
- Visual amenity and the people who view the landscape.

The site lies within the Lancashire Valleys NCA, the single turbine would effect a very small section of the character area which already contains urban areas and other large structures, turbines, pylons and telecom masts the impact would be Slight and therefore Not Significant.

Within the 7.0km radius study area there are nine Regional Landscape Character Areas. The ZTVs indicate inter-visibility with five of the areas and the Significance of the Impact would be generally Moderate/Slight and therefore Not Significant.

The ZTVs indicate limited visibility across the study area, which is generally confined to within the Calder Valley to the south of the proposed turbine, however the screening effect of the existing hedges and trees, buildings and settlements and the local landform results in a landscape with limited visibility of the proposed turbine, with many long distant views from across the valley from where the proposed turbine would appear as a minor feature.

The sensitivity of the site to wind energy development is Medium, the Magnitude of Change on the Landscape Character is considered to be Low, and therefore the Significance of the Impact is Moderate/Slight and therefore Not Significant.

Of the six viewpoints and the 13 receptor groups assessed the visual impacts have been assessed as being generally between Moderate to Slight and therefore Not Significant for most of the viewpoints.

The size of the proposed single turbine (44m to hub, 60.7m to blade tip) within a landscape with a number of comparable size structures, together with the limited size of the visual envelope and further fragmentation of the view within the area, results in a proposed scheme without many Significant Visual Impacts.

The proposed Huntroyde Home Farm turbine would theoretically be seen cumulatively in combination with the existing and consented turbines at Hameldon Hill and the proposed turbine at Copthurst Farm however in reality the landscape and visual cumulative assessment indicates that there would be no significant impacts that could not be mitigated or reversed. Where views are potentially available as illustrated on the ZTVs many are either screened or filtered by existing local landform and vegetation further reducing the impact of the proposed development.

The above assessment of the landscape and visual impacts and cumulative landscape and visual impacts indicate a general residual range from Moderate to Slight and therefore Not Significant. Having given careful consideration to the potential landscape and visual impacts/effects throughout the study area, it is considered on balance that the proposed Huntroyde Home Farm wind turbine development is acceptable.

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1.0 INTRODUCTION

1.1 This Landscape and Visual Impact Assessment (LVIA) has been prepared by Chartered Members of the Landscape Institute, from One Associates Ltd., of the proposed single wind turbine development at Huntroyde Home Farm, Burnley, Lancashire.

1.2 The LVIA considers the potential effects of a single E33 turbine 44m to nacelle, 60.7m to blade tip at Huntroyde Home Farm, Burnley, Lancashire.

- Individual landscape features and elements;
- Landscape character; and
- Visual amenity and the people who view the landscape.

See Figure 1: Proposed Turbine and Comparators

1.3 The report is structured as follows:

- 2.0 Outline of the Consultation Undertaken;
- 3.0 Outline of the Methodology Adopted for the Assessment;
- 4.0 Description of Baseline Conditions;
- 5.0 Summary of the Assessment of Effects on Landscape Features;
- 6.0 Summary of the Effects of the Assessment on Landscape Character and Landscape Designations;
- 7.0 Outline of the Assessment of Effects on Visual Amenity;
- 8.0 Summary of the Assessment of Cumulative Effects;
- 9.0 Summary and Conclusions.

1.4 All figures referenced in this chapter are included in Volume 2 of the Report.

1.5 There are a number of technical appendices to this chapter which are included at the back of the Report:

Appendix A: Landscape and Visual Impact Assessment Methodology

Appendix B: Preliminary Review of Landscape Character Types and Landscape Designations within 7.0km of Huntroyde Home Farm. This contains, in tabulated form a preliminary review of all the landscape character types identified from relevant character assessments as well as all designated landscapes within the defined study area. The landscape character types and designated landscapes which were found to have potential to undergo a significant effect are assessed in full in Section 6.0 of this report.

Appendix C: Preliminary Review of Principal Visual Receptors within 7.0km of Huntroyde Home Farm. This contains, in tabulated form a preliminary review of all the potential principal visual receptors of the proposed development. The principal receptors which were found to have potential to undergo a significant effect are assessed in full in Section 7.0 of this report.

Appendix D: Glossary of terms throughout the Landscape and Visual Assessment.

Appendix E Bibliography

2.0 OUTLINE OF THE CONSULTATION UNDERTAKEN

2.1 Unfortunately, due to time restrictions, a pre-application meeting with officers at the Council has not taken place. The view was taken to proceed with the application using the same scope and methodology which has been deemed acceptable with other Councils on previous schemes throughout the north of England.

3.0 OUTLINE OF THE METHODOLOGY ADOPTED FOR THE ASSESSMENT

3.1 The following is a summary of the methodology for the LVIA, presented in Appendix A

GUIDANCE DOCUMENTS

3.2 Guidance documents used in the assessment are set out in Appendix A. The LVIA has been undertaken in accordance with best practice, as outlined in:

- The Guidelines for Landscape and Visual Impact Assessment, 2nd Edition, 2002, Landscape Institute and the Institute for Environmental Management and Assessment;

DISTINCTION BETWEEN LANDSCAPE AND VISUAL EFFECTS

3.3 In accordance with published guidance, landscape and visual impacts are assessed separately:

- Landscape impacts relate to the effects of the proposals on the physical and other characteristics of the landscape and its resulting character and quality.
- Visual impacts relate to the effects on views experienced by visual receptors (e.g. residents, footpath users, tourists etc.) and on the visual amenity experienced by those people.

TYPES OF IMPACT CONSIDERED IN THE LVIA

3.4 The LVIA assesses both the long term effects relating to the operational lifetime of the wind turbine development and also the short-term effects associated with its construction. Where appropriate, the LVIA also considers any residual effects following the wind turbines decommission and removal.

3.5 The LVIA not only assesses the impacts associated with the turbine but also any related impacts resulting from the control building, underground cabling, site tracks and access roads.

3.6 Consideration has been given to seasonal variations in the visibility of the wind farm. The LVIA has been carried out during August 2012 to February 2013.

3.7 There are other existing wind turbine developments within the 7.0km radius study area, therefore a cumulative assessment has been carried out. There is one existing three turbine wind farm 6.8km to the south at Hameldon Hill and a proposed single turbine at Copthurst Farm approximately 1.3km to the east. There are two small domestic scale turbines located near Hodgeon Stone Plantation 1.4km and 1.9km to the west of the site, these have not been included within the assessment.

STUDY AREA

3.8 The study area for the assessment of visual impacts has been proposed as being 7.0km radius from the site

3.9 Initially all landscape character areas/types within 7.0km of the site were considered in a filtering exercise set out and described in Appendix B, which was informed by initial baseline studies and site visits which indicated that there was little potential in the surrounding landscape (beyond approximately 7.0km) from the site for a single turbine to have significant indirect effects on landscape character areas/types or a receptor's experience of that landscape character. Therefore a study area of approximately 7.0km from the site was used for a detailed assessment of effects on landscape character. Although the ZTVs indicate that there is wide spread visibility across the 7.0km study area in reality the

visual envelope is a lot smaller due to the screening effect of the surrounding settlements, vegetation and infrastructure.

LANDSCAPE ASSESSMENT METHODOLOGY

3.10 The LVIA assesses how the proposed development would impact directly on any landscape features and resources (e.g. removal of trees, hedgerows).

3.11 It considers the impacts on landscape character at two levels.

- consideration is given to how the immediate landscape character surrounding the site (within approximately 1km of the turbine) is directly affected by the removal or alteration of existing features and the introduction of new features.
- the indirect impacts of the development on the wider landscape are discussed with reference to National Landscape Character Areas and Regional Landscape Character Types identified within relevant landscape character assessments and wind farm sensitivity studies.

3.12 The significance of effects on landscape features and character is determined by cross-referencing the sensitivity of the feature or landscape character with the magnitude of change using the methodology and criteria established in Appendix A.

VISUAL ASSESSMENT METHODOLOGY

3.13 Potential visual receptors of the scheme were initially identified by interpretation of digitally generated Zones of Theoretical Visibility (ZTVs) (see Appendix A for an explanation of ZTVs their production and limitations).

3.14 The assessment of visual effects was undertaken on the basis of viewpoint analysis as recommended by best practice guidelines. A selection of viewpoints is proposed to represent the range of views likely to be experienced of the development. All photography and survey work of the viewpoints etc. was undertaken only from publicly accessible road and footpaths.

3.15 The viewpoints were selected to represent a range of views and viewer types. The viewpoints cover a variety of different character types, are in different directions from the site and are at varying elevations. The viewpoints are located at a range of distances from the development to illustrate the varying magnitude of visual impacts with distance from the site.

3.16 For each of the viewpoints, a wireframe model was generated to help identify the scale, arrangement and visibility of the turbine (see Appendix A for a description of how the wireframe models were produced). The images were reviewed on site to assess how natural and built screening would affect visibility of the site.

3.17 A number of viewpoints within approximately 7.0km of the site were developed further into photomontages to help illustrate the predicted impact of the development (see Appendix A for a description of how the photomontages were generated and their limitations).

3.18 The viewpoints were used as the basis for determining the effects on visual receptors within the entire study area.

3.19 In parallel to the viewpoint analysis the ZTVs were used to identify potential visual receptors (e.g. residents, users of public rights of way, visitors to tourist attractions etc.) of the proposed development. A filtering process was undertaken to identify which of the visual receptors within the study area had the potential to experience significant visual effects. This filtering exercise is set out in Appendix C.

3.20 The significance of effects on visual receptors is determined by cross referencing the sensitivity of the receptor with the magnitude of impact using the criteria established in the Appendix A.

IMPACT SIGNIFICANCE

3.21 The ultimate purpose of the LVIA is to evaluate the significance of potential effects on the landscape and visual amenity surrounding the site.

3.22 The significance of the landscape and visual effects is determined by cross-referencing the sensitivity of the landscape or view with the magnitude of change. In determining the significance of residual effects all mitigation measures are taken into account.

3.23 Table A-6 in Appendix A demonstrates the general relationship between sensitivity and magnitude based on the specific criteria given in Appendix A. The significance of effects is described as Substantial, Substantial/Moderate, Moderate or Moderate/Slight, Slight, Slight/No Effect or No Effect.

3.24 Those effects identified as Substantial, Substantial/Moderate and in some cases Moderate significance may be regarded as 'Significant' effects when discussed in terms of the Town and Country Planning (England and Wales) (Environmental Impact Assessment) Regulations, 1999, are discussed further in this report. All other 'Non Significant' effects have been screened out and are discussed within the Appendix B & Appendix C.

RESIDUAL EFFECTS

3.25 Best practice in Environmental Impact Assessment (EIA) requires that the significance of potential effects be assessed, mitigation proposals identified and the residual effect (with mitigation in place) then re-assessed to demonstrate the effectiveness of the mitigation proposed. There are four general types of potential mitigation;

- avoidance;
- reduction;
- remediation; and
- compensation.

NATURE OF EFFECTS

3.26 There is a range of public opinion on whether the landscape and visual impacts of a wind farm proposal are positive (beneficial) or negative (adverse). Publications such as Public Attitudes to Windfarms, 2003 and other surveys demonstrate that wind farm developments generate a spectrum of public responses ranging from strongly adverse to strongly positive. This range of opinion from positive to negative is often referred to as the concept of "valency", which has been discussed and debated at numerous wind farm public inquiries.

3.27 Our approach is that the judgement should be reached through the process set out in the GLVIA, and should be based on the objective professional assessment of the baseline landscape, it's landscape character and visual resource of the relevant area together with the sensitivity of the landscape and visual receptors 'receiving' or experiencing the development. However, once an assessment has been made for all of the identified receptors, there is a requirement to consider what mitigation measures can be proposed to reduce or minimise the environmental or social impacts / effects on the identified receptors, as recommended in Planning Policy Statement 22: Renewable Energy, 2004

4.0 DESCRIPTION OF BASELINE CONDITIONS

4.1 This section of the report establishes the landscape and visual baseline conditions of the site and the surrounding area.

4.2 The baseline conditions are presented in four sections:

- A site specific landscape appraisal of the landscape characteristics of the site and immediately surrounding area including a description of the landscape features within the site boundary;
- A description of landscape character drawing upon a review of published landscape character assessments;
- A review of landscape designations; and
- A description of potential visual receptors.

SITE SPECIFIC LANDSCAPE APPRAISAL

4.3 This section provides an objective and factual site specific description of the landscape features and characteristics of the landscape within and immediately surrounding the assessment boundary. The landscape context within approximately 7.0km of the site is illustrated in Figure 2: Study Area 7.0km radius.

THE SITE

4.4 The Huntroyde Home turbine site lies within the Lancashire Valleys character area, Grid Reference 378103, 436444. It lies on the south facing slopes of an east to west ridge of high ground to the south of the village of Sabden and north of Padiham.

4.5 The site consists of a relatively featureless rectangular field of pasture bounded to the east and west with dry stone walls and to the north and south with post and wire fencing. There is a small rectangular reservoir in the north-eastern corner of the field and two mature trees. There is a stone barn structure within the gap between Pan Wood and Height Side Wood. See Figure 03 Site Layout.

LANDFORM AND TOPOGRAPHY

4.6 The site lies within the Lancashire Valleys character area in the Ridge and Valley character type. The site lies on the south facing hillside of a north-east to south-west orientated ridge of high ground between the River Calder valley and Pendle Hill to the north. It is part of the south facing hillside which rises from the River Calder at approximately 80m AOD to Black Hill at 265m AOD.

4.7 The field generally falls from north to south between 230m and 210m AOD.

4.8 To the north of the site the land falls steeply into the Sabden Brook valley forming a distinct escarpment which lies parallel to the Calder valley.

4.9 To the north separated from the Pennines to the east and the Forest of Bowland to the north-west is Pendle Hill at 557m AOD. See Figure 04 Topography

WATERCOURSE AND DRAINAGE

4.10 There are no water courses or water bodies on or adjacent to the site, other than the small reservoir above.

4.11 The site lies approximately 2.8km to the north of the meandering River Calder as it flows from north-east to south-west through the study area.

4.12 There are a number of small drainage ditches, springs and watercourses draining the surrounding land flowing to the south towards the River Calder.

4.13 To the north of the ridge is Sabden Brook which flows north-east to south-west to join the River Calder at Cock Wood.

VEGETATION

4.14 The site is a field of pasture, currently for grazing of sheep. The general pattern of vegetation across the area is of small rectilinear shaped fields of pasture with occasional hedgerows, numerous hedgerow trees, small copses and areas of predominantly deciduous woodland. To the south of the proposed site lies the mixed species deciduous woodlands of Pan Wood and Height Side Wood

4.15 Within the fields of pasture there are generally areas of poor drainage denoted by the swathes of reeds and wet grassland species.

4.16 There is an area of coniferous plantation to the north of Back Lane at Black Hill Wood which has deciduous trees around its perimeter. To the south of Back Lane lies Well Wood a mixed species deciduous woodland.

4.17 On the higher ground the pasture gives way to more open moorland.

BUILDING AND INFRASTRUCTURE

4.18 There are no buildings associated with the site.

4.19 The nearest buildings are at Moor Barn Farm 0.6km to the north-east, a traditional stone and grey slate farmhouse with an attached barn and a number of small out-buildings.

4.20 The road system around the site consists of the single carriageway with passing places, Back Lane to the north and east where it descends into the village of Higham. To the east is the minor Sabden Road, connecting Sabden to Padiham, to the west Trapp lane connecting Back Lane to A671 Whalley Road and to the south is Whins Lane connecting Sabden Road to Trapp Lane.

4.21 5km to the south of the site lies the M65 motorway and the Leeds to Liverpool Canal as they are routed through the Calder Valley connecting Padiham, Burnley, Brierfield, Nelson and Colne..

4.22 1.5km to the north-west of the site within the Sabden Brook valley is the village of Sabden.

HISTORICAL LANDSCAPE INTERPRETATION

4.23 Maps from 1840s to the 1890s show that the area is very similar to the present day, with the road system around the site, the field system across the hillside and the areas of woodland, e.g. Black Hill Wood, Well Wood, Height Side Wood etc. all established. South of Back Lane, there is indicated a square of predominantly coniferous woodland, Black Hill Plantation, where today there remain a number of mature deciduous trees.

4.24 To the north of the site the village of Sabden has been established as a series of linear developments spreading along the Clitheroe, Padiham and Whalley Roads and the Sabden Brook.

WEATHER

4.25 The weather is an important factor affecting visual impact assessment. The Met Office¹ publish average statistics for weather patterns for the region, monthly and annual, for maximum and minimum temperatures, days of air frost, hours of sunshine, amount of rainfall - both generally and the number of days when rainfall is above 1mm. Rainfall above 1mm per day, which limits visibility, occurs on an average of 180 days in the year. There are on average 84 days when air frost occurs, with potentially hazy conditions for visibility. There are an average of 1166 hours of sunshine per annum and an average of 1491mm rainfall per annum. There are on average potentially 264 days (72%) where visibility conditions are limited by atmospheric conditions.

LANDSCAPE CHARACTER

PUBLISHED LANDSCAPE CHARACTER DESCRIPTION

4.26 The following landscape character assessments and landscape capacity studies have been reviewed:

- Countryside Character, Volume 2 North West: Countryside Commission/Natural England.
- A landscape strategy for Lancashire, Landscape Character Assessment
- Landscape sensitivity to wind energy development in Lancashire

4.27 Landscape Character Areas and Landscape Character Types can be drawn at national, regional, district or even smaller local scales.

- Landscape Character Areas are discrete geographical areas of a particular landscape character type and can only occur at a single location.
- Landscape Character Types are tracts of landscape which have a generic unity of character due to the particular combinations of landform, land cover, pattern and elements. The same landscape character type can occur at several different locations throughout a study area. Guidelines for Landscape Character Assessment, 2002.

NATIONAL LANDSCAPE CHARACTER AREAS

4.28 At a national level, the (former) Countryside Commission and English Nature has classified England into broadly homogenous landscape character areas referred to as National Character Areas (NCAs). The NCAs within the study area are illustrated in Figure 5: National Character Areas.

4.29 Within the 7.0km study area there are three NCA's, analysing the ZTVs and from site visits within the study area it is identified that the impact of the single turbine 60.7m high to blade tip on the Huntroyde Home Farm site could only give potential significant impacts within the two character areas listed below:

- 33 Bowland Fringe and Pendle Hill
- 35 Lancashire Valleys

¹ The data quoted is for the weather station at Malham Tarn and were obtained from The Met Office website:
<http://www.metoffice.gov.uk/climate/uk/averages/>.

Character area 33: Bowland Fringe and Pendle Hill

4.30 The key characteristics of the Bowland Fringe and Pendle Hill are:

- Undulating rolling landscape with local variation created by both the numerous river valleys and the outlying upland features of Beacon Fell, Longridge Fell and Pendle Hill.
- Strong outcrops of 'reef knolls' and limestone form distinct landscape features in the Ribble and Hodder Valleys.
- Meandering and commonly tree-fringed rivers with oxbow lakes form prominent features within the predominantly pastoral landscape.
- Predominantly Grade 3 agricultural land supporting permanent pasture, mostly improved, for dairy and livestock farming.
- Intensively managed landscape, with lush hay meadows in small- to medium-scale fields defined by well-maintained hedgerows with mature hedgerow trees. Some rough grazing at higher elevations.
- Extensive semi-natural woodland, much of which is ancient, on both main valley bottoms, side valleys and ridges.
- Dense north-south communication corridor, which comprises the M6, the railway line and the Lancaster Canal, defines the western boundary and also provides a physical and psychological barrier.
- Numerous water courses and bodies including the rivers Ribble, Hodder, Calder, Wyre, a number of reservoirs and field ponds north of Preston.
- Small villages, hamlets and scattered farmsteads, mostly in local stone, are well integrated into the landscape and connected by a network of winding hedge-lined country lanes.
- Bowland Fells provide a dramatic backdrop to the east and north with extensive views possible from high ground across the Lancashire and Amounderness Plain and across open valley bottoms.

Character area 35: Lancashire Valleys

4.31 The key characteristics of the Lancashire Valleys are:

- The broad valley of the river Calder and its tributaries running northeast/southwest between natural backdrops of Pendle Hill and the Southern Pennines.
- Intensely urban character derived from main towns of Blackburn, Accrington and Burnley which have developed rapidly since the industrial revolution.
- A strong industrial heritage, associated with cotton weaving and textile industries. Redundant or underutilised mill buildings, mill lodges and ponds.
- Profusion of communication routes along the valley bottom including the Leeds and Liverpool Canal, the Preston-Colne rail link and M65 motorway.
- Victorian stone buildings well-integrated into the landscape.
- Numerous large country houses with associated parklands particularly on northern valley sides away from major urban areas.
- Remnants of agricultural land fragmented by industry and scattered development.
- Field boundaries, regular to the west and irregular to the east are degraded around the urban areas, formed of hedges with few hedgerow trees and, at higher elevations, of stone walls and post and wire fences.
- Small woodlands are limited to cloughs on valley sides.

REGIONAL LANDSCAPE CHARACTER TYPES

4.32 Within the 7.0km study area there are five Landscape Character Types with potential visibility of the proposed turbine, as designated within A Landscape Strategy for Lancashire which are listed below and are illustrated in Figure 6: Regional Landscape Character Types/Areas.

LANCASHIRE COUNTY LANDSCAPE CHARACTER TYPES AND AREAS

- Character Area 2: Moorland Hills, 2e Pendle Hill
- Character Area 4: Moorland Fringe, 4g South Pendle Fringe
- Character Area 5: Undulating Lowland Farmland, Lower Ribblesdale (Clitheroe to Gisburn)
- Character Area 6: Industrial Foothills and Valleys, 6a Calder Valley
- Character area 7: Farmed Ridges, 7a Mellor Ridge.

Character area 2: Moorland Hills

4.33 The key characteristics of Moorland Hills are:

The rolling Moorland Hills are generally at lower elevations than the higher Moorland Plateaux. Although grit crags and glacial erratics provide some texture to the smooth profiles, the steep escarpments create distinctive and dramatic landforms which are steeply incised and drained by fast flowing streams. Hillsides allow long views across wide valleys or the surrounding lowlands. Landcover is typically blanket bog, heather moor, and acid grassland although the presence of several large woodland blocks, both broadleaved and coniferous, distinguishes these lower moorland hills from the high moorland core. Colours are generally muted, although the moorland vegetation creates striking seasonal effects. The open, exposed character of the hills creates a wild and windswept experience. Small, isolated hamlets and stone farmsteads, although rare, are focal points in the landscape and fields in their vicinity are enclosed by an undulating network of stone walls: however most of this landscape lies above the upper limit of enclosure. The mosaic of upland habitats are of significant nature conservation value and there is considerable evidence of settlement and land use since prehistoric times, particularly in the form of industrial monuments and landscapes.

Subtype 2e Pendle Hill

4.33 The key characteristics of Pendle Hill are:

Pendle Hill is a millstone grit outcrop with a particularly distinctive landform; its steep scarp to the north and flat plateau top gives rise to a profile which is a landmark for many miles around; a 16th century beacon was also sited on Pendle Hill at 'Big End'. The flat summit supports deep deposits of raw peat soils which infills hollows and produces a smooth undulating surface of blanket bog. The area is free from development pressure; no conifer plantations, quarries or communication masts detract from the visual appeal of the landscape. Erosion of the vegetation as a result of heavy grazing and recreational pressure is severe in places. It is only accessible by foot and there are a number of routes to the summit of this famous landmark. Views from the top at 557m are stunning.

Character area 4: Moorland Fringe

4.35 The key characteristics of Moorland Fringe are:

The fringes of moorland areas are transitional enclosed landscapes between the inhospitable moorland fells and the more intensively farmed land of the lowlands. They occur, generally above the 200m contour, throughout the study area and are characterised by a rolling landscape of marginal pastures divided by stone walls which reflect the underlying geology. Sheep grazing forms the predominant land use of these fringe areas which have often been improved either from semi-natural acidic, neutral or wet grassland. There is a great diversity of landform, colour and texture. Tree cover is sparse in these landscapes although trees are usually associated with farmsteads and gorse is common along the roadsides. Isolated stone farmsteads are often prominent on the steep slopes and are reached by dead-end lanes. There are also terraces of weavers' and other workers cottages and sparse linear settlements, particularly along the

winding roads towards the foot of the slopes. There is good preservation of archaeological sites in these marginal locations as a result of the non-intensive agricultural practices adopted.

Subtype 4g South Pendle Fringe

4.34 The key characteristics of South Pendle Fringe are:

The South Pendle Fringe surrounds the gritstone moors of Pendle Hill, White Moor and Burn Moor. It is a highly textural landscape; gorse, rushes, wind-blown trees and upland stone walls all contribute to the traditional character of the moorland fringe. Although it is a typical gritstone fringe, it is influenced by its proximity to the East Lancashire valleys below, both in terms of development and recreational pressure. There is a particularly dense network of footpaths and winding lanes, and the distinctive form of Pendle Hill forms a backdrop to views from them. The settlement pattern is dominated by scattered stone farmsteads and hamlets, with the villages of Barley and Roughlee nestling within the valley of Pendle Water. Tourism impact is evident at Roughlee where there are two caravan parks and at Barley, which has a visitor centre and outdoor activity centre and is the focus for outdoor activities, as well as a base for walking in the surrounding hills. The narrow valley of Pendle Water is a significant feature and contains areas of woodland, mainly conifer plantations.

Character area 6: Industrial Foothills and valleys

4.38 The key characteristics of Industrial Foothills and Valleys are:

The Industrial Foothills and Valleys are a complex transitional landscape of relatively small scale with intensive settlement. The area has a gentler landform and varied vegetation cover than that of the nearby higher ground. Trees thrive around farmsteads, along stone wall boundaries and in small medium sized woodlands. Fields are enclosed by gritstone walls or hedgerows. There is a dense network of narrow winding lanes in the rural areas and major roads link settlements along the valley floor. Settlement is heavily influenced by a history of industrial development in the villages themselves and the neighbouring urban areas. Thus the landscape character shows a mixture of rural agricultural and industrial land uses. Gritstone is the characteristic material of farm houses, laithe houses, mills, and cottages. The frequent mill terraces, industrial buildings and more modern housing developments (often built of brick), reflect the proximity to large industrial and commercial centres and lowland clay lands.

Sub Type 6a Calder Valley

4.39 The key characteristics of the Calder Valley are:

This landscape character area encompasses the landscape of the broad valley of the River Calder outside the urban settlements. It extends from the moorland fringes of the South and West Pennines (to the south) and Pendle Hill and Mellor Ridge (to the north) to the urban fringes of Blackburn, Darwen, Accrington, Burnley, Nelson and Colne. Agricultural activity is productive with lush, improved pastures utilised for dairy farming as well as sheep grazing. Stone walls remain the predominant boundary type on higher ground, although there are frequently hedgerows and post and wire fencing on the lower slopes and valley bottom. The landscape is well populated; there are many houses, footpaths and large farms. Stone walls and farm buildings are important remnants of earlier landuses, particularly where modern developments threaten to obscure the visual and cultural appeal of the area. Modern houses are conspicuous for their rendering or use of alien materials and their gardens and ornamental plants. Designed landscapes, such as Huntroyde and Read Park, are important locally to the visual and cultural qualities of this character area; they also contribute an important wooded element to the landscape.

Mills, mill terraces and handloom weavers houses are reminders of a very different lifestyle and are usually located closer to the centres of urban areas. The urban fringes of Colne, Nelson and Burnley exert an influence over the landscape; close to the urban edge there are pockets of neglected land and urban fringe land uses such as horse paddocks, garden centres and retail or industrial buildings.

Character area 7: Framed Ridges

4.35 The key characteristics of the Farmed Ridges are:

These gritstone outcrops are relatively low in comparison to the Bowland Fells and outliers, their distinctive ridge profiles set them apart from the adjacent lowland agricultural landscapes. Wooded sides, which rise sometimes dramatically from the farmed plains, are visible for miles around and provide a sense of orientation when in the lowlands. The ridges themselves support a mosaic of mixed farmland and woodland which provides a textural backdrop to the surrounding lowlands. The landscape character one side of the ridge may be totally different from the character on the other, despite their proximity to each other. The local vernacular is clustered stone built villages with scattered outlying cottages and farmsteads strung out along local roads, but more recent ribbon development and new houses display an incongruous mix of materials. There is a good network of footpaths, parking and picnic spots with views over the surrounding lowlands. The ridges also support some forestry and provide ideal sites for reservoirs and communication masts

Subtype 7a Mellor Ridge

4.36 The key characteristics of the Mellor Ridge are:

A prominent lowland ridge which forms a south-western gritstone extension to Pendle Hill, separating the rural Ribble Valley from the industrial Calder Valley. It is under pressure for urban development, but despite this influence it appears rural in character from the surrounding valleys and provides an important buffer between the intensely urban landscape of Blackburn and the rural landscapes associated with the Ribble Valley. The prominent ridgeline is viewed from the busy A59 and M65 transport routes to the north and south respectively. There are also outstanding views from the ridge itself across the Ribble Valley to the north, over Whalley Abbey at its eastern end and across Blackburn to the south. Built development has taken advantage of these views and Mellor is sited on top of the ridge where it enjoys long views across the adjacent lowlands.

SENSITIVITY OF LANDSCAPE CHARACTER TO WIND FARM DEVELOPMENT

4.37 The Landscape Sensitivity to Wind Energy Development in Lancashire document provides information regarding the capacity of each of the landscape character types to accept wind energy development. The Sensitivity of LCAs to Wind Energy Development is illustrated in Figure 06, Landscape Sensitivity.

4.38 To ensure consistency throughout the LVIA the five point scale used within Lancashire County Council document has been correlated with the scale used throughout the LVIA, see below

Table 4.1: demonstrates the correlation between the Landscape Sensitivity to Wind Energy Development in Lancashire sensitivity ratings and the thresholds used in this LVIA

Sensitivity of LCAs to Wind Energy Development	LVIA Sensitivity Rating
Low	Very Low
Moderate/Low	Low
Moderate	Medium
Moderate/High	High
High	Very High

4.39 The sensitivity of landscape character has been described as very high, high, medium, low or very low

4.40 Each of the landscape character types/areas identified in Paragraph 4.30 to 4.43 above has been considered below in relation to its sensitivity to wind energy development and summarised in Table 4.2.

SCALE OF WIND ENERGY DEVELOPMENT

4.41 The document considered the appropriate scale of wind energy developments that may be appropriate within each LCA, notwithstanding the findings of sensitivity. In this context the following typology for scales of wind energy development: was prepared to address four scales of development:

- Small scales clusters (2-5 1.3MW+ turbines)
- Medium scale clusters (6-10 1.3MW+ turbines)
- Large scale clusters (11-25 1.3MW+ turbines)
- Very large scale clusters (26+ 1.3MW+ turbines)

4.42 The scale of development that may be appropriate is not directly related to the sensitivity of the landscape to wind energy development, although this is influenced by many of the same considerations. Where wind energy development is considered to be appropriate, the appropriate scale of such development will be determined by a variety of factors to include the following:

- Scale of the landscape,
- Other sensitivity parameters as identified in Table 1 incl. physical, perceptual, visual and value,
- The extent of the LCA or the potential development site within it,
- Other development constraints.

4.43 It should be noted that single turbines are not considered in the context of this broad strategic study.

4.44

Table 4.2: Sensitivity of National and Regional Landscape Character Areas to Wind Energy Development

Reference Code	Regional Character Areas	Approximate distance to Site	Sensitivity to Wind Energy (LCC)	Sensitivity to Wind Energy (LVIA)
National Character Areas				
33	Bowland Fringe and Pendle Hill	200m south	Moderate	Medium
35	Lancashire Valleys	The site lies within this RCA	Moderate	Medium
Regional Character Areas				
2e	Moorland Hills - Pendle Hill	2km south	High	Very High
4g	Moorland Fringe – South Pendle Fringe	The site lies within this LCA	Moderate/High	High
5e	Undulating Lowland farmland - Lower Ribblesdale (Clitheroe to Gisburn)	1km south	Moderate/High	High
6a	Industrial Foothills and Valleys – Calder Valley	0.1km north	Moderate	Medium
7a	Farmed Ridges – Mellor Ridge	4.5km north-east	Moderate	Medium

4.45 In relation to wind energy development within Character Area 4 Moorland Fringe, 4g South Pendle Fringe within which the proposed turbine would be located the area as having a High sensitivity to wind energy development and that a scheme of a small or medium scale wind farm would be acceptable.

LANDSCAPE DESIGNATIONS

4.46 All landscape and other relevant designations are illustrated in Figure 8: Designated Landscapes.

4.47 There are no national or regional designations covering the site.

4.48 There are no World Heritage Sites or National Parks within the 7km study area.

4.49 The Forest of Bowland Area of Outstanding Natural Beauty is located within 0.5km to the north of the proposed site. The AONB southern boundary runs along Back Lane. The ZTVs indicate there are limited potential views from the area to the proposed turbine.

4.50

4.51 There are four Registered Parks and Gardens within the 7km radius study area however the ZTVs and site visits indicate that only Gawthorpe Hall would have potential visibility of the proposed turbine.

4.52 Within the 7km radius study area there are four National Trails of which the ZTVs indicate that from Burnley Way, Bronte Way and Pendle Way there are potential views from the trails to the proposed turbine.

VISUAL RECEPTORS

4.53 Due to the height of the turbine (44m to nacelle and 60.7m to tip of blade) and the variations in topography in the surrounding area, there is the potential for the development to be visible from an area extending beyond the 7.0km radius study area. However, following initial site visits and assessments, it was determined that there was little potential for the development to result in any significant visual effects at distances over 7.0km from the site. Areas with potential visibility of the proposed turbine are illustrated in Figure 9: Zone of Theoretical Visibility (ZTV) 44m to hub and Figure 10: Zone of Theoretical Visibility (ZTV) 60.7m to blade tip, Figure 11: Cumulative Zone of Theoretical visibility 60.7m to blade tip & existing wind turbines and Figure 12: ZTV 60.7m to blade tip showing National and Regional Landscape Character Areas/Types.

RESIDENTIAL RECEPTORS / PROPERTIES NEAR TO THE SITE

4.54 Residential Amenity Surveys are used to determine the significance of the visual impact to receptors at individual properties, and whether the potential impact would be assessed as being 'overbearing' or 'overwhelming' on that property.

4.55 A turbine of the height of the one being proposed for the Huntroyde Home Farm site (44m to Nacelle 60.7m to tip of blade) is unlikely to give rise to an 'overbearing' or 'overwhelming' effect at distances of more than 305m, (greater than 5x the height of the turbines) unless the turbine were located on ground considerably elevated above the receptor.

4.56 The nearest properties with a potential view of the proposed development are at Barn Moor and The Cavaliers to the north-east and east of the site.

SETTLEMENTS

4.57 The ZTVs indicate that there would be potential visibility from the settlements of Hapton, Higham, Padiham and Read to the proposed turbine. In reality there are limited potential views from within the surrounding settlements as they would be screened by adjacent buildings, localised landform and intervening vegetation within and around the periphery of the settlements

PUBLIC RIGHTS OF WAY (PROW)

4.58 There are a large number of public rights of way within the study area. The nearest paths to the proposed turbine are the footpath located to the south of Well Wood to the north of the proposed turbine and the footpath between Sabden and Priddy Bank Farm to the east.

ASSESSMENT VIEWPOINTS

4.59 The desk studies, site visits and interpretation of ZTVs enabled a number of representative viewpoints to be identified. These views were chosen as representative views and are not intended to cover every single view possible but are intended to be representative of a range of receptor types (e.g. residents, walkers, road users etc.) and also distances from the propose turbines.

4.60 Table 4.3 identifies the six viewpoints that were chosen and indicates which of them are illustrated with wireline or photomontages. The locations of the viewpoints are illustrated in Figure 2: Study Area 7.0km radius.

Table 4.3: Assessment Viewpoints

Viewpoint Number	Location	Receptors	OS Map Reference	Wireline Produced	Montage Produced
1	Trap Lane, White Hill	Footpath users - High Minor road users - Medium	377673, 436166	Yes	Yes
2	Nick of Pendle, Clitheroe Road	Footpath users - High Minor road users - Medium	377527, 438070	Yes	Yes
3	Stump Hall, Stumphall Road	Footpath users - High Minor road users - Medium	380050, 437077	Yes	Yes
4	Highham, A6068 Barrowford Road	Residents - Very High Footpath users - High Major road users - Low	380448, 436293	Yes	Yes
5	Padiham, A6068 Barrowford Road	Footpath users - High Major road users - Low	379608, 435204	Yes	Yes
6	Hapton, Manchester Road	Residents - Very High Minor road users - Medium	379244, 431739	Yes	Yes

5.0 SUMMARY OF THE ASSESSMENT OF EFFECTS ON LANDSCAPE FEATURES

CONSTRUCTION PHASE

5.1 A description of the main effects of landscape features is given below followed by a comment on the significance of the effect. All of the effects are direct in that specifically affect a particular feature with the Huntroyde Home Farm site.

5.2 Access to the site is from Whins Lane to the south of the proposed site, where there is an existing double field gate and access track up to Pan Wood to the east of the stone barn. The existing access track allows access to the field to the north of Pan Wood and Height Side Wood from which point the proposed access track across the field to provide access to the proposed turbine location. The new access track would be constructed in Metdeck, a metal decking temporary road surface. At the end of the track there will be a temporary turning point and area of hard standing for a crane. The construction of the site access track will require the widening of the gateways at the entrance to the wood and the construction of a field entrance within the post and wire fence along the southern field boundary.

5.3 The compound and access tracks would require the temporary loss of a very small section of the arable field, there would be a very low magnitude of change to its extent within the character area.

5.4 There would be **No Significant Effect** on any landscape features during the construction phase.

OPERATIONAL PHASE

5.5 The turbine is proposed within an open agricultural field, the new structures would not interfere with any existing features or require the loss of vegetation other than described above. The access track would be removed following construction. There would be a very low magnitude of change in the overall coverage of pasture land within the character area

5.6 There will be **No Additional Effect** on any landscape features within the site over and above those described above under Construction Phase.

DECOMMISSIONING PHASE

5.7 There would be **No Additional Effects** on landscape features during the decommissioning phase.

5.8 The sensitivity of the site is to development is **High**, the Magnitude of Change on Landscape Features is considered to be **Very Low**, and therefore the Significance of the Impact is **Slight** and therefore **Not Significant**.

CONCLUSION

5.9 There would be **No Significant** impacts on landscape features within or adjacent to the proposed site during construction, operation or decommissioning of the proposed turbine and associated works.

6.0 SUMMARY OF THE EFFECTS OF THE ASSESSMENT ON LANDSCAPE CHARACTER AND LANDSCAPE DESIGNATIONS

CONSTRUCTION PHASE EFFECTS ON IMMEDIATE LANDSCAPE CHARACTER (WITHIN APPROXIMATELY 1.3KM OF THE TURBINE)

6.1 There would be some temporary effects during construction in addition to those assessed as permanent effects described below. The additional effects are relatively minor in the context of the operational life of the wind turbine.

6.2 During the construction period, there would be vehicle movements associated with the construction of the temporary metdeck access track, turbine foundation and underground cable routes. The impact would result in excavation of soils, stockpiling and construction vehicle movement. These activities are not uncommon within this agricultural landscape.

6.3 The security fenced construction compound would result in a low magnitude of change and a temporary impact in the immediate landscape. There would be a crane required to construct the turbine which would be on site for a relatively short period of time and have a minimal impact.

6.4 The temporary impacts during the construction phase are considered to be **Very Low** magnitude and a slight additional effect over and above those described below for the Operational Phase.

OPERATIONAL PHASE EFFECTS ON IMMEDIATE LANDSCAPE CHARACTER (WITHIN APPROXIMATELY 1.3KM OF THE TURBINE)

6.5 As discussed above, there would be no significant effects of the proposed development on any landscape features; therefore any effects would be perceptual rather than physical.

6.6 The access track utilises the existing positions of field gates from which there would be constructed a temporary propriety metal decking system at a similar width to other tracks in the area and would appear as part of the existing track. It would therefore have a minimal impact on the landscape pattern.

6.7 The substation is a small structure which would be located adjacent to the turbine and have minimal impact on the surrounding landscape.

6.8 The wind turbine would appear as a tall manmade structure in a landscape where there is evidence of other precedent manmade industrial structures, turbines, overhead electric pylons of similar scale.

6.9 The sensitivity of the area to wind energy development is **High**, the Magnitude of Change on the Immediate Landscape Character is considered to be **Low**, and therefore the Significance of the Impact is **Moderate/Slight** and therefore **Not Significant**.

DECOMMISSIONING PHASE EFFECTS ON IMMEDIATE LANDSCAPE CHARACTER (WITHIN APPROXIMATELY 1.3KM OF THE TURBINE)

6.10 None of the decommissioning works at ground level would be visible beyond the immediate surroundings of the application site. The only additional effect would arise during a short period when a crane would dismantle the turbine, and would be barely perceptible.

6.11 Therefore, there would be no additional effect on landscape character in the immediate landscape during the decommissioning phase.

CONSTRUCTION PHASE EFFECTS ON WIDER LANDSCAPE CHARACTER (1.3 – 7.0km)

6.12 The construction works at ground level would be potentially visible from the surrounding landscape within the Calder Valley, however the vehicle movements associated with the construction of the temporary metdeck access track, turbine foundation and underground cable routes, excavation of soils, stockpiling and construction vehicle movement are not uncommon within this agricultural landscape. From distances in excess of 1.3km these works would have a limited impact.

6.13 Therefore, there would be no additional effect on landscape character in the wider landscape during the construction phase.

OPERATIONAL PHASE EFFECTS ON WIDER LANDSCAPE CHARACTER (1.3 - 7.0km)

6.14 The effects on the wider landscape character are assessed with reference to the regional landscape character areas and types identified in Chapter 4.0. The effects on each character type/area are described below.

6.15 The magnitude of change to the landscape character in each regional character area as a result of the proposed Huntroyde Home Farm turbine has been determined using professional judgement based on the following factors:

- The percentage of the overall character area from where the Huntroyde Home Farm turbine would be theoretically visible;
- The distance between the character area and the Huntroyde Home Farm turbine;
- The likely prominence of the turbine in the view; and
- The extent to which the perceptual sense of scale, remoteness, visual composition and pattern would be affected by views of the turbine in the distance.

Natural England, Volume 3 Northwest

- Character Area 33: Bowland Fringe and Pendle Hill
- Character Area 35: Lancashire Valleys

NCA33: Bowland Fringe and Pendle Hill	
Landscape Sensitivity	Medium
Operational Sites/ Baseline	
Assessment	The ZTVs indicate very limited potential visibility within this extensive NCA, which wraps around the dramatic upland core of the Bowland Fells. It extends from the Lune Valley in the north merging imperceptibly eastward into the landscape of the Ribble Valley. The eastern boundary links with the Yorkshire Dales while to the south lie the Lancashire Valleys. Visibility is generally confined to the south facing slope of Pendle Hill.
Magnitude of change to the baseline	Very Low
Magnitude and Significance of effect	Slight and therefore Not Significant

NCA-35: Lancashire Valleys	
Landscape Sensitivity	Medium
Operational Sites/ Baseline	
Assessment	The proposed turbine lies within the central section of the NCA which is approximately 40km long and up to 20km wide stretching from Skipton in the north-east to Chorley in the south-west. The presence of a single turbine within the industrialised and settled valleys would have a minimal impact on the character of the NCA.
Magnitude of change to the baseline	Very Low
Magnitude and Significance of effect	Slight and therefore Not Significant

Regional Landscape Character Types/Areas

- Character Area: Moorland Hills - Pendle Hill
- Character Area: Moorland Fringe – South Pendle Fringe
- Undulating Lowland farmland - Lower Ribblesdale (Clitheroe to Gisburn)
- Industrial Foothills and Valleys – Calder Valley
- Farmed Ridges – Mellor Ridge

RCA- Moorland Hills - Pendle Hill	
Landscape Sensitivity	Very High
Operational Sites/ Baseline	
Assessment	The ZTVs indicate that potential visibility would be limited to the south facing slopes to the north of the village of Sabden, approximately 2km from the site. In reality Black Hill Wood and intervening vegetation would further screen area from views.
Magnitude of change to the baseline	Low
Magnitude and Significance of effect	Moderate and therefore Not Significant

RCA- Moorland Fringe – South Pendle Fringe	
Landscape Sensitivity	High
Operational Sites/ Baseline	
Assessment	The RCA extends along the upper valley sides between Pendle Hill and the industrial Calder Valley. The proposed site lies within the southern-most section of the RCA and the ZTVs indicate that the turbine would be visible across a small section of the hillside between Newchurch and Read. The presence of the proposed turbine would have a marginal effect on the wider landscape.
Magnitude of change to the baseline	Low
Magnitude and Significance of effect	Moderate/Slight and therefore Not Significant

RCA- Undulating Lowland Farmland - Lower Ribblesdale (Clitheroe to Gisburn)

Landscape Sensitivity	High
Operational Sites/ Baseline	
Assessment	The ZTVs indicate two small areas of potential visibility between 3km and 6km to the west of the proposed turbine, in reality these would be further reduced by the intervening local landform, vegetation and settlements.
Magnitude of change to the baseline	Very Low
Magnitude and Significance of effect	Moderate/Slight and therefore Not Significant

RCA- Industrial Foothills and Valleys – Calder Valley

Landscape Sensitivity	Medium
Operational Sites/ Baseline	
Assessment	The site lies marginally to the north of the RCA elevated above the industrialised and settled valley. The ZTVs indicate that there would be widespread visibility across the valley, however views towards the proposed turbine would be screened, filtered and impacted upon by woodland and settlements within the valley
Magnitude of change to the baseline	Low
Magnitude and Significance of effect	Moderate/Slight and therefore Not Significant

RCA- Farmed Ridges – Mellor Ridge

Landscape Sensitivity	Medium
Operational Sites/ Baseline	
Assessment	The ZTVs indicate potential views from the north and east facing slopes of the RCA 4km or more from the proposed site. Views would be screened or filtered by the intervening local landform and woodland.
Magnitude of change to the baseline	Low
Magnitude and Significance of effect	Moderate/Slight and therefore Not Significant

Table 6.1: Landscape Character Areas/Types, Sensitivity, Magnitude of Change and Impact

Landscape Character Type	Sensitivity of Character Type/ Area	Magnitude of Change	Impact
National Landscape Character Areas			
33 Bowland Fringe and Pendle Hill	Medium	Very Low	Slight
35 Lancashire Valleys	Medium	Very Low	Slight
Regional Landscape Character Types/ Areas			
2e Moorland Hills - Pendle Hill	Very High	Low	Moderate
4g Moorland Fringe – South Pendle Fringe	High	Low	Moderate/Slight
5e Undulating Lowland farmland - Lower Ribblesdale (Clitheroe to Gisburn)	High	Very Low	Moderate/Slight
6a Industrial Foothills and Valleys – Calder Valley	Medium	Low	Moderate/Slight
7a Farmed Ridges – Mellor Ridge	Medium	Low	Moderate/Slight

DECOMMISSIONING PHASE EFFECTS ON WIDER LANDSCAPE CHARACTER (1.3-7.0KM)

6.16 The decommissioning works at ground level would be hardly visible beyond the immediate surroundings of the application site. The only additional effect would arise during a short period when a crane would dismantle the turbine, and would be barely perceptible.

6.17 Therefore, there would be **No Additional Effect** on landscape character in the wider landscape during the decommissioning phase.

EFFECTS ON LANDSCAPE DESIGNATIONS - CONSTRUCTION PHASE

6.18 The initial studies indicate that there are no landscapes designations, (World Heritage Sites, Areas of Outstanding Natural Beauty, National Parks, Greenbelts, Registered Parks and Gardens, etc.) covering or adjacent to the site.

6.19 The proposed site lies near to but outside of the Forest of Bowden AONB and the Hyndburn, Pendle and Ribble Valley Greenbelts however due to their proximity and potential visibility they are assessed below.

6.20 ZTVs and site visits indicate that there would be a small section of the southern part of the Forest of Bowland AONB north of Sabden and along the south-western edge of Pendle Hill which would have potential views towards the proposed turbine when erected. There would be no views of the proposed site works during construction from these areas. Views from the north of Sabden would be limited screened by the mature woodland along the ridge of Black Hill. From the lower slopes of Pendle Hill the upper section of the turbine would be potentially visible above the ridge, backgrounded against the southern valley sides. The potential impact on the AONB would be Very Low and Not Significant.

6.21 The Hyndburn Greenbelt lies to the south west of the proposed site between Padiham and Clayton le Moors. The ZTVs indicate potential visibility from the greenbelt towards the proposed turbine site, where construction/agricultural works would not be unusual within the landscape. In reality views would be generally screened and filtered by the intervening woodland, trees and hedgerows, buildings and

local landform, the majority of the Greenbelt would be screened and following its erection the proposed turbine would have a minimal impact on the character of the Greenbelt.

6.22 The Pendle Greenbelt lies to the south of the proposed site within the River Calder valley, south of the A6068 and A671 roads within 1.7km of the proposed turbine. The ZTVs indicate potential visibility from the greenbelt towards the proposed turbine site, where construction/agricultural works would not be unusual within the landscape. In reality views would be generally screened and filtered by the intervening woodland, trees and hedgerows, buildings and local landform, the majority of the Greenbelt would be screened and following its erection the proposed turbine would have a minimal impact on the character of the Greenbelt.

6.23 The Ribble Valley Greenbelt lies to the north of Back Lane and covers the area of the AONB described above. There are no views from the area to the proposed site, construction works being screened by landform and vegetation. The ZTVs and site visits indicate that there would be a small section of the southern part of the Greenbelt north of Sabden and along the south-western edge of Pendle Hill which would have potential views towards upper section of the proposed turbine when constructed. Although visible in some views from within the area, the majority of the Greenbelt would be screened and the proposed turbine would have a minimal impact on the character of the Greenbelt.

EFFECTS ON LANDSCAPE DESIGNATIONS – OPERATIONAL PHASE

6.24 There would be no additional effect on Landscape Designations during the Operational phase.

EFFECTS ON LANDSCAPE DESIGNATIONS – DECOMMISSIONING PHASE

6.25 There would be no additional effect on landscape character in the wider landscape during the decommissioning phase.

CONCLUSION

6.26 There would be **No Significant** impacts on the landscape character of the site or immediate area, or within Character Areas or Types or within any designated landscape as a result of the construction, operation and decommissioning of the proposed turbine and associated works.

Representative Viewpoint 2: Nick of Pendle, Clitheroe Road

Nick of Pendle, Clitheroe Road is some 2.0km to the north of the proposed wind turbine at an elevation of approximately 226m AOD. This view is representative of the short distance views from footpaths users and minor road users within the area. See Figure 15: Viewpoint 2: Nick of Pendle, Clitheroe Road and Figure 16: Wireline and photomontage, Nick of Pendle, Clitheroe Road.

Existing View:

The view is looking south from the informal carparks adjacent to the Clitheroe Road, south of the pass over the Pendle Hill, known as the Nick of Pendle. The view is looking over a relatively steep sided valley containing the village of Sabden, towards an east to west orientated ridge of high ground with the broad River Calder valley beyond. The Clitheroe Road can be seen winding down the hillside in the foreground between rough, hummocky, grass moorland covered rock outcrops of former quarries. On flatter slopes there are drystone walls containing fields of pasture. The stone and grey slate village of Sabden is visible stretching across the lower slopes of the valley along the road which forks and climbs up Black Hill to the east and west of Black Hill Wood, a predominantly deciduous woodland with coniferous plantation along the crest of the ridge. Within the valley bottom there are fields of rough pasture bounded by walls and intermittent hedgerows with occasional hedgerow trees, the field pattern breaks down as the land rises out of the valley and on steeper ground.

To the south of Black Hill ridge the broad Calder Valley including the towns of Calder and Burnley are visible lying along the valley bottom and stretching up the adjacent hillsides. Visible along the distant ridge approximately 20km to the south-east are the Scout Moor turbines and the six at Hyndburn 14km to the south-west. The three Hameldon Hill turbines 7km to the south near Hapton are backgrounded against the hillside and barely discernible, although the telecom masts and overhead electricity lines on Hameldon Hill are visible against the skyline.

Predicted view with operational wind turbine

The wire drawing indicates that the proposed turbine would be screened by the landform of Black Hill. The tip of the blades in the vertical position would potentially be visible from some viewpoints should the Black Hill Wood ever be totally felled.

Type and sensitivity of visual receptor

Footpath users - **High**

Minor road users - **Medium**

Magnitude of change to baseline view

Very Low

Assessed significance of visual impact

Footpath users – **Slight** and therefore **Not Significant**

Minor road users - **Slight** and therefore **Not Significant**

Mitigation

N/A

Representative Viewpoint 3: Stump Hall, Stumphall Road

Stump hall, Stump Hall Road is some 2.0km to the east of the proposed wind turbine at an elevation of approximately 242m AOD. This view is representative of the short/ medium distance views experienced by Footpath users of minor road users. See Figure 17: Viewpoint 3: Stump Hall, Stumphall Road and Figure 18: Wireline and photomontage, Stump Hall, Stumphall Road,

Existing View:

The view is looking west along the narrow single carriageway of Stump Hall Road which runs east to west along the ridgeline from Height Top to Black Hill. The road is recessed into the ridge with a mix of drystone walling, fences and hedgerows forming the adjacent field boundaries which generally restrict views to the north and south. The land falls to the south towards the River Calder and consists of fields of pasture divided with drystone walls and post and wire fences with occasional hedgerows towards the lower slopes of the valley, there are mature trees associated with field boundaries and around farmsteads, e.g. Hill Top Farm in the foreground. Further west there are the deciduous woodlands at Huntroyde, Priddy Bank and Well Wood and the mixed plantation at Black Hill Wood, which break up long distance views along the hillside. There are overhead lines on timber poles on the hillside which connect the isolated farms and properties. There are views to the south across the valley with the towns of Padiham and Burnley stretched out along the River Calder. On the opposite side of the valley the turbines at Scout Moor, Hameldon Hill and Hyndburn are visible in the distance.

To the north the land falls steeply from the ridge in to the Sabden Brook valley which is screened by the adjacent wall and edge of the ridge, before rising to the north to Pendle Hill, which screens all views to the north. There are long distance views to the north of Black Hill, west along the valley where there are trees and a telecom mast on the ridge.

Predicted view with operational wind turbine

The wireline drawing and photomontage indicates that the turbine is visible on the south facing hillside below the summit of Black Hill to the north. The lower section of the turbine is backgrounded against the woodland and hillside to the west with the upper section, hub and blades visible against the sky. The turbine is not prominent but visible to some receptors.

Type and sensitivity of visual receptor

Footpath users - **High**

Minor road users - **Medium**

Magnitude of change to baseline view

Low

Assessed significance of visual impact

Footpath users – **Moderate/Slight** and therefore **Not Significant**

Minor road users - **Moderate/Slight** and therefore **Not Significant**

Mitigation

N/A

Representative Viewpoint 4: Highham, A6068 Barrowford Road

Highham, A6068 Barrowford Road is some 2.2km to the east of the proposed wind turbine at an elevation of approximately 164m AOD. This view is representative of the short/medium distance views experienced by residents of Highham and users of the A6068 main road. See Figure 19: Viewpoint 4: Highham, A6068, Barrowford Road and Figure 20: Wireline and photomontage, Highham, A6068, Barrowford Road.

Existing View:

The view is from the A6068 junction with Highham Hall Road looking to the north-west towards Black Hill. The view is through a gap within a group of maturing horse chestnut trees planted within the roadside verge around the junction which is the main access to the village from the west. The view is over a well maintained, 1.2m high mixed species hedgerow and gently rising fields of pasture with wet areas denoted by swards of rushes along the hillside. The field boundaries are post and wire fencing with numerous mature trees around the fields to the west where the canopies join to screen views across the hillside. The ridge of high ground between Height Farm and Black Hill screens views to the north.

To the south there are a number of residential properties and mature trees which screen and filter views across the River Calder valley towards Burnley and beyond.

Predicted view with operational wind turbine

The wireline drawings indicate that the proposed turbine would potentially be visible from the viewpoint, and potentially other within the area although screened by the hedgerow trees across middle distance on the hillside. Where visible the turbine would generally be partially screened and appear as a minor feature and not prominent.

Type and sensitivity of visual receptor

Residents - **Very High**
Footpath users - **High**
Major road users - **Low**

Magnitude of change to baseline view

Very low

Assessed significance of visual impact

Residents – **Moderate/Slight** and therefore **Not Significant**
Footpath users – **Slight** and therefore **Not Significant**
Minor road users - **Slight** and therefore **Not Significant**

Mitigation

N/A

Representative Viewpoint 5: Padiham, A6068 Barrowford Road

Padiham, A6068 Barrowford Road is some 1.64km to the south-east of the proposed wind turbine at an elevation of approximately 135m AOD. This view is representative of the short distance views from footpath users and users of the A6068 main road in the area. See Figure 21: Viewpoint 5: Padiham, A6068 Barrowford Road and Figure 22: Wireline and photomontage, Padiham, A6068 Barrowford Road.

Existing View:

The view is taken from the junction of the A6068 with Higham Road looking to the north-west up the northern side of the River Calder valley towards Black Hill. To the west is the Old Moss residential area, an area of detached properties within mature gardens. Along the roadside is well maintained thorn hedgerow up to 1.5m high to the north of which are arable fields with post and wire fence and occasional hedgerow boundaries with numerous trees along boundaries giving the impression of a parkland landscape. Isolated farm buildings can be seen within the trees and overhead lines on timber poles cross the fields connecting the properties. Along the ridge to the north is Black Hill Wood where a coniferous plantation stands above the deciduous trees along Back Lane. The ridge at Back Lane screens all views to the north with the exception of the summit of Pendle Hill which is visible to the north-east.

To the south there are filtered views through the roadside vegetation across the valley towards Burnley and southern valley sides

Predicted view with operational wind turbine

The wireline drawing and photomontage indicates that the proposed turbine would be visible on the south facing hillside with the lower sections partially screened and backgrounded by the vegetation on the hillside with the upper section of the turbine, hub and blades visible against the sky. The turbine is clearly visible but does not form a defining element in the view.

Type and sensitivity of visual receptor

Footpath users - **High**

Major road users - **Low**

Magnitude of change to baseline view

Medium

Assessed significance of visual impact

Footpath users – **Moderate** and therefore **Not Significant**

Major road users - **Moderate/Slight** and therefore **Not Significant**

Mitigation

N/A

Representative Viewpoint 6: Hapton, Manchester Road
Hapton, Manchester Road is some 4.5km to the south of the proposed wind turbine at an elevation of approximately 143m AOD. This view is representative of the medium distance views from residents and minor road users in the area. See Figure 23: Viewpoint 6: and Figure 24: Wireline and photomontage, Hapton, Manchester Road.
Existing View:
The view is looking north from the road and pedestrian bridge over the railway line, Hapton Station and M65 motorway which are located within a cutting below, orientated east to west. The canopies of the deciduous trees along the embankments are beginning to appear above the bridge walls which are up to 2m high. To the north of the bridge there are north-south orientated terraces of stone built houses with grey slate roofs above which the valley of the River Calder is visible, rising in the north towards the horizon at Black hill and Pendle Hill in the distance to the north-east. There are overhead electricity lines on pylons emanating from the Shuttleworth Mead Business Park to the west of Padiham, within the valley and to the east and west of Hapton. The properties at the northern edge of Padiham are visible in the distance and the fields of pasture and mature trees spreading u the hillside towards Black Hill and beyond to Pendle Hill. There are no other turbines within the view.
Predicted view with operational wind turbine
The proposed turbine would be visible across the valley visible against the hillside and woodland along the crest of Black Hill. The blades would potentially be visible above the horizon against the sky. The turbine would not be prominent and be a minor feature within the view.
Type and sensitivity of visual receptor
Residents - Very High Minor road users - Medium
Magnitude of change to baseline view
Low
Assessed significance of visual impact
Residents – Moderate and therefore Not Significant Minor road users – Moderate/Slight and therefore Not Significant .
Mitigation
N/A

EFFECTS ON VISUAL RECEPTOR GROUPS

7.4 From site surveys and the analysis of the assessment viewpoints it is possible to draw some conclusions about the significance of effects on different receptor groups at different distances from the proposed development

VISUAL EFFECTS ON SETTLEMENTS WITHIN 7KM OF THE TURBINES

7.5 Views from within most settlements are generally confined by buildings, walls, fences and vegetation contained within and on the outskirts of the developed area. There are four settlements within the valley, Hapton, Higham, Padiham and Read which would experience a potential impact from views to the proposed turbine. Hapton lies in excess of 4.0km to the south of the proposed turbine, Higham Padiham and Read in an arc from south-east to south-west in excess of 2.0km km from the site and are assessed below.

SETTLEMENTS

7.6 Hapton lies in excess of 4.0km to the south of the proposed site, see Viewpoint 6 Hapton, Manchester Road. There would be no views from most of the town, screened and filtered by the adjacent buildings, vegetation etc., however there would be occasional viewpoints which have view across the valley to the north, where the proposed turbine would appear as a minor feature in the distant landscape. Views of the proposed turbine would be seen within the context of the roofscape, lighting columns chimneys and pylons and have a Very Low impact on the visual amenity and character of the town.

7.7 Higham lies 2.2km to the east of the proposed turbine, along the south facing hillside. There would be very limited views from within the town, screened by adjacent buildings, walls, fences and vegetation. There is a new housing development 'Clover Croft' at the western edge of the village which has a number of west facing properties which would see the proposed turbine above the trees on the hillside. The impact on the village would be Very Low. See Viewpoint 4 Higham, A6068 Barrowford Road.

7.8 Padiham lies 2.0km to the south of the proposed site and the A6068 Barrowford Road, the ZTVs indicate that there would be potential views from the northern and southern parts of the town with the central section along the riverside screened from view. In reality there are very limited views from within the town towards the hillside and the proposed turbine. The proposed turbine would have a Very Low impact on the visual amenity and character of the town. See Viewpoint 5 Padiham, A6068 Barrowford Road.

7.9 Read lies on the south facing hillside 2.0km to the south-west of the proposed site. There would be very limited opportunities for views towards the proposed turbine from the village with only those properties on the north and eastern outskirts of the village with potential views. Views would be across a wooded hillside which would screen most views towards the proposed turbine. The proposed turbine would have a Very Low impact on the visual amenity and character of the town.

VISUAL EFFECTS ON RESIDENTIAL RECEPTORS

7.10 There are no residential receptors within 600m of the proposed turbine. Moor Barn and The Cavaliers lie to the east and north-east of the site, both are south facing and neither have windows in the west facing elevations, therefore any views would be oblique and partially screened. Priddy Bank Farm lies approximately 600m to the south-east of the site and would be screened from views by the farm buildings and Height Side Wood.

RECREATIONAL LONG DISTANCE WALKING/CYCLING ROUTES

7.11 The Bronte Way and Pendle Way footpaths lie within the Calder Valley in excess of 2.8km to the east of the proposed site, the path follows the river from east to west before heading north towards Higham and north-eastward towards Pendle Hill. The ZTVs indicate limited visibility from the riverside section, increasing as the path turns north towards Higham. In reality the intervening local landform, trees and woodland would screen and filter views towards the proposed turbine.

7.12 There would be very limited views from the Burnley Way footpath which follows the riverside through Padiham. South of the River Calder the turbine is in excess of 3km from the path and would be seen above the town of Padiham, overhead lines etc. The turbine would be seen as a minor feature and would have a Very Low impact on the visual amenity and character of the footpath.

PUBLIC RIGHTS OF WAY (PROW)

7.13 Within the 7.0km study area there are numerous PROWs (footpaths and bridleways). Generally, where footpaths are located within approximately 1.3km of the proposed turbine and experience a clear uninterrupted view of the proposed turbine users could experience a major change to the view which would have a defining influence on the overall view. However the undulating nature of the hillside, together with the numerous areas of woodland, hedgerows and individual trees restrict the length of footpaths affected.

VISUAL EFFECTS ON MAJOR ROADS /RAILWAYS

7.14 The ZTVs indicate that there would be views from a number of main roads and a railway line within the study area, however visual surveys undertaken during site visits indicate that many roads are through built up areas with limited views due to the screening from adjacent buildings. Outside of the settlements there are numerous hedgerows and hedgerow trees, blocks of woodland etc which screen and filter views towards the proposed turbine.

7.15 The Accrington to Burnley railway line is predominantly within a railway cutting with trackside vegetation or within built up areas which screen views towards the proposed turbine

LOCAL MINOR ROADS

7.16 Back Lane lies to the north of the proposed turbine and follows the ridge line along Black Hill. Back Lane is screened from views to the north-west of the proposed turbine by the mature Black Hill Wood. To the north-east there are potential views, although lengths of the lane would be screened by the intervening local landform, vegetation and drystone wall field boundaries.

7.17 Sabden Road lies 600m to the east of the proposed turbine and is sunken in to the hillside and has a mix of drystone walls and hedgerows further restricting views out of the road corridor. There are limited potential for views from the upper section of the lane above the level of the proposed turbine.

7.18 Trapp Lane views from the lower section of the lane are restricted by the landform and woodland across the hillside and the stone wall which is up to 1.5m high along the eastern edge of the lane. There are potential views from the upper/northern section of the lane which is higher than the ground level of the proposed turbine.

7.19 Whins Lane to the south of the proposed site has limited views to the north, up the hillside towards the proposed turbine which would be generally screened by the intervening Pan Wood and height Side Wood. The turbine would be visible from the site entrance through the gap between the two woods.

CONCLUSION

7.20 The size of the proposed single turbine (44m to hub, 60.7m to blade tip) within a landscape with a limited size of the visual envelope and further fragmentation of the view within the area with numerous screening elements, landform, hedges, shelter belts, woodland, individual trees, infrastructure, settlements and individual buildings, results in a proposed scheme without many Significant Visual Impacts.

Table 7.1: Visual Receptors viewpoints, Sensitivity, Magnitude of Change, Impact, Mitigation, Residual Impact and Significance

Viewpoint	Sensitivity of Receptors	Magnitude of Change	Visual Impact/ Effect	Mitigation	Residual Effect	Significance
1 Trap Lane, White Hill.	Footpath users - High Minor road users - Medium	Medium	Footpath users – Moderate Minor road users - Moderate	-	Medium	Not Significant Not Significant
2 Nick of Pendle, Clitheroe Road	Footpath users - High Minor road users - Medium	Very Low	Footpath users – Slight Minor road users - Slight	-	Very Low	Not Significant Not Significant
3 Stump Hall, Stumphall Road	Footpath users - High Minor road users - Medium	Low	Footpath users – Moderate/Slight Minor road users – Moderate/Slight	-	Low	Not Significant Not Significant
4 Highham, A6068 Barrowford Road	Residents - Very High Footpath users - High Major road users - Low	Very low	Residents – Moderate/slight Footpath users – Slight Major road users – Slight	-	Very low	Not Significant Not Significant Not Significant
5 Padiham, A6068 Barrowford Road	Footpath users - High Major road users - Low	Medium	Footpath users – Moderate Major road users – Moderate/Slight	-	Medium	Not Significant Not Significant
6 Hapton, Manchester Road	Residents - Very High Minor road users - Medium	Low	Residents – Moderate Minor road users – Moderate/Slight	-	Low	Not Significant Not Significant

Table 7.2: Receptors, Sensitivity, Magnitude of Change, Impact, Mitigation, Residual Impact and Significance

Receptor	Sensitivity of Receptors	Magnitude of Change	Visual Impact/ Effect	Mitigation	Residual Effect	Significance
Settlement						
Hapton	Very High	Very Low	Moderate/Slight	-		Not Significant
Higham	Very High	Very Low	Moderate/Slight	-		Not Significant
Padlham	Very High	Low	Moderate	-		Not Significant
Read	Very High	Very Low	Moderate/Slight	-		Not Significant
Minor/ Local Roads						
Back Lane	Medium	Medium	Moderate	-		Not Significant
Sabden Road	Medium	Low	Moderate/Slight	-		Not Significant
Trapp Lane	Medium	Low	Moderate/Slight	-		Not Significant
Whins Lane	Medium	Low	Moderate/Slight	-		Not Significant
Principal Long Distance Trails/ Cycleways						
Bronte Way	High	Low	Moderate/Slight	-		Not Significant
Burnley Way	High	Low	Moderate/Slight	-		Not Significant
Pendle Way	High	Low	Moderate/Slight	-		Not Significant

8.0 SUMMARY OF THE ASSESSMENT OF CUMULATIVE EFFECTS

8.1 The LVIA assesses the cumulative effects (simultaneous, successive, sequential and perceptual) caused by the development of the site in conjunction with other operational, approved or submitted sites within the planning system.

8.2 Within 7km of the Huntroyde Home Farm site there are three other wind energy developments, one existing at Hameldon Hill, an extension to the Hameldon Hill site consented but not constructed and a third proposed for Copthurst Farm.

8.3 The cumulative impacts of the above proposed sites have been assessed with the proposed turbine at Huntroyde Home Farm. The zones of theoretical visibility for the existing and proposed sites are illustrated on Figure 11: Cumulative Zone of Theoretical visibility 60.7m to blade tip & existing wind turbines. The drawing illustrates the areas where the existing turbines at Hameldon Hill and the proposed Copthurst Farm and the Huntroyde Home Farm turbine are potentially visible (purple), where the other sites would be visible and not the Huntroyde Home Farm site (blue) and the additional area where Huntroyde Home Farm only would be visible (green).

Table 8.1: Wind Farm Sites within a 7.0km Radius from the Proposal

Site	Distance and direction from site	Developer	Number of Turbines	Max Output (MW)	Turbine Tip Height
Operational /Consented Wind Farms					
Hameldon Hill	6.5km south	RWE npower	3	6MW	110m
Consented Sites					
Hameldon Hill extension	6.5km south	RWE npower	3	6MW	110m
Proposed Sites					
Copthurst Farm	1.3km East	Empirica	1	330kW	60.7m

8.4 Initial baseline studies and site visits indicated that there was little potential in the surrounding landscape beyond approximately 4-5km from the site for a single turbine to have significant indirect effects on a landscape character areas/types or a receptor's experience of landscape character.

CUMULATIVE EFFECTS ON LANDSCAPE CHARACTER

8.5 It is accepted that where more than one wind farm is visible at any given location in the landscape, there will be a greater cumulative effect on the landscape character than if only one were present. The following section determines whether any combination of the existing, consented and proposed wind energy developments within the 7.0km radius study area of Huntroyde Home Farm site would result in any greater significance of effect on the National Landscape Character Areas and Local Character Types than has been already identified in the main assessment.

NCA 35: Lancashire Valleys	
Landscape Sensitivity	Medium
Operational Sites/ Baseline	
Cumulative visibility of Huntroyde Home Farm with Hameldon Hill.	The proposed turbine would be seen on the hillsides on the opposite sides of the River Calder valley above the towns of Padiham and Burnley. Although the ZTVs indicate widespread visibility throughout the valley, much of the valley is urbanised and settled by the towns and villages and connected by an extensive road, rail and overhead line network. The addition of the proposed turbine to the baseline with the existing three turbines at Hameldon Hill would have a minor impact on the NCA.
Magnitude of cumulative change to the baseline	Very Low
Magnitude and Significance of cumulative effect	Slight
Consented Sites	
Cumulative visibility of Huntroyde Home Farm with Hameldon Hill Extension	The additional three turbines at Hameldon Hill would be seen as part of the existing Hameldon Hill wind farm and the addition of a single turbine on the opposite hillside would have little impact on the NCA where the addition would not alter the main characteristics of the NCA
Magnitude of cumulative change to the baseline	Very Low
Magnitude and Significance of cumulative effect	Slight
Sites in Planning	
Cumulative visibility of Huntroyde Home Farm with Copthurst Farm	The two turbines would be seen in views on the northern hillside above Padiham, although separated by 1.3km of pasture and woodland the two turbines would be seen as a pair and have little addition impact than a single turbine alone. The addition would not alter the main characteristics of the NCA.
Magnitude of cumulative change to the baseline	Very Low
Magnitude and Significance of cumulative effect	Slight

NCA 36: Southern Pennines	
Landscape Sensitivity	Medium
Operational Sites/ Baseline	
Cumulative visibility of Huntroyde Home Farm with Hambleton Hill	The Hameldon Hill wind farm lies within NCA at 6-7km from the proposed Huntroyde turbine. There is only a very small area of the NCA within the study area and the addition of the Huntroyde turbine would have a minimal impact on the NCA not altering any of its characteristics.
Magnitude of cumulative change to the baseline	Very Low
Magnitude and Significance of cumulative effect	Slight and therefore Not Significant
Consented Sites	
Cumulative visibility of Huntroyde Home Farm with Hameldon Hill Extension	The Hameldon Hill extension would be seen as part of the existing wind farm which lies within NCA at 6-7km from the proposed Huntroyde turbine. There is only a very small area of the NCA within the study area and the addition of the Huntroyde turbine would have a minimal impact on the NCA not altering any of its characteristics.
Magnitude of cumulative change to the baseline	Very Low
Magnitude and Significance of cumulative effect	Slight and therefore Not Significant
Sites in Planning	
Cumulative visibility of Huntroyde Home Farm with Copthurst Farm	The two turbines would be seen in views from the NCA on the northern hillside above Padiham, with the Hameldon Hill wind farm in the foreground. Although separated by 1.3km of pasture and woodland the two turbines would be seen as a pair and have little addition impact than a single turbine alone. The addition would not alter the main characteristics of the NCA.
Magnitude of cumulative change to the baseline	Very Low
Magnitude and Significance of cumulative effect	Slight and therefore Not Significant

RCA:2e Moorland hills – Pendle Hill	
Landscape Sensitivity	Very High
Operational Sites/ Baseline	
Cumulative visibility of Huntroyde Home Farm with Hameldon Hill.	There are limited views to the proposed turbine from within the RCA with the existing Hameldon Hill turbines on the opposite valley hillside with the town of Padiham, motorway, roads, overhead lines etc spread across the valley 10km to the south. The turbine would have a minor impact on the south-western tip of the RCA whilst the presence of the Hameldon Hill turbines do not alter the main characteristics of the RCA.
Magnitude of cumulative change to the baseline	Very Low
Magnitude and Significance of cumulative effect	Moderate/Slight and therefore Not Significant
Consented Sites	
Cumulative visibility of Huntroyde Home Farm with Hameldon Hill Extension	The Hameldon Hill extension would be seen as part of the existing wind farm which lies on the opposite valley side approximately 10km to the south. The addition of the Huntroyde turbine would have a minimal additional impact on the RCA not altering any of its main characteristics.
Magnitude of cumulative change to the baseline	Very Low
Magnitude and Significance of cumulative effect	Moderate/Slight and therefore Not Significant
Sites in Planning	
Cumulative visibility of Huntroyde Home Farm with Copthurst Farm	The two turbines would be seen in views from limited parts of the RCA above Sabden. Although separated by 1.3km of pasture and woodland the two turbines would be seen as a pair and have a limited addition impact than a single turbine alone. The addition would not alter the main characteristics of the RCA.
Magnitude of cumulative change to the baseline	Very Low
Magnitude and Significance of cumulative effect	Moderate/Slight and therefore Not Significant

RCA: 4g Moorland Fringe – South Pendle Fringe	
Landscape Sensitivity	High
Operational Sites/ Baseline	
Cumulative visibility of Huntroyde Home Farm with Hameldon Hill.	The proposed turbine would be located within the RCA with the existing Hameldon Hill turbines on the opposite valley hillside with the town of Padiham, motorway, roads, overhead lines etc spread across the valley to the south. The turbine would have a minor impact on the south-western tip of the RCA whilst the presence of the Hameldon Hill turbines would not alter the main characteristics of the RCA.
Magnitude of cumulative change to the baseline	Low
Magnitude and Significance of cumulative effect	Moderate/Slight and therefore Not Significant
Consented Sites	
Cumulative visibility of Huntroyde Home Farm with Hameldon Hill Extension	The Hameldon Hill extension would be seen as part of the existing wind farm which lies on the opposite valley side at 6-7km from the proposed Huntroyde turbine. The addition of the Huntroyde turbine would have a minimal additional impact on the RCA not altering any of its man characteristics.
Magnitude of cumulative change to the baseline	Low
Magnitude and Significance of cumulative effect	Moderate/Slight and therefore Not Significant
Sites in Planning	
Cumulative visibility of Huntroyde Home Farm with Copthurst Farm	The two turbines would be seen in views from parts of the RCA on the northern hillside above Padiham. Although separated by 1.3km of pasture and woodland the two turbines would be seen as a pair and have a limited addition impact than a single turbine alone. The addition would not alter the main characteristics of the RCA.
Magnitude of cumulative change to the baseline	Low
Magnitude and Significance of cumulative effect	Moderate/Slight and therefore Not Significant

RCA: 5e Undulating Lowland Farmland – Lower Ribblesdale (Clitheroe to Gisburn)x	
Landscape Sensitivity	High
Operational Sites/ Baseline	
Cumulative visibility of Huntroyde Home Farm with Hameldon Hill.	The ZTVs indicate very limited visibility which would be further reduced by distance, settlements, vegetation etc. The introduction of the proposed turbine would have no additional impact than the existing Hameldon Hill turbines.
Magnitude of cumulative change to the baseline	Very Low
Magnitude and Significance of cumulative effect	Slight and therefore Not Significant
Consented Sites	
Cumulative visibility of Huntroyde Home Farm with Hameldon Hill Extension	As above.
Magnitude of cumulative change to the baseline	Very Low
Magnitude and Significance of cumulative effect	Slight and therefore Not Significant
Sites in Planning	
Cumulative visibility of Huntroyde Home Farm with Copthurst Farm	The addition of the proposed turbine at Copthurst Farm would have a minimal additional impact on the RCA.
Magnitude of cumulative change to the baseline	Very Low
Magnitude and Significance of cumulative effect	Slight and therefore Not Significant

RCA: Industrial Foothills and Valleys – Calder Valley	
Landscape Sensitivity	Medium
Operational Sites/ Baseline	
Cumulative visibility of Huntroyde Home Farm with Hameldon Hill.	The addition of the proposed turbine on the opposite valley side to the Hameldon Hill cluster would have a minimal impact on the RCA which consists of a settled and industrialised valley. The addition would have little impact on the character of the RCA.
Magnitude of cumulative change to the baseline	Very Low
Magnitude and Significance of cumulative effect	Slight and therefore Not Significant
Consented Sites	
Cumulative visibility of Huntroyde Home Farm with Hameldon Hill Extension	As above.
Magnitude of cumulative change to the baseline	Very Low
Magnitude and Significance of cumulative effect	Slight and therefore Not Significant
Sites in Planning	
Cumulative visibility of Huntroyde Home Farm with Copthurst Farm	The two turbines would be seen in views from parts of the RCA on the northern hillside above Padiham. Although separated by 1.3km of pasture and woodland the two turbines would be seen as a pair and have a limited addition impact than a single turbine alone. The addition would not alter the main characteristics of the RCA.
Magnitude of cumulative change to the baseline	Very Low
Magnitude and Significance of cumulative effect	Slight and therefore Not Significant

RCA: Farmed Fringes – Mellor Ridge	
Landscape Sensitivity	Medium
Operational Sites/ Baseline	
Cumulative visibility of Huntroyde Home Farm with Hameldon Hill.	The addition of the proposed turbine on the opposite valley side to the Hameldon Hill cluster would have a minimal impact on the RCA. The addition would have little impact on the character of the RCA.
Magnitude of cumulative change to the baseline	Very Low
Magnitude and Significance of cumulative effect	Slight and therefore Not Significant
Consented Sites	
Cumulative visibility of Huntroyde Home Farm with Hameldon Hill Extension	The addition of the proposed turbine on the opposite valley side to the Hameldon Hill cluster and extension would have a minimal impact on the RCA. The addition would have little impact on the character of the RCA.
Magnitude of cumulative change to the baseline	Very Low
Magnitude and Significance of cumulative effect	Slight and therefore Not Significant
Sites in Planning	
Cumulative visibility of Huntroyde Home Farm with Copthurst Farm	The two turbines would be seen in views from parts of the RCA on the northern hillside above Padiham. Although separated by 1.3km of pasture and woodland the two turbines would be seen as a pair and have a limited addition impact than a single turbine alone. The addition would not alter the main characteristics of the RCA.
Magnitude of cumulative change to the baseline	Very Low
Magnitude and Significance of cumulative effect	Slight and therefore Not Significant

8.6 The above assessment identifies the potential landscape effects for the proposed turbine at Huntroyde Home Farm in relation to the existing baseline including the existing and consented turbines at Hameldon Hill and the proposed turbine at Copthurst Farm. The principle effects are summarised below.

8.7 The proposed wind turbine at Huntroyde Home Farm would be located within Lancashire Valleys NCA and the Moorland Fringe, South Pendle Fringe RCA on the northern side of the broad industrial and settled valley of the River Calder.

8.8 The area consists of towns and villages spread across the valley floor and sides, interconnected by a network of road, rail, overhead power lines, with fields of pasture and blocks of woodland in between the urban areas. It is a complex and fragmented landscape which contains numerous large vertical elements, chimneys, turbines, pylons etc. Above the valley are the hills and moors where the landscape character is more unified and simple.

8.9 The assessment indicates that there would be no Significant impacts on the two National Character Areas, or to the five Regional Landscape Character Types/Areas identified within the 7.0km

radius study area as having potential cumulative visibility with the proposed, existing and consented turbines.

8.10 The Cumulative ZTV indicates that within the study area there is the potential for views to either the existing and consented wind turbines at Hameldon Hill to the south or the proposed Copthurst Farm scheme to the east. However assessments made during site visits indicate that the nature of the landscape with large urban areas and elements, interspersed with rural areas with screening provided by hedgerows, trees and woodland screen the majority of potential views between the individual sites, limiting them to occasional views. The schemes on the north and south sides of the valley are 6.5km apart and have limited cumulative impact. The Huntroyde and Cothurst schemes could be seen as either individual sites or read as a pair of turbines depending on the viewpoint however their cumulative impact on the character of the area would be minimal. There would be no sense that journeys through the landscape would be dominated by the existing, consented or proposed wind turbines. The landscape would remain the dominant feature.

8.11 The cumulative impact across the National and Regional Landscape Character Areas and Types within the study area is generally Moderate/Slight to Slight and therefore not Significant.

8.12 The cumulative visual effects have been assessed from each of the selected viewpoints which represent cumulative effects on multiple receptors, residential settlements, transport routes, recreational routes and designated areas of landscape near to each viewpoint, in order to present a fair and reasonable appraisal.

8.13 The assessments involved predictions relating as to the, successive and sequential views.

Viewpoint	Type and Assessment of Views	
1: Trap Lane, White Hill	Simultaneous:	The Huntroyde Home Farm and Copthurst Farm would be visible in the same view to the east above the wall or from the adjacent footpath Predicted magnitude of change to baseline view: Medium magnitude (of change of view) visual impact of turbine. Type and sensitivity of visual receptor(s) Footpath users - High Minor road users - Medium Assess significance of visual impact: Footpath users – Moderate and therefore Not Significant Minor road users - Moderate and therefore Not Significant
	Successive:	There are very limited potential views across the valley towards the existing and proposed Hameldon Hill turbines. Predicted magnitude of change to baseline view: Very Low magnitude (of change of view) visual impact of turbine. Type and sensitivity of visual receptor(s) Footpath users - High Minor road users - Medium Assess significance of visual impact: Footpath users – Slight and therefore Not Significant Minor road users - Slight and therefore Not Significant
	Sequential:	N/A

Viewpoint	Type and Assessment of Views	
2: Nick of Pendle, Clitheroe Road	Simultaneous:	The upper section of the proposed Huntroyde Home Farm and Copturst Farm are potentially visible within the same view above Black Hill, however the woodland along the ridge screens some views to the Huntroyde turbine. The Hameldon Hill turbines are screened. Predicted magnitude of change to baseline view: Low magnitude (of change of view) visual impact of turbine. Type and sensitivity of visual receptor(s) Footpath users - High Minor road users - Medium Assess significance of visual impact: Footpath users – Moderate/Slight and therefore Not Significant Minor road users – Moderate/Slight and therefore Not Significant
	Successive:	N/A
	Sequential:	N/A

Viewpoint	Type and Assessment of Views	
3: Stump Hall, Stumphall Road	Simultaneous:	From the viewpoint the Copthurst Farm turbine would be seen in the foreground with the Huntroyde turbine further to the west. Both appear at a similar level below the ridge and woodland at Black Hill. Predicted magnitude of change to baseline view: Medium magnitude (of change of view) visual impact of turbine. Type and sensitivity of visual receptor(s) Footpath users - High Minor road users - Medium Assess significance of visual impact: Footpath users – Moderate and therefore Not Significant Minor road users - Moderate and therefore Not Significant
	Successive:	In views to the south the Hameldon Hill existing and proposed turbines would be visible on the opposite valley side above the town of Padiham and Hapton. Predicted magnitude of change to baseline view: Low magnitude (of change of view) visual impact of turbine. Type and sensitivity of visual receptor(s) Footpath users - High Minor road users - Medium Assess significance of visual impact: Footpath users – Moderate/Slight and therefore Not Significant Minor road users – Moderate/Slight and therefore Not Significant
	Sequential:	N/A

Viewpoint	Type and Assessment of Views	
4: Highham, A6068 Barrowford Road	Simultaneous:	The proposed Huntroyde turbine is screened by the trees on the hillside, the upper section of the Copthurst Farm turbine is visible above the trees in the middle distance. No other turbines are visible. Predicted magnitude of change to baseline view: Low magnitude (of change of view) visual impact of turbine. Type and sensitivity of visual receptor(s) Residents - Very High Footpath users - High Major road users - Low Assess significance of visual impact: Residents – Moderate and therefore Not Significant Footpath users – Moderate/Slight and therefore Not Significant Major road users - Slight and therefore Not Significant
	Successive:	N/A
	Sequential:	N/A

Viewpoint	Type and Assessment of Views	
5: Padiham, A6068 Barrowford Road	Simultaneous:	No other turbines are visible.
	Successive:	The proposed Huntroyde turbine is visible above the woodland stretching over the hillside and above the horizon of Black hill to the north-west, with the Copthurst turbine visible to the north-east backgrounded against Pendle Hill. The turbines at Hameldon Hill are discernible through the trees on the hillside to the south. Predicted magnitude of change to baseline view: Medium magnitude (of change of view) visual impact of turbine. Type and sensitivity of visual receptor(s) Footpath users - High Major road users - Low Assess significance of visual impact: Footpath users – Moderate and therefore Not Significant Major road users – Moderate/Slight and therefore Not Significant
	Sequential:	N/A

Viewpoint	Type and Assessment of Views	
6: Hapton, Manchester Road	Simultaneous:	The Huntroyde and Copthurst turbines would be visible across the valley, approximately 4.5km to the north. They would appear as minor features above the settled valley backgrounded against the hillside and not prominent in the view. Predicted magnitude of change to baseline view: Low magnitude (of change of view) visual impact of turbine. Type and sensitivity of visual receptor(s) Residents - Very High Minor road users - Medium Assess significance of visual impact: Residents – Moderate and therefore Not Significant Minor road users – Moderate/Slight and therefore Not Significant
	Successive:	N/A
	Sequential:	N/A

8.14 Of the six visual receptor viewpoints studied for the landscape and visual appraisal of the single turbine proposal the assessment indicates that the potential of the Huntroyde Home Farm turbine when added to a base line containing the existing and consented Hameldon Hill and the proposed Copthurst Farm turbines would not give rise to many significant cumulative impacts.

8.15 The ZTVs may indicate theoretical cumulative views from some of the viewpoints however the table below is based on site assessments and represents a more realistic viewpoint assessment.

Table 8.2: Cumulative views together with the existing, consented and proposed turbines.

Ref	Viewpoint	Hameldon Hill	Hameldon Hill Extension	Copthurst Farm
1	Trap Lane, White Hill	Suc	Suc	Sim
2	Nick of Pendle, Clitheroe Road	N/A	N/A	Sim
3	Stump Hall, Stumphall Road	Suc	Suc	Sim
4	Highham, A6068 Barrowford Road	N/A	N/A	Sim
5	Padiham, A6068 Barrowford Road	Suc	Suc	Suc
6	Hapton, Manchester Road	N/A	N/A	Sim

Simultaneous = Sim, Successive = Suc, Sequential = Seq, N/A = No views

CONCLUSION

8.16 Where views are available from within the study area the proposed Huntroyde Home Farm turbine would be generally only be seen simultaneously with the proposed Copthurst Farm turbine.

8.17 There would be very limited potential for views of the Huntroyde Home Farm and the existing and proposed Hameldon Hill wind turbines.

8.18 There would be no sense that journeys through the landscape would be dominated by the existing, consented or proposed wind turbines.

8.19 The landscape and visual cumulative assessment indicates that there would be limited significant impacts from including the Huntroyde Home Farm turbine to the existing or proposed baseline landscape if the turbine received planning approval.

9.0 SUMMARY AND CONCLUSIONS

9.1 The Landscape and Visual Impact Assessment (LVIA) has been prepared for the proposed single wind turbine, 44m to nacelle, 60.7m to blade tip, development at Huntroyde Home Farm, Burnley, Lancashire. It considers the potential effects of the single turbine for a period of 25 years upon:

- Individual landscape features and elements;
- Landscape character; and
- Visual amenity and the people who view the landscape.

9.2 The site lies within the Lancashire Valleys NCA, the single turbine would effect a very small section of the character area which already contains urban areas and other large structures, turbines, pylons and telecom masts the impact would be **Slight** and therefore **Not Significant**.

9.3 Within the 7.0km radius study area there are nine Regional Landscape Character Areas. The ZTVs indicate inter-visibility with five of the areas and the Significance of the Impact would be generally **Moderate/Slight** and therefore **Not Significant**.

9.4 The ZTVs indicate limited visibility across the study area, which is generally confined to within the Calder Valley to the south of the proposed turbine, however the screening effect of the existing hedges and trees, buildings and settlements and the local landform results in a landscape with limited visibility of the proposed turbine, with many long distant views from across the valley from where the proposed turbine would appear as a minor feature.

9.5 The sensitivity of the site to wind energy development is **Medium**, the Magnitude of Change on the Landscape Character is considered to be **Low**, and therefore the Significance of the Impact is **Moderate/Slight** and therefore **Not Significant**.

9.6 Of the six viewpoints and the 13 receptor groups assessed the visual impacts have been assessed as being generally between **Moderate to Slight** and therefore **Not Significant** for most of the viewpoints.

9.7 The size of the proposed single turbine (44m to hub, 60.7m to blade tip) within a landscape with a number of comparable size structures, together with the limited size of the visual envelope and further fragmentation of the view within the area, results in a proposed scheme without many Significant Visual Impacts.

9.8 The proposed Huntroyde Home Farm turbine would theoretically be seen cumulatively in combination with the existing and consented turbines at Hameldon Hill and the proposed turbine at Copthurst Farm however in reality the landscape and visual cumulative assessment indicates that there would be no significant impacts that could not be mitigated or reversed. Where views are potentially available as illustrated on the ZTVs many are either screened or filtered by existing local landform and vegetation further reducing the impact of the proposed development.

9.9 The above assessment of the landscape and visual impacts and cumulative landscape and visual impacts indicate a general residual range from **Moderate to Slight** and therefore **Not Significant**. Having given careful consideration to the potential landscape and visual impacts/effects throughout the study area, it is considered on balance that the proposed Huntroyde Home Farm wind turbine development is acceptable.

Appendix A LANDSCAPE AND VISUAL IMPACT ASSESSMENT METHODOLOGY

1.0 INTRODUCTION

1.1 This Appendix describes in detail the methodology that has been used to undertake the Landscape and Visual Impact Assessment (LVIA) presented in the Report.

1.2 The structure of the appendix is as follows:

- Section 2.0 identifies the published guidance documents used in the assessment;
- Section 3.0 explains the difference between landscape and visual effects;
- Section 4.0 describes the different types of effect considered in the assessment;
- Section 5.0 defines the study area used in the assessment;
- Section 6.0 describes the methodology used for the assessment of effects on landscape features and landscape character;
- Section 7.0 describes the methodology used for the assessment of effects on visual receptors;
- Section 8.0 states the criteria that have been used for determining the sensitivity of landscape and visual receptors and the magnitude of change on those receptors;
- Section 9.0 explains how levels of significance have been derived using the combination of sensitivity and magnitude; and
- Section 10.0 explains the nature of effects on landscape and visual resources.

2.0 PUBLISHED GUIDANCE DOCUMENTS

2.1 The LVIA has been undertaken in accordance with best practice, as outlined in published guidance:

- The Guidelines for Landscape and Visual Impact Assessment, 2nd Edition, 2002 Landscape Institute and the Institute for Environmental Management and Assessment
- Guidelines for Landscape Character Assessment, 2002 Countryside Agency and Scottish Natural Heritage (SNH);
- Guidelines for Environmental Impact Assessment, 2004 Institute for Environmental Management and Assessment.

2.2 Consideration has also been given to the following documents:

- Visual Representation of Windfarms - Good Practice Guidance, March 2006, SNH commissioned report no. FO3 AA 308/2.
- Guidelines on the Environmental Impacts of Wind farms and Small Scale Hydroelectric Schemes, 2001 SNH;
- Guidance for the Assessment of Cumulative Landscape and Visual Impacts Arising from Windfarm Developments (3rd Draft), 2004 SNH;
- Planning for Renewable Energy: A Companion Guide to PPS 22, 2004 Office of the Deputy Prime Minister

7.24 For a detailed discussion regarding the limitations of wirelines, please refer to Visual Representation of Windfarms - Good Practice Guidance, March 2006 (SNH commissioned report FO3 AA 308/2).

PHOTOMONTAGES

7.25 A photomontage is the superimposition of a rendered, photorealistic, computer generated model of a structure or structures (a wind turbine) on to a baseline photograph.

7.26 Photographs were taken using a Nikon D90 digital SLR camera using a high quality Nikon DX lens accurately calibrated to provide the equivalent of a 50mm lens on a traditional SLR camera. All pictures were taken using a levelled tripod and using a high quality setting of 8.2 megapixel resolution. Each of the viewpoints presented in the ES is made up of 3 photographs which have been stitched together using Adobe Photoshop software and cropped to give the equivalent of a 90 degree angle of view in the horizontal field. During the stitching process none of the photographs were distorted in terms of scaling.

7.27 At the time the photographs were taken, co-ordinates of the viewpoints were recorded using a GPS. Photographs were taken at 1.5m above ground level (approx eye level).

7.28 A 3D wireframe model was generated of the turbine. Resoft Wind farm release 4.2 software was used to generate the 3D model of the turbines. The model of the structures was rendered and lighting was set appropriate to the date, time and orientation on which the photograph was taken. A digital ground terrain model was generated in Resoft Wind farm release 4.2 and the development was overlaid on top of it. Using world coordinates in the computer modelling programme the photographic viewpoints were replicated such that a view was set up looking at the structures from exactly the same location as where the baseline photograph was taken from.

7.29 The view from the model was then superimposed over the original photograph and edited as necessary in Adobe Photoshop to give a final photomontage. Several known landmarks in the far distance of the baseline photographs were recorded on site using a GPS and used to check that the positioning and scale of the structures was correct.

7.30 The photomontages have been produced according to best practice and whilst every effort has been made to ensure the accuracy of the photomontages, no photomontage could ever claim to be 100% accurate as there are a number of technical limitations in the model relating to the accuracy of information available from Ordnance Survey and from the GPS, as detailed in Visual Representation of Windfarms - Good Practice Guidance, March 2006 (SNH report FO3 AA 308/2).

7.31 The photomontages are a tool to assist the Landscape Architect in their assessment of effects. The assessment of visual effects in this chapter does not rely on the accuracy of the photomontages. Professional judgement has been used to evaluate the significance of effects.

7.32 Each of the photomontages should be viewed from a distance of approximately 300-433mm to give an accurate representation of what the development will look like.

8.0 ASSESSMENT CRITERIA

8.1 The ultimate purpose of the LVIA is to evaluate the likely significance of landscape and visual effects within the study area to assist the determining authority in considering the acceptability of the scheme.

8.2 The significance of effects is ascertained by cross referencing the sensitivity of the baseline landscape or visual receptor and the magnitude of change as a result of the development, in accordance with the GLVIA.

SENSITIVITY OF LANDSCAPE FEATURES

8.3 The sensitivity of an individual landscape feature reflects factors such as its quality, value, contribution to landscape character and the degree to which the particular element can be replaced.

8.4 'Quality' refers to a landscape feature's (hedge, woodland, footpath etc) condition in terms of its general level of intactness.

8.5 'Value' refers to any specific cultural or historic associations (village green, structure, specific tree etc). Often highly valued landscape features are designated (eg Tree Preservation Orders, historic hedgerows, listed structures).

8.6 Landscape features which contribute to a landscape with a strong sense of character are generally regarded to be of a higher sensitivity.

8.7 A landscape feature which can be replaced easily or can be mitigated for generally has a lower sensitivity than a feature which cannot be replaced.

8.8 Taking the above factors into account it should therefore be noted that a particular feature may be more sensitive in one location than in another. Where individual landscape features are affected, professional judgement has been used as far as possible to give an objective evaluation of its sensitivity. Justification is given for this evaluation where necessary.

8.9 The sensitivity of landscape features is described as very high, high, medium, low or very low.

SENSITIVITY OF LANDSCAPE CHARACTER

8.10 The sensitivity of landscape character is an expression of a landscape's ability to accommodate change, in this case the development of a wind turbine. It varies depending on the existing land use, pattern and scale of the landscape, the degree of openness, scope for mitigation in keeping with the existing landscape character, condition, value placed on the landscape and any designations that may apply.

8.11 Landscape character is considered at two levels.

8.12 Firstly impacts on landscape character are considered at the local level based on a site specific analysis of the character immediately surrounding the site (within approximately 1km of the site).

8.13 Secondly impacts on landscape character are considered at the wider landscape level by reference to the regional landscape character areas within 7.0km of the site. Based on early analysis of the landscape character within the study area (as presented in Appendix B), it was concluded that there would be no significant effects on landscape character beyond this distance. At any point beyond this distance, it is considered that the visual influence of a single turbine would be experienced in the context of any number of prominent man made features and therefore the impact of the turbine would in no instance result in any greater than a slight effect on landscape character.

8.14 For the immediate landscape character, a site-specific appraisal has been undertaken of the landscape within and immediately surrounding the site and an evaluation is made in the baseline section of the LVIA regarding its sensitivity to wind energy development.

8.15 The Landscape Sensitivity to Wind Energy Development in Lancashire document provides information regarding the capacity of each of the landscape character types to accept wind energy development. The Sensitivity of LCAs to Wind Energy Development is illustrated in Figure 06, Landscape Sensitivity.

8.16 To ensure consistency throughout the LVIA the five point scale used within Lancashire County Council document has been correlated with the scale used throughout the LVIA, see below

Table 9.1: demonstrates the correlation between the Landscape Sensitivity to Wind Energy Development in Lancashire sensitivity ratings and the thresholds used in this LVIA

Sensitivity of LCAs to Wind Energy Development	LVIA Sensitivity Rating
8.17 Low	8.18 Very Low
8.19 Moderate/Low	8.20 Low
8.21 Moderate	8.22 Medium
8.23 Moderate/High	8.24 High
8.25 High	8.26 Very High

8.27 The sensitivity of landscape character has been described as very high, high, medium, low or very low

8.28 Each of the landscape character types/areas identified in Paragraph 4.30 to 4.43 above has been considered below in relation to its sensitivity to wind energy development and summarised in Table 4.2.

SCALE OF WIND ENERGY DEVELOPMENT

8.29 The document considered the appropriate scale of wind energy developments that may be appropriate within each LCA, notwithstanding the findings of sensitivity. In this context the following typology for scales of wind energy development: was prepared to address four scales of development:

- Small scales clusters (2-5 1.3MW+ turbines)
- Medium scale clusters (6-10 1.3MW+ turbines)
- Large scale clusters (11-25 1.3MW+ turbines)
- Very large scale clusters (26+ 1.3MW+ turbines)

8.30 The scale of development that may be appropriate is not directly related to the sensitivity of the landscape to wind energy development, although this is influenced by many of the same considerations. Where wind energy development is considered to be appropriate, the appropriate scale of such development will be determined by a variety of factors to include the following:

- Scale of the landscape,
- Other sensitivity parameters as identified in Table 1 incl. physical, perceptual, visual and value,
- The extent of the LCA or the potential development site within it,
- Other development constraints.

8.31 It should be noted that single turbines are not considered in the context of this broad strategic study.

SENSITIVITY OF VISUAL RECEPTORS

8.32 The sensitivity of a visual receptor to a wind farm depends on a number of factors such as the occupation of the viewer, their viewing expectations, duration of view and the angle or direction in which they would see the site. The following criteria are provided for guidance only:

Table A-1: Sensitivity of the Visual Receptor

Sensitivity of the Visual receptor	Criteria
Very High	Residents with views of the site, people at recognised vantage points, people at tourist attractions with a specific focus on the view, visitors to historic features/estates where the setting is important to an appreciation and understanding of the property/history.
High	Residents, users of long distance trails (e.g. Pennine Way) and public rights of way, caravan parks and campsites, tourist attractions with opportunities for views of the landscape (but not specifically requiring an appreciation of the landscape), slow paced recreational activities which derive part of their pleasure from an appreciation of setting (e.g. golf).
Medium	Users of minor road users and commercial railways travelling through or past the affected landscape, recreational activities not specifically focused on the landscape (e.g. football), hotel users.
Low	People at their place of work (e.g. offices), shoppers, users of trunk/major roads.
Very Low	Industrial and commercial activities, military facilities.

8.33 It should be noted that the selected viewpoints are inherently more sensitive than the average visual receptor in the study area. When selecting representative viewpoints, there was a strong bias towards identifying the most sensitive visual receptors as the focus of the study is primarily where impacts were likely to be most significant.

MAGNITUDE OF IMPACTS ON LANDSCAPE FEATURES

8.34 Professional judgement has been used to determine the magnitude of direct physical impacts on individual existing landscape features using the following criteria as guidance only:

Table A-2: Magnitude of Change on Landscape Features

Magnitude of Change on Landscape Features	Criteria
Very High	Total loss or alteration to an existing landscape feature.
High	Major loss or major alteration to an existing landscape feature.
Medium	Some loss or some alteration to part of an existing landscape feature.
Low	Minor loss or alteration to part of an existing landscape feature.
Very Low	No loss or negligible alteration to existing landscape features.

MAGNITUDE OF IMPACTS ON THE IMMEDIATE LANDSCAPE CHARACTER

8.35 The magnitude of impacts on immediate landscape character is influenced by a number of factors including: the extent to which existing landscape features are lost or altered, the introduction of new features and the resulting alteration to the scale, landform, land cover and pattern of the landscape.

Professional judgement has been used to determine the magnitude using the following criteria as guidance only:

Table A-3: Magnitude of Change on the Immediate Landscape Character

Magnitude of Change on the Immediate Landscape Character	Criteria
Very High	Total loss or alteration to existing landscape features; Introduction of dominant new features into the landscape which prevents and appreciation of the underlying landform, land cover and pattern of the landscape.
High	A major loss or alteration to existing landscape features; Introduction of major new features into the landscape; or A major change to the scale, landform, land cover and pattern of the landscape.
Medium	Some notable loss or alteration to existing landscape features; Introduction of some notable new features into the landscape; or Some notable change to the scale, landform, land cover and pattern of the landscape.
Low	Minor loss or alteration to existing landscape features; Introduction of minor new features into the landscape; or Minor alteration to the scale, landform, land cover and pattern of the landscape.
Very Low	No notable loss or alteration to existing landscape features; No notable introduction of new features into the landscape; and Negligible change to the scale, landform, land cover and pattern of the landscape.

MAGNITUDE OF IMPACTS ON THE WIDER LANDSCAPE CHARACTER

8.36 The magnitude of impacts on the wider landscape is discussed using the landscape character areas/types taken from the relevant landscape character assessment and identified in the baseline section of the assessment. The magnitude of the impacts reflects the extent to which aspects of the development are visible within the landscape character area and how this affects the overall appreciation of scale, remoteness, visual composition, pattern and landform. The extent to which distant turbines would affect appreciation of these factors depends on how prominent they would appear from the character area.

8.37 Professional judgement has been used to determine the magnitude using the following criteria as guidance only:

Table A-4: Magnitude of Change on the Wider Landscape Character

Magnitude of Change on the Wider Landscape Character	Criteria
Very High	Presence of the site prevents any appreciation of the baseline landscape.
High	Presence of the site fundamentally alters the appreciation of scale, remoteness, visual composition, pattern or landform.
Medium	Presence of the site notably alters the appreciation of scale, remoteness, visual composition, pattern or landform slightly.
Low	Presence of the site marginally alters the appreciation of scale, remoteness, visual composition, pattern or landform.
Very Low	Site not visible or barely visible from the landscape character area.

MAGNITUDE OF VISUAL IMPACTS

8.38 Visual impacts are caused by the introduction of new elements into the views of a landscape or the removal of elements in the existing view.

8.39 Clearly justified professional judgement has been used to determine the magnitude of impacts using the following criteria as guidance only:

Table A-5: Magnitude of Visual Impacts

Magnitude of Visual Impacts	Criteria
Very High	A change in the view that has a dominating or overbearing influence on the overall view. Within 5 x the 'tip of blade' height of proposed turbine (in this case, within 335m).
High	A major change in the view that has a defining influence on the overall view. Between 5 x and 20 x the height of proposed turbine (in this case, between 335m and 1.34km).
Medium	Some change in the view that is clearly visible in the view and forms an important but not defining element in the view. Between 20 x and 50 x height of proposed turbine (in this case, between 1.34km and 3.35km).
Low	Some change in the view that is not prominent but visible to some visual receptors. Between 50 x and 100 x height of proposed turbine (in this case, between 3.35km to 6.7km).
Very Low	No change or negligible change in views. From more than 6.7km of the proposed turbine.

8.40 Using these criteria, determining levels of magnitude clearly depends on how prominent the development would be in the landscape. For clarification, the term 'prominent' relates to how noticeable the features of the development would be. This is affected by proximity of the viewpoint to the development and other modifying factors including: the focus of the view, visual screening and the nature and scale of other landscape features within the view. Rather than specifying distances at which the turbines will be dominant, prominent or incidental to the view etc, the relative prominence of the turbines in each view is described in detail for each viewpoint taking all the variables into consideration. This approach is supported by best practice guidelines⁴.

9.0 IMPACT SIGNIFICANCE

9.1 The ultimate purpose of the LVIA is to evaluate the significance of the residual effects on the landscape and visual amenity surrounding the site.

9.2 The significance of the landscape and visual effects is determined by cross-referencing the sensitivity of the landscape or view with the magnitude of change. In determining the significance of residual effects all mitigation measures are taken into account.

9.3 Table A-6 demonstrates the general relationship between sensitivity and magnitude based on the specific criteria given above but is given for illustrative purposes only. Professional judgement is used at

⁴ University of Newcastle (2002) Visual Assessment of Wind farms Best Practice. Scottish Natural Heritage Commissioned Report F01AA303A.

all times to determine the overall significance of effects. The significance of effects is described as Substantial, Substantial/Moderate, Moderate or Moderate/Slight, Slight, Slight/No Effect or No Effect.

9.4 Those effects identified as Substantial, Substantial/Moderate and in some cases Moderate significance may be regarded as significant effects when discussed in terms of the Town and Country Planning (England and Wales) (Environmental Impact Assessment) Regulations, 1999.

Table A-6: Significance of Landscape and Visual Effects

		Magnitude of Change				
		Very High	High	Medium	Low	Very Low
Landscape and Visual Sensitivity	Very High	Substantial	Substantial	Substantial/Moderate	Moderate	Moderate/ Slight
	High	Substantial	Substantial	Moderate	Moderate/ Slight	Moderate
	Medium	Substantial/Moderate	Moderate	Moderate	Moderate/ Slight	Slight
	Low	Moderate	Moderate/ Slight	Moderate/ Slight	Slight	Slight/ No Effect
	Very Low	Moderate/ Slight	Slight	Slight	Slight/ No Effect	No Effect

	Significant
	Potentially Significant
	Not Significant

10.0 NATURE OF EFFECTS

10.1 There is a range of public opinion on whether the landscape and visual impacts of wind turbine proposals are positive (beneficial) or negative (adverse). Publications such as 'Public Attitudes to Windfarms, 2003' Scottish Executive and other surveys demonstrate that wind farm developments generate a spectrum of public responses ranging from strongly adverse to strongly positive. This range of opinion is often referred to as the concept of "valency", which has been discussed and debated at numerous wind farm public inquiries.

10.2 Whilst no individual's attitudes and reactions towards wind farms should be simply dismissed, a more dispassionate judgement must be made by landscape architects in the preparation of a LVIA. The judgement should be reached through the process set out in the GLVIA, and should be based on the objective professional assessment of the baseline landscape, it's landscape character and visual resource of the relevant area together with the sensitivity of the landscape and visual receptors 'receiving' or experiencing the development. However, once an assessment has been made for all of the identified receptors, there is a requirement to consider what mitigation measures can be proposed to reduce or minimise the impacts / effects on the identified receptors. If the impact has been reduced or minimised by the proposed mitigation measures, it is stated in the report. If it cannot be reduced, it is the responsibility of the determining authority to determine that the level of impact /effect is acceptable or not.

10.3 The assessment provided within this report therefore follows the approach recommended in GLVIA, which is important within the iterative project design process in order to locate, scale, design the

layout and mitigate the effects of the development proposal, as well as to demonstrate how environmental and social impacts have been minimised, as recommended in Planning Policy Statement 22: Renewable Energy, 2004

11.0 RESIDENTIAL AMENITY SURVEYS

11.1 The Landscape and Visual Impact Assessment has been prepared in response to the EIA Regulations which require 'significant' effects to be identified, (although an EIA is not required for this scheme). This legislation notes that there may be significant impacts arising from a proposed development that are acceptable and it is common to all wind farm developments, including Huntroyde Home Farm that a number of significant effects on views and visual amenity would be identified from some properties in close proximity to the development.

11.2 An assessment of the potential effects on 'living conditions' goes beyond the assessment of effects on views and visual amenity as carried out in the LVIA and is required in order to understand if any of the effects on views or visual amenity have the potential to affect living conditions such that living at that property will become unpleasant or undesirable. It should also be noted that living conditions are influenced by factors other than visual amenity such as noise, shadow flicker, etc., however, this report only addresses the visual amenity aspect of living conditions

11.3 There is no published guidance that sets out the criteria for establishing whether or not the visual presence of a wind farm impacts unacceptably on living conditions. This issue of is one that has been considered at a number of public inquiries, principally in England. Therefore this report has had regard to these inquiries in order to define its purpose and to guide its approach to the topic.

11.4 Several Planning Inspectors have clarified that where turbines have an unacceptable effect on residential visual amenity this may be a material consideration in determining the application. At the Inquiry for the Npower Renewables Limited 10 turbine wind farm at Bradwell-on-Sea in Essex, the Planning Inspector concluded that:

11.5 "It is a well-established planning principle that there is no right to retain unchanged a view from private property. However it can be in the public interest to safeguard the outlook from such a property in respect of unacceptably overbearing or dominating development" (Appeal ref: APP/X1545/A/06/2023805).

11.6 At the Inquiry for the Sixpenny Wood Limited 10 turbine wind farm at Sixpenny Wood, East Riding of Yorkshire, the Planning Inspector concluded that:

11.7 "There is no right to a view per se, and any assessment of visual intrusion leading to a finding of material harm must therefore involve extra factors such as undue obtrusiveness, or an overbearing impact, leading to a diminution of conditions at the relevant property to an unacceptable degree." (Appeal ref: APP/E2001/A/09/2101851).

11.8 At the Inquiry for North Tawton (Den Brook 1) (Agricultural land to the south east of North Tawton and South West of Bow, centred on Grid Ref: E269130, N100120), Decision 12 February 2007; Appeal ref: APP/Q/153/A/08/2017162) Paragraph 21 of the North Tawton (Den Brook 1) decision states:

11.9 "... it may be the case that development is proposed of such a scale and design or proximity that it would be so visually intrusive as to turn an otherwise satisfactory dwelling into one that is an unsatisfactory place in which to live. That would compromise the aim of ensuring that everyone has the opportunity of a decent home (paragraph 23 (vii) of Planning Policy Statement 1 – "Delivering Sustainable Development"). From the standpoint of those affected, this is a different test than simply judging whether the view would be significantly affected or not, because (as with non-visual impacts, such as noise and un-neighbourliness in general) it is the resulting adequacy of living conditions within

dwellings and their gardens that is determinative, not the view in itself. In essence, being able to see the turbines is one thing but not, in itself, sufficient to demonstrate unacceptable harm in a land use planning context. Indeed, to adopt visibility alone as the decisive criterion would potentially represent an arbitrary and unduly stringent restraint on development of many kinds in many locations."

11.10 At the Inquiry for the Enifer Downs Wind Farm (Land west of Enifer Downs Farm and east of Archers Court Road and Little Pineham Farm, Langdon; Appeal ref: APP/X22201/A/08/2071880), Inspector David Lavender in Paragraph 66 of the decision notice states:

11.11 "... when turbines are present in such number, size and proximity that they represent an unpleasantly overwhelming and unavoidable presence in main views from a house or garden, there is every likelihood that the property concerned would become widely regarded as an unattractive and thus unsatisfactory (but not necessarily uninhabitable) place in which to live."

11.12 It was following the above Appeal Decision at Enifer Downs Farm, Langdon, Kent that when considering the impact on wind turbines on residential amenity has become known informally as the 'Lavender Test', as the inspector succinctly explained his reasoning and understanding of the position with regard to impacts on residential properties.

11.13 Building on the Enifer Downs decision the inspector at the Public Inquiry for Land north of Burnthouse Farm, Burnthouse Sidings APP/D05/A/10/2123739 further defines the threshold for determining unacceptable effects at paragraph 120 in which he states:

11.14 'There needs to be a degree of harm over and above an identified substantial adverse effect to take a case into the category of refusal in the public interest. Changing the outlook from a property is not sufficient'.

11.15 The inspector considered that the visual component of residential amenity should be assessed 'in the round' taking into account the following factors:

- Distance from turbines;
- The orientation, size and layout of the dwelling;
- Internal circulation;
- Division between primary and secondary rooms, garden and other amenity space;
- Arc of view occupied by the wind farm; and
- The availability of screening.

11.16 It is clear from the above inspectors decisions endorsed by the Secretary of State, that the impact on a particular residential property could be regarded as 'Significant' and yet not regarded as being 'unpleasantly overwhelming' and therefore acceptable. Therefore the purpose of a Residential Amenity Survey is to determine which, if any properties would be regarded as having an impact greater than Significant which would make the living conditions 'unpleasantly overwhelming and unavoidable' rendering the property an 'unattractive and thus unsatisfactory (but not necessarily uninhabitable) place in which to live'.

11.17 There are two distinct parts to the 'Lavender Test' which required to be considered for the Blakeley Hill Farm development. Firstly, are the turbines present in such number, size and proximity to a residential property and secondly do they represent an unpleasantly overwhelming and overbearing presence in main views from a house or garden.

11.18 Turbine numbers – the Huntroyde Home Farm scheme is for a single turbine and as such occupies a very limited horizontal angle of view. At 600m the turbine would occupy 0.25° of the horizontal view and the blades up to 3.19°.

11.19 Turbine Size- the proposed single turbine is 44m to hub and 60.7m to blade tip in the vertical position, one of the smallest 'commercial' wind turbines similar in scale to hub as a National Grid electricity pylon.

11.20 Within the LVIA Appendix A Table A-5: Magnitude of Visual Impacts the impacts are divided in to five categories/zones Very High, High, Medium, Low, Very Low which are calculated as a multiplier x the tip of blade e.g. Very High 5x the 'tip of blade' height of the proposed turbine (in this case 305m) which is described as a change in the view that has a dominating or overbearing influence on the overall view. Similarly a High Magnitude of Change is between 5x and 20x the 'tip of blade' height of the proposed turbine (in this case 305m to 1.2km) and described as a major change in the view that has a defining influence on the overall view.

Turbine Proximity the nearest properties to the proposed turbine without a financial interest are in excess of 600m away from the proposed turbine at Moor Barn and The Cavaliers. Whilst the single turbine could be regarded as a major change within the view and therefore Significant it could not be described as being overbearing⁵ or overwhelming on the residential amenity of these properties. Therefore we regard a Residential Amenity Survey as not being required as part of this assessment.

⁵ Planning Inspectorate Glossary - Overbearing a term used to describe the impact of a development or building on its surroundings, particularly a neighbouring property, in terms of scale, massing and general dominating effect.

Appendix B PRELIMINARY REVIEW OF LANDSCAPE CHARACTER TYPES AND LANDSCAPE DESIGNATIONS WITHIN 7.0KM OF HUNTROYDE HOME FARM

1.0 INTRODUCTION

1.1 This Appendix provides a preliminary review of all landscape character types and landscape designations within 7.0km of the proposed Huntroyde Home Farm wind turbine development.

1.2 The purpose of this preliminary review is to identify which of the landscape character types and designated landscapes within 7.0km of the site have the potential to experience significant landscape effects (either directly or indirectly) as a result of the proposed development. It is as such a filtering exercise to identify which character types and designated landscapes warrant detailed discussion in the assessment.

1.3 The landscape character types within the study area are illustrated in Figure 5 and Figure 6, and are also listed in Table B-1 below. Those which warrant further discussion in the assessment are shaded grey.

1.4 The designated landscapes within the study area are illustrated in Figure 8, and are also listed in Table B-2. Again those which warrant further discussion in the assessment are shaded grey.

1.5 In order to assist with the filtering process the landscape character types have been overlaid on top of the ZTV to blade tip in Figure 12.

Table B-1: Preliminary Review of Effects on Landscape Character Types within 7.0km of the proposed turbine

Landscape Character Type	Comments	Further Assessment Required?
National Landscape Character Areas (Natural England, Volume 2 North West)		
33 Bowland Fringe and Pendle Hill	The site lies immediately south of this character area	Yes
35 Lancashire Valleys	The site lies within this character area	Yes
36 Southern Pennines	ZTVs indicate limited potential visibility	No
Regional Landscape Character Types/ Areas (Lancashire Landscape Character Assessment)		
2 Moorland Hills 2e Pendle Hill	The ZTVs indicate that there would be visibility from the south-western faces of the areas.	Yes
2f White Moor/Burn Moor	The ZTVs indicate no visibility.	No
3 Enclosed Uplands 3a Rossendale Hills	ZTVs indicate very limited visibility across a small part of the character area at approximately 7km.	
4 Moorland Fringe 4g South Pendle Fringe	The site lies within this area	Yes
4i North Pendle Fringe	The ZTVs indicate no visibility	No

5 Undulating Lowland Fringe 5b Lower Hodder and Loud Valley	The ZTVs indicate no visibility	No
5e Lower Ribblesdale (Clitheroe to Gisburn)	The ZTVs indicate potential visibility over a small area to the north-west of the proposed site	Yes
6 Industrial Foothills and Valleys 6a Calder Valley	The ZTVs indicate visibility.	Yes
7 Farmed Ridges 7a Mellor Ridge	The ZTVs indicate visibility.	Yes
11 Valley Flood Plains 11a Lower Ribble Valley	The ZTVs indicate no visibility	No

Table B-2: Preliminary Review of Effects on Designated Landscapes within 7.0km of the proposed turbine

Designated Area	Comments	Further Assessment Required?
International Landscape Designations		
World Heritage Sites	None	No
National Landscape Designations		
National Parks	None	No
Area of Outstanding Natural Beauty	Bowland Forest	Yes
Regional Landscape Designations (Greenbelt)		
Hyndburn	ZTVs indicate potential visibility to the proposed turbine.	Yes
Pendle	ZTVs indicate potential visibility to the proposed turbine.	Yes
Ribble Valley	ZTVs indicate limited potential visibility to the proposed turbine.	Yes
Conservation Areas (Burnley District Council)		
1.Padiham	The ZTVs indicate visibility which in reality is limited screened by the buildings and vegetation within the area	No
2. Palatine	The ZTVs indicate visibility which in reality is very limited screened by the buildings and vegetation within the area	No
3. Canalside	The ZTVs indicate visibility which in reality is very limited screened by the canal side buildings and vegetation within the area	No
4.Towncentre	The ZTVs indicate visibility which in reality is very limited screened by the buildings and vegetation within the area	No
5.Top o the Town	The ZTVs indicate visibility which in reality is very limited screened by the buildings and vegetation within the area	No
Conservation Areas (Pendle District Council)		
3.Higham (1981)	The ZTVs indicate visibility which in reality is very limited screened by the buildings and vegetation within the area	No
4. Carr Hall and Wheatley Lane Road, Barrowford (1984)	ZTVs indicate no visibility	No
Carr Hall Road, Barrowford (1984)	ZTVs indicate no visibility	No
8. Whitehough, Barley (1989)	ZTVs indicate no visibility	No
10. Lomeshaye Industrial Hamlet, Nelson (1994)	ZTVs indicate no visibility	No

15. St. Mary's, Nelson (2000)	ZTVs indicate no visibility.	No
16. Sabden Fold (2000)	ZTVs indicate potential visibility, in reality the oblique views and intervening vegetation would screen potential views.	No
17. Newchurch and Spenbrook (2000)	ZTVs indicate no visibility	No
19. Edge End, Nelson (2002)	ZTVs indicate no visibility	No
22. Whitefield, Nelson (2004)	ZTVs indicate no visibility	No
26. Brierfield Mills (200)	ZTVs indicate very limited visibility which in reality would be further reduced by buildings, vegetation etc.	No
Conservation Areas (Ribble Valley Borough Council)		
4 Clitheroe	ZTVs indicate no visibility	No
13 Pendleton	ZTVs indicate no visibility	No
15 Sabden	ZTVs indicate no visibility	No
19 Whalley	ZTVs indicate no visibility	No
20 Wiswell	ZTVs indicate no visibility	No
21 Worston	ZTVs indicate no visibility	No
Registered Parks and Gardens		
Scott Park	ZTVs indicate potential visibility to the proposed turbine, which in reality at 7km would be extremely limited.	No
Thompson Park	ZTVs indicate potential visibility to the proposed turbine which in reality at 7km would be extremely limited.	No
Gawthorpe Hall	ZTVs indicate potential visibility to the proposed turbine. Site visits indicate very limited visibility due to the screening effects of the mature trees along the riverside.	No
Clitheroe Castle	None	No
Country Parks		
None	No	No
National Trails		
Bronte Way	ZTVs indicate potential visibility to the proposed turbine.	Yes
Burnley Way	ZTVs indicate potential visibility to the proposed turbine.	Yes
Pendle Way	ZTVs indicate potential visibility to the proposed turbine.	Yes
Ribble Way	ZTVs indicate no visibility	No

N.B. Impacts on the setting of Registered Parks and Gardens, Conservation Areas, Listed Buildings and Scheduled Ancient Monuments are also discussed in the Cultural Heritage.

Principal Roads		
A6068 Barrowford Road Padiham to Higham	The ZTVs indicate visibility however there are woods, individual trees and built up areas adjacent to the road which generally screen views towards the turbine.	No
A671 Padiham to Whalley	The ZTVs indicate visibility however there are woods and built up areas adjacent to the road which generally screen views towards the turbine.	No
A671 M65 Motorway to Padiham	The ZTVs indicate visibility however there is localised landform and vegetation screening views. Views would be seen through lighting columns, overhead lines pylons	No
M65 Motorway junctions 8-10	The ZTVs indicate visibility however views would be very limited and intermittent with screen provided by landform, structures and roadside vegetation.	No
Local Minor Roads		
Back Lane	The ZTVs indicate visibility	Yes
Sabden Road	The ZTVs indicate visibility	Yes
Trapp Lane	The ZTVs indicate visibility	Yes
Whins Lane	The ZTVs indicate visibility however Height Side Wood would screen views towards the turbine.	No
Clitheroe Road	The ZTVs indicate visibility however views towards the turbine would be screened by the woodland along Black Hill ridge.	No
Railway Lines		
Accrington to Burnley	The ZTVs indicate visibility however the line is generally screened by localised landform/cuttings and track side vegetation	No
Tourist Attractions/Vantage Points		
Pendle Hill	The ZTVs indicate limited visibility from the south-western faces of the hill, there are no views from the summit	No

Appendix D GLOSSARY

Aesthetic Factors	The key aspects of the landscape which contribute to its composition such as: scale enclosure diversity texture form line colour balance movement pattern
Analysis (Landscape)	The process of breaking the landscape down into its component parts to understand how it is made up.
Assessment (Landscape)	The umbrella term for description, analysis and classification of landscape
Baseline	The landscape character and visual amenity of the study area as it exists at the commencement of the assessment process – i.e. prior to any development proposal.
Biodiversity	The concept of variety in all species of plants and animals through which nature finds its balance.
Classification	A process of sorting the landscape into different types using selected criteria but without attaching relative values to the different kinds of landscape
Compensation	The measures taken to offset or compensate for residual adverse effects that cannot be mitigated, or for which mitigation cannot entirely eliminate adverse effects.
Constraints Map	Map showing the location of important resources and receptors that may form constraints to development.
Countryside	The rural environment and its associated communities (including the coast).
Cultural and Social Factors	The elements of the landscape which are the result of human activity – e.g.: land use and management; character of settlements and buildings; and pattern and type of fields and enclosure;
Landscape	Human perception of the land conditioned by knowledge and identity with a place.
Landscape Dynamics	The forces of change which are inherent within the landscape due to prevailing cultural and social factors, such as: existing management regimes; existing planning policy/development plan considerations; local, regional or national trends for change.
Landscape Capacity	The degree to which a particular landscape character type or area is able to accommodate change without fundamentally altering its character. Capacity is likely to vary according to the type and nature of change being proposed.
Landscape Character	The distinct recognisable pattern of elements that occurs consistently in a particular type of landscape, and how this is perceived by people. It reflects particular combinations of geology, landform, soils, vegetation, land use and human settlement. It creates the particular sense of place of different areas of landscape.

Landscape Character Type	A landscape type will have broadly similar patterns of geology, landform, soils, vegetation, land use, settlement and field pattern discernible in maps and field survey records.
Landscape Effects	The consequences of change in the elements, characteristics, qualities and overall character of the landscape as a result of development. These effects can be positive, neutral or negative.
Landscape Evaluation	The process of attaching value (non-monetary) to a particular landscape, usually by the previously agreed criteria, including consultation, for a particular purpose (for example, designation or in the context of assessment).
Landscape Fabric	Combination of aesthetic, cultural, social and natural characteristics.
Landscape Feature	A prominent eye-catching element, for example, wooded hilltop or church spire.
Landscape Quality(or condition)	An evaluation based on judgements about the physical state of the landscape, and its intactness, from visual, functional, and ecological perspectives. It also reflects the state or repair of individual features and elements which make up the character in any one place.
Preference	The liking by people for one particular landscape element, characteristic or feature over another.
Quality	See Landscape quality
Receptor	Physical landscape resource, special interest or viewer group that will experience an effect.
Regulatory Authority	The planning or other authority responsible for planning consents or project authorisation (synonymous with determining authority or competent authority).
Screening	The formal process of ascertaining from the regulatory authority whether a given proposal requires an Environmental Impact Assessment in accordance with Government Regulations.
Scoping	The process of identifying the likely significant effects of a development on the environment.
Sense of Place (genius loci)	The essential character and spirit of an area: genius loci literally means 'spirit of the place'.
Sensitive/sensitivity	See Landscape sensitivity
Sieve Mapping.	Technique for mapping environmental constraints, working from a series of overlays, sieving out less important factors
Significant	An effect on landscape character or visual amenity which is considered to be significant in terms of the prevailing EIA Regulations.
Sustainability	The principle that the environment should be protected in such a condition and to such a degree that ensures new development meets the needs of the present without compromising the ability of future generations to meet their own needs.
Threshold	A specified level of grading effects, for example, of magnitude, sensitivity or significance.
Viewpoint	A location chosen through application of a robust set of criteria to provide a representative view of a proposed development for one or more types of receptor (e.g. a landscape character type; residential settlement; recreational

Appendix E BIBLIOGRAPHY

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