OLDHAM METROPOLITAN BOROUGH COUNCIL

LOCAL DEVELOPMENT FRAMEWORK

RENEWABLE ENERGY
SUPPLEMENTARY PLANNING DOCUMENT

Adopted on 3rd March 2008
by
Oldham Metropolitan Borough Council

OLDHAM
Metropolitan Borough

Oldham beyond

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1 CONTEXT

1.1 This Supplementary Planning Document (SPD) provides information on how the Oldham Metropolitan Borough Unitary Development Plan (UDP) policies on renewable energy will be interpreted when considering new developments in the Borough. In particular it provides guidance and advice on:

I. The content of an assessment required by Policies NR3.1 and NR3.2 regarding the environmental effects of a development where they do not fall within the requirements of the Town and Country Planning (Environmental Impact Assessments) (England and Wales) Regulations 1999; and

II. How the Council will implement Policy NR3.3.

1.2 The SPD is accompanied by a Sustainability Appraisal, Habitats Regulations Assessment and Equalities Impact Assessment that have informed the production and contents of the SPD. A Consultation Statement stating who was consulted during the preparation of the SPD, and setting out representations received and how these have been addressed, is also available.

2 INTRODUCTION

2.1 The three renewable energy policies sit within a broad strategy in the Unitary Development Plan (UDP) to promote a more sustainable approach to energy and help tackle climate change. Conserving natural resources and using them efficiently, together with improving air quality, are key objectives of the UDP, which are translated into the land use strategy in a number of ways.

2.2 Oldham MBC acknowledges the benefits that renewable energy technologies bring to both the Borough and the wider environment with regard to:

I. Carbon Dioxide emissions reduction;
II. Reducing the dependence on finite fossil fuels;
III. Reducing the incidences of fuel poverty in the Borough[1];
IV. Raised awareness of energy issues in the local community;
V. Improved health of the residents of the Borough[2]- including thermal comfort and associated benefits along with improved air quality and associated financial implication of reducing the burden of these issues on the local health services;
VI. Adaptation and mitigation of the effects of climate change;
VII. Stimulation of the local economy for new market potential; and
VIII. Enhanced sustainable build quality and energy efficiency.

What is Renewable energy?

2.3 Renewable energy is the term used to describe energy flows that occur naturally and continuously in the environment, such as energy from the wind or sun. The origin of the majority of these sources can be traced back to either the sun (energy from the sun helps to drive the earth's weather patterns) or the gravitational effects of the sun and the moon. This means that these sources are essentially inexhaustible.

Purpose of this document

2.4 This SPD provides guidance for the implementation of UDP Policies NR3.1, NR3.2 and NR3.3. It is aimed at a variety of audiences, including developers, their associates and individuals that are seeking to develop renewable energy generating infrastructure, either as part of a major development[3] or as a stand alone energy generating installation(s).

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[1] see Oldham MBC's Affordable Warmth for All Strategy 2004-2010- www.oldham.gov.uk/affordable-warmth-strategy-web.pdf

[2] see AGMA's Air Quality Action Plan http://www.oldham.gov.uk/living/healthy_living/local_air_quality_management/greater_manchester_air_quality_strategy_and_action_plan.htm

[3] See section 5.8

2.5 This SPD should be read in context of the UDP policies and associated policies along with other Supplementary Planning Documents and their requirements that are being prepared by the Council.

2.6 It is acknowledged that the Borough is one of great built and land use diversity. The potential for renewable energy technologies is unique for every application. This SPD cannot cover every general development type and location in the Borough and, as a result, explains the requirements and factors that will be taken into account when considering renewable energy proposals across the Borough.

National Policy Guidance

2.7 The Government has high aspirations for planning policy to help contribute to the delivery of its sustainable development framework and national environmental commitments. This aspiration is set out in Planning Policy Statement (PPS) 1 "Delivering Sustainable Communities with the Supplement to PPS1: Planning and Climate Change, PPS22 "Renewable Energy" together with it's Companion Guide, and the Energy White Paper of 2007. PPS22 states that local authorities may include development plan policies that require a percentage of the energy to be used in new residential, commercial or industrial developments to come from on-site renewable energy developments.

Ministerial Statement on Renewable Energy

2.8 The Housing and Planning Minister, Yvette Cooper M.P., on the 8 June 2006[4] urged all local authorities to include on-site renewable energy measures in their development plans to help tackle climate change.

She said:

"We need to seize on new development as an opportunity not a threat. It is time to rethink the way we build. It is time to rethink the way we design our homes and communities, if we are to build communities for the future that are truly sustainable."

"We do not know yet how fast we can get there, but the development industry should be clear about our aims and should start planning now for new investment and innovation to meet our goals."

2.9 The Government also wants to reduce planning restrictions on small-scale microgeneration equipment for people's homes. A review of planning permission rules aims to make it even easier for people to do their bit to help the environment.

[4] see http://www.communities.gov.uk/index.asp?id=1002882&PressNoticeID=2167

Ms Cooper added:

"It is patently absurd that you should be able to put a satellite dish up on your house but should have to wrestle with the planning process for small scale microgeneration which is no more obtrusive. We want far more microgeneration to be treated as permitted development."

Code for Sustainable Homes

2.10 The Code for Sustainable Homes has been introduced to drive a step-change in sustainable home building practice. It is a standard for key elements of design and construction which affect the sustainability of a new home. It will become the single national standard for sustainable homes, used by home designers and builders as a guide to development, and by home-buyers to assist in their choice of home.

2.11 It will form the basis for future developments of the Building Regulations in relation to carbon emissions from, and energy use in homes, therefore offering greater regulatory certainty to developers. The Code measures the sustainability of a home against design categories, one of which is Energy/C0², rating the 'whole home' as a complete package.

Regional Spatial Strategy (RSS)

2.12 Policy ER13 (Renewable Energy and Energy Efficiency) of RPG (2003) states that local authorities should support proposals for renewable energy installation that promote self-sufficiency in energy generation and use. It states that plans should ensure that development minimises energy use through careful and imaginative location, design and construction techniques; positively encourage the use of energy efficient technologies and energy from renewable resources in major new developments; and identify areas of search with criteria based policies for renewable energy development, which should aim to protect the regions most valuable and sensitive environments.

2.13 Policy EM17 of the submitted draft RSS supports the development of renewable energy schemes. It states that in line with the North West Sustainable Energy Strategy, by 2010 at least 10% (rising to at least 15% by 2015 and at least 20% by 2020) of the electricity supplied in the North West should be provided from renewable energy sources.

2.14 Proposals for renewable energy will be supported where they:

I. Contribute towards achieving the capacities set out in draft RSS;
II. Provide mitigation on the impacts of wider environmental, economic and social disbenefits; and
III. Must be acceptable in terms of:

a) Anticipated effects on local amenity (e.g. air quality, atmospheric emissions, noise, odour, water pollution and the disposal of waste);
b) Acceptability of the location/scale of the proposal and its visual impact in relation to the character and sensitivity of the surrounding landscape;
c) Cumulative impact of the development in relation to other similar developments;
d) Effect on national and internationally designated sites, areas or their settings;
e) Effect of development on nature conservation features, biodiversity and geodiversity;
f) Maintenance of the openness of the Green Belt;
g) Accessibility by the local transport network;
h) Effect on agriculture and other land based industries;
i) Availability of a suitable connection to the electricity distribution network which takes account of visual impact;
j) Integration of the proposal within existing or new development; and
k) Proximity to the renewable fuel source such as wood fuel biomass processing plants within or close to the region's major woodlands and forests.

2.15 Following submission of draft RSS the Report of the Panel was published in May 2007. This recommends the production of a map showing broad areas where the development of particular types of renewable energy may be considered appropriate. It also recommends the criteria stated within Policy EM17 should be re-drafted. In addition, the Panel Report recommends that the section of Policy EM17 that deals with on-site generation should become a new policy (EM18 – On Site Generation) with amended thresholds from "1000sqm"to "500sqm" and from "10 or more units" to "5 or more units".

2.16 It recommends the above policy (EM17) should be more positive in order to better meet targets and reflect PPS22. In particular it calls for opportunities, subject to criteria, to be sought to identify proposals and schemes for renewable energy. It also recommends that stringent requirements for minimising impact on landscape and townscape would not be appropriate if these preclude the supply of certain types of renewable energy other than in most exceptional circumstances e.g. within nationally recognised designations.

2.17 It was also confirmed on 5 July 2007 (Planning Resource) that Regional Economic Strategy targets for carbon reduction would become compulsory on schemes funded by Regional Development Agencies (RDAs). The nine RDAs are expected to draw up regional climate action plans working in partnership with businesses and local authorities. The agencies plan to have systems in place by 2010, with a view to becoming carbon neutral.

Planning for a Sustainable Future: White Paper

2.18 One of the challenges the Planning White Paper addresses is Climate Change. It states, “The evidence is now compelling that greenhouse gas emissions from human activity are changing the world’s climate. The recent Stern Review makes it clear that ignoring climate change will eventually damage economic growth, people’s health and the natural environment. The Climate Change Bill published on 13 March (2007) will introduce a clear, credible, long-term framework for the UK to achieve its goals of reducing carbon dioxide emissions and ensure steps are taken towards adapting to the impacts of climate change. The planning system also has an important role to play in enabling the UK to meet those challenges.”

2.19 Crucially, planning can help speed up the shift to renewable and low carbon forms of energy. Renewables currently contribute over four per cent of our electricity supplies. The European Council has agreed a binding target for renewable generation to provide 20 per cent of the EU’s energy consumption by 2020. In parallel, the Renewables Obligation supports investment in new renewable electricity technologies but we need to ensure that the right regulatory and planning framework is in place to encourage this investment.”

2.20 Consultation on the Planning White Paper finished on the 17 August 2007 and is due to come into force in 2008.

Community Strategy

2.21 Oldham Metropolitan Borough’s Community Strategy sets out a vision, strategic objectives and targets for the long-term future of the Borough. One of its key themes “An Improved and Valued Environment” details the need to conserve natural resources by reducing energy consumption. It details the need and aspirations for a planning policy for renewable energy integration in new developments.

Nottingham Declaration

2.22 The Nottingham Declaration was the outcome of a conference on climate change in October 2000, which was attended by 200 delegates from over the United Kingdom. The aim of the conference was to promote action by local authorities to tackle greenhouse gas emissions from transport, waste, energy and industry in support of the Government's Climate Change Programme. The event saw the launch of the Nottingham Declaration on Climate Change for UK local government. The Declaration requires that local authorities develop an action plan to tackle climate change, in conjunction with their communities. It allows councils to state openly their commitment to:

I. working with central government in delivering the UK climate change programme;

II. encouraging the reduction of greenhouse gas emissions in their local communities;
III. providing opportunities for renewable energy generation within the local area; and
IV. preparing a plan to address the causes and effects of climate change.

EUROPEAN DESIGNATED SITES

2.23 It should be noted that lying within the Borough's boundary there are sections of two sites, which have been designated as being of European importance for nature conservation. These are the Rochdale Canal, which is a Special Area of Conservation (SAC), and the South Pennine Moors, which is a Special Protection Area (SPA) and a SAC. Appendix 3 indicates the location of these sites.

2.24 Developers should recognise the special importance of these sites. For operations or developments which are subject to control through this SPD, and which could potentially impact on these sites, the Greater Manchester Ecology Unit recommends that specific and explicit information be provided as to how any potential damage to the special interest of these sites is to be avoided during the course of any development. This should be considered during any pre-application discussions with the Council and/or provided with an application for planning permission. The Council's Statement of Community Involvement identifies the Greater Manchester Ecology Unit as a consultee and they would therefore be consulted on any planning applications which could potentially affect these sites.

2.25 Developers of renewable energy developments that are within 100m of the Rochdale Canal SAC or within 500m of the South Pennine Moors SAC/ SPA, should at the earliest opportunity consult with the Council, Natural England and/or with the Greater Manchester Ecology Unit to discuss the development proposals.

Byron Green

(Source: Byron Green, OMBC)

3 POLICY NR3.1 – RENEWABLE ENERGY DEVELOPMENTS

3.1 This section of the SPD expands on how UDP Policy NR3.1 on renewable energy developments will be implemented. This policy relates to all renewable energy developments including wind developments of both stand alone wind turbines and smaller wind turbines incorporated into new and existing developments and is not exclusively about mass wind farms.

3.2 Policy NR3.1 states:

> "*The Council will permit developments which generate energy from renewable sources, where the development, or any ancillary infrastructure or buildings, would not result in an unacceptable impact on:*
>
> *a. residential/workplace amenity or human health;*
> *b. the visual amenity of the local area, including landscape character;*
> *c. local natural resources, including air and water quality;*
> *d. biodiversity, nature conservation or historical/archaeological interests;*
> *e. the statutory purposes of the Peak District National Park;*
> *f. public access to the countryside; and*
> *g. the openness and visual amenity of the Green Belt.*
>
> *Developments will be expected to be located at, or as close as possible to, the source of the resource needed for that particular*

technology, unless, in the case of Combined Heat and Power schemes, it can be demonstrated that the benefits of the scheme outweigh the costs of transportation.

In all cases, redundant plant, buildings and infrastructure shall be removed and the site restored.

The Council will require applications for such developments to be accompanied by an appropriate detailed statement of the environmental effects of the development, and its benefits in terms of the amount of energy it is expected to generate.

Permission will only be granted if any unavoidable damage that would be caused during installation, operation or decommissioning is minimised and mitigated or compensated for. Applications must indicate how this will be achieved."

3.3 This policy applies to all planning applications seeking permission for the installation of renewable energy technologies, although wind turbines which have specific locational requirements are also dealt with under Policy NR3.2 in the following section of this SPD.

3.4 The Council recognises the global benefits of renewable energy and therefore takes a generally positive approach to such development. However, there is a need to balance the benefits of renewable technologies with the potential impacts on local health and environments.

3.5 The type and number of renewable technologies that could be used can be unique in every case. It is strongly recommended that professional advice is sought on the type, design and installation of the technologies available which would best fit a particular site in having regard to both technical and planning requirements. Such advice can be obtained from manufacturers and suppliers, and from specialist energy consultants.

3.6 Appendix 1 outlines the reasoned justification that supports Policy NR3.1.

3.7 This SPD explains the general factors that the Council will take into consideration when determining a planning application against each of the policy's criteria. Any planning application should meet the requirements of Policy NR3.1. Additionally, applications for wind developments should also meet the requirements of Policy NR3.2 that are discussed in the next section.

Residential/Workplace Amenity or Human Health

3.8 The impact of renewable energy technology upon residential and workplace amenity can differ depending on, amongst other things, the

type of technology or installation proposed (including ancillary apparatus such as plant), its number, siting, size, design, materials, and proximity to affected properties. Depending on the technology proposed, regard must also be had to other issues. In the case of wind turbines, for example, issues of shadow flicker and noise and vibration would need to be addressed.

3.9 Shadow flicker occurs under certain combinations of geographical position and time of day, when the sun may pass behind the rotor of a wind turbine and cast a shadow that flickers as the blades rotate. Where appropriate, a planning application should be accompanied by an assessment of the likely extent, if any, of shadow flicker and its subsequent impact upon residential or workplace amenity.

3.10 In terms of noise, many renewable energy technologies, for example solar hot water or photo-voltaic panels, are quiet in operation. However, this is not always the case, particularly for wind turbines (either free standing or attached to a building) or technologies that require associated plant or equipment, such as biomass. In such cases the Council may require a noise assessment to be submitted as part of a planning application. This should identify the sound power of the technology to be installed and any effects on nearby noise sensitive properties.

3.11 Schemes involving renewable energy technologies for householder developments are likely to be of a relatively small scale. Applicants should nevertheless consider how neighbours are affected, if at all from overshadowing, shadow flicker, visual intrusion, or noise. All the above can be minimised by having regard to the number, siting, height, scale and proximity of the installation(s) to affected properties. As discussed above noise issues generally only need to considered for wind turbines and technologies, which require ancillary apparatus such as external plant. In the case of a single turbine in a domestic setting it is unlikely that a full noise assessment will be required. However, applicants should provide the manufacturer's technical information relating to noise readings in order to allow the Council to make an assessment on the proposal on amenity.

3.12 Any development proposal involving the provision of renewable technologies should be accompanied by a Statement which details how regard has been had to the above factors such as to minimise the impact of the development upon residential and workplace amenity. This should be included within the Design and Access Statement.

The Visual Amenity of the Local Area, including Landscape Character

3.13 There are a wide range of renewable technologies available, each with differing design implications and visual appearance. The nature and extent of landscape and visual impact of a particular renewable development will depend on the type of technology used, size and

numbers, siting, colour and the type of landscape in which they would be located.

3.14 Many renewable technologies are not particularly intrusive in terms of their visual appearance. For example, photo voltaic and ground source heat pumps are discrete and not prominent structures in themselves. However, this policy also includes the associated development required for renewable technologies such as access routes, external plant and grid connections, amongst others. In determining a planning application the Council will have regard to the visual impact of all aspects of the installation(s) proposed.

3.15 Of all the available technologies wind turbines and the ancillary apparatus are perhaps the most visually prominent. On a larger scale, such as when part of a wind farm development, they will have an impact upon the visual amenities of an area. Even if domestic in scale, turbines can also have a significant impact on the sky line, streetscape or landscape.

3.16 The Companion Guide to PPS22 (Chapter 5) advises that the accepted methodology for landscape and visual impact assessment is "The Guidelines for Landscape and Visual Impact Assessment (the Guidelines)", published by the Landscape Institute in 1995 and updated in 2002. Any planning application should contain an appropriate assessment of the visual amenity of the local areas, including landscape character. The Companion Guide to PPS22 paragraph 5.20 outlines examples of relevant information that may be submitted as part of the assessment of landscape or visual impact. However, for small scale developments such as those which are domestic in nature a full visual impact assessment will not be required. The applicant should however illustrate how they have had regard to the visual impact of the development.

3.17 Depending on the context of each individual site it may be that certain technologies or designs are not acceptable in certain locations. Any development proposal will be required to have regard to the visual impact of renewable energy technologies on all sites, but particularly on Listed Buildings and in Conservation Areas and other specific designations (Special Areas of Conservation, Special Protection Areas, Sites of Special Scientific Interest, Sites of Biological Importance and Local Nature Reserves). In the case of developments on or affecting the setting of a Listed Building, or within a Conservation Area, regard must be had to the type of technology proposed and its visual impact. For example, solar panels may be more appropriate in visual terms to a turbine, which by its very nature has a greater impact. Regard must be had to the siting, scale and colour of the development and the sensitivity of its context. Even in the case of solar panels on Listed Buildings, it may be more appropriate in visual terms for them to be sited on the rear roof slope, where they are less prominent in the street.

3.18 PPS22 states that within nationally recognised designations (National Parks, Conservation Areas, Sites of Special Scientific Interest) planning permission should only be granted where it can be demonstrated that the objectives of the designation of the area would not be compromised by the development and any significant adverse effects on the qualities for which the area was designated are clearly outweighed by the environmental, social and economic benefits. The potential impact of renewable technologies close to the boundary of a designated area will be a material consideration in assessing a planning application. Such impacts should be assessed through the submission of an Energy Statement or Landscape Character Assessment, as appropriate and also the Design and Access Statement.

3.19 PPS22, paragraph 19, recognises that development proposals should be assessed "using objective descriptive material and analysis if possible, the final decision will be to some extent one of professional judgement". Ultimately a judgement will be made by the Council as to the acceptability of a proposal with respect to visual amenity, including landscape character, in each particular case.

Local Natural Resources, including Air and Water Quality

3.20 Regard will be had in assessing planning applications to the impact of the development upon local and natural resources, including air and water quality. Certain renewable technologies, particularly biomass, can affect air quality through emissions. In addition, technologies such as wind turbines and hydro power may be required to submit an appropriate assessment to illustrate that they have dealt with this issue. For large-scale wind developments an Environmental Impact Assessment may be required, which would include a Habitat Regulations Assessment of such issues.

Biodiversity, Nature Conservation or Historical/Archaeological Interests

3.21 An assessment should be made where appropriate of the impact of renewable technologies on biodiversity, nature conservation, or historical or archaeological issues. Such an assessment will often not be necessary for many technologies, particularly on a domestic scale. However, for large scale developments certain types of technology, including ancillary development such as access roads, plant, and grid connections, can impact upon ecology, hydrology and water quality, geology and soils, and ornithology. Assessments should be undertaken on developments within or affecting the setting of national, regional or local designations, or where specifically requested by the Council.

3.22 Applicants are required to have regard to the guidance contained within the Conservation (Natural Habitats & c) Regulations 1994 and Planning

Policy Statement 9 (PPS9) “Biodiversity and Geological Conservation”. Where a proposal is likely to have a significant effect the Council, as the competent authority, will make a Habitat Regulations Assessment. Where appropriate, early consultation is advised with the following agencies; English Heritage, Natural England, Environment Agency, Greater Manchester Archaeological Unit, Greater Manchester Ecology Unit and Greater Manchester Geological Unit.

3.23 An applicant is advised to contact the Council’s Development Control section to discuss if a Habitat Regulations Assessment is required for a particular development proposal.

The Statutory Purposes of the Peak District National Park

3.24 As a designation the Peak District National Park was founded in 1951. The planning function of the Park is overseen by the Peak District National Park Authority. The statutory purposes of the Authority (as defined by the Environment Act 1995) are:

- To conserve and enhance the natural beauty, wildlife and cultural heritage of the National Park; and
- To promote opportunities for the understanding and enjoyment of the special qualities of the Park by the public.

3.25 The National Park also has valued characteristics which include quiet enjoyment; wilderness and remoteness; landscape, wildlife and plants; clean earth, air and water; its cultural heritage or history, archaeology, customs and literary associations; and other features which make up its special quality.

Public Access to the Countryside

3.26 Some renewable technology development may, given their locational requirements be sited on open land, close to bridleways, national trails, footpaths, recreational routes and land with public access. This is particularly the case for free standing wind turbines either in isolation or as part of a wind farm. Regard must be had to the impact of the development upon the users of affected paths or recreational routes and land with public access and how, if at all users experience will change. In assessing such impacts regard should be had to the numbers, size, scale, and siting of the development. Early consultation with national bodies such as Natural England and the British Horse Society is recommended. The Council’s adopted Statement of Community Involvement outlines the bodies that will be consulted, as appropriate.

Openness and Visual Amenity of the Green Belt

3.27 Special consideration should be given to the visual impact of renewable energy installations on areas of open countryside. Policies on developments within the Green Belt are set out in the UDP Open

Environment chapter. There may be some instances whereby proposals could comprise `inappropriate development`, depending on the type of renewable technology, due to impacts on the openness of the Green Belt. Careful consideration and early discussions with the Council will therefore be required. The Council, as detailed in section 2.2, acknowledges the benefits of renewable energy in major new developments, however this will be balanced against the likely effects on local environments. Inappropriate developments within the Green Belt would have to demonstrate `very special circumstances' and these should be clearly set out as part of the planning application.

St Mary's Master Plan

(Source: St Mary's Master Plan, OMBC)

4 POLICY NR3.2 – Wind Developments

4.1 This section of the SPD expands on how UDP Policy NR3.2 on wind developments will be implemented. This includes stand-alone wind turbines and smaller wind turbines incorporated into new or existing developments. The policy relates to all wind developments, and is not exclusively about mass wind farms. This policy is closely related to Policy NR3.1.

4.2 Policy NR3.2 states:

"The Council will permit wind developments subject to them meeting criteria a-g of Policy NR3.1, and the following criteria:

a. the proposed development will not have an unacceptable impact on any of the following:

i) landscape, through the number, scale, size and siting of turbines, impact on the skyline, cumulative

impact or the need for new power lines for connection to the electricity supply grid;

ii) highway or aviation safety; or

iii) existing transmitting or receiving systems;

b. the proposed development will not lead to significant nuisance to the public, including footpath and bridleway users, arising from noise, shadow flicker, electromagnetic interference or reflected light; and

c. redundant turbines, plant, transmission lines and access roads will be removed and the sites restored.

In all cases, the Council will require applications for wind developments to be accompanied by an appropriate detailed statement of the environmental effects of the development, and its benefits in terms of the amount of energy it is expected to generate.

Permission will only be granted if any unavoidable damage that would be caused during installation, operation or decommissioning is minimised and mitigated or compensated for. Applications must indicate how this will be achieved."

4.3 Appendix 2 outlines the reasoned justification that supports Policy NR3.2.

Landscape, through the Number, Scale, Size and Siting of Turbines, Impact on the Skyline, Cumulative Impact or the Need for New Power Lines for Connection to the Electricity Supply Grid

4.4 Wind developments are likely to have the greatest impact in terms of visual appearance and landscape effects of all the renewable technologies. In assessing planning applications it is recognised that the impact of turbines on the landscape will vary according to the size and number of turbines, the ancillary structures and the type of landscape involved. It is also recognised that impacts may not be restricted to within the Borough.

4.5 The Companion Guide to PPS22 (Chapter 5) advises that the accepted methodology for landscape and visual impact assessment is "The Guidelines for Landscape and Visual Impact Assessment (the Guidelines)", published by the Landscape Institute in 1995 and updated in 2002. Paragraph 5.20 of the Companion Guide refers to relevant information that may be submitted as part of an assessment of landscape or visual impact. This guidance also provides advice on assessing cumulative landscape impacts and visual effects between paragraphs 5.21 and 5.24. It states that cumulative visual effects concern the degree to which renewable energy development becomes a feature in particular views (or sequences of views), and the effect this

has upon the people experiencing those views. Any planning application should contain a Habitat Regulation Assessment of visual amenity, including landscape character.

Highway or Aviation Safety

4.6 Early consultation is advised with the Council's Highways and Transportation section and the relevant Civil Aerodrome(s). Any planning application should be accompanied by a detailed statement outlining how the development will impact, if at all, on highway and aviation safety. For domestic scale turbines, such an assessment is unlikely to be required. The Statement of Community Involvement, adopted April 2007, sets out who the Development Control section of the Council will consult on planning applications.

Existing Transmitting or Receiving Systems

4.7 In considering electromagnetic impacts, best practice is to determine whether or not the proposed development would cause physical or electrical interference to electromagnetic fields, causing the reflection of signals or affecting communications equipment.

Significant Nuisance to the Public, including Footpath and Bridleway Users, arising from Noise, Shadow Flicker, Electromagnetic Interference or Reflected Light

4.8 Noise can be a problem when there are several turbines, or for large stand alone turbines. Noise from wind turbines is emitted from aerodynamic sources due to the passage of air over the wind turbine blades and mechanical sources such as the gearbox, generator and control equipment. Noise from aerodynamic sources increases with wind speed. In circumstances where the listener can distinguish between the noise of the turbines from the surrounding noise onomatopoeic descriptions include swishing, whooshing, chomping and thumping.

4.9 Noise is also associated with the machinery and equipment used in the construction of the wind turbines. The noise from construction activities due to its temporary nature is regarded as less significant than the potential noise from the operation of the wind turbines.

4.10 PPS22 recognises that developments should be located and designed in such a way to minimise increases in ambient noise levels. The report by Energy Technology Support Unit (ETSU) for the former Department of Trade and Industry should be used for the purpose of assessing noise from wind farms.

4.11 The ETSU guidance provides methods to determine the background noise at differing wind speeds and advises that noise levels from turbines should not exceed 5 dB above background. It is advised that

for a single turbine attached to a dwelling a noise assessment is not required subject to submission of manufacturers details. For large stand-alone turbines and certainly for more than 2 turbines a noise assessment will be required.

Redundant Turbines, Plant, Transmission Lines and Access Roads will be removed and the sites restored

4.12 The Council will have regard to longevity of developments and the need to remove installations and ancillary structures at the end of its lifetime. As explained in paragraph 13.90 of the Unitary Development Plan the Council will expect sites to be restored to a condition which is as close as possible to its original state, as appropriate to its location and to the works necessary to secure its decommission. It is important that the decommissioning process does not have a greater impact than the original development, and this may depend on the characteristics of the site.

Chelmsford Street

(Source: Chelmsford Street, OMBC)

5 POLICY NR3.3 – RENEWABLE ENERGY IN MAJOR NEW DEVELOPMENTS

5.1 This section of the SPD expands on how UDP Policy NR3.3 on renewable energy in major new developments will be implemented.

5.2 Policy NR3.3 states:

> *"For all major new developments, including residential developments comprising 10 or more units, and non-residential developments exceeding 1000m^2 gross floorspace, the Council will require 10% of total predicted energy requirements to be provided,*

on site, from renewable energy sources. Where it is claimed that such a requirement would be non-viable in relation to a particular proposal, the claim should be supported by a development appraisal substantiating the claim of non-viability with regard to the type of development proposed, its location and design."

5.3 Appendix 3 outlines the reasoned justification that supports Policy NR3.3.

Who is this section aimed at?

5.4 This section of the SPD aims to assist developers and relevant decision-makers in understanding how this policy can be implemented and the benefits that can be realised from reducing energy associated from new buildings in our local environment. The objective is to achieve 'lower-carbon' buildings[5] as a fundamental contribution to achieving more sustainable development for new build developments, the building's ultimate end users and the long-term well being of the Borough.

5.5 The SPD aims to assist all involved parties in:

I. understanding what renewable technologies are feasible for a particular development;
II. understanding the detailed requirement of the policy;
III. providing appropriate information as part of the planning application to ensure the planning process is as smooth and timely as possible;
IV. understanding what is feasible for a particular site;
V. implementing and assessing Energy Statements, proposals and planning applications; and
VI. pre application discussions to ensure that the policies have been fully understood.

5.6 The issue of energy use in buildings and the role of renewable energy generation can be complex. This section of the SPD is not a complete learning resource, but will help individuals summarise the case for action and to facilitate assessment of development proposals that comply with Policy NR3.3.

Definitions and Energy Basics

5.7 This section defines key terms that are relevant to understanding Policy NR3.3 to ensure there is no confusion regarding terminology when applying the policy.

[5] That is, lower-carbon emissions from the completed building than allowed under current Building Regulations.

What is a major development?

5.8 Major new developments are defined as including residential developments comprising 10 or more units and non-residential developments exceeding 1000m^2 gross floorspace. The policy applies to changes of use and conversions as well as to new builds.

What types of Renewable Energy technologies are there?

5.9 The group of technologies coming under the banner of 'renewable' is broad and their application and potential application equally so. Some are ideal for individual buildings, others perform better feeding into a network; some are large-scale and can provide uninterrupted power base-loads for a grid system, others are smaller, intermittent and need to be used as part of a technology mix. Some provide heat and power, others just one or the other. Such energy production could include energy from wind, biomass, photovoltaic equipment or solar powered water heating. The Council would seek to ensure that the technology is appropriate to the location in question in terms of any visual or amenity impact it may have, and will therefore encourage discussion on such schemes at the earliest opportunity (See Annex NR3.3 A for further technology details).

What does 'on site' mean?

5.10 UDP paragraph 13.94 states the "*Council is therefore concerned to ensure that major new developments start to reduce their dependence on non-renewable energy sources by incorporating the means to produce some of their energy needs from renewable sources…In relation to housing developments, the Council will accept the 10% being provided as part of each unit, or for all the 10% being provided in one unit*."

5.11 So as to avoid any confusion the energy required to meet the 10% policy is to be generated on-site. This means that electricity cannot be bought in from a utility supplier or distributor from a 'green energy supply' or 'green tariff'. Heat however could be sourced from another site if using a District heating system, however this plant would need to use Biomass as a fuel source to contribute to the 10% renewable requirement.

What does predicted energy consumption mean?

5.12 This means the developments overall predicted energy consumption when operational or the average of planning class uses if fully occupied. For clarity this means both Electricity and Heat demands for the development site along with associated infrastructure.

What about speculative non-domestic developments?

5.13 As a speculative development, it is impossible to establish an accurate baseline energy footprint. Fully predicting the unknown end users' energy consumption is impracticable. The Council would require an Energy Statement be submitted that would account for typical building lighting demands and heating loads for the type of Use Classes being applied for. Also the requirements of paragraph 5.20 should be taken into account.

How is the use of passive solar energy considered?

5.14 Passive solar design, that is designing a building to take maximum advantage of sunlight, and energy efficiency measures can significantly reduce the overall energy consumption of a building. However, passive solar design and energy efficiency measures will not be counted towards the 10% requirement, because they are already requirements through Policies D1.1 and D1.2 in the UDP Design of New Development chapter. Nevertheless, there is a clear benefit to applicants in maximising the energy efficiency and effective passive solar design of buildings, as this will reduce the overall energy requirement and consequently the contribution needed from renewable energy resources to meet the requirement.

5.15 However, solar gain and its effects on the buildings end users must be accounted for at the design stage so as to avoid overheating or the need for additional cooling equipment.

What is the difference between energy and power?

I. Power is measured in kilowatts = rate of consuming or generating energy
II. To convert power to energy multiply kilowatts rating by Hours

Implementing Renewable Energy Generation in Buildings

5.16 Development proposals should be accompanied by a Energy Statement that describes how much predicted energy will be consumed by the development when it is in use. The predicted energy calculation methodology should be based on the indicators and calculation methods (SAP 2005) adopted in the 2006 Building Regulations[6] for housing; and SBEM[7] or accredited dynamic thermal simulation software for non-housing buildings. Any other proposed methodology should be checked and agreed with the Council in advance.

[6] *Standard Assessment Procedure (SAP)*
For new homes, the SAP is the government approved building energy performance assessment method. It can calculate carbon dioxide emissions as well as a cost-based index of performance and annual primary energy consumption.
[7] Simple Building Energy Model

5.17 The Energy Statement should provide a baseline for annual predicted energy consumption arising from fossil fuel energy use within the building (i.e. energy used for heating, cooling, lighting and appliances, and cooking, but not including industrial processes, transport or embodied energy). This baseline should be before the use of any on-site renewable energy generation, but after the application of the development's measures to reduce energy use.

5.18 The feasibility of supplying a proportion of renewable energy may depend on technical or financial issues, and what is feasible is likely to change as energy prices vary, new technology emerges, the costs of technologies change, site constraints and new legislation is adopted. Developers will be expected to demonstrate that they have explored all on-site renewable energy options, and designed their developments to incorporate renewable energy technologies. A detailed justification will be required from developers if they do not consider that it is feasible to provide the required proportion (in the form of a development appraisal). The decision on what is feasible will rest with the Council[8].

5.19 Criteria in PPS22 indicates that policies for on-site renewable energy installations should not render development unviable or place undue burden on developers. The longest standing policy and most encompassing is the London Renewables toolkit[9], which provides guidance on the likely cost implications of meeting a 10% renewable energy policy requirement. What this and subsequent reports[10], [11], [12] have indicated is that this policy is viable and the percentage threshold appropriate to the locality of Oldham Metropolitan Borough. The threshold has been endorsed by the independent inquiry into the UDP review. This has been demonstrated by the existing developments in Oldham Metropolitan Borough and in the North West that have complied with the requirements and principles of this policy.

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[8] Policy NR3.3- Where it is claimed that such a requirement would be non-viable in relation to a particular proposal, the claim should be supported by a development appraisal substantiating the claim of non-viability with regard to the type of development proposed, its location and design. A successful claim of non-viability in relation to the requirement for 10% of total predicted energy requirements to be provided on site from renewable energy sources would result in the Council negotiating a lower percentage requirement, having regard to the details of the claim itself, the type of development proposed, its location and design. In the context of this policy, viability is defined in terms of:

(i) the overall economic viability of the proposed development (not that of individual renewable energy technologies); or

(ii) the existence of any insurmountable technical problems.

[9] *Integrating renewable energy into new developments: Toolkit for planners, developers and consultants* (London Energy Partnership 2004) http://www.london.gov.uk/

[10] ODPM, *Low or Zero Carbon Energy Sources- Report 4 Final report; Building Research Technical Report 3/2005*, December 2005

[11] Energy Savings Trust, *CE190 Meeting the 10% Target for Renewable energy in housing a guide for developers and planners.* March 2006

[12] Oldham's UDP Topic Paper *Renewable Energy* November 2004

Assessing compliance with Policy NR3.3

5.20 Compliance with the renewable energy target will be measured with reference to the Energy Statement, which will give a baseline figure for predicted energy consumption for a given development, before the use of any renewable energy. This will give developers some flexibility in reducing the total amount of energy required from renewables by increasing energy efficiency above Best Practice (or above building regulations Part L requirements)[13].

5.21 Developers can further reduce the amount of energy required from renewables by using natural gas-fired Combined Heat and Power (CHP) to increase the energy efficiency of space heating and cooling. The energy savings from CHP should be accounted for in the baseline figure for energy demand for a development, before the use of any renewable energy. This can be represented by the formula:

Site energy consumption (as estimated by Best Practice) - CHP generation = site baseline figure

5.22 Combined heat and power (CHP) fuelled totally, or partially, by biomass or other forms of renewable energy, should be counted as renewable energy in proportion only to the renewable element.

5.23 Gas fired CHP, as described in 5.21, helps dramatically reduce the sites reliance on Grid based electricity and encourages the local more efficient generation of energy at site (and associated Carbon emission savings).

5.24 Any decision about what constitutes “renewable energy”, what qualifies as on-site renewable energy generation, and what qualifies as local combined heat and power, rests with the Council.

5.25 It is recommended that a dialogue commence, at the earliest stage, to agree a methodology and a way forward for implementing the policy.

5.26 A **checklist** has been produced to help ensure that architects and developers can incorporate the technology at an early stage in the design process (see Annex NR 3.3 C for details).

5.27 A template has been prepared to help capture the information required by Policy NR3.3 alongside the Energy Statement (Annex NR3.3 D). It can be included within the Energy Statement that is required as part of

[13] For example, some developers might prefer to improve the envelope performance by including more insulation in the walls, floor and roof, and specifying better performance windows. Others might wish to concentrate on the systems (more efficient boilers or alternative heating technologies like heat pumps), solar hot water, or mechanical ventilation with heat recovery.

the SPD (see paragraph 5.20 in SPD) but it is not a replacement for the Energy Statement itself.

Design implications of renewable energy installations

5.28 As discussed in section 5.9 there are numerous renewable energy technologies available and each planning application will use these technologies in different ways. Proposals for renewable energy should have full regard to the UDP design policies.

5.29 Developers of renewable energy schemes should also have regard to the Urban Design Guide SPD. The guidance states that developments should meet Code for Sustainable Homes standards, the key principals including reducing the demand for energy and providing energy in sustainable ways. It encourages reducing the demand for energy through making the most of passive solar gain and providing energy through solar panels, photovoltaics, wind and micro CHP.

St Mary's Master Plan

(Source: St Mary's Master Plan, OMBC)

GLOSSARY

Community Strategy – This sets out a vision, strategic objectives and targets for the long-term future of the Borough.

Development Plan – The Development Plan for the Borough consists of the Regional Spatial Strategy for the North West, saved policies in the Oldham Metropolitan Borough Unitary Development Plan, and/or Development Plan Documents that replace the saved policies.

Development Plan Document (DPD) - A spatial planning document that is subject to Independent Examination and forms part of the Development Plan. They can include Core Strategy, Site Specific Allocations of Land and Area Action Plans.

Design and Access Statement – Sets out the site appraisal and impacts of the proposed development and can cover a wide range of issues. For example, the appearance of the proposed development (e.g. materials, size, scale, colour), impact on landscape, views into and out of the site, and impact on important habitat and landscape designations; access into the development site, whether the development affect access for other users and passers-by; noise, vibrations and shadow flicker are just some considerations.

Energy Statement – This describes how much predicted energy will be consumed by the development when it is in use. The predicted energy calculation methodology should be based on the indicators and calculation methods (SAP 2005) adopted in the 2006 Building Regulations[14] for housing; and SBEM[15] or accredited dynamic thermal simulation software for non-housing buildings.

Fuel Poverty – The Affordable Warmth Strategy for All 2004-2010 states fuel poverty occurs when a household is unable to afford sufficient energy for health and comfort, commonly due to the combined effect of low household income, inadequate and expensive forms of heating and poor insulation.

Habitat Regulation Assessment (HRA) - The Council is required to assess the potential effects of its policies on European Sites, which lie within and outside the Borough. The purpose of Habitats Regulations Assessment (HRA) is to ensure that the protection of the integrity of European sites is a part of the planning process.

Regional Spatial Strategy (RSS) – This sets out the region's policies in relation to the development and use of land and forms part of the Development Plan for the Borough. The North West Regional Assembly prepares the RSS.

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[14] *Standard Assessment Procedure (SAP)*
For new homes, the SAP is the government approved building energy performance assessment method. It can calculate carbon dioxide emissions as well as a cost-based index of performance and annual primary energy consumption.

[15] Simple Building Energy Model

Supplementary Planning Document (SPD) – A Supplementary Planning Document provides additional information in respect of policies contained in the Development Plan Documents. It is not subject to Independent Examination and does not form part of the Development Plan, although it can be a material consideration when determining planning applications.

Unitary Development Plan (UDP) – Sets out policies and proposals for the development and use of land in the Borough over a fifteen year period. The Unitary Development Plan identifies sites in the Borough where it is proposed to permit housing, employment and shopping developments, amongst others to take place.

APPENDIX 1 REASONED JUSTIFICATION FOR POLICY NR3.1

13.74 This policy is intended to apply to all renewable energy technologies although wind turbines, which have specific locational requirements, are also dealt with in the following Policy NR3.2. The Council supports the use of renewable resources to provide energy, and Combined Heat and Power schemes, which utilise the heat arising from energy production, subject to other UDP policy considerations. In the course of developing a renewable energy strategy for Oldham Metropolitan Borough, renewable resources within the Borough, which have the potential to contribute to energy production, have been identified. The most likely technologies to be feasible in Oldham Metropolitan Borough, to which this policy would apply are:

- small scale hydro (energy obtained from water bodies and rivers);
- solar power (energy obtained through passive solar design of buildings, solar water heating systems or photovoltaic cells);
- biomass (energy obtained from the combustion of wood, agricultural waste or energy crops);
- anaerobic digestion (energy obtained from the break down of organic waste); and
- onshore wind power

13.75 Landfill gas can also be used to produce energy. This resource is currently being exploited within the Borough at Greengate, Chadderton and is due to commence shortly at High Moor Quarry. Energy from landfill gas is covered in Chapter 14 on Waste Management (see Policy W1.3)

13.76 Such technologies can be used at different scales ranging from schemes, which serve one property to those, which contribute to the national grid. Renewable resources can be used to supply Combined Heat and Power Schemes (CHP) to serve groups of properties, including housing schemes. Energy from municipal waste is specifically excluded from this policy as waste management decisions are influenced by the Regional Waste Strategy. It is acknowledged that technologies are constantly being researched and developed. Developments utilising other technologies, not presently viable, but which become viable during the life of the Plan would be assessed against criteria a-g.

13.77 Apart from their obvious role in reducing greenhouse gas emissions, resources such as biomass* may also provide opportunities to diversify the rural economy.

13.78 The Council recognises the global benefits of renewable energy and, therefore, takes a generally positive approach to such development, but it also acknowledges the need to balance these benefits with the potential impacts on local health and

environments. This includes impacts on designated nature conservation or archaeological sites, as well as listed buildings and conservation areas. It also includes the impacts of associated infrastructure as well as the renewable energy plant itself, for example access tracks and grid connections. Renewable energy resources, e.g. hydro, can usually only be developed where they occur and some degree of impact may be unavoidable, however, this may be considered acceptable because it is minor, because mitigation measures may be put in place, or because it is outweighed by the wider global benefits. Technologies which are not site specific e.g. those which involve the combustion or breakdown of materials such as wood waste will, additionally, be expected to be located as close as possible to the source of the material in order to ensure that transportation of such materials is minimised. A possible exception to this would be where a Combined Heat and Power scheme necessitates its location close to the user of the heat and/or energy, in which case the Council would expect the applicant to demonstrate that the benefits of such a scheme outweigh the transportation costs involved.

13.79 Because many renewable technologies can only be developed in areas where the resource is found, it is likely that some such developments would be located in Green Belt locations. In such locations there is a general presumption against inappropriate development, which should not be approved, except in very special circumstances. Planning Policy Guidance 2 on Green Belts states that “Very special circumstances to justify inappropriate development will not exist unless the harm by reason of inappropriateness, and any other harm, is clearly outweighed by other considerations”. Developers will need to demonstrate very special circumstances that clearly outweigh any harm by reason of inappropriateness and any other harm, if projects are to proceed. PPS22 states that the wider environmental and economic benefits of all proposals for renewable energy projects are material considerations that should be given significant weight in determining whether proposals should be granted planning permission. Careful consideration will be given to the visual impact of wind energy developments, particularly in the Green Belt. The Council will expect every effort to be made to minimise the visual impact of such developments through their siting, design and choice of materials. In considering planning applications for wind turbines, the Council will also have regard to the statutory purposes, appearance and valued characteristics of the Peak District National Park*.

13.80 In relation to renewable energy developments that become redundant, the Council will expect the site to be restored to a condition, which is as close as possible to its original state as appropriate to its location, and the works necessary to secure the restoration.

13.81 Some renewable technology developments, depending on their scale, may require formal Environmental Impact Assessments as directed by the Town and Country Planning (Environmental Impact Assessment)(England & Wales) Regulations 1999. Even if the development does not fall within the requirements of the regulations, the Council will require an assessment of the environmental effects of the development to be submitted with any application. This will be expected to outline benefits arising from the development in terms of the energy produced in order to enable a balanced assessment of the proposal to be carried out. Supplementary planning document on Renewable Energy will provide full details of all the issues to be addressed in such a statement

13.82 It should be noted that, in relation to small-scale hydro developments, specific consents and/or licences may be required from the Environment Agency. The Council will, therefore, consult with the Agency on any application for such a proposal, and developers are advised to seek advice on such matters from the Agency at the earliest opportunity.

Cross References

13.83 More detailed policies relating to the criteria in Policy NR3.1 may be found in the following chapters of the Plan: Chapter 13 Natural Resources and Environmental Quality (amenity Policy NR1.1, air and water quality Policies NR1.2 and NR2 to NR2.1); Chapter 11 Open Environment (Green Belt Policies OE1 to OE1.2, landscape Policy OE2.1, and nature conservation Policies OE2.3 to OE2.4); and Chapter 11 Conservation of the Historic Environment (conservation area Policy C1.1, listed building Policy C1.9, and archaeological Policies C1.11 to C1.12). This is not an exhaustive list of policies that may apply to an application for renewable energy development.

As explained in paragraph 2.23 developers of renewable energy developments that are within 100m of the Rochdale Canal SAC or within 500m of the South Pennine Moors SAC/SPA, should at the earliest opportunity consult with the Council, Natural England and/or with the Greater Manchester Ecology Unit to discuss the development proposals. The Greater Manchester Ecology Unit recommends that specific and explicit information be provided as to how any potential damage to the special interest of these sites is to be avoided during the course of any development.

APPENDIX 2 REASONED JUSTIFICATION FOR POLICY NR3.2

13.84 This policy for wind turbines is considered necessary because wind energy can only be exploited where wind speeds are sufficiently fast. By its very nature, the wind resource is likely to be greatest in upland areas, which are particularly sensitive in terms of landscape value and are likely to be highly visible from some distance. Such areas are also likely to be within the Green Belt.

13.85 The characteristics of wind energy developments are such that additional, technology-specific criteria are needed, against which to consider planning applications. For example, in addition to the landscape character impacts, which would be considered under Policy NR3.1, there may be the potential for proposed developments to have an impact on the skyline. The likelihood or extent of any such impacts may depend on the scale and siting of the proposed development and the nature of the landscape in which it is located.

13.86 This policy aims to ensure that the siting of turbines would not affect the safety or amenity of people living or working close to the site, or using the surrounding area for recreational purposes, or highway safety by distracting or blinding drivers. In some cases the Council may negotiate for the provision of roadside viewing points, as wind turbines sometimes attract sightseers and the lack of such provision could adversely affect road safety. In considering applications, consideration will also be given to the capacity of the surrounding road network to safely accommodate the scale of plant and components needed for wind developments. The Council will wish to be assured that such elements can be safely transported to the development site without major disruption to the surrounding road infrastructure.

13.87 Wind turbines, and their associated infrastructure, such as access roads and grid connections, inevitably involve disruption to the ground in the course of their construction, particularly the foundations required for the turbines themselves. In light of this it is possible that disruption to sites of archaeological interest could be caused by such developments. Criteria d. of Policy NR3.1 seeks to ensure that historical/archaeological interests are taken into account when applications for such developments are being considered, and, additionally, any proposal for such a development would be assessed against Policies C1.11 and C1.12, in Chapter 12 of the Plan, which relate specifically to sites of archaeological importance.

13.88 The scale of these developments must be carefully considered along with any cumulative effects arising from other wind farms in the vicinity, either existing turbines, those under construction or those for which planning permission has been granted. The impact

of any ancillary development, for example grid connections and access tracks, that may be needed, will also be considered in addition to the impact of the turbines themselves.

13.89 This policy recognises that wind developments will, by their very nature, have an inevitable impact on the landscape. However this impact will be weighed against the desirability of producing energy from a clean, renewable resource. In considering the impact of proposed wind developments, regard will be had to the character of the landscape within which such developments are proposed, and its sensitivity to such developments.

13.90 In relation to the decommissioning of redundant wind turbines, and their associated infrastructure, the Council will expect sites to be restored to a condition which is as close as possible to its original state, as appropriate to its location and to the works necessary to secure its decommission. It is important that the decommissioning process does not have a greater impact than the original development, and this may depend on the characteristics of the site.

13.91 The South Pennines Heritage Landscape Countryside Design Summary recognises the sensitivity of upland landscapes and any impact on these must be very carefully assessed. Applications will be considered in the context of the SCOSPA Inter-Authority Memorandum on Wind Farms.

13.92 Applicants for planning permission will be required to:

a. identify all major viewpoints from which the wind turbines would be visible, particularly those visible from public places and rights of way, and provide visual aids such as photo montages to assist the assessment of their visual impact; and

b. provide sufficient information to allow a full assessment of all the potential impacts to be judged.

13.93 Larger wind developments will need to be accompanied by an Environmental Impact Assessment, as required by the Town & Country Planning (Environmental Impact Assessment) (England & Wales) Regulations 1999. However, the Council will also require applications for smaller developments, which are exempt from these regulations, to be accompanied by a detailed statement of the environmental effects of the proposal. This will be expected to outline benefits arising from the development in terms of the energy produced in order to enable a balanced assessment of the proposal to be carried out. A supplementary planning document on Renewable Energy will provide full details of all the issues

expected to be addressed in such a statement. Given the complexity of issues involved in judging these developments, it is strongly recommended that prospective developers take account of this guidance in the course of preparing their applications. Small, domestic-scale wind turbine proposals planned as an integral part of a development scheme may not be expected to provide the same type of information as large-scale schemes, although all the criteria will still apply. The main considerations in such cases will be residential and workplace amenity, particularly noise and vibration for turbines attached to buildings, visual impact, and public and highway safety.

APPENDIX 3 REASONED JUSTIFICATION FOR POLICY NR3.3

13.94 The Council is committed to encouraging a reduction in carbon dioxide as part of its draft Climate Change Strategy and Renewable Energy Strategy. The Council is therefore concerned to ensure that major new developments start to reduce their dependence on non-renewable energy sources by incorporating the means to produce some of their energy needs from renewable sources. The requirement for 10% of energy needs to be produced from renewable sources reflects the Government target set out in its Climate Change Programme (November 2000) for 10% of the UK's electricity requirements to be met from renewables by 2010. In relation to housing developments, the Council will accept the 10% being provided as part of each unit, or for all the 10% being provided in one unit. A supplementary planning document will be prepared to guide applicants in responding to this policy.

13.95 Such energy production could include energy from wind, biomass, photovoltaic equipment or solar powered water heating. The Council would seek to ensure that the technology is appropriate to the location in question in terms of any visual or amenity impact it may have, and will therefore encourage discussion on such schemes at the earliest opportunity.

13.96 Passive solar design, that is designing a building to take maximum advantage of sunlight and energy efficient measures, can significantly reduce the overall energy consumption of a building. However, passive solar design and energy efficiency measures will not be counted towards the 10% requirement because they are already requirements through Policies D1.1 and D1.2 in the Design of New Development Chapter of the Plan. Nevertheless, there is a clear benefit to applicants in maximising the energy efficiency and effective passive solar design of buildings as this will reduce the overall energy requirement and consequently the contribution needed from renewable energy resources to meet the requirement.

13.97 A successful claim of non-viability in relation to the requirement for 10% of total predicted energy requirements to be provided on site from renewable energy sources would result in the Council negotiating a lower percentage requirement, having regard to the details of the claim itself, the type of development proposed, its location and design. In the context of this policy, viability is defined in terms of:

i) the overall economic viability of the proposed development (not that of individual renewable energy technologies); or

ii) the existence of any insurmountable technical problems.

APPENDICES RELATING TO POLICY NR3.3

Annex NR 3.3 A- Technology options

Once energy efficiency measures have been taken into account for the scheme, and an energy baseline calculated as part of an **Energy Statement** (see para 5.17), the next stage is to determine the best available technology options for the proposed scheme to meet the **10% renewable energy requirement**.

This appendix contains a list of technology options along with a flow diagram to aid Technology selection. The following section gives costings and possible applications. The flow diagram's are for information and in each case developers should indicate why a technology has not been selected as part of the **Energy Statement**. The flow diagram's are simplified guidelines only – further information is likely to be required for particular sites and feasibility studies required may be required in order to answer some of the questions raised.

Solar Thermal Installations.

Solar water heating can be used in the home or for larger applications, such as swimming pools or sites where there will be a regular demand for hot water.

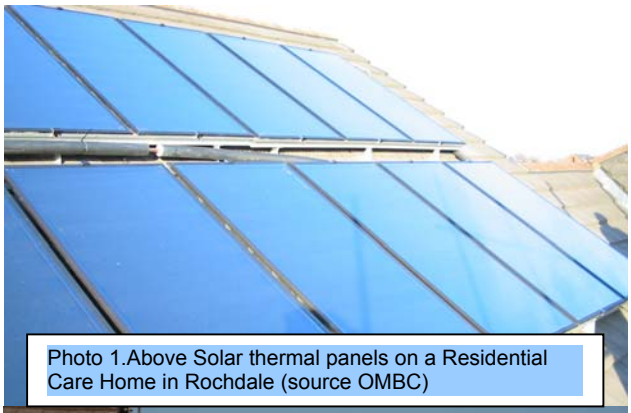


Photo 1.Above Solar thermal panels on a Residential Care Home in Rochdale (source OMBC)

Photo 2 Above- solar thermal Panels on a large family house in Oldham (18 properties in total) (Source - OMBC)

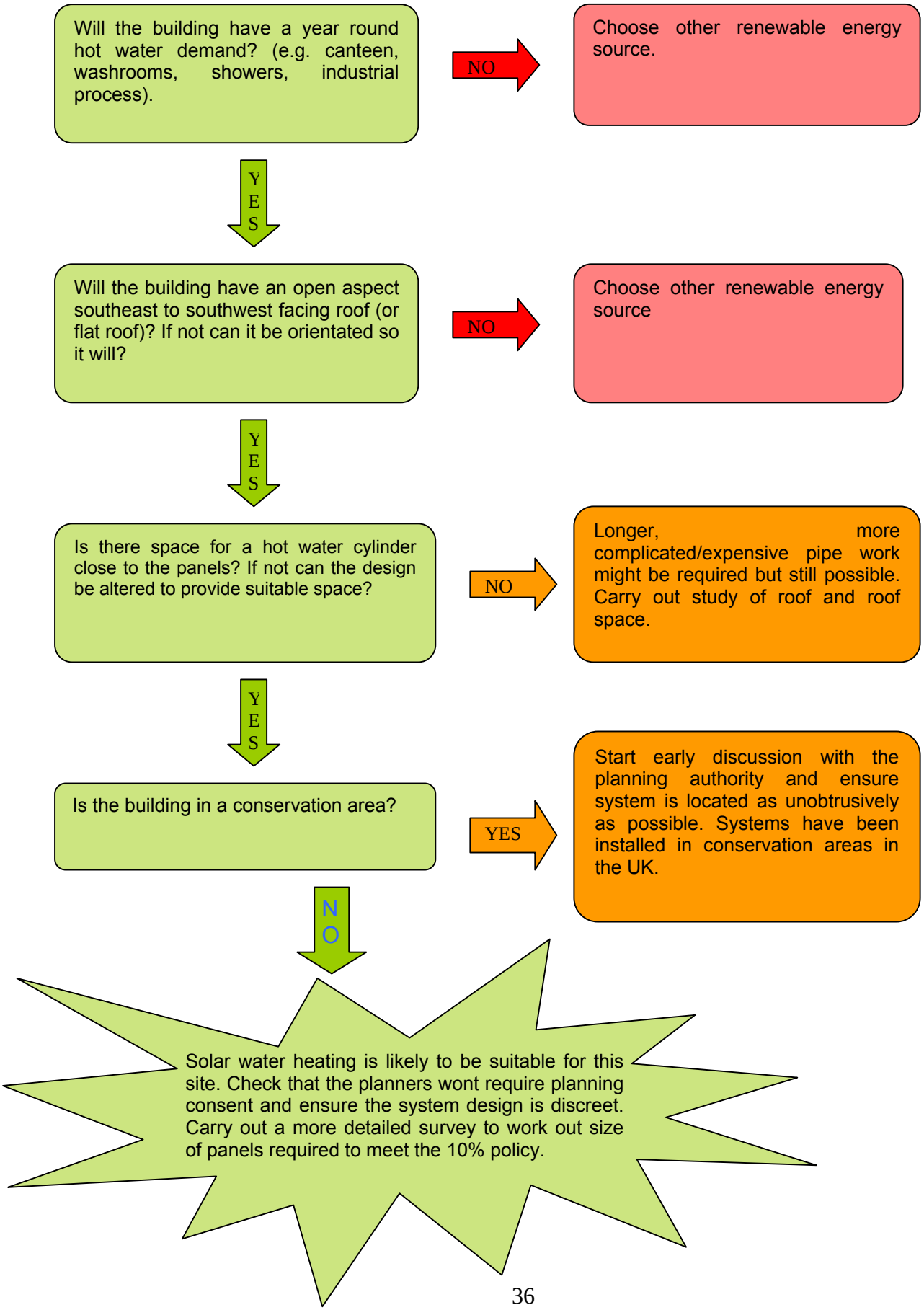
For 'domestic' hot water there are three main components: solar panels, a heat transfer system, and a hot water cylinder. Solar panels or collectors, which are generally fitted to the roof, collect heat from the sun's radiation. The heat transfer system uses the collected heat to heat water. A hot water cylinder stores the hot water that is heated during the day and supplies it for use later.

A typical domestic property will need at least 2-5m^2 of southeast to southwest facing roof receiving direct sunlight for the main part of the day. It will also need space to locate an additional water cylinder if required (Not all solar installations work with Combination boilers- this should be checked as part of the design stage of the scheme).

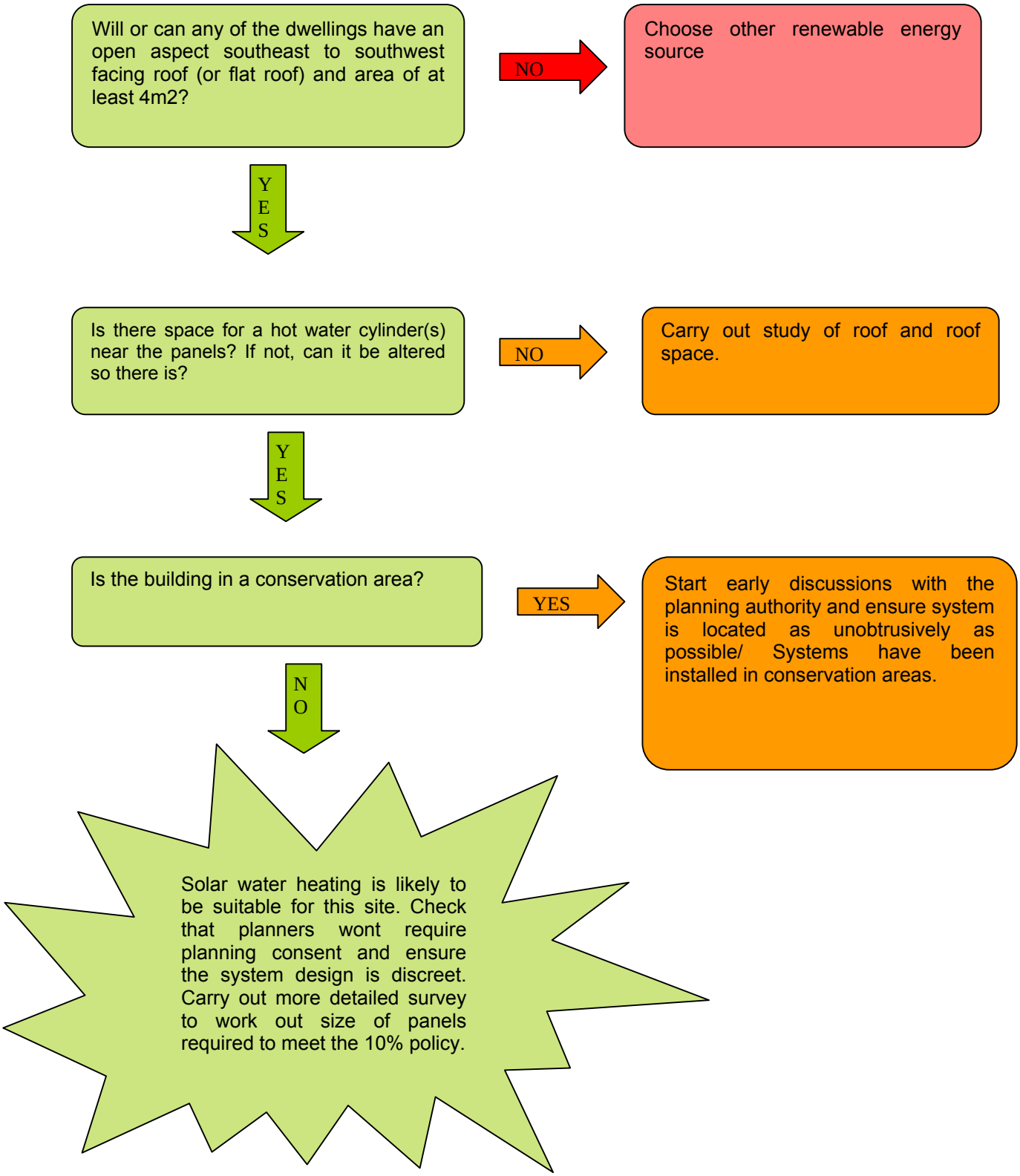
Benefits

- For Homes it can provide almost all hot water requirements during the summer months and about 50%-70% average over the course of a year.
- Reduces impact on the environment - the average domestic system reduces carbon dioxide emissions by around 400kg per year, depending on the fuel ‘replaced’.

Guidelines for Suitable Locations of Solar Thermal Systems: Solar Thermal for Office, Retail, Industrial and Blocks of Flats



Guidelines for Suitable Locations of Solar Thermal Systems: Solar Thermal for Domestic – Homes or Small Blocks of Flats



Solar Photovoltaic systems

Solar photovoltaic (PV) panels use energy from the sun to create electricity to run appliances and lighting. PV requires only daylight - not direct sunlight - to generate electricity.

Voltage is produced as a result in Direct Current (DC), which in most cases is converted to Alternating Current (AC) for use in the property, or for export to local electricity network/ or National Grid.

PV generates more electricity when exposed to greater levels of direct sunlight, however it will still generate electricity on a cloudy day.

For grid connected systems it is worth seeking assistance from United Utilities who are the local distribution Network Operator for consent to meet relevant electrical connection requirements.

For a typical domestic application a 2kWp system would be large enough to supply around a third of the average families annual **electricity** needs. The size of the PV array required to deliver this would be in the region of 16-40m2 dependant on the cell type and manufacturer used.

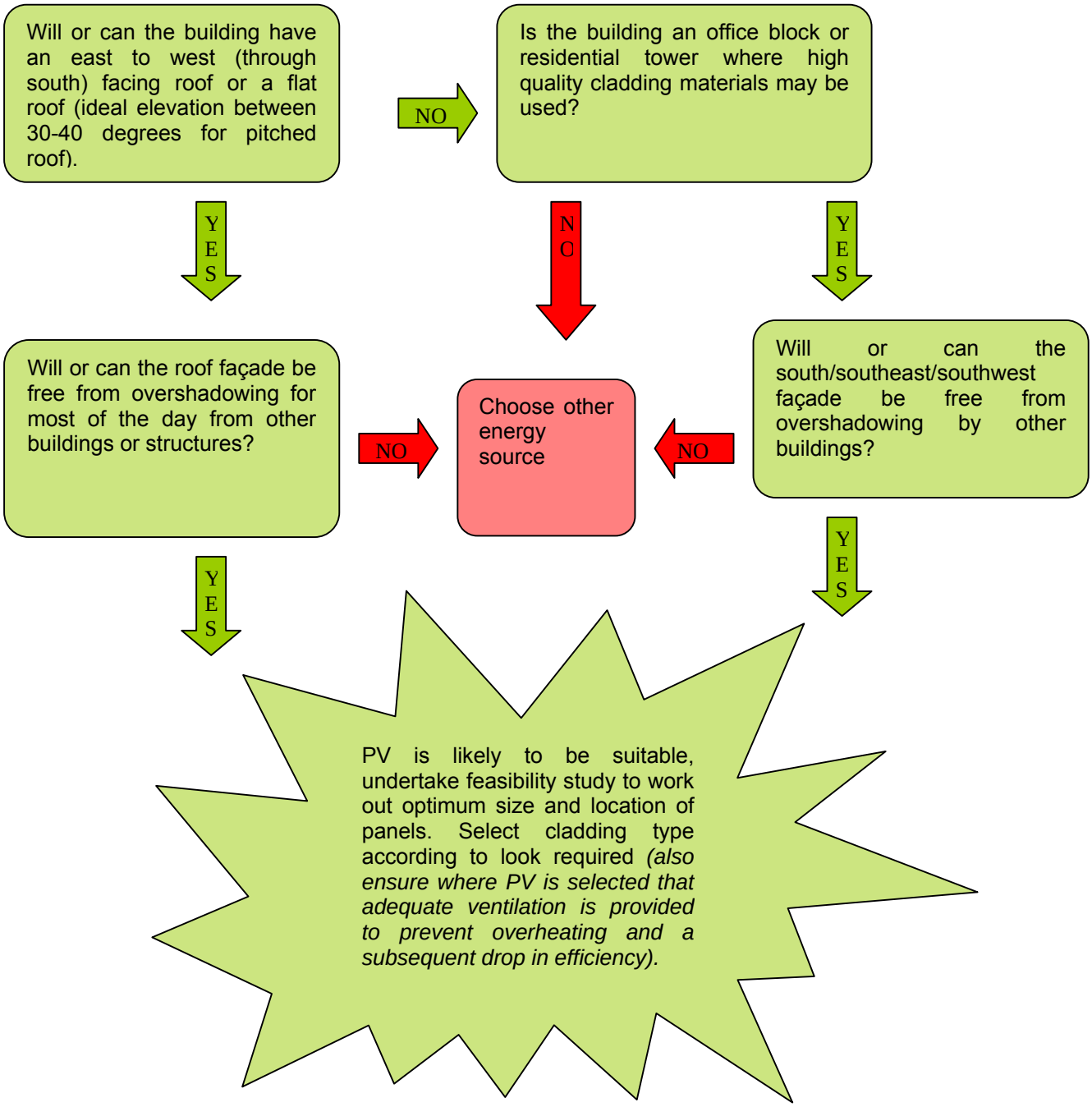
Benefits

Any surplus electricity generated by the panels can be exported to the local grid at an agreed price if the system is grid connected (recommended). The Grid can be used as a 'battery' to store energy that is generated during the day and this is then bought back at varying times by the building end user.

Photo 3. Solar PV panels integrated into glass roofing to provide shading on a converted and refurbished 'Solaris Centre' in Blackpool. Source - OMBC)

PV is also an ideal material that can be incorporated directly into roof tile, or glazing to act as a shading material (see photo 3) thus the cost can in part be offset by the use of expensive cladding or glazing materials at the design stage.

Guidelines for Suitable Locations of Photovoltaics - Domestic and Non-domestic.



Wind energy

Wind power is proportional to the cube of the wind's speed, so relatively minor increases in speed result in large changes in potential output. Individual turbines vary in size and power output from a few hundred watts to two or three megawatts (as a guide, a typical domestic system would be 1-6 kilowatts, depending on the location and size of the home).

Roof Mounted Wind Turbines (domestic and small non domestic applications)

Roof mounted wind turbines are increasing in number and are now available for the public to buy in DIY outlets. The criteria for mounting a small (>1kW) turbine on a roof are minimal as they are designed to fit any roof design and are mounted on the wall. They have been designed to work in turbulent wind conditions (as might be experienced on roof tops) and have been designed to minimise vibrations through use of damping systems. The turbines will work in lower speeds than larger turbines, estimated at >3.5m/s.

Photo 4 Roof mounted wind turbines on 9 homes in Oldham. Rated at 1kWh with a blade diameter of 1.75mtrs- note also Solar thermal panels with small PV module to power the pump motor (Source OMBC)

I. A typical 2.5 kWh small-scale wind turbine with a blade diameter of approximately 3.5metres could on average deliver around 3750kWh of electricity.
II. A small 1kWh small-scale wind turbine with a diameter of 1.75metres could be expected on average to deliver around 1000kWh of electricity.

Benefits

Any surplus electricity generated by the turbines can be exported to the local grid at an agreed price if the system is grid connected (recommended). The Grid can be used as a 'battery' to store energy that is generated during the day and this is then bought back at varying times by the building end user.

Stand-alone wind installations

These systems favour larger scale non-domestic applications. It is essential that any stand-alone wind installations appear within the planning application that is formally submitted. It is also essential that UDP Polices NR3.1 and NR3.2 are applied to stand alone wind turbines and the relevant section of this SPD is adhered to meet these policy requirements.

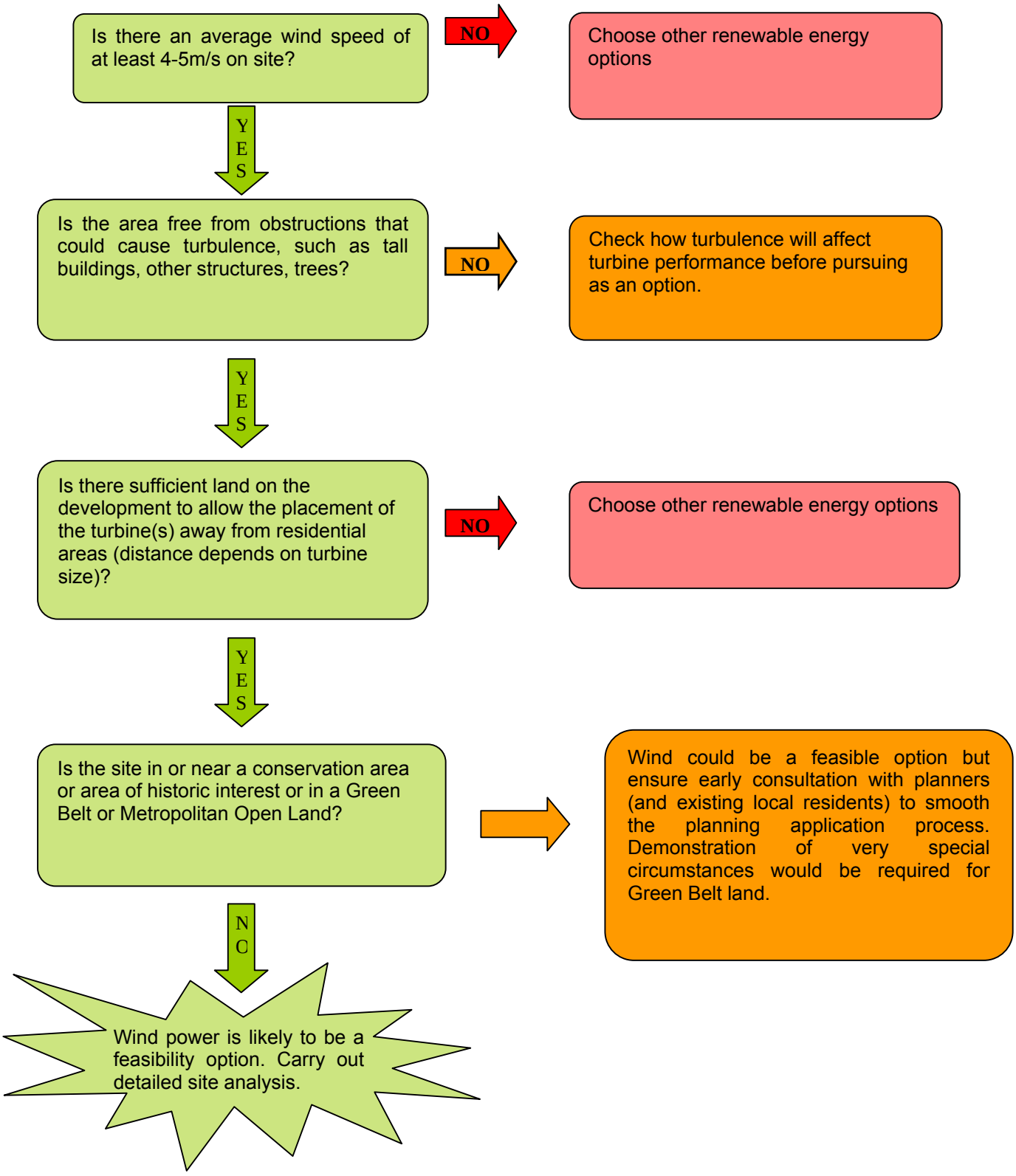
Stand-alone turbines are typically 6kWh or greater and are mounted on their own tower. Heights commence from around 9 metres from ground to Hub height. Larger scale turbines could be up to 2-3 MW capacity could have a with a hub height of around 65 metres.

Photo 5. A 6kWh stand alone grid connected 'Proven' wind turbine (hub height 9metres) Blackpool promenade- (Source OMBC)

For both Roof mounted and Stand alone turbines Installers and owners should note that it is a legal requirement to inform United Utilities (the electricity network owner) of the connection of all small and larger scale renewables.

In some cases prior permission will be required from them.

Guidelines for Suitable Locations of Stand Alone Wind Turbines



Biomass (Heat)

Biomass is a term used to define all plant and animal material and has been used as an energy source for centuries.

Biomass is often called 'bioenergy' or 'biofuels'. These biofuels are produced from organic materials, either directly from plants or indirectly from industrial, commercial, domestic or agricultural products. Biofuels fall into two main categories:

I. **Woody biomass** includes forest products, untreated wood products, energy crops, short rotation coppice (SRC), e.g. willow.
II. **Non-woody biomass** includes animal waste, industrial and biodegradable municipal products from food processing and high energy crops, e.g. rape, sugar cane, maize

There are two main ways of using biomass to heat a property:

I. **Stand-alone stoves** providing space heating for a room. These can be fuelled by logs or pellets but only pellets are suitable for automatic feed. Generally they are 6-12 kW in output, and some models can be fitted with a back boiler to provide water heating.
II. **Boilers** connected to central heating and hot water systems. These are suitable for pellets, logs or chips, and are generally larger than 15 kW.

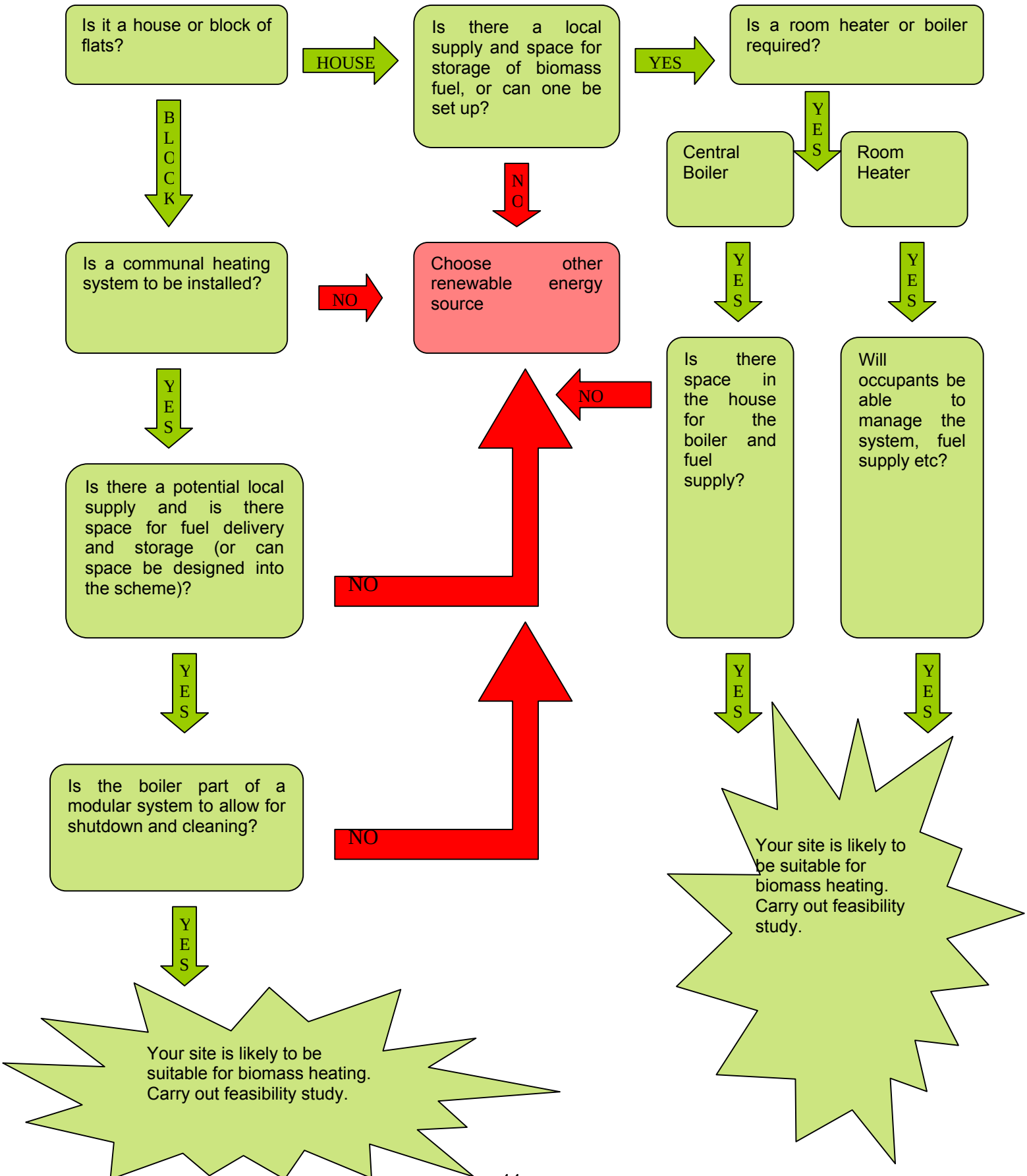
You should consider the following issues if you're thinking about a biomass boiler or stove. An accredited installer will be able to provide more detailed advice.

I. Fuel: It's important to have storage space for the fuel, appropriate access to the boiler for loading and a local fuel supplier.
II. Flue: The vent material must be specifically designed for wood fuel appliances and there must be sufficient air movement for proper operation of the stove. Chimneys can be fitted with a lined flue.
III. Regulations: The installation must comply with all safety and building regulations (see Part J of the Building Regulations).
IV. Smokeless zone: Wood can only be burnt on exempted appliances, under the Clean Air Act. This mainly applies to domestic appliances.
V. Planning: If the building is listed or in an area of outstanding natural beauty (AONB), then you will need to check at an early stage with your Local Authority Planning Department before a flue is fitted.

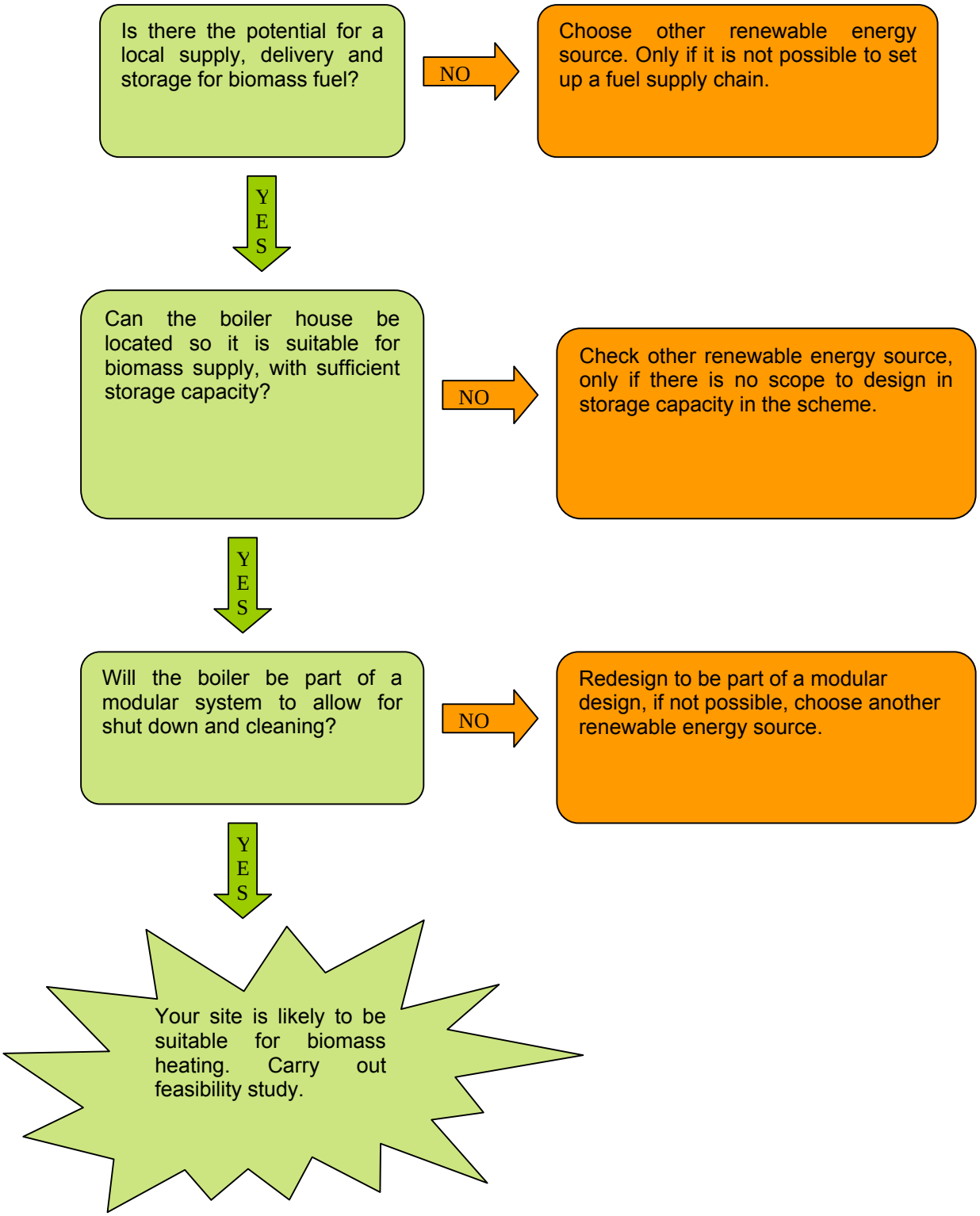
Local benefits

Producing energy from biomass has both environmental and economic advantages. It is most cost-effective when a local fuel source is used, which results in local investment and employment. Furthermore, biomass can contribute to waste management by harnessing energy from products that are often disposed of at landfill sites.

Guidelines for Suitable Locations of Biomass Heating:
Domestic Biomass Heating



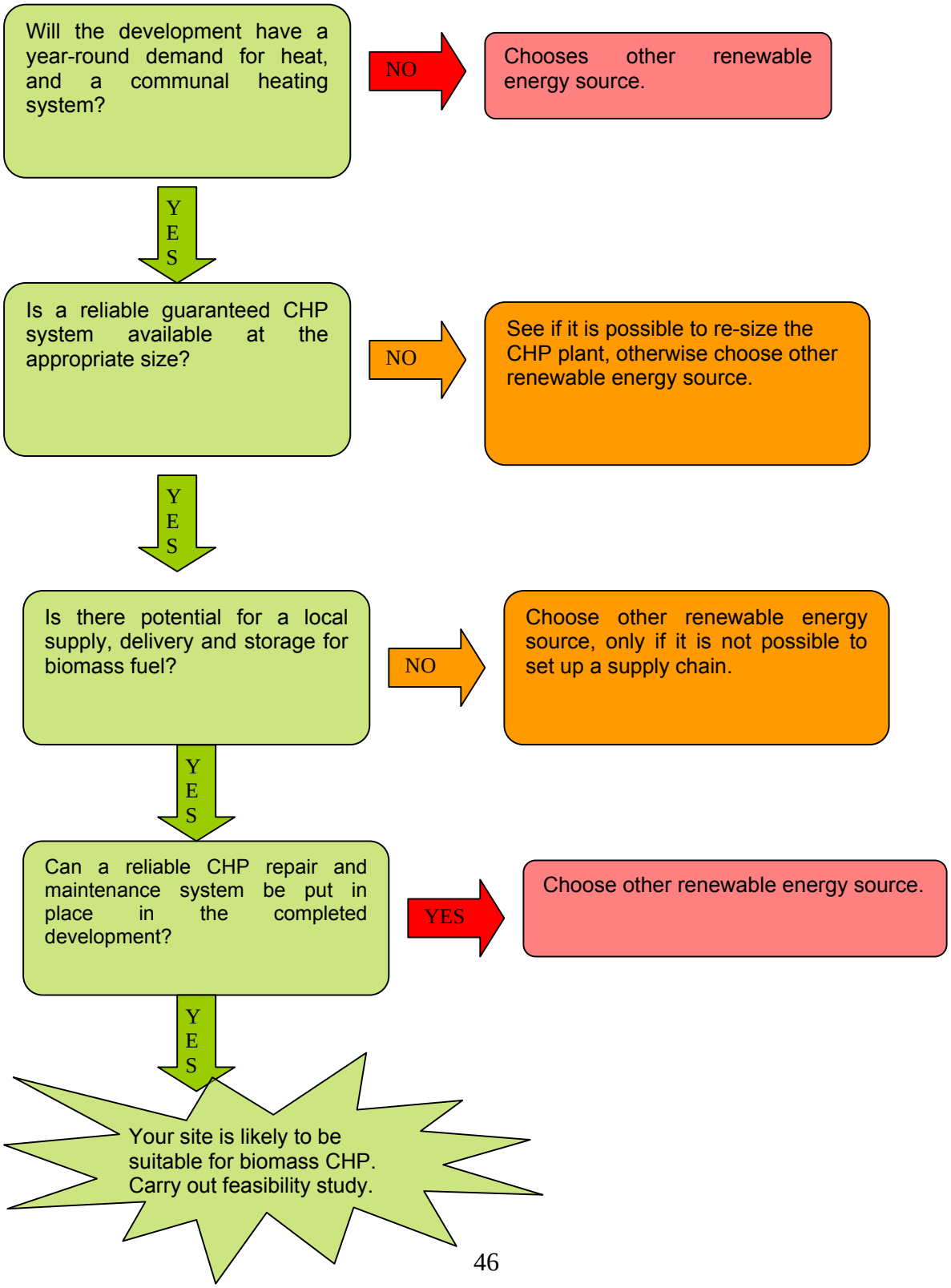
Guidelines for Suitable Locations of Biomass Heating: Non-Domestic Biomass Heating



Biomass Combined Heat and Power (Biomass CHP)

Biomass CHP systems generate heat and as a by-product electricity at a local level which can be used in the development and excesses exported to the local grid. (It is a legal requirement to inform United Utilities (the electricity network owner) of the connection of all small and larger scale renewables).

Guidelines for Suitable Locations of Biomass CHP



Heat Pumps

A heat pump extracts heat from the ground, air or water and transfers it to a heating distribution system e.g. under floor heating.

Ground source (GSHP) are the most common in the UK and in essence employ technology that is not dissimilar to the principles of a refrigerator. A typical system contains a heat exchanger (for extracting heat from the ground) the heat pump itself and a heat distribution system.

The overall efficiency of the Heat pump is determined by the difference in temperature between the heat source itself (air, ground, or water) and the temperature of the area or environment to be heated that is supplying heat to the building(s). The smaller the temperature difference the higher the coefficient of performance (COP) will be. Typical COP's will be in the range of 3-4 depending on operating conditions.

In addition energy is required to power the heat pump itself. The amount of useful energy extracted from the ground minus the energy required to power the pump will be the element of energy that contributes to the 10% renewable energy requirement.

Heat pumps can be designed to supply around 100% of a domestic application space heating requirements, or provide pre heating to domestic hot water needs. It should also be noted that GSHP are at their most efficient when operating continuously so it is more cost effective to size them for less than 100% of the heating load.

The heat exchange element of the technology can be in the form of a horizontal pipe or 'slinky' pipe buried under the ground at depths of around 1 metre. This is suited to sites with large car parks, or green spaces. Where ground space is limited vertical heat exchangers can be used which require boreholes typically between 15-150 metres, but these are more expensive than Horizontal systems. It should also be noted that a license may be required for drilling vertical borehole exchangers.

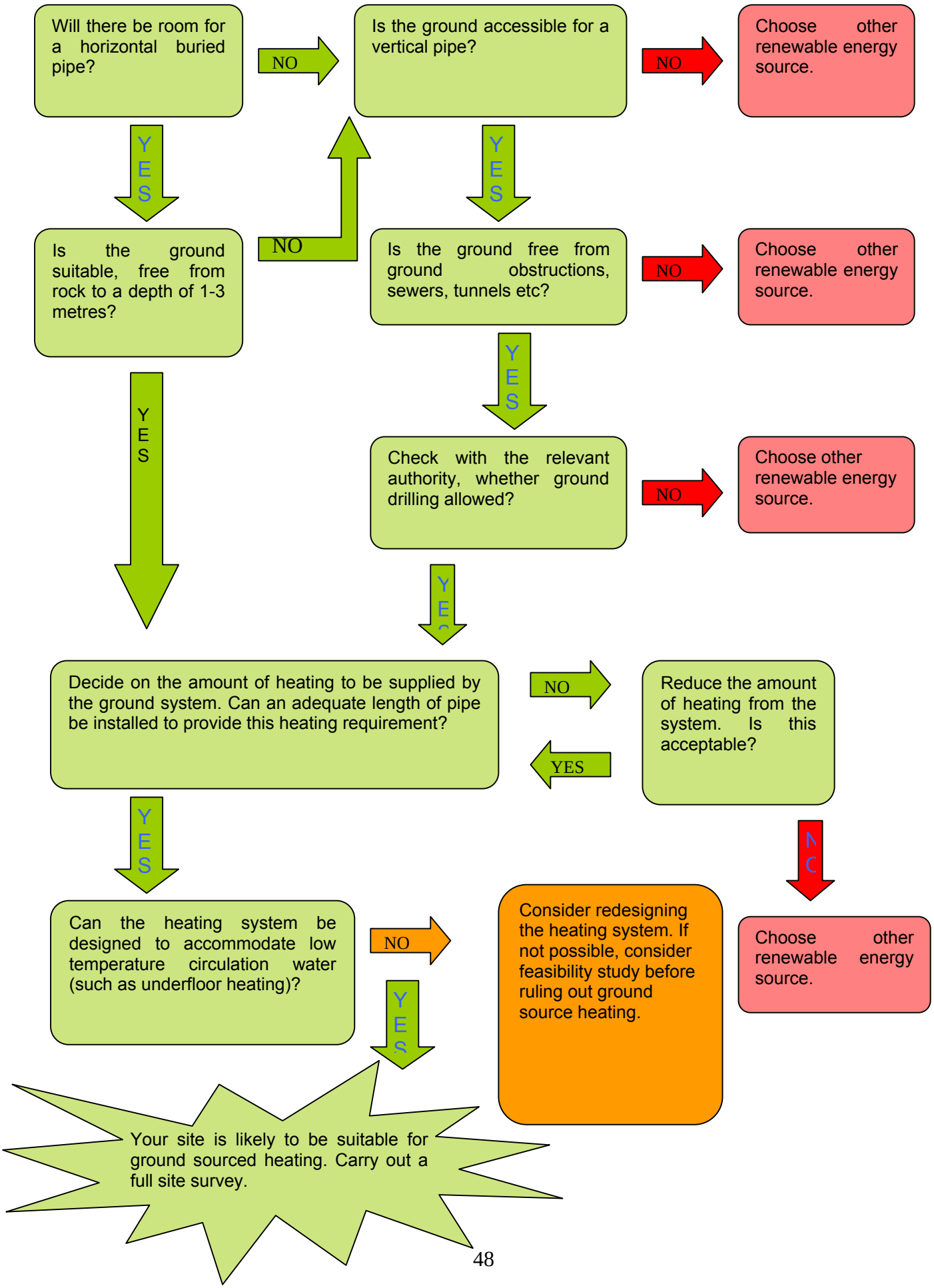
Ground Source Cooling

Ground Source Cooling can be used where a cooling load is required and there is access to the ground. This technology can be used against the offset of installed air conditioning units.

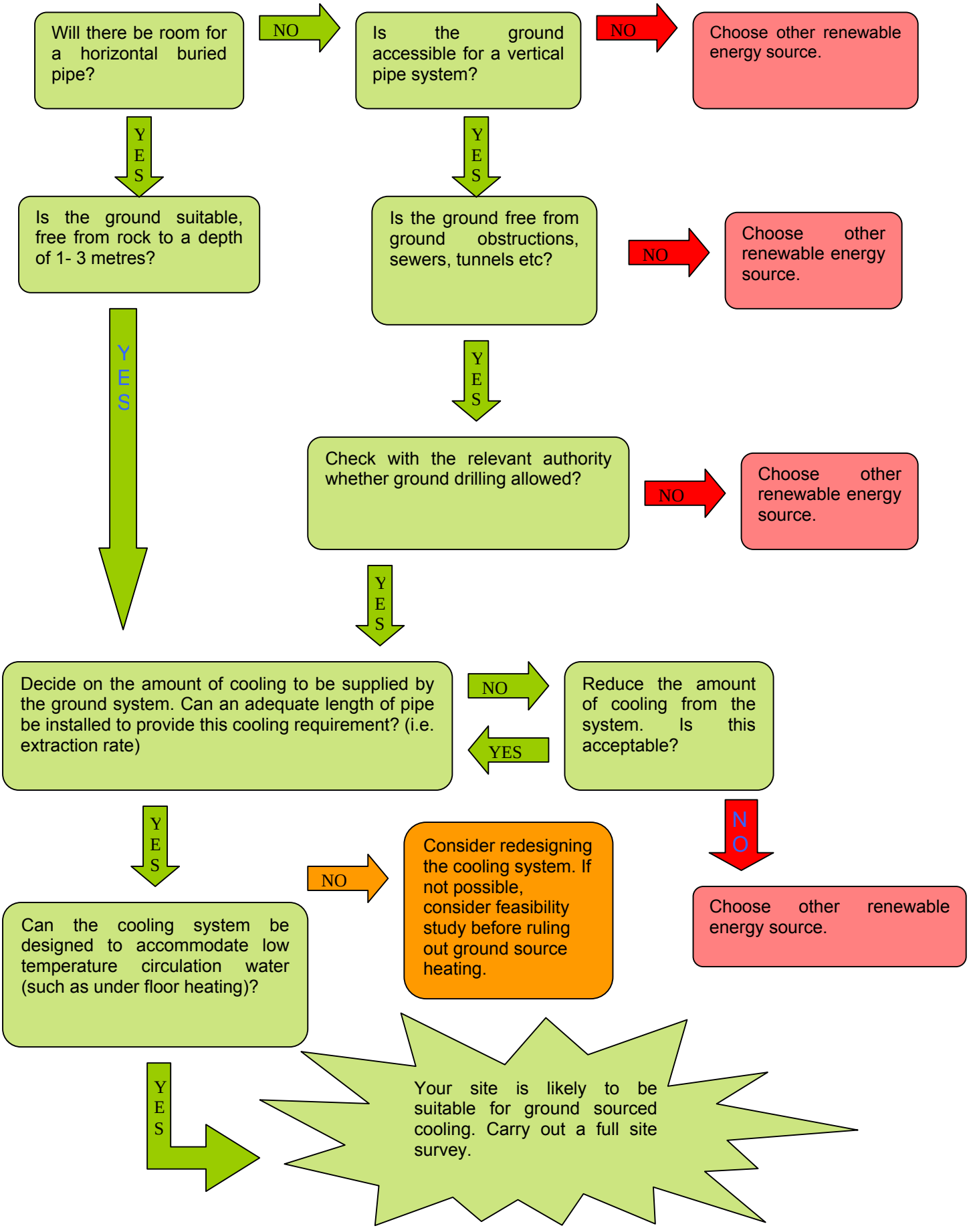
This uses the same technology as ground sourced heating. The temperature of the ground remains fairly constant and well below peak temperatures in the summer.

- Technical feasibility depends on ground conditions (solid rock is unsuitable).
- Permission is likely to be required for ground drilling or bore hole use.

Guidelines for Suitable Locations of Ground Source Heating



Guidelines for Suitable Locations of Ground Cooling Systems



Annex NR 3.3 B - Summary of Renewable Energy Technologies for developments

Technology Type	Situation technology is best used within	Typical Costs and financial incentives	Basic technical information	Technical and planning issues
Wind Turbines	Modern, quiet turbines are becoming viable in suburban areas where they may be cost effective despite lower wind speeds than in open areas.	Cost: £2,500 to £5,000 per Kwe installed.	The blades drive a generator to produce electricity. The electricity can either link to the grid or charge batteries. An inverter is required to convert to electricity from direct current to alternating current for feeding into the grid. Schemes range from individual turbine of small clusters to large-scale wind farms. Turbines are available with outputs ranging from 600W to 2MW and are able to power the equivalent of up to 1200 homes. The main factor affecting output of a particular turbine is the wind speed. Small building-mounted turbines are becoming more widely available. **Domestic scale wind**= A small 1kWh small-scale wind turbine with a diameter of 1.75metres could be expected on average to deliver around 1000kWh of electricity. **Larger wind energy outputs** are subject to size of turbine and location.	- Wind speed monitoring needed. - Potential impact of noise from turbines blades and components, particularly on housing and schools, should be considered, taking into account background noise. - Buildings and other obstructions can cause turbulence and decrease efficiency. - Potential visual impact and impact on local ecology should be assessed. - Developers should take into account of any landscape designates/Conservation Areas. - Planning permission required for each turbine (consultation with interest groups and residents can assist this). Requirements of UDP policies NR3.1 AND 3.2 should be complied with for stand alone turbines.
Solar power (PV)	Particularly Good for sites using electricity during the day.	Costs: £5000 to £8000/kWp for roof mounted system, £10000 to £15000/kWp for façade/atrium systems. Discounts as high as 20% may be available for bulk purchases.	A solar power system consists of a set of interconnected modules, plus: - For off-grid applications: a control, storage (e.g. battery), cables and a load (e.g. lights, television). - For grid-connected applications: an inverter to convert the direct current, generated by the PV-modules, into alternating current. A 1kWp system in Oldham Metropolitan Borough could be expected to produce around 850kWh per year of electricity.	- Systems should ideally face between southeast and southwest to maximise the amount of light on the photovoltaics. - Un-shaded at all times of the day if possible. - Consider loading capacity of the roof. - Ensure the buildings metering system allows export of energy if needed. - Birds may need to be discouraged from perching near the systems. - There are no licensing requirements relating to PV systems, but consent must be obtained from the Distribution Network Operator.
Solar Heating	Good for sites requiring day time hot water use.	Cost: Household system (4m2) cost from £2500 - £4000. Discounts will be available for bulk purchases.	Systems comprise solar collectors (tubes of hot plates), a heat transfer system (a fluid in pipes) and a hot water tube (e.g. domestic hot water cylinder). A 4m2 collection area will provide between 50% and 70% of a typical home's hot water. Drawing water off during the day and using less hot water, for example with showers instead of baths, increases this %.	- Systems should ideally face between southeast and southwest to maximise the amount of light on the tubes or panels. - Be un-shaded at all times of day if possible.

			System savings average around: - 454kWh/yr saving per m2 of flat plate collector, or - 582 kWh/yr per m2 for an evacuated tube system.	
Biomass Heating	Can be applied at any site requiring heat although less dense areas are more favourable due to fuel supply and storage issues.	Cost: from £2000 for a house to £30000 to supply 33% of the heating for a standard office of 3000m2 (typical as of 2005).	Domestic applications: - Single room heaters or stoves. - Boilers that replace traditional gas or oil boilers. Non Domestic applications: - Biomass boilers that replace traditional fossil fuel boilers, often as one or more boilers in a sequenced (multi boiler system). Biomass boilers are available in most size ranges and with automatic feeders. Fuel cost likely to be comparable to other fuels.	- Consider early in the design process so that fuel storage/delivery facilities can be factored in. - Arrangements for ash disposal and de-soking must be made. - Consider fuel sourcing and delivery arrangements. - Accommodate space requirements (domestic boilers are generally larger than conventional boilers).
Biomass combined heat and power (CHP)	Again suitable in any situation however fuel supply and storage must be taken into account.	Cost: individual quotes required.	Typically, CHP achieves a 35% reduction in primary energy usage compared with power stations and heat only boilers. There are no inherent limitations on the range of size of biomass CHP, though at present, only large communal systems are available.	- Consultation with local interest groups and residents may be required to get planning permission approved by the council. - Combustion gases will require an external flue usually terminating above the ridgeline of the building. See biomass heating for other technical issues.
Ground sourced heating	Any size building where heat is required. Access to the ground is necessary.	Cost: £2500 for a house to £50000 to supply 50% of the heating demand of a 3000m2 office building.	Water (or another fluid) is circulated through pipes buried in the ground of is extracted from the ground (borehole). A heat exchanger extracts the heat from this fluid via the compression cycle (also used in refrigerators) to supply hot water to the building. Most suitable with lower temperature heating systems such as under-floor heating and medium temperature radiators.	Technical feasibility depends on - Access for the ground pipe system. - An area for a horizontal system or access to drill for vertical pipes. (For single house, a horizontal system would require garden area of at least 100m2. - A license may be required to drill vertical systems). - Ground conditions will affect ease of construction and system performance.
Ground sourced cooling	All buildings where cooling is required and there is access to the ground.	Cost: £50000 for 50% of the cooling load of a 2000m2 floor space of retail development, to £90,000 for 50% of the cooling of a 3000m2 prestige office.	This uses the same technology as ground sourced heating. The temperature of the ground remains fairly constant and well below peak temperatures in the summer.	- Technical feasibility depends on ground conditions (solid rock is unsuitable). - Permission is likely to be required for ground drilling or bore hole use.

Note: These cost estimates were collected together in 2006. It is likely as time goes on and technologies mature that prices will decrease.

ANNEX NR3.3 C

Design and Planning Process Checklist for Policy NR3.3

1. Has an Energy Statement been produced that details the development's total predicted energy consumption?

2. Have additional energy efficiency measures been incorporated into the development? If so, has this improvement been shown in the Energy Statement?

3. Has an assessment of each renewable energy technology been provided, giving reasons as to why alternatives have not been selected?

4. Have the plans for the proposed development been modified to account for the installation of renewable technologies (e.g. roof orientation etc)?

5. Once the selected renewable energy technology(ies) has/have been chosen, have discussions taken place with the Council's Development Control section to seek preliminary approval?

6. Once discussions have taken place to assess preferred technology options, have calculations of the renewable energy generation potential been calculated and provided in writing to the Council's Development Control section?

7. If the 10% energy requirement is non-viable what is the proposed percentage for the development? Reasons as to why a lower percentage is required must be provided in writing. Reasons for discounting technologies must also be supplied (as in bullet 3 above).

ANNEX NR3.3 D Template to assist with Policy NR3.3

Details of proposed scheme / development		
SPD page reference/ Information source (Paragraph)	**1. Planning reference number (if known) or site name or site street address**	
5.8 *5.13*	**2. Brief description of development (for example number of residential units)**	
Predicted energy consumption		
5.12, 5.13, 5.17 *5.28*	**3. Site's annual predicted energy consumption (both electricity and gas) before inclusion of renewable technology. (Please state energy units used e.g. kW Hr/per year etc)**	
5.16	**4. Source of data (E.g. SAP/ SBEM)**	
5.17	**5. Reference or title of associated Energy Statement to support this summary sheet**	

Planning Process Checklist for Policy NR3.3
Instructions for use

This voluntary sheet helps at a glance to capture information relating to Policy NR3.3, Renewable Energy in Major New Developments (see SPD Section 5.20 & 5.8). It can be included with the Energy Statement that is required as part of the SPD (see paragraph 5.20 in SPD) but it is not a replacement for the Energy Statement itself. Applicants may choose to incorporate this table within the Energy Statement.
Input is required where boxes are ***shaded grey****. References to the SPD are indicated to help the user understand what information is required.*

Figures and data included within the table should match the content within the Energy Statement.

SPD page reference/ Information source	**Renewable Technology type**	**State number of individual installations or number of properties/ buildings to be served by the technology**	**System's overall rating (MW) (or state units)**	**Energy generated cumulatively per year (state units)**	**Contribution towards 10% on site renewable energy generation (percentage from site total in 3 above)**
Example only	*Solar PV*	*50m2*	*0.004MWp*	*37,500kwh*	*(Predicted consumption) total 375,000kwh PA* *10% contribution (37,500kwh)*

5.9 *Annex NR3.3A* *Annex NR3.3B*	Solar Thermal				
5.9 *Annex NR3.3A* *Annex NR3.3B*	Solar Photovoltaic Systems				
3.16, 3.17, *5.9* *Annex NR3.3A* *Annex NR3.3B*	Wind (Roof Mounted)				
3.16, 3.17, 3.20 *Section 4* *5.9* *Annex NR3.3A* *Annex NR3.3B*	Wind (Stand Alone Installations)				
5.9 *Annex NR3.3A* *Annex NR3.3B*	Biomass (heat)				
3.20, 5.9, 5.22, *Annex NR3.3A* *Annex NR3.3B*	Biomass (heat and Power CHP)				
5.9 *Annex NR3.3A* *Annex NR3.3B*	Heat Pumps				
5.9 *Annex NR3.3A* *Annex NR3.3B*	Ground Source Cooling				
5.24	Other				
	TOTALS				

APPENDIX 4 USEFUL DOCUMENTS

Planning Policy Statement 1: Delivering Sustainable Development (ODPM, 2005)

Planning Policy Statement 22: Renewable Energy (ODPM, 2004)

Planning for Renewable Energy: A Companion Guide to PPS22 (ODPM, 2004)

Building Regulations, Part L

Micro Generation Strategy – Power from the People (DTI, 2006)

UK Fuel Poverty Strategy (DTI, 2001)

Code for Sustainable Homes (DCLG, 2006)

Regional Spatial Strategy for the North West (ODPM, 2003)

"The North West Plan" Submitted Draft Regional Spatial Strategy for the North West (NWRA, 2006)

Draft North West Regional Spatial Strategy Examination in Public – October 2006-February 2007 Report of the Panel (NWRA, 2007)

Energy in England's North West – achieving sustainable growth (NWDA, 2003)

Rising to the Challenge – A Climate Change Action Plan for the North West (NWDA, 2006)

"North West Sustainable Energy Strategy" (NWRA, 2006)

APPENDIX 5 USEFUL LINKS

Department for Communities and Local Government	www.communities.gov.uk
Department for Environment, Food and Rural Affairs	www.defra.gov.uk
Department for Business Enterprise and Regulatory Reform	www.berr.gov.uk
Planning Inspectorate	www.planning-inspectorate.gov.uk
Planning Portal	www.planningportal.gov.uk
Sustainable Development Commission	www.sd-commission.org.uk
North West Regional Assembly	www.nwra.gov.uk
Northwest Regional Development Agency	www.nwda.co.uk
Energy Savings Trust	www.est.org.uk
Energy Centre for Sustainable Communities	www.ecsc.org.uk
British wind energy Association	www.bwea.com
The Carbon Trust	www.carbontrust.co.uk
The British Photovoltaic association	www.pv-uk.org.uk
Low Carbon Buildings Programme	www.lowcarbonbuildings.org.uk
Renewable Energy Association	www.r-p-a.org.uk
Micro power Council	www.micropower.co.uk
OFGEM	www.ofgem.gov.uk
United Utilities	www.unitedutilities.com
National Energy Foundation	www.nef.org.uk
Combined Heat and Power Association	www.chp.org.uk
Envirolink North West	www.envirolinknorthwest.co.uk
Buildings Research Establishment	www.bre.co.uk/
Centre for Alternative Technology	www.cse.org.uk
Historic Environment Local Management (HELM)	www.helm.org.uk
Climate Change North West	www.climatechangenorthwest.co.uk

APPENDIX 6 RENEWABLE ENERGY INDICATORS TO BE MONITORED

1. Renewable energy capacity installed by type[16]

2. Number of wind turbine planning applications granted and refused planning permission.

3. Percentage of large developments incorporating renewable energy generation.

[16] 'Installed' means completed and available for operation.

APPENDIX 7 USEFUL OLDHAM MBC CONTACTS

Address	Telephone	Advice on
Environmental Policy, Regeneration Directorate, Oldham Business Centre, Cromwell Street, Oldham OL1 1WR	0161 770 3438	Renewable Energy
Development Control, Environmental Services Directorate, Civic Centre, Level 12, West Street, Oldham OL1 1UL	0161 770 4105	Development Control
Strategic Planning and Information, Regeneration Directorate, Oldham Business Centre, Cromwell Street, Oldham OL1 1WR	0161 770 4151	Planning Policy