CALDERDALE LOCAL PLAN

RENEWABLE AND LOW CARBON ENERGY TECHNICAL PAPER

Calderdale Metropolitan Borough Council 2018





CONTENTS

SECTION

| 1 | PURPOSE OF PAPER | 1 |
|---|--|----------------------------|
| 2 | NATIONAL PLANNING CONTEXT National Planning Policy Framework National Planning Practice Guidance Written Ministerial Statement June 2015 | 1 1 1 2 |
| 3 | THE REPLACEMENT CALDERDALE UNITARY DEVELOPMENT PLAN | 3 |
| 4 | STUDIES TO IDENTIFY THE POTENTIAL FOR RENEWABLE AND LOW CARBON ENERGY Low Carbon and renewable energy capacity in Yorkshire and Humber, AECOM (on behalf of Yorkshire and Humber Regional Assembly), 2011 Renewable and Low Carbon Energy Study, Maslen Environmental, 2010 Calderdale Energy Future Strategy, Calderdale Council, 2011 District Heat Network Scoping Studies | 3 3 4 5 5 |
| 5 | STUDIES TO ASSESS THE IMPACT OF RENEWABLE AND LOW CARBON ENERGY PROPOSALS Landscape Capacity Study for Wind Energy Developments in the South Pennines, Julie Martin Associates, 2010 South Pennines Wind Energy Landscape Study, Julie Martin Associates and LUC, 2014 Landscape Guidance for Wind Turbines up to 60m high in the South and West Pennines, Julie Martin Associates, 2013 Assessment of Areas of Suitability for Wind Development in Calderdale, LUC, January 2017 Calderdale District Landscape Character Assessment and Review of Special Landscape Area Designation, LUC, October 2016 | 6 6 7 7 7 8 |
| 6 | THE APPROACH TO WIND ENERGY IN THE LOCAL PLAN | 9 |

7 CONCLUSION

PAGE

10

1 PURPOSE OF PAPER

1.1 This technical paper provides background information in relation to Renewable and Low Carbon Energy which sits within the Climate Change section of the Local Plan. Such detail is not appropriate for inclusion in the Local Plan itself and is included here in order to assist the reader in understanding the evidence underpinning Policies CC5 and CC6 on renewable and low carbon energy.

2 NATIONAL PLANNING CONTEXT

National Planning Policy Framework (NPPF)

2.1 Planning has a key role to play in responding to the challenge of Climate Change and one aspect of this is supporting the delivery of renewable and low carbon energy and associated infrastructure. More specifically NPPF paragraph 97 states:

"97. To help increase the use and supply of renewable and low carbon energy, local planning authorities should recognise the responsibility on all communities to contribute to energy generation from renewable or low carbon sources. They should:

- have a positive strategy to promote energy from renewable and low carbon sources;
- design their policies to maximise renewable and low carbon energy development while ensuring that adverse impacts are addressed satisfactorily, including cumulative landscape and visual impacts;
- consider identifying suitable areas for renewable and low carbon energy sources, and supporting infrastructure, where this would help secure the development of such sources
- support community-led initiatives for renewable and low carbon energy, including development outside areas being taken forward through neighbourhood planning; and
- identify opportunities where development can draw its energy supply from decentralised, renewable or low carbon energy supply systems and for co-locating potential heat customers and suppliers."

National Planning Practice Guidance (NPPG)

- 2.2 The National Planning Practice Guidance (NPPG) balances the need to increase the supply of renewable and low carbon energy with concerns about environmental protections and the planning concerns of local communities.
- 2.3 In order to have a positive strategy to promote the delivery of renewable and low carbon energy a number of factors are to be considered:

"Local and neighbourhood plans are the key to delivering development that has the backing of local communities. When drawing up a Local Plan local planning authorities should first consider what the local potential is for renewable and low carbon energy generation. In considering that potential, the matters local authorities think about include:

- the range of technologies that could be accommodated and the policies needed to encourage their development in the right places;
- the costs of many renewable energy technologies are falling, potentially increasing their attractiveness and the number of proposals;
- different technologies have different impacts and the impacts can vary place by place;
- the UK has legal commitments to cut greenhouse gases and meet increased energy demand from renewable sources. Whilst local authorities should design their policies to

maximise renewable and low carbon energy development there is no quota which the Local Plan has to deliver." (NPPG Paragraph 003)

2.4 The technical considerations relating to renewable energy technologies which affect their siting as well as the planning considerations that relate to specific renewable energy technologies are included in the Guidance. Advice is also provided around the role of criteria based policies in Local Plans:

"Policies based on clear criteria can be useful when they are expressed positively (i.e. that proposals will be accepted where the impact is or can be made acceptable). In shaping local criteria for inclusion in Local Plans and considering planning applications in the meantime it is important to be clear that:

- the need for renewable or low carbon energy does not automatically override environmental protections;
- cumulative impacts require particular attention, especially the increasing impact that wind turbines and large scale solar farms can have on the landscape and local amenity as the number of turbines and solar arrays in an area increases;
- local topography is an important factor in assessing whether wind turbines and large scale solar farms could have a damaging effect on landscape and recognise that the impact can be as great in predominantly flat landscapes as in hilly or mountainous areas;
- great care should be taken to ensure heritage assets are conserved in a manner appropriate to their significance, including the impact of proposals on views important to their settings;
- proposals in National Parks and Areas of Outstanding Natural Beauty, and in areas close to them where there could be an adverse impact on the protected area, will need careful consideration
- protecting local amenity is an important consideration which should be given proper weight in planning decisions." (NPPG Paragraph 007)
- 2.5 In providing guidance on identifying suitable areas for renewable and low carbon energy specific guidance is provided in the case of wind turbines to reflect the Written Ministerial Statement of 2015 (quoted below) and included in the PPG as paragraph 032. Whilst stating that maps showing the wind resource as favorable to wind turbines or similar will not be sufficient more specific guidance on how suitable areas should be identified is not provided.
- 2.6 Guidance is also provided on identifying opportunities for decentralised energy opportunities with specific reference to district heating schemes.

Written Ministerial Statement 18th June 2015

2.7 On the 18th June 2015, Greg Clark, Secretary of State for Communities and Local Government published a ministerial statement specifically relating to wind energy developments:

"When determining planning applications for wind energy development involving one or more wind turbines, local planning authorities should only grant planning permission if:

• the development site is in an area identified as suitable for wind energy development in a Local or Neighbourhood Plan; and

• following consultation, it can be demonstrated that the planning impacts identified by affected local communities have been fully addressed and therefore the proposal has their backing.

In applying these new considerations, suitable areas for wind energy development will need to have been allocated clearly in a Local or Neighbourhood Plan. Maps showing the wind resource as favourable to wind turbines, or similar, will not be sufficient. Whether a proposal has the backing of the affected local community is a planning judgement for the local planning authority."

3 THE REPLACEMENT CALDERDALE UNITARY DEVELOPMENT PLAN ADOPTED AUGUST 2006 (AS AMENDED 2009)

- 3.1 The Replacement Calderdale Unitary Development Plan (RCUDP) contains a number of criteria based policies relating to the consideration of proposals for renewable energy developments and these are carried forward and updated in the Local Plan to reflect technological changes and other more recent evidence along with more stringent requirements in the current Building Regulations regarding the energy efficiency and carbon emissions of buildings.
- 3.2 RCUDP Policy EP27 which requires the incorporation of a progressive proportion of on-site renewable energy generation in major new developments has not been carried forward due to the more stringent requirements of the Building Regulations.
- 3.3 The Deregulation Act 2015 at paragraph 43 amended Section 1 (energy policies) of the Planning and Energy Act 2008 to preclude local planning authorities in their development plan documents imposing energy efficiency standards for dwellings that exceed the energy requirements of the Building Regulations. Therefore no such policy is included in the Local Plan. Furthermore, in order to meet current and future Building Regulations developers have the option of doing so by incorporating on-site renewable and low carbon microgeneration technologies within their developments. To incorporate such requirements in the Local Plan via a "Merton Rule Type Policy" has the potential to cause an overlap with the Building Regulations, potentially causing an element of confusion for developers, as well as there being difficulties around justifying the actual proportion of energy to come from Renewable and Low Carbon sources and so no such policy is included in the Local Plan.
- 3.4 Following adoption of the Local Plan the Council will consider the potential benefits of preparing a Development Planning Document (DPD) in order to further encourage greater levels of renewable and low carbon energy generation from these sources, including from microgeneration sources in new developments, and taking into account any increased requirements via the Building Regulations.

4 STUDIES TO IDENTIFY THE POTENTIAL FOR RENEWABLE AND LOW CARBON ENERGY

4.1 A number of studies were undertaken to identify the potential contribution to renewable and low carbon energy from a range of sources. These studies were undertaken at a wider spatial level than that of Calderdale but with findings for individual districts provided.

Low Carbon and renewable energy capacity in Yorkshire and Humber, AECOM (on behalf of Yorkshire and Humber Regional Assembly), 2011

4.2 This study was commissioned by Local Government Yorkshire and Humber to assess the resource for low carbon and renewable energy generation across the Yorkshire and Humber Region. One of the main objectives of the study was to provide a common and robust

evidence base on the potential for renewable energy to inform and support policy making by individual local authorities in the region in their development plans. The Study found that the region has the potential resource to significantly increase renewable energy generation, both for electricity and for heat. The main contributors are commercial scale wind and biomass energy generation. District heating, including with Combined Heat and Power, could be viable in the majority of the region's urban settlements.

4.3 With regard to Calderdale the Study found that wind has strong potential but also recognised the environmental constraints. Halifax was viewed as containing a heat density capable of supporting a heating network with many public buildings that could provide anchor loads for a network. Biomass and microgeneration were also considered to have a role in increasing the capacity of renewable energy.

Renewable and Low Carbon Energy Study, Maslen Environmental, 2010

4.4 Maslen Environmental were commissioned to undertake a <u>study</u> on the capacity for renewable and low carbon energy for several local authorities situated in the South Pennines. These were Burnley Borough Council, Pendle Borough Council, Rossendale Borough Council, Calderdale Metropolitan Borough Council and Kirklees Metropolitan Council. In particular, it was to identify the opportunities for delivering energy from renewable and low carbon (RLC) sources, including micro and district scale technologies. The potential technologies and sources of renewable energy assessed through a capacity assessment are summarised in the following table.

| Category | Sub-category Level 1 | Sub-category Level 2 | Comment |
|-----------------|---------------------------------|----------------------------------|--|
| Electricity and | Large Scale (>50MW) | Wind | |
| СНР | | Biomass Combustion | Municipal solid waste, virgin and recycled timber, energy crops, solid recovered fuel, all biomass co-firing with coal and other wastes. |
| | Medium Scale (50kw to 50MW | Wind | |
| | | Biomass Combustion | Municipal solid waste, virgin and recycled timber, solid recovered fuel. |
| | | Biomass Anaerobic digestion | Agricultural waste, food waste, energy crops. |
| | | Hydro | |
| | | PV | |
| | | Natural Gas CHP | Heat use from CHP |
| | Micro scale (<50kW) | Wind | |
| | | Hydro | |
| | | PV | |
| Heat Only | Only Medium Scale (50kw to 50MW | Biomass Combustion | Municipal solid waste, virgin and recycled timber, solid recovered fuel. |
| | | Biomass Anaerobic digestion | Injection to gas grid or local use |
| | | Solar Thermal | Water or space heating |
| | | Heat Pumps (heating and cooling) | Ground source, air source, water source |
| | Micro scale (<50kW) | Biomass Combustion | Virgin and recycled timber |
| | | Solar Thermal | Water or space heating |
| | | Heat Pumps | Ground source, air source, water source |

Table 1: Renewable and Low Carbon Energy Types Assessed in the Study

4.5 Overall the study indicates that:

Electricity

- By far the most significant potential for renewable electricity in all the council areas is commercial scale wind.
- There is significant potential also for small scale wind energy.
- There is the potential for large amounts of solar electricity generation, but the current efficiencies of solar technology mean that installations have a relatively low load factor (a measure of effectiveness) and so installations may only deliver limited electricity. Improvements in technology may change this in the future.

Heat

- The largest available low carbon heat source is ground source heating. This is a mature technology which has been used extensively in Europe, particularly Scandinavia, but has been used less in the UK. There is a growing level of experience particularly in the south of England and London. The setup costs are likely to be more than the solar heat costs. Air source heating can also be used instead of ground source heating, although this may be slightly less efficient.
- There is also considerable potential for solar energy. This is a relatively mature technology and has some uptake in the area already. There is the potential for a high level of uptake of this technology.
- Additionally there is some potential for energy from wood (various forms), digestion and energy crops in most of the council areas. However, these are mainly small scale potential sources of renewable heat. It should be noted that if heat is obtained from biomass this may be at the expense of generating electricity from biomass.

Calderdale specific findings

4.6 In line with the overall findings of the study energy from wind developments was found to have the most potential to contribute to the provision of renewable and low carbon energy for electricity generation. Other sources, whilst having the potential to make a contribution, could only do so to a lesser extent with solar energy providing the greatest contribution from these sources. For renewable heat generation ground source heating and solar energy had the most potential.

Calderdale Energy Future Strategy, Calderdale Council, 2011

- 4.7 This strategy sets out how Calderdale Council and its partners can move to a resilient low carbon economy and demonstrates the Council's commitment to an ambitious target with the Council taking a leadership role by declaring its commitment to reducing its own carbon emissions. It sets out a range of actions based on evidence gathered from local modelling. These include the provision of renewable energy infrastructure, energy efficiency measures, district heating schemes and woodland development.
- 4.8 The strategy is to be delivered through actions delivered by individual residents, businesses, community groups, public sector organisations and national initiatives and polices. The Council's stated role includes unlocking land assets within the Borough suitable for renewable energy generation and reforming local planning policies and guidelines.

District Heat Network Scoping Studies

4.9 National heat mapping by the Department of Business, Energy and Industrial Strategy (BEIS) (formerly the Department of Energy and Climate change) identified the locations with the most potential for supporting heat networks whilst Leeds City Region Enterprise partnership

(LEP) commissioned Ramboll and the Carbon Trust to undertake a series of studies as part of the City Region's Strategic Heat Programme with a key aim being to identify and progress opportunities for the development of commercially feasible district heat networks in the city region. In 2014 this work identified an opportunity in Halifax and Calderdale Council have been successful in receiving funding from the Heat Network Delivery Unit, part of the Department of Business, Energy and Industrial Strategy, to identify and evaluate opportunities to develop new district heating networks in Halifax Town Centre.

- 4.10 The project is currently ongoing and the Council are on track to complete the next phase of work this year (2018). To tie in with other projects it will be necessary to be building the network in 2020/2021. There is strategic support for the concept at a senior level within the Council and private sector interest from significant local businesses in connecting to a district heat network.
- 4.11 Ideally new developments should be built to facilitate their operation with a District Heat supply thereby optimising the design to the benefit of the District Heating system which will ultimately lead to lower energy supply costs and lower CO₂ emissions. One of the key design principles to be followed is the use of variable volume systems with 70/40 flow/return temperatures, which will greatly assist in making connection to any future heat network significantly easier. Whilst this is essentially a technical matter for consideration by mechanical services designers it is highlighted here in order to try and ensure that connections perform as well as possible without the need for modification. Whilst the main purpose of this Technical Paper is to provide background information in relation to the Renewable and Low Carbon Section of the Local Plan and it is acknowledged that mechanical services engineers will be familiar with the relevant sources of information on District Heating, it remains useful to highlight the following references on District Heating:
 - Combined Heat and Power for Buildings (Chartered Institution of Building Services Engineers), AM12: 2013
 - The Perfect Return Heat Network Return Temperatures, Martin Crane, CIBSE Journal, 2016 :<u>https://www.cibsejournal.com/technical/the-perfect-return-heat-network-return-temperatures/</u>

5 STUDIES TO ASSESS THE IMPACT OF RENEWABLE AND LOW CARBON ENERGY PROPOSALS

5.1 A number of South Pennine local planning authorities have come together to form the South Pennines Wind Energy Group as a response to the pressure for this type of development with its cross border implications for the South Pennine Landscape. The Group was responsible for commissioning several studies in relation to wind energy developments.

Landscape Capacity Study for Wind Energy Developments in the South Pennines, Julie Martin Associates, 2010

5.2 This study was commissioned by six local planning authorities in the South Pennines, namely Burnley, Bury, Calderdale, Kirklees, Rochdale and Rossendale. The overall aim of the study was to provide a landscape capacity study for wind energy developments to inform and provide a sound evidence base for the production and monitoring of the Local Development Frameworks in the six districts. It assessed the sensitivity of individual Landscape Character Types to wind energy development and this analysis helped to inform the potential for development in a number of specifically defined capacity areas.

South Pennines Wind Energy Landscape Study, Julie Martin Associates and LUC, 2014

5.3 This <u>study</u> updates and extends the 2010 "Landscape Capacity for Wind Energy Developments in the South Pennines" responding to the latest planning and policy context and to the growing number of planning applications for wind energy development in the South Pennines. It was undertaken on behalf of five local planning authorities (Burnley, Calderdale, Kirklees, Rossendale and Barnsley) in order that wind energy development in the South Pennines be developed in a way that is consistent across local authority boundaries. For each of the Landscape Character Types found within the study area a sensitivity assessment and guidance for wind energy development is included. Following this analysis advice is provided on how these outputs can be used in development planning and development management. A series of maps showing sensitivity to different sizes of wind turbine are also provided. The Study is accompanied by a wind energy <u>database and web</u> <u>mapping tool</u> in order to help monitor wind energy developments with the constituent authorities required to keep the database up-to-date.

Landscape Guidance for Wind Turbines up to 60m high in the South and West Pennines, Julie Martin Associates, 2013

5.4 This guidance was commissioned by eight local planning authorities in the South and West Pennines (Blackburn, Burnley, Calderdale, Hyndburn, Kirklees, Pendle, Rochdale and Rossendale) in recognition of the need to accommodate well-sited and appropriately designed wind turbines in these landscapes. The guidance is to be used to inform and support development management decisions but also complements the "Landscape Capacity Study for Wind Energy Developments in the South Pennines". It deals solely with the landscape and visual siting and design aspects of proposals for smaller scale wind turbines (defined as up to 60m in height to blade tip) and is intended to help developers understand (and respond effectively to) the specific landscape and visual issues associated with smaller classes of wind turbine. The guidance presents generic advice aimed at developers and local authority planning officers and members, including good practice guidance in relation to location, siting, layout, design and cumulative impacts.

Assessment of Areas of Suitability for Wind Development in Calderdale, LUC, January 2017

5.5 This study was commissioned by the Council to identify those areas within Calderdale that are not suited to wind energy development based on the technical considerations for wind turbines, and conversely the areas that could be considered suitable. This was in response to the Written Ministerial Statement in relation to onshore wind energy released by the former Secretary of state for Communities and Local government (Greg Clark) on the 18th June 2015:

"When considering applications for wind energy development, local planning authorities should (subject to the transitional arrangement) only grant planning permission if:

- the development site is in an area identified as suitable for wind energy development in a Local or Neighbourhood Plan; and
- following consultation, it can be demonstrated that the planning impacts identified by affected local communities have been fully addressed and therefore the proposal has their backing.

Whether the proposal has the backing of the affected local community is a planning judgement for the local planning authority."

- 5.6 The methodology was based on a refinement of the DECC Methodology (Renewable and Low Carbon Energy Capacity Methodology for the English Regions, 2010). This methodology was adapted to reflect new guidance and local factors relevant to Calderdale. Table 3.1 of the document lists the criteria used in the assessment of suitability.
- 5.7 The assessment was undertaken for the same five size bands as the "South Pennines Wind Energy Landscape Study" (2014) and the supporting "South Pennines Wind Energy Database" to ensure that the categories used can be correlated between the two studies:
 - Very large (130m+)
 - Large (90-129m)
 - Medium (60-89m)
 - Small (25-59m)
 - Very small (18-24m)
- 5.8 The study found that only a small proportion of the Borough is considered technically suitable for wind energy development at the various scales. A number of the identified areas have also already been developed or have consented schemes.
- 5.9 Maps overlaying the results of the technical assessment with the findings of the earlier landscape sensitivity assessment are included in the Study and show that most of the unconstrained areas have a moderate to high sensitivity to wine turbines. The Study does not however comment on the level of sensitivity that is considered to be 'acceptable' for identifying suitable areas for wind energy development noting that this is a matter for further consideration by the Council. Site specific assessment and design remain necessary and all applications should be assessed on their individual merits. The Study includes maps showing technically unconstrained areas for the different size categories of turbine as well as maps with landscape sensitivity added.

Calderdale District Landscape Character Assessment and Review of Special Landscape Area Designation, LUC, October 2016

- 6.1 The first part of this study provides an updated Landscape Character Assessment for Calderdale, creating a sound evidence base for planners and developers to take account of the character and valued features of the landscape when considering new development or land uses. The primary aim of the assessment is to ensure the area's distinctive and varied landscapes are considered when siting new development or activities, with opportunities to enhance and strengthen character pursued wherever possible.
- 6.2 The second part of this study comprises a review of the district's Special Landscape Area (SLA) designation, first defined in the West Yorkshire Structure Plan, 1980, and carried forward in the Calderdale Unitary Development Plan in 1997 and extended in the Replacement Unitary Development Plan, 2006. Using a thorough evidence-based assessment, this review recommends seven separate landscape parcels within Calderdale for inclusion in an updated Special Landscape Area policy in the forthcoming Local Plan.
- 6.3 Whilst the Study is intended to inform decisions relating to all proposed developments the information it provides will also assist in the consideration of renewable and low carbon energy proposals, particularly any located within the Special Landscape Areas.

7 THE APPROACH TO WIND ENERGY IN THE LOCAL PLAN

- 7.1 Following the Written Ministerial Statement of 18th June 2015, and the subsequent undertaking of the Study by LUC to identify suitable areas for wind energy, a number of options were considered regarding Policy for wind energy development:
 - Show all of the areas identified in the LUC Study (2017) as technically unconstrained for wind turbines on the Policies Map and assess any planning applications against the criteria in Policy CC6; or
 - Adopt a very strict interpretation of the Written Ministerial Statement and do not show any areas as suitable for wind turbines given that they cannot be definitively tested for landscape sensitivity in the absence of detailed proposals; or
 - Show only those areas where proposals for wind energy are most likely to be acceptable when landscape sensitivity is also considered.
- 7.2 A pragmatic approach utilising the outputs of the Study has been adopted in the Local Plan in order to continue to pursue a positive approach to renewable energy whilst balancing this against the requirements of the Written Ministerial Statement which does not provide any information as to what constitutes a suitable area. For the majority of identified areas the landscape sensitivity is 'Moderate to High' or 'High' and particularly for the larger categories of turbine. The option of showing only those areas the Study found to be suitable and where the landscape is relatively less sensitive to wind turbines has therefore been selected, resulting in the only areas shown on the Policies Map being those for the 'Very Small' and 'Small' categories of turbine where the landscape sensitivity is between 'Low' and 'Moderate as shown in Table 2. A small number of the identified suitable areas are within the Landscape Character Type 'Urban' (which does not necessarily equate to the urban area as defined in the Local Plan) where information on landscape sensitivity is not provided as this was not assessed.
- 7.3 Whilst the Study excluded the SPA/SAC/SSSI from its area of consideration it did identify areas within close proximity to it. In order to protect functionally connected land, such as that providing feeding grounds for SPA birds, no areas for wind turbines within a 2.5 km buffer of the SPA/SAC/SSSI are identified in the Local Plan. Twenty of the identified 'suitable areas' straddled the buffer with only that part lying outside the buffer shown on the Policies Map. In the absence of detailed mapping data showing where SPA birds forage the Council considers this precautionary approach reasonable, particularly given that the West Yorkshire Ecology Service¹ notes on average SPA birds fly 2.5km from breeding to feeding sites. There is also the potential for cumulative effects increasing the harm to these areas resulting from other activities such as, for example, recreational activities and associated visitor pressure. Should more detailed data become available the Council will consider refining this approach.
- 7.4 Some of the suitable areas may be difficult to locate and view in detail at the 1:10,000 scale of the Policies Map due to their often small area and the fact that several designations can overlie one another. The on-line version of the Policies Map overcomes this problem with its ability to enable users to 'zoom in' to selected areas, turn map layers on and off, and view the attributes associated with the designations. Additionally the Council has the ability to produce larger scale paper versions of specific areas as required.

¹ Guidance for ornithological information required to support Small Wind Turbine Developments in West Yorkshire, West Yorkshire Ecology Service, 2013

| Turbine Size Category | Landscape Character Type | Sensitivity Level* |
|-----------------------|--|--------------------|
| Very small | D - Moorland Fringes/Upland Pastures | Moderate |
| (18- 24m) | E - Rural Fringes | Moderate |
| | K - Coalfield Edge/Urban Fringe Farmland | Low |
| | M - Industrial Lowland Valleys | Low |
| Small | K - Coalfield Edge/Urban Fringe Farmland | Moderate |
| (25 - 59m) | M - Industrial Lowland Valleys | Low - Moderate |

Table 2: Suitable Areas and Landscape Sensitivity as shown on the Proposals Map

*Defined in Table 3.4 of the Julie Martin Study (2014) as follows:

- Moderate (M): Some of the key characteristics and qualities of the landscape are highly sensitive to change from the height of wind turbine being assessed.
- Low Moderate L-M): Few of the key characteristics and qualities of the landscape are highly sensitive to change from the height of wind turbine being assessed.
- Low (L): Key characteristics and qualities of the landscape are robust and are less likely to be adversely affected by the height of wind turbine being assessed.
- 7.5 For turbines falling below the Study threshold height of 18m to blade tip a more flexible approach has been adopted. These will not be permitted within the South Pennines SSSI/SPA/SAC/ and must provide/contribute towards the energy needs of a farmstead, local business or community scheme. As with the larger categories of turbine proposals will be assessed against Policy CC6. Specifically stating in the Policy that the South Pennines SSSI/SPA/SAC is excluded makes the position clear in relation to farmsteads whose land ownership extends into the SSSI/SPA/SAC.

8 CONCLUSION

- 8.1 Calderdale has significant potential to deliver energy from renewable and low carbon sources as evidenced by the Maslen and Aecom Studies. To a large extent much of this potential is currently being delivered through the growth in the number of wind turbines across the district. Initiatives such as the Energy Future Strategy and community based schemes will assist in bringing other technologies forward during the Plan period and the Plan sets out a positive strategy to encourage and support such initiatives. During the course of the Plan period the various technologies will develop whilst their viability will also change and the Plan through its Policies on renewable and low carbon energy provides a policy framework within which they can be both promoted and assessed for any environmental impacts.
- 8.2 Whilst the pressure for wind turbines experienced in the recent past has currently subsided, suitable areas for wind energy development have been identified on the Local Plan Policies Map in accordance with government guidance, whilst proposals for wind turbines will also be assessed against Policy CC6 in the Local Plan Written Statement. The importance attached to the protection of the wider South Pennines landscape surrounding Calderdale is recognised through the joint studies to assess the sensitivity of the landscape to wind energy

developments and continued liaison with other local authorities through the South Pennines Wind Energy Group