



Renewable Energy

Local Development Plan (Proposed Plan)
Planning Guidance

November 2016

Contents

Introduction	1 - 2
Planning for wind energy	3 - 19
Other forms of renewable energy	20 - 24
Community benefits and ownership	25 - 28
Appendix 1	29 - 33

Introduction

Purpose of the Supplementary Guidance

A key role of the planning system is to respond to the challenges of climate change and to help Scotland move towards a low carbon future. Renewable energy technologies play an important role in this agenda, by helping us to reduce our reliance on fossil fuels and to tackle the rise in global temperatures. The challenge for the planning system is to support and encourage renewable energy developments in locations where they can be comfortably accommodated. This supplementary guidance has been produced to underpin Policy DS5 of the Proposed Local Development Plan, giving greater guidance on where renewable energy developments are likely to be supported and how proposals will be assessed. Whilst the Adopted Local Plan (2010) will continue to be used in decision-making, the supplementary guidance relates only to the Proposed Local Development Plan.

The key elements of this guidance comprise:

- Planning for wind energy - including a Spatial Framework and guidance on the factors that will be considered in assessing wind energy proposals;
- Other forms of renewable energy - setting out guidance on matters and considerations that are of particular importance to other forms of renewable energy;
- Community benefits and ownership - providing guidance on how the Council would like the wider community to benefit from renewable energy developments within their local area.





National context for renewable energy

The Scottish Government is committed to increasing Scotland's renewable energy output and has set ambitious targets for the generation of renewable energy. The Renewable Energy Routemap for 2020 sets the following headline targets to achieve by 2020:

- The equivalent of 100% of Scotland's electricity demand should be generated from renewables;
- 11% of heat demand should come from renewables;
- At least 30% of overall energy demand should be generated from renewables.

These targets are the most ambitious in the EU. Achieving these targets would see Scotland become an international leader in renewable energy production.

The above targets cover all forms of renewable energy sources. No targets are given for individual technologies and no spatial targets are given.

Local context for renewable energy

Demand for renewable energy developments within West Dunbartonshire has so far been limited.

The Council wants to see greater investment in renewable energy in its area, in order that West Dunbartonshire can play its part in reducing carbon emissions and tackling climate change. There are also clear advantages to local residents and businesses, in terms of reducing energy costs. The Council encourages all forms of renewable energy generation and will support applications in appropriate locations where any potential negative impacts can be overcome.

Planning for wind energy

The Spatial Framework for wind energy

Across Scotland, demand for onshore wind energy development has become a significant development pressure. A clear and robust policy approach to wind energy is essential in ensuring the proper planning of the area's rural landscape and urban fringe.

Scottish Planning Policy sets a clear requirement for development plans to include a spatial framework for wind energy, identifying those areas that are likely to be the most appropriate for onshore wind energy proposals. It is intended by the Scottish Government that this approach gives greater certainty to communities and developers. The requirement for a spatial framework is carried forward into Policy DS5 of the West Dunbartonshire Proposed Local Development Plan which states that a spatial framework for wind energy will be prepared as supplementary guidance.

Scottish Planning Policy sets out a clear methodology to be followed in developing a spatial framework. As shown in table 1 below, Scottish Planning Policy defines the constraints and groupings that must be included. Map 1 illustrates West Dunbartonshire's spatial framework.

Scale of development the spatial framework should be applied to

Scottish Planning Policy requires that development plans indicate the minimum scale of onshore wind development that their spatial framework is intended to apply to. In West Dunbartonshire the spatial framework will apply to 'wind farms' which are defined by the Council as:

- Any development containing a turbine of 50 metres and above to tip height; OR
- Any development of 3 or more turbines, containing a turbine of 30 metres and above to tip height.

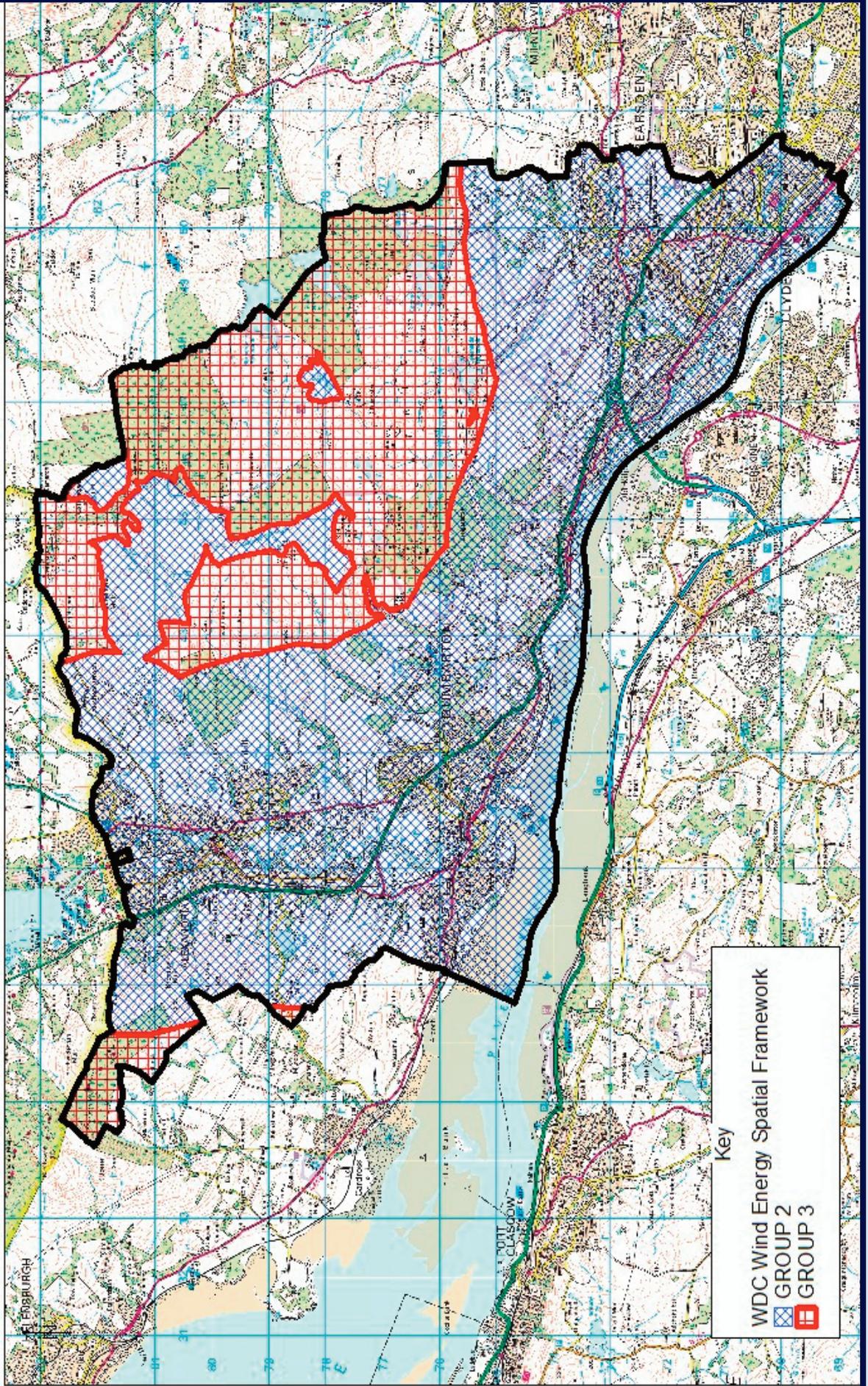
This definition of a wind farm is intended to reflect the importance of turbine height in assessing proposals. Large scale commercial wind turbines and wind farms, in excess of 50 metres, tend to be proposed in simple upland landscapes with limited landscape features and of fairly homogenous character. In contrast, applications for wind turbines less than 50 metres tend to be associated with individual dwellings or farms, in settled lowland or urban fringe areas. These landscapes are often intricate and complex with a range of feature such as dwellings, field boundaries, shelter belts and minor roads. It is difficult to provide strategic guidance in a spatial format for these types of complex landscapes. However, in order to ensure any cluster of turbines is appropriately assessed, the spatial framework will also apply to groupings of 3 or more turbines in excess of 30 metres to tip height.

Group	Description	Constraints defined by Scottish Planning Policy	Constraints that apply to the West Dunbartonshire Proposed Local Development Plan area
Group 1	Areas where wind farms will not be acceptable	<ul style="list-style-type: none"> ● National parks ● National scenic areas 	There are no Group 1 areas in the West Dunbartonshire Proposed Local Development Plan area.
Group 2	Areas of significant protection	<ul style="list-style-type: none"> ● World heritage sites ● Natura 2000 and Ramsar sites ● Sites of Special Scientific Interest ● National Nature Reserves ● Sites identified in the Inventory of Gardens and Designed Landscapes ● Sites identified in the Inventory of Historic Battlefields ● Areas of Wild Land (as shown on the 2014 Scottish Natural Heritage maps) ● Carbon rich soils, deep peat and priority peatland habitats ● An area not exceeding 2km around cities, towns and villages identified on the Local Development Plan with an identified settlement envelope 	<ul style="list-style-type: none"> ● The Antonine Wall World Heritage Site ● Inner Clyde Special Protection Area and Ramsar site ● 7 SSSIs ● Overtoun House garden and designed landscape ● Areas of carbon and peatland classes 1 and 2, as defined on the National Carbon and Peatland map produced by Scottish National Heritage (http://www.snh.gov.uk/planning-and-development/advice-for-planners-and-developers/soils-and-development/cpp/) ● An area of 2km has been drawn around the urban area of West Dunbartonshire
Group 3	Areas with potential for wind farm development	No constraints defined by Scottish Planning Policy. Wind farms are likely to be acceptable, subject to detailed consideration against all relevant policies of the Proposed Local Development Plan, and the guidance outlined below.	

Table 1: Scottish Planning Policy requirements for the spatial framework

West Dunbartonshire Council Title : Wind Energy Spatial Framework

Map Ref : NS4276 Map No :
Date : 16/06/2016 Scale : 1:35000
Reproduced by permission of Ordnance Survey on behalf of HMSO. (C) Crown copyright and database right 2016.
All rights reserved. West Dunbartonshire Council OS License Number 100020790.



Map 1: Wind Energy Spatial Framework¹
¹ The spatial framework will apply to (i) any development containing a turbine of 50 metres and above to tip height; OR (ii) any development of 3 or more turbines, containing a turbine of 30 metres and above to tip height.

The assessment of wind energy proposals

The spatial framework gives an indication of where proposals are likely to be considered more favourably i.e. within the group 3 areas, defined as having potential for wind farm development. As per Scottish Planning Policy, whilst Group 2 areas are to be given significant protection, there may be limited opportunities for sensitively sited and designed wind energy proposals, where it can be demonstrated that any significant effects on the qualities of these areas can be substantially overcome. Only in these instances, will the Council support development within Group 2 areas.

In addition to consideration against the spatial framework, all proposals for wind energy will require to be assessed against all relevant policies of the Adopted Local Plan and Proposed Local Development Plan. Policy DS5 of the Proposed Local Development Plan sets out key criteria against which applications will be assessed. This means that whilst at a strategic level, the spatial framework indicates that a large part of West Dunbartonshire's rural area has potential for wind farm development, the detail of any proposal will continue to be rigorously assessed against the criteria set out in the Proposed Local Development Plan. Policy DS1 will also be relevant, ensuring that no development results in unacceptable impact on adjoining uses including noise, smell, vibration, dust, air quality, invasion of privacy and overshadowing.

The Council will support developments that are in accordance with the criteria set out below. The Council particularly encourages businesses within industrial areas to consider the development of wind turbines as a means of providing clean energy for their business. Such development will be supported by the

Council where they avoid adverse impacts on the criteria. Similarly, rural wind energy developments to support established agricultural businesses will be supported when they are of an appropriate scale and are sited to reduce adverse impacts on the assessment criteria.

Proposed Local Development Plan policy requirements:

(a) *'renewable energy development will be supported where it avoids significant impact on the green network, particularly:*

- ***the habitat network and geo-diversity.'***

All applications for wind energy are required to take into account the impact on existing habitats, biodiversity and geo-diversity. Internationally and nationally recognised nature conservation interests are given special protection within the spatial framework and any developments within these areas will only be acceptable when any negative impacts can be substantially overcome by siting, design or mitigation, to the satisfaction of both the Council and Scottish Natural Heritage. Development must not have an adverse effect on the integrity of any European site. Any development proposal with a potential impact on a Natura 2000 site will require an expert appraisal to inform a project level Habitat Regulations Appraisal. Similarly, developers will be expected to demonstrate that the protected areas in adjacent authority areas will not be affected by any proposal in West Dunbartonshire.

Outwith areas that are nationally or internationally recognised, and particularly within locally designated areas (Local Nature Reserves and Local Nature Conservation Sites) developers will be expected to fully explore the natural attributes of the site and to assess the impact of their development. Mitigation measure should be brought forward

when any negative impacts are predicted.

Wind energy developments present particular risks to birds, through displacement, collision with turbine blades and direct loss of habitat. When developing wind energy proposals, developers should consider the bird sensitivity map produced by the Royal Society for the Protection of Birds and Scottish Natural Heritage, giving locational guidance for wind energy developments. An assessment of the potential impacts that a wind energy development, pre and post operation, may have on birds should be included as part of the application submission, in line with guidance published by Scottish Natural Heritage. The potential effects of wind turbines on bats should also be considered. The following links provide additional information in relation to birds and bats:

<http://www.rspb.org.uk/forprofessionals/policy/windfarms/locationalguidance/scottish.aspx>

<http://www.snh.gov.uk/planning-and-development/renewable-energy/onshore-windfarm-impacts-on-birds-guidance/>

<http://www.snh.gov.uk/about-scotlands-nature/wildlife-and-you/bats/advice/>

- **landscape character**

The impact of any wind energy proposal on landscape character will be a key factor in the consideration of development proposals.

A landscape Capacity Study for Wind Turbine Development has been undertaken for Glasgow and the Clyde Valley in 2014 (http://www.clydeplan-sdpa.gov.uk/files/GCV_Report_v3_20140911.pdf). The study has been carried out at a strategic, regional scale and provides guidance on the areas that are likely to be more suitable for wind energy development.

The landscape capacity study assesses the capacity of defined landscape character areas to absorb different levels of wind energy development. A series of maps have been prepared that illustrate the sensitivity of the landscape character areas to the different scales of wind turbine development. These maps are included as Appendix 1 and should be used when exploring opportunities for wind farm development. For clarity, the capacity study defines scales of wind energy development as:

Scale	Height to tip
Small	15 - 30 metres
Small - medium	31 - 50 metres
Medium	51 - 80 metres
Large	81 - 120 metres
Very large	Over 120 metres

Table 2: Scale of wind energy developments

The study highlights a number of key findings comprising:

- ▶ The landscapes of West Dunbartonshire are of relatively high sensitivity to wind turbines of medium (51 - 80 metres) large (81 - 120 metres) and very large (over 120 metres) scales.
- ▶ The Kilpatrick Hills form an important recreational landscape with high levels of relative wildness and with a significant presence in views from across the Clyde basin.
- ▶ The capacity of West Dunbartonshire's landscape to absorb large scale wind turbines is limited due to (i) the proximity of a large number of visual receptors; (ii) the prominence of key landforms and (iii) the location of the Vale of Leven as gateway to the National Park.



- ▶ The Kilpatrick Hills are contained within the Rugged Moorland Hills Landscape Character area. This area has limited capacity for medium scale turbines and little or no capacity for large or very large turbines.
- ▶ The Muirs to the west of the Vale of Leven are contained within the Moorland Hills and Ridges Landscape Character Area. This area has no capacity for medium, large or large scale turbines.
- ▶ Future development should focus on (i) single turbines in urban fringe or industrial contexts; and (ii) medium scale development within less visually prominent parts of the Kilpatrick Hills.

The Council expects all applicants to take account of the findings of the landscape capacity study in preparing development proposals. Applicants should demonstrate an understanding of the sensitivities of the landscape and be able to show how their proposal responds to and overcomes those sensitivities, in terms of their site selection and design process. The Council will use the findings of the landscape capacity study to help assess all applications for wind energy development.

The Proposed Local Development Plan designates the Kilpatrick Hills as a Local Landscape Area, recognising the high landscape value of the hills. A Statement of Importance has been produced by the Council (<http://www.west-dunbarton.gov.uk/media/4307970/kilpatrick-hills-local-landscape-area-may-2015.pdf>) which describes the landscape and visual characteristics of the hills and explains their special qualities. Any proposals for wind energy within the Local Landscape Area should pay reference to the Statement of Importance and demonstrate to the Council that the proposal will not have unacceptable impacts on the special qualities of the area.

A Landscape and Visual Impact Assessment will be required for all wind energy proposals. The detail required will be dependent on the scale of the proposal and this can be discussed at pre-application stage. The Landscape and Visual Impact Assessment must follow best practice in the selection of viewpoint locations and in the preparation photomontage/panoramic images and should follow the guidance set out



by Scottish Natural Heritage, 'Visual representation of wind farms'

<http://www.snh.org.uk/pdfs/publications/heritagemanagement/Visual%20representation%20of%20wind%20farms%20-%20version%202.1%20-%20December%202014.pdf>

A Zone of Theoretical Visibility Map (ZTV) should be used as a starting point to identify appropriate locations of viewpoints, selecting points where the development is likely to be most visible and where there are appropriate receptors. The list of viewpoints must be agreed with the Council and, dependent on scale and location, in consultation with Scottish Natural Heritage and neighbouring planning authorities. Viewpoints should comprise a variety of local and long range views and should include, but not be restricted to:

- ▶ settlements from where the development will be visible;
- ▶ important heritage designations, including prominent listed buildings and scheduled monuments;

- ▶ strategic walking routes, including the John Muir Way and West Highland Way;
- ▶ appropriate high points within the upland area, where long range views in more than one direction can be obtained;
- ▶ appropriate points on the A82, an important tourist route through and beyond West Dunbartonshire;
- ▶ areas with long range views into West Dunbartonshire, including the Loch Lomond and Trossachs National Park, Renfrewshire and Inverclyde.

The evaluation of impact on landscape character cannot look only at the proposal in question, but must also assess the impact of the proposal when considered in conjunction with any other similar developments i.e. the cumulative impact of more than one development. The assessment of cumulative impact should form a key part of the Landscape and Visual Impact Assessment. Whilst there are few consented or proposed wind energy developments in or adjacent to West Dunbartonshire, potential applicants should continue to monitor the development and progress of nearby proposals. The Council



expects the following issues to be considered:

- ▶ the cumulative impact assessment should take account of all wind energy developments and proposals in West Dunbartonshire and surrounding authorities. The Zone of Theoretical Visibility should consider all such developments/proposals within a 35km buffer of the proposed site.
- ▶ Within the 35km buffer all operational and consented wind energy developments should be considered, as well as those with a valid, but undetermined planning or Section 36 application. The Council also considers it good practice for applicants to consider developments at scoping stage, as these may get to application stage quicker or at the same time as the applicants own submission.
- ▶ The assessment of cumulative impacts should follow the guidance and methodology set out in the Scottish Natural Heritage guidance 'Assessing the cumulative impact of onshore wind energy developments'. See link below.

<http://www.snh.gov.uk/docs/A675503.pdf>

Applications for single or small scale proposals are more likely to be suited to the urban fringe and the lower slopes of the Kilpatrick Hills and Muirs. Such proposals will be required to pay particular attention to the setting and character of the urban area, and should avoid unacceptable impacts on key vistas out of and into the urban area.

- ***Forestry and woodland***

Woodland cover characterises a significant proportion of West Dunbartonshire's upland landscape. The retention of woodland helps in the drive to address climate change and can contribute to the character and amenity of the upland area. Development proposals should seek to minimise the removal of woodland as far as possible.

The Scottish Government Policy on 'The Control of Woodland Removal' includes a presumption in favour of protecting woodland resources and woodland removal should only be allowed where it would achieve significant and clearly defined additional public benefits. Compensatory planting



is generally expected where woodland is removed and will be taken into account when assessing proposals.

The effects that the proposed development will have on woodlands and the consequences that woodland removal will have on the ecology and landscape of the area and environs requires to be fully assessed. The information submitted with the application requires to adequately address the impact that the felling associated with the development will have on the environment, and how the felling proposals adhere to the UK Forestry Standard Guidelines and the Scottish Government's Control of Woodland Removal Policy. Design options to minimise the necessity for tree removal should be considered. Any wind energy proposal that involves woodland removal should be discussed at an early stage with Forestry Commission Scotland, which will advise on information that will be required to support the application. Where forestry occurs on peatland, additional guidance should be sought regarding habitat restoration proposals and early engagement with Forestry Commission Scotland and Scottish natural Heritage will be vital in ensuring a sympathetic and deliverable

land management plan is achieved.

The Glasgow and Clyde Valley Forestry and Woodland Strategy recognises the impact that wind energy development could have on the areas woodland and requires that where woodland is removed, compensatory planting should take place. The identification of appropriate locations and the type, siting and design of compensatory woodlands should be in line with the Strategy.

Where it is proposed to fell significant quantities of trees in order to accommodate a proposal, then consideration of how any tree material cleared to facilitate development will be utilised must be undertaken. Where this includes felling to waste, where the waste generated by the process will be managed by techniques such as chipping, mulching or spreading, this approach must comply with SEPA's Management of Forestry Waste guidance.

http://www.sepa.org.uk/media/28957/forestry_waste_guidance_note.pdf



- ***The water environment***

In line with the requirements of policy GN6 of the Proposed Local Development Plan, wind energy developments require to be carefully considered and monitored to avoid any pollution of the water environment (which includes wetlands, rivers, lochs, transitional waters (estuaries), coastal waters and ground water), especially at the construction stage. Developers should demonstrate that every effort has been made to avoid any adverse impact on the water environment. An assessment of the risk to water quality as well as the identification of any mitigation measure should be carried out through the EIA process and will be subject to detailed consultation with Scottish Environment Protection Agency and Scottish Natural Heritage. Developers should also consider whether a proposed scheme is likely to have an impact on flood risk and groundwater abstractions (including private water supplies).

The infrastructure associated with wind energy developments, including foundations, borrow pits and access roads, can disrupt groundwater flow and impact upon Groundwater Dependent

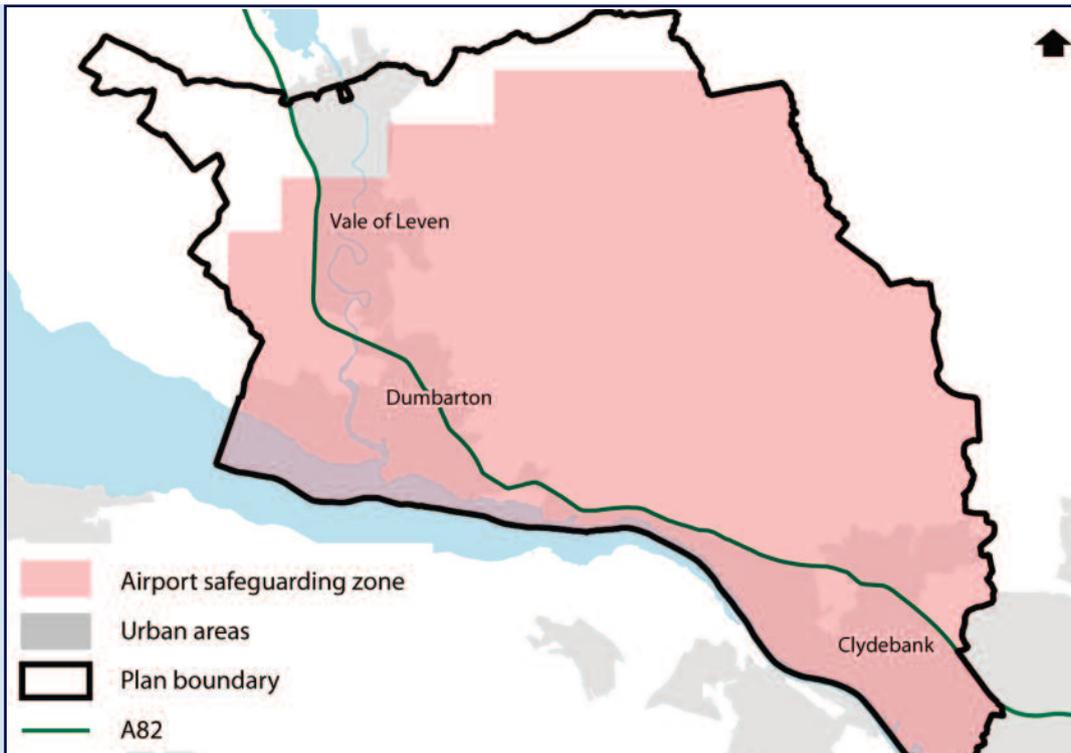
Terrestrial Ecosystems. In consultation with Scottish Environment Protection Agency, the Council will expect developers to follow the advice set out in the guidance document below.

<http://www.sepa.org.uk/media/144266/lups-gu31-guidance-on-assessing-the-impacts-of-development-proposals-on-groundwater-abstractions-and-groundwater-dependent-terrestrial-ecosystems.pdf>

- ***The path network and sport and recreation interests***

As per policy GN8, any proposal should avoid disruption to the network of paths within West Dunbartonshire or to any established sporting or recreational resources.

The Council recognises that wind farms can contribute positively to recreation and access provision, by promoting public access to their site and incorporating new paths linked in to existing paths and road networks. The Council expects all applications to include such provisions, unless it



Map 2: Glasgow airport safeguarding zone

can be demonstrated that site specific reasons make this unfeasible.

(b) Renewable energy development will be supported where it avoids significant adverse impact on built heritage, particularly:

- ▶ the Antonine Wall;
- ▶ scheduled monuments and other archaeology;
- ▶ listed buildings;
- ▶ conservation areas and;
- ▶ gardens and designed landscapes

Built heritage plays an important role in giving West Dunbartonshire its sense of place and local distinctiveness. The Proposed Local Development Plan seeks to protect and enhance important historic features and their settings.

All wind energy proposals are required to assess the impact of the development on the features listed above, including the impact on their setting. Where there is a significant adverse impact on the areas built heritage, especially where this of

a national interest, the Council will be unlikely to support the proposal. Applicants are expected to give particular attention to the Antonine Wall, a scheduled monument and one of only 6 World Heritage Sites in Scotland, by fully demonstrating the scale of any impact on the Wall and its setting.

(c) Renewable energy development will be supported where it avoids adverse impact on aviation and defence interests

The safe operation of air travel is of prime importance in the assessment of applications or wind energy development.

A large proportion of West Dunbartonshire falls within the safeguarding zone of Glasgow Airport (See map 3 below). Developers are expected to engage directly with the airport, as well as the other relevant aviation authorities (NATS EN Route (the UK air traffic control service) and the Civil Aviation Authority) at the early stages of project development i.e. prior



to the submission of a planning application. NATS offers a free self-assessment service on its website (www.nats.co.uk) and also provides a chargeable pre-planning assessment service, which provides developers with the opportunity to find out if a proposed installation is likely to be objected to.

The Council will routinely consult with the aviation authorities on all wind energy developments. Any proposal that receives an objection from any of the organisations will not be supported by the Council, until such a time that the objection can be lifted. This is in line with policy GE5 of the Proposed Local Development Plan. Similarly, the Ministry of Defence will be consulted on relevant applications and should be satisfied that no material impact will occur or that a technical solution will be put in place to mitigate any issue raised. In some instances the MOD will require lighting to be installed on turbines. This should be clarified with the MOD early in the process, so can be considered as part of the application as a whole.

(d) Renewable energy development will be supported where it avoids adverse impact on telecommunications and broadcasting; Wind energy developments can impact upon broadcasting installations, by way of the electro-magnetic radiation associated with electricity generation. Applicants should consult with network operators to confirm the existence of any infrastructure and to assess whether the proposals would be likely to result in any interference. Where interference is likely, the applicant should put forward a technical solution to resolve the issue.

The Council may require a planning condition or Section 75 Obligation to be attached to a planning consent, to ensure any impact on telecommunications and broadcasting that do occur during construction or operation will be resolved.

(e) Renewable energy development will be supported where it avoids adverse impact on communities and residential amenity;

The Council will assess the impact on



communities and residential amenity in respect of three key criteria; (i) noise; (ii) shadow flicker and; (iii) visual intrusion.

(i) Noise

Wind turbines create two distinct types of noise; mechanical noise, associated with the gearbox and generator and aerodynamic noise, produced by blades moving through the air.

The Council will not support development where the quality of life of local residents will be affected by noise generated by the turbine(s). Such affects are best avoided by ensuring turbines are sufficiently remote from communities and residential properties.

As per Scottish Government guidance, applicants for wind energy developments should provide a Noise Impact Assessment, with evidence that the likely noise impact of the proposal has been measured in line with the guidance 'The Assessment and Rating of Noise from Wind Farms' (ETSU-R-97). This framework gives indicative noise levels that are thought to offer a reasonable degree of protection to wind farm

neighbours. The Council will require these levels to be met by all applications.

(ii) Shadow flicker

Shadow flicker occurs at certain times of the year and at certain times of the day when low sun passes behind the blades of a turbine. As the blades rotate, the shadow flicks on and off, known as shadow flicker. Shadow flicker is only apparent from within buildings where there is a narrow window opening. The degree to which shadow flicker will be an issue is dependent on the location and directional positioning of the turbine.

Similar to noise impact, shadow flicker can generally be avoided where there is adequate separation distance between turbines and properties. As a general rule, the separation distance should be at least 10 x the blade diameter. The Council will require developers to demonstrate that the elimination of shadow flicker has been full considered in the preparation of wind energy proposals. The Council may require planning conditions or a Section 75

Obligation to be put in place to ensure that remedial measures are undertaken should periods of shadow flicker occur.

(iii) visual intrusion

As per the spatial strategy for wind farms, proposals should generally be 2km apart from any settlement. Where proposals are within the 2km buffer, clear evidence will be required through the Landscape and Visual Impact Assessment, to demonstrate that because of the particular geography and topography of the area, the proposal will be appropriate.

In terms of stand alone residential properties or small groups of houses, the Landscape and Visual Impact Assessment should fully assess the visual effects of the proposed development on all residential properties within 2km of the site boundary. The Council recognises that due to the height of turbines, it is almost inevitable that they will become visible from certain nearby properties and that a certain level of visibility will normally be acceptable. The Council will, however, not support development where it considers that the affected residential properties will experience an over-bearing impact, where their visual amenity is detrimentally affected to such an extent that the properties become far less pleasant places to live.

(f) Renewable energy development will be supported where it avoids significant adverse impact on the setting of and views to and from the Loch Lomond and the Trossachs National Park and Loch Lomond National Scenic Area;

West Dunbartonshire provides the southern and most well used gateway to the Loch Lomond and the Trossachs National Park. The A82, which runs through West Dunbartonshire and links the Park to Glasgow and beyond, is a hugely important route for visitors to the Park, providing first glimpses and views of the scenic qualities of the National Park. Travelling through West Dunbartonshire to the Park, the urban

landscape gives way to the natural beauty of the Park. It is important to the integrity of the Park that the important viewpoints and experiences from the southern gateway are maintained.

Scottish Planning Policy identifies the National Park as an area where wind farms will not be acceptable. Whilst the Council has no requirement to provide any buffer around the park, it is important that the impact on the landscape and scenic qualities of the Park and its setting are fully considered.

The Council will require applicants to ensure the Landscape and Visual Impact Assessment fully explores the impact of the proposal on the National Park, assessing the proposals from appropriate viewpoints within the Park, in consultation with the Park Authority. Likewise, the impact on the proposal on views from West Dunbartonshire to the Park should be included and assessed. The Council will not support proposals where there is a significant adverse impact on the National Park and its setting.

Other considerations

In addition to the criteria contained within policy DS5, proposals will be considered against the development management considerations set out in Scottish Planning Policy. Those that are not included within DS5 are described in table 3 on the following page:

Consideration	Requirements
Net economic benefit	<p>The applicant should provide a socio-economic statement indicating how the development will benefit the local economy. As a minimum this should demonstrate:</p> <ul style="list-style-type: none"> ● Direct job creation associated with construction and operation; ● Indirect job creation and supply chain opportunities for local businesses; ● Wider benefits to the local economy relating to any recreational/ public access features the proposal may include.
Contribution towards renewable energy generation targets	<p>All proposals should provide details of the extent to which the turbines will help to meet Government targets for renewable energy generation. This should be based on realistic output level and should not rely on the maximum generating capacity.</p>
Effect on greenhouse gas emissions	<p>Applications should be accompanied by an estimate of the total annual co2 savings that would be derived from the proposal. This should be weighed against the carbon footprint associated with the developments construction in order to confirm the 'co2 payback period'.</p>
Effect on carbon rich soils	<p>The location and layout of proposals should seek to minimise impacts on carbon-rich soils, using the carbon calculator.</p> <p>Where the proposal will affect established peatlands, the Council will expect the co2 payback period to take into account the carbon losses resulting from the loss of peat. Development on and re-use/ disposal of excavated peat must be in line with the 'Guidance on the Assessment of Peat Volumes, Reuse of Excavated Peat and Minimisation of Waste' and SEPA's Regulatory Position Statement - Developments on Peat.</p>
Impact on tourism	<p>Developers are encouraged to incorporate measures to promote access to and recreational use of their sites.</p> <p>The visual impact of developments on important tourist route and locations should be fully assessed through the LVIA.</p>
Impact on adjacent trunk roads and road traffic	<p>All proposals are required to fully consider the impact of the development on West Dunbartonshire's road network, with consideration given to:</p> <ul style="list-style-type: none"> ● The structural and physical ability of roads and bridges to accommodate the additional traffic generated, including abnormal loads; ● The need to minimise disturbance to local communities and businesses. <p>Early contact should be made with the Councils Roads Department to agree the scope and extent of a Transport Assessment and Construction Traffic Management Plan.</p>
Decommissioning, restoration and aftercare	<p>Applications should include full details of the proposals for decommissioning, site restoration and aftercare, to ensure that when the development comes to the end of its operational lifespan, the site is restored to an acceptable standard. This should include the removal of both the turbines and all ancillary infrastructure.</p> <p>The Council requires applications to be supported by a financial guarantee to ensure that all decommissioning, restoration and aftercare costs can be met in full. The financial guarantee mechanism and the amount covered will be reviewed at regular intervals throughout the lifetime of the development, to ensure it continues to be of a sufficient level.</p>

Table 3: Other development management considerations

Required information checklist

All applications for wind energy developments will be required to be accompanied by clear and robust supporting information to allow the Council to make an informed assessment of the application against this supplementary guidance and all other relevant policies. The level of detail required will be dependent on the scale of development proposed and the particular sensitivities of the proposed location.

The checklist below is included to help applicants ensure they have all the required information.

	Included? (YES/NO). If NO, please demonstrate why it is not required
Information to meet the statutory requirements for planning applications, including location plan, site plan and scaled plans and elevations of turbines and associated infrastructure	
Environmental Statement as required by the Town and Country Planning (Environmental Impact Assessment) (Scotland) Regulations 2011 - Dependent on outcome of screening request	
Landscape and Visual Assessment, including cumulative assessment and residential amenity assessment in accordance with Scottish Natural Heritage guidance*	
Assessment of impact on natural heritage and biodiversity, including bats and birds*	
Assessment of impact on soils and demonstration of carbon calculation. This should include an assessment on the impact of peatlands and a calculation of the CO2 payback period*	
Assessment of impact on waterbodies and ground water*	
Assessment of impact on cultural heritage and archaeology*	
Deforestation phasing plan, details of compensatory planting proposals and proposed treatment of forest waste, if the development will remove existing woodlands	
Borrow pit scheme and details of import of construction materials	
Noise Impact Assessment*	
Shadow flicker Assessment and any proposed mitigation measures*	
Assessment of impacts on broadcasting installations	



	Included? (YES/NO). If NO, please demonstrate why it is not required
Analysis of any implications for existing tourist facilities and the wider tourist market	
Evidence of dialogue with the relevant aviation bodies and confirmation of any agreements reached	
Transport Assessment, Construction Traffic Management Plan and Turbine Transportation Plan	
Design statement	
Details of decommissioning, restoration and aftercare arrangements and confirmation of proposed financial bond	
Details of anticipated economic impact of the proposal	
Analysis of how the proposed development will contribute to national renewable energy targets	
Indication of community benefit to be provided	

*In many cases, these issues will be explored through the Environmental Impact Assessment process

West Dunbartonshire Council encourages and promotes pre-application dialogue as an effective means of securing quality development on the ground. With particular reference to major developments, the Council has an approved protocol (see link below) for pre-application discussion which applicants are encouraged to take on board.

http://www.west-dunbarton.gov.uk/media/2115391/facilitating_appropriate_development_inc_protocols_34.pdf

Other forms of renewable energy

Similar to wind, proposals for all other renewable energy technologies will be assessed against the criteria set out in DS5. West Dunbartonshire Council positively encourages applications for a range of renewable energy technologies. Applications will be supported, where they are appropriate in terms of policy DS5 and all other relevant policies, including DS1. The guidance below outlines the main types of renewable energy development other than wind and identifies particular considerations that will apply to the specific types of energy generation.

Hydro

Hydro energy generation involves the extraction of energy from moving water. The amount of energy generated depends on the amount of water, the flow rate and the height the water falls from.

Hydro schemes differ in scale from major schemes requiring the creation of dams to small scale micro generation. It is generally expected that applications for hydro schemes in West Dunbartonshire will be small scale 'run-of-the river' developments, where water is taken from a river, passed through a turbine and then flows back into the river. These are generally of a domestic scale with an output of under 100kw. Hydro energy is encouraged within West Dunbartonshire, as a generally reliable, clean and sensitive form of renewable energy. As per policy DS5, hydro schemes will be supported where they can be developed without resulting in significant adverse impacts. Key considerations specific to hydro schemes will be:

- The potential impact on the water environment, in relation to a reduction in water flow, flood risk and the disturbance of aquatic species. Development proposals will be expected to demonstrate that the water

environment will not be adversely affected and will be required to comply with policy GN6. The Scottish Environment Protection Agency will be routinely consulted on any hydro applications and all applications will be required to comply with all the Scottish Environment Protection Agency's standard regulatory requirements.

- Dependent on the gradient of the watercourse and the extent of surrounding land cover, proposed hydro schemes could have a significant landscape and visual impact. Proposals should be sensitively sited, designed and screened to avoid such impacts.
- Potential impact on water-based sporting and recreational uses such as angling and canoeing.

Biomass

Biomass energy produces electricity (and/or heat) from the burning of recently living natural materials. Wood is the most commonly used biomass fuel, but it can also comprise dried vegetation, crop residues and other organic materials. Biomass installations range in scale, from domestic biomass boilers to industrial scale biomass plants.

Domestic biomass boilers do not normally require planning permissions. The associated flues will only require permission if they are on the principle elevation of a property within a conservation area or the Antonine Wall World Heritage Site, or if the height of the flue would be more than one metre above the highest part of the roof. Applications for such developments will be assessed primarily against policy DS5, with key consideration given to:

- the potential to impact on communities and residential amenity;



- The potential for any adverse impact on local air quality, with reference to policy DS4.

Where commercial biomass boilers are proposed as part of wider development opportunities, proposals will generally be assessed by policy DS5, where the biomass plant is appropriately sited and designed so as to avoid any adverse impacts.

All proposals for biomass boilers will be subject to Environmental Health and Scottish Environment Protection Agency regulations in order to ensure that they do not have an adverse impact on air quality and public health. Biomass boilers that are appropriately operated and maintained and powered only with acceptable materials should not present problems in this respect.

Large scale biomass plants, which are not ancillary to wider development proposals, are primarily industrial in nature. Such developments are directed to existing industrial areas and their assessment will focus on ensuring that any potential negative impacts are minimised. Key considerations will be:

- the potential impact on the amenity of the area, with specific reference to noise, odour and air quality;
- The visual impact of the proposal and its sensitivity to its setting;
- The ability of the proposals to minimise the level of pollutants, through careful siting and the use of best available technology.

Solar energy

Domestic scale solar energy installations, both free standing and roof mounted, can normally be installed under permitted development rights. This excludes installations in conservation areas and associated with listed buildings.

Nationally, demand for commercial solar farms is growing as this emerging technology starts to contribute more to the country's energy mix. West Dunbartonshire has not yet received any proposals for solar farms, but this may change in the coming years.

Solar farms are made up of a series of free

standing solar photovoltaics (PVSs), which are normally mounted on frames or 'tables' that are anchored to the ground. The height and angle of the panels will be guided by the surrounding landform and orientation of the site, with the aim of optimising access to the sun's rays. The panels are normally arranged in rows, with adequate space between the rows to avoid them over-shading each other.

West Dunbartonshire has a significant amount of vacant and derelict land that presents an opportunity for the development of solar farms. The development of solar farms on vacant and derelict land and other brownfield sites is supported in principle by the Council and is preferred to the development of greenfield sites.

Proposals for solar farms will be assessed against policy DS5, as well as all other relevant policies. Key considerations specific to solar energy comprise:

- **Landscape and visual impact**
A landscape and visual impact assessment will be required. The landscape and visual impact of a solar farm will depend on its location, topography and orientation. The infrastructure will normally be relatively low level, therefore development of a good site, low-lying with natural screening, should be capable of being accommodated with little visual or landscape impact.
- **Glint and glare**
A 'glint and glare' assessment will be required to assess the impact on nearby residential properties, road traffic and aviation. This is likely to be a particularly important consideration for proposals that include tracking devices, where the orientation of the panels moves to reach the optimum level of rays.
- **Ecological impacts**
Particularly in relation to greenfield sites,

applicants will be required to consider the ecological impacts of their development. The Council expects applicants to consider whether biodiversity could be improved by the development, with biodiversity improvements on the ground around the infrastructure. Flood risk should also be considered.

Scottish Natural Heritage has produced its own guidance on the impacts of large scale solar photovoltaic installations:

<http://www.snh.gov.uk/docs/A1859348.pdf>

Geothermal

Geothermal energy utilises the energy stored as heat beneath the earth's surface. Geothermal energy is carbon free and can provide a reliable means of heating homes and commercial buildings.

There are two main types of geothermal; deep geothermal and heat pumps. Deep geothermal is defined as any geothermal source below 100 metres in depth. Accessing such depths makes this process a relatively large scale operation and one that, to date, there has been relatively limited use of across Scotland. Any proposal for deep geothermal energy in West Dunbartonshire will require an Environmental Impact Assessment and will be assessed against DS5 and all other relevant policies dependent on location and surrounding uses.

Ground source heat pumps utilise the warmth found in far shallower depth of ground, with installation involving a relatively shallow borehole or trench. Domestic scale ground source heat pumps installed within the curtilage of a house have permitted development rights, as do water source heat pumps which utilise existing surface water resources.



For developments that do not fall within permitted development rights, the Council will in principle support the installation of heat pumps, as a low carbon approach to energy generation. The criteria contained within Policy DS5 will be used to ensure the proposal does not create unacceptable impacts.

Key considerations will depend largely on the scale of proposal, but are likely to comprise;

- Impact on the water environment, specifically in relation to ground water;
- Impact on amenity of neighbouring uses and residents.

Anaerobic Digestion and Energy from Waste

Anaerobic digestion involves the breakdown of organic matter found in wet biomass waste, such as sewage sludge, animal manure and waste food, to produce methane-rich biogas. The biogas can be burned directly in a gas boiler to produce heat or it can be burned in a combined heat and power unit to produce heat and electricity. The plant associated with

anaerobic digestion is industrial in nature and is best directed to industrial sites. Any applications will be assessed against DS5, as well as the waste policy SD2.

Energy from Waste comprises of the controlled incineration of a range of waste streams including commercial, municipal and industrial. It uses material that would likely otherwise go to landfill, to produce heat that can be recovered to generate electricity, heat, steam or hot water. Similar to anaerobic digestion, such energy generation is a form of waste treatment and any developments would be assessed against policies DS5, SD1 and SD2, as well as the air quality policy DS4.

Key considerations in determining any planning application for anaerobic digestion and energy from waste will likely focus on;

- amenity impacts for local residents/ businesses;
- design and visual impacts associated with a tall chimney structure;

- Pollution prevention, in close dialogue with SEPA and the Councils Environmental Health department.

Energy from Waste facilities and the use of biogas produced from anaerobic digestion plants require to comply with The Thermal Treatment of Waste Guidelines 2014. Further information on how SEPA consider thermal treatment facilities can be found within their 'Guidance on input to development management consultations in relation to Zero Waste Plan Issues, LUPS-GU6'.

Heat networks

Scottish Planning Policy gives direct support to heat mapping and heat networks. Heat mapping identifies sources of heat production and users of heat. A heat network can then be used to link the two locations together, putting in place a low carbon approach to heating.

The Proposed Local Development Plan indicates heat mapping and the potential for heat networks will be explored over the period of the Plan with supplementary guidance prepared if necessary. Whilst it is not the role of this guidance to address heat networks and mapping, the Council fully supports the use of heat networks within development proposals and will work with potential developers to explore the opportunities this approach to heating.

Community benefits and ownership



Scottish Planning Policy states that where a proposal is acceptable in land use terms and consent is being granted, local authorities may wish to engage in negotiations to secure community benefits in line with the Scottish Government's Good practice guidance.

Community benefits in the form of financial contributions cannot be taken into account in the determination of planning applications, unless as per Scottish Planning Policy, these can be demonstrated to contribute towards a net economic impact including community socio-economic benefits such as employment, associated business and supply chain opportunities. Where a development is acceptable in planning terms, the Council is of the view that it is entirely reasonable for developers to provide community benefits to help off-set any potential negative impacts of their development and to ensure the wider community benefits from the energy being generated from their area.

Community benefits should not be confused with other planning and infrastructure

requirements, which are an important part of the planning process. For example, a developer may reasonably be expected to provide access routes through their site or put in place biodiversity enhancements as part of their mitigations requirements. Such requirements do not form community benefits as described in this guidance.

Over recent years, there has been a clear willingness within the renewable sector to provide community benefits alongside their developments. With the support given by wind farm operators, communities across Scotland have benefited from a range of projects, such as new community halls, community cycle clubs, befriending programmes and outdoor access events programmes. Another example would be projects of benefits to natural heritage. In order to ensure such schemes are fair, transparent and provide tangible and lasting benefits for communities, the Council encourages all applicants to fully consider the advice contained in this guidance.



The level of community benefit

In line with Scottish Government guidance, the Council expects all wind energy applicants to provide a community benefit of a minimum £5,000 per MW of installed capacity. This would be payable annually and would increase relative to the Retail Price Index. The contribution is expected from all wind energy developments.

The form of community benefit

The Council supports a variety of approaches to ensuring that local communities benefit from renewable energy developments.

1. Community ownership

Community ownership has the potential to provide far greater returns for communities than more traditional community benefit payments. It allows communities to generate their own energy and to have control over how they spend the financial returns from the energy generated. The Scottish Government wants to see 500MW of renewable energy generation in community

ownership by 2020.

The Council is supportive of communities taking a stake in the energy being generated in their local area, through shared ownership schemes. In wind energy schemes, this involves the commercial operator giving or selling the local community a turbine within their site, which provides an income stream for the community. By sharing a grid connection and associated infrastructure, a shared ownership scheme of this type has real advantages. The Council supports this approach to community benefits, and will provide support to communities where such a scheme would be a possibility.

Should an applicant wish to explore the community ownership option, the guidance within the Scottish Government's best practice guidance should be followed:

<http://www.localenergyscotland.org/media/79714/Shared-Ownership-Good-Practice-Principles.pdf>

2. Contribution to the Council's Renewable Energy Fund

The Council will set up a Renewable Energy Fund (REF) to collect and distribute funds associated with renewable energy developments. The option to contribute to the Council's Renewable Energy Fund, gives potential developers the opportunity to pass responsibility for the distribution, management and monitoring of community contributions to the Council. This in turn gives the Council the opportunity to ensure that contributions are distributed fairly and transparently and are targeted towards projects that will make a real difference to communities.

The key guiding principles of the Renewable Energy Fund will comprise:

- The fund will be held by the Council, but communities themselves will be responsible for spending the fund. Community groups will be encouraged to apply for funding from the Renewable Energy Fund to carry out a wide range of community, environmental and employability projects.
- The Renewable Energy Fund will not be used to substitute or replace services that are the responsibility of the Council to deliver.
- Priority will be given to projects that can demonstrate wide support within the community.
- The fund will be set up to ensure that those communities that are impacted by the development are the communities that benefit from the funding.

Further guidance will be issued in support of the Renewable Energy Fund, detailing: (i) who will be eligible to apply to the fund; (ii) what kind of projects will be supported; (iii) the information required to make an application to the fund; and (iv) how applications to the fund will be assessed and who will be responsible for assessing them.

For wind farm developments, a contribution to the Renewable Energy Fund should be secured by an appropriate legal agreement, with the intention that the first payment will be made when the first turbine is fully erect and annual payments made thereafter. For smaller scale wind energy proposals and other forms of renewable energy generation, a contribution to the Renewable Energy Fund is likely to be a simple and straightforward way of ensuring that the community benefits from the development.

3. Contribution directly to the community

The Council recognises that some developers may prefer to engage with and work directly with the community, to arrive at an appropriate community benefits package, rather than contribute to the Council's Renewable Energy Fund. Where this is the case, applicants should follow the Scottish Government guidance 'Good practice principles for community benefits from onshore renewable energy developments.'

<http://www.localenergyscotland.org/media/34682/Good-Practice-Principles.pdf>

In line with the good practice guidance, the Council expects that applicants pay particular care and attention when identifying the community they wish to work with. Community benefit schemes have the potential to be divisive locally, given that they will normally benefit a discrete geographic area. Such schemes therefore require to be carefully managed to ensure they are transparent and as inclusive as possible.

Significant time and energy will be required from both the applicant and the community. The applicant will need to be confident that there is the capacity and appetite within the community to manage the community benefit package. There will need to be a legally constituted

community body set up that can receive and spend funds, with proper governance arrangements in place. Through the Scottish Government, support is available for local communities, in terms of capacity building and advice on maximising the gain from commercial renewable development.

<http://www.localenergyscotland.org/>

4. Non financial contribution

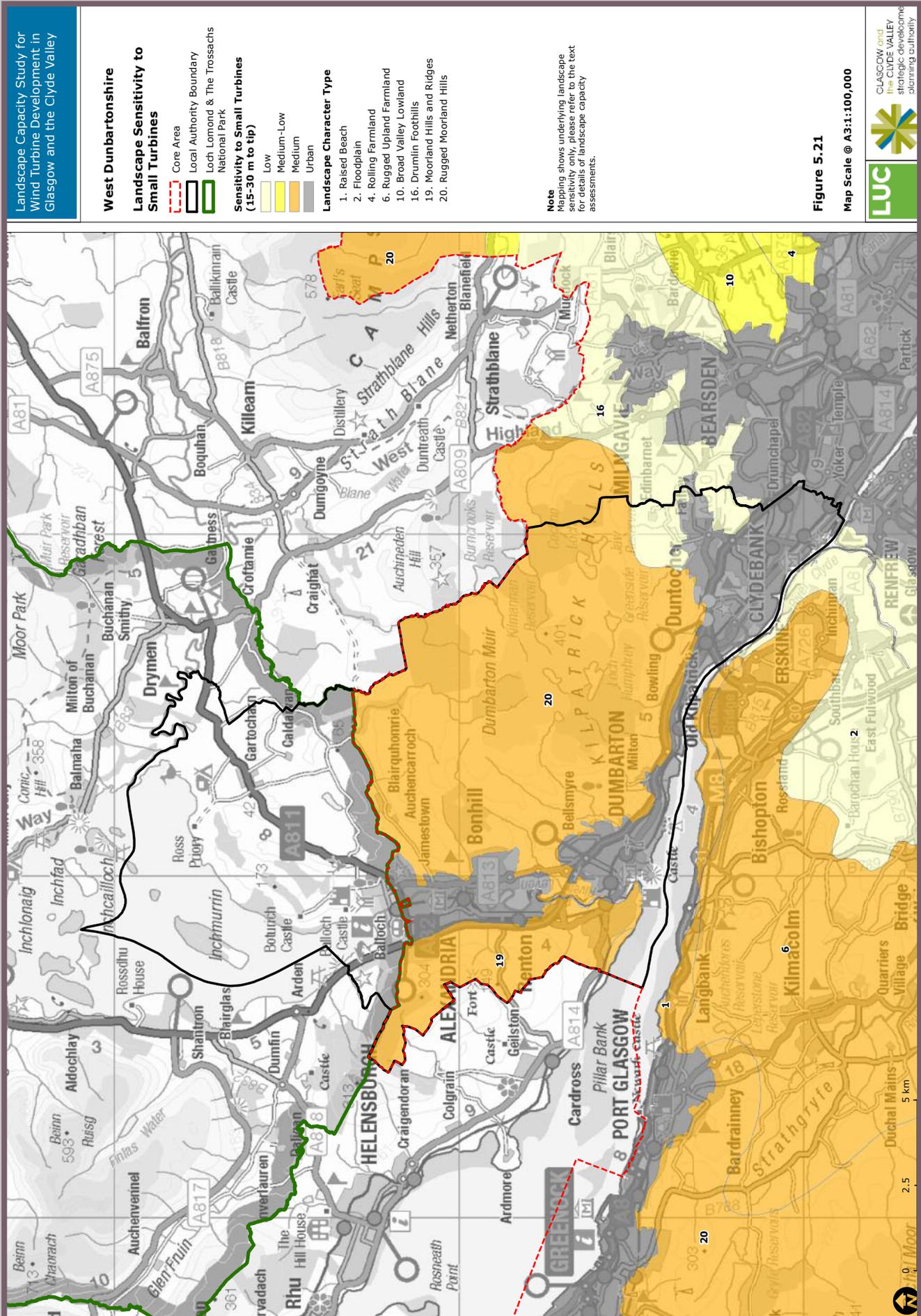
In some cases, it is recognised that rather than commit a full financial contribution, there can be a strong case for providing a non-financial contribution or a mixture of both financial and non-financial. Such contributions could comprise local employability or apprenticeship schemes, whereby local people receive employment and/or training opportunities which would not otherwise have been created.

Securing the community benefit

Applicants are encouraged to consider community benefits at the outset of planning their development and any consultation with the local community should begin as soon as possible. The Council will be happy to discuss and advise on the community benefit proposals, as a separate process from the consideration of the planning application. Any such discussion should not be seen as pre-determining the outcome of the planning application. Details of the proposed community benefit should be submitted to the Council.

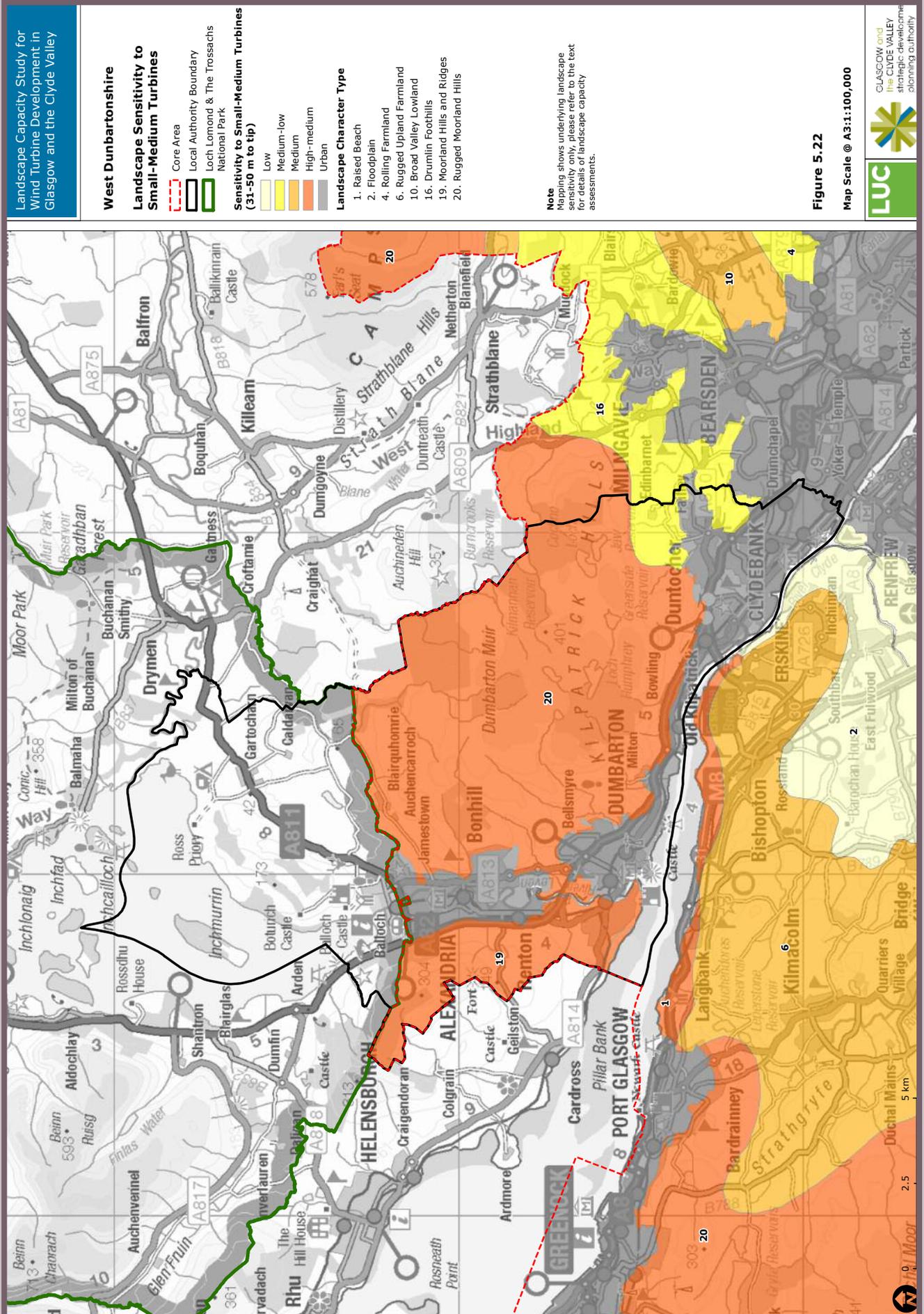
Appendix 1 Landscape sensitivity to wind energy development

(Source: Landscape Capacity Study for Wind turbine development in Glasgow and the Clyde Valley, Land Use Consultants)



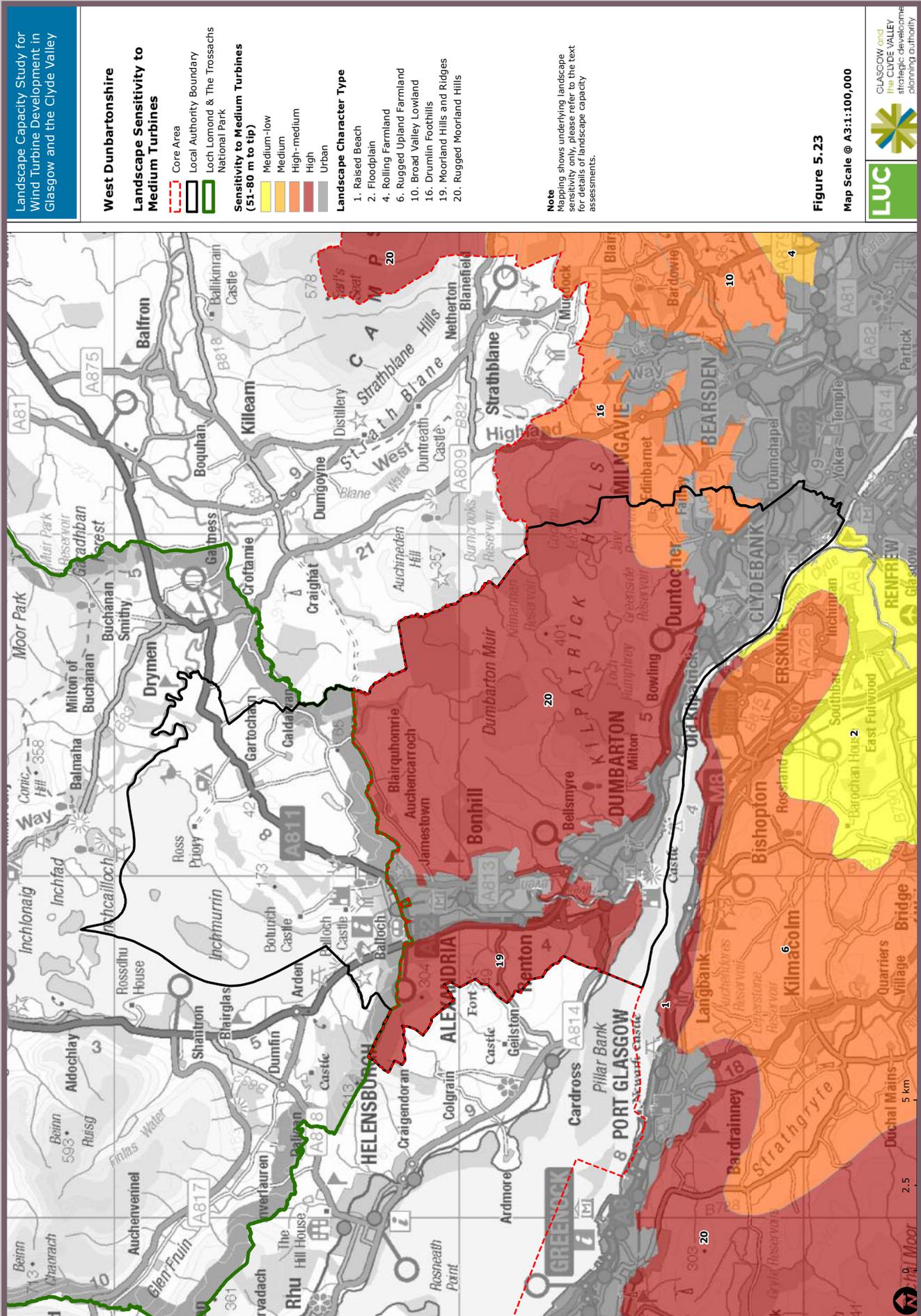
Appendix 1 Landscape sensitivity to wind energy development

(Source: Landscape Capacity Study for Wind turbine development in Glasgow and the Clyde Valley, Land Use Consultants)



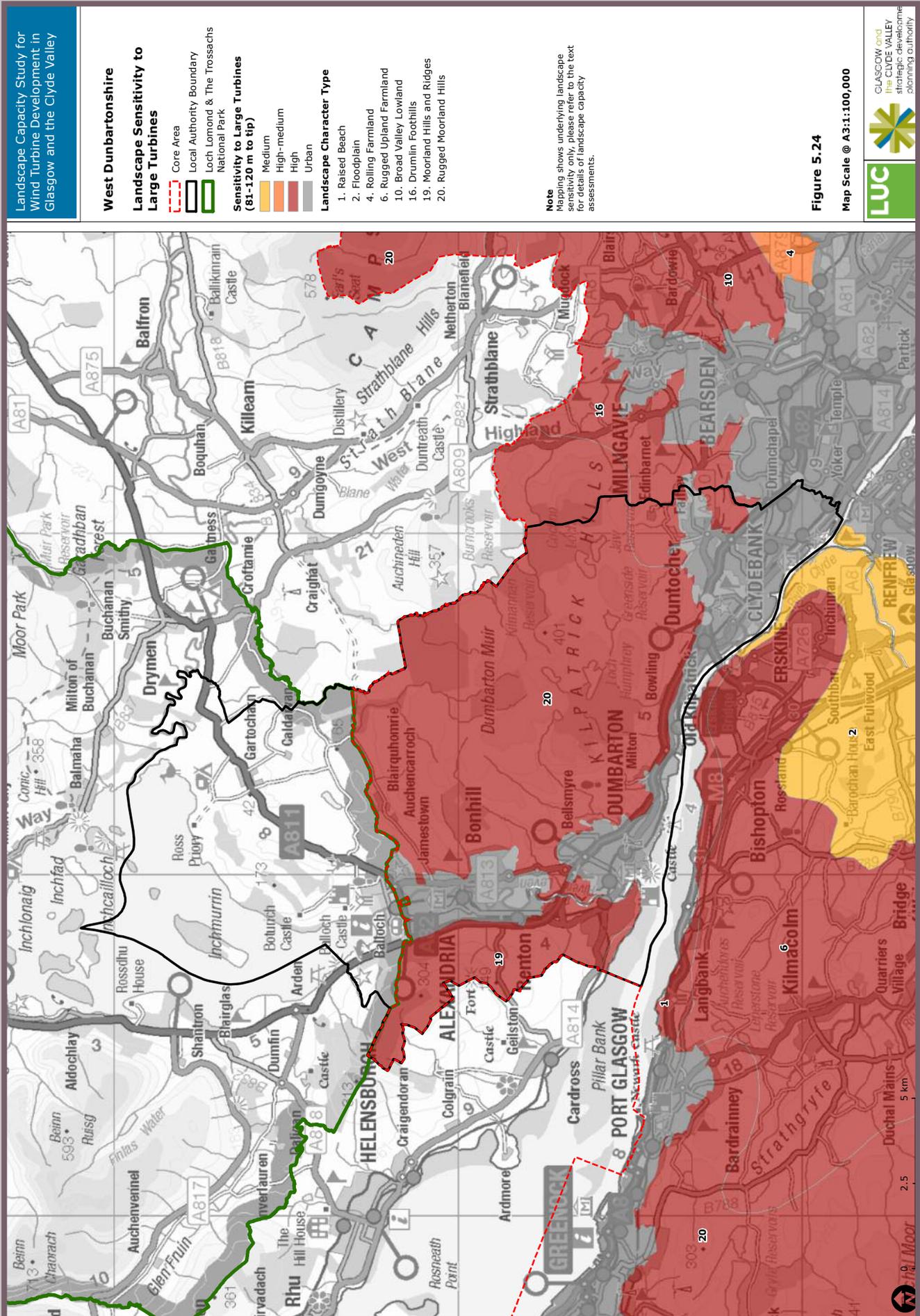
Appendix 1 Landscape sensitivity to wind energy development

(Source: Landscape Capacity Study for Wind turbine development in Glasgow and the Clyde Valley, Land Use Consultants)



Appendix 1 Landscape sensitivity to wind energy development

(Source: Landscape Capacity Study for Wind turbine development in Glasgow and the Clyde Valley, Land Use Consultants)



Appendix 1 Landscape sensitivity to wind energy development

(Source: Landscape Capacity Study for Wind turbine development in Glasgow and the Clyde Valley, Land Use Consultants)

