Neath Port Talbot County Borough Council

# Local Development Plan 2011 - 2026

# Renewable and Low Carbon Energy

## Supplementary Planning Guidance

(July 2017)

www.npt.gov.uk/ldp

Neath Port Talbot
Castell-nedd Port Talbot
County Borough Council Cyngor Bwrdeistref Sirol

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## Appendices

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## Note to Reader

This document supplements and explains the policies in the Local Development Plan (LDP). The LDP was adopted by the Council on 27th January 2016 and forms the basis for decisions on land use planning in the County Borough up to 2026.

This Supplementary Planning Guidance (SPG) has been prepared following a public consultation exercise that was undertaken in the Summer of 2017 and the guidance was adopted by the Council's Regeneration and Sustainable Development Cabinet Board on 21st July 2017.

While only policies in the LDP have special status in the determination of planning applications, the SPG will be taken into account as a material consideration in the decision making process.

This SPG is also available in Welsh, either to download or by request. Should you need this document in another format, then please contact the LDP team at **ldp@npt.gov.uk** or **[01639] 686821**.

# Note to Reader

# 1 Introduction

**1.0.1** This Supplementary Planning Guidance (SPG) gives information about the planning approach to renewable and low carbon energy in Neath Port Talbot and sets out the relevant matters that will need to be taken into consideration when developments are being planned in the County Borough.

**1.0.2** The Council's planning policy in relation to the various types of renewable and low carbon energy is set out in the Neath Port Talbot Local Development Plan (LDP)[1] Strategic Policy SP18 (Renewable and Low Carbon Energy) and detailed policies RE1 (Criteria for the Assessment of Renewable and Low Carbon Energy Developments) and RE2 (Renewable and Low Carbon Energy in New Development). This SPG should be read in the context of these LDP policies and explanatory text.

**1.0.3** Chapter 2 outlines the national and local planning policy approach, while Chapters 3 and 4 outline how the relevant plan policies will be applied and Chapter 5 outlines the Council's approach to the securing of community benefits as part of renewable / low carbon energy developments.





1 Neath Port Talbot County Borough Council Local Development Plan (2011-2026) Adopted January 2016.

# 1 . Introduction

# 2 Policy Context

## 2.1 National Policy

### UK Policy Context

**2.1.1** National policy relating to renewable and low carbon energy follows European Union commitments and directives, including the ***EU Renewable Energy Directive (2009)***[(2)], which included objectives to reduce $CO_2$ emissions by 20% from 1990 levels, boost renewable fuel use by 20% and reduce predicted energy consumption by 20%, by 2020.

**2.1.2** To meet these objectives, the UK has set a legally binding target of 15% of energy from renewable sources by 2020 ***[UK Renewable Energy Strategy (2009)]***. Modelling, undertaken on behalf of the Department for Energy and Climate Change (DECC), suggests that by 2020 this could mean more than 30% of electricity, 12% of heat and 10% of transport energy being generated from renewable energy sources.

**2.1.3** The ***UK Climate Change Act (2008)*** sets goals of a 34% reduction in greenhouse gas emissions by 2020 and a reduction of at least 80% in greenhouse house gas emissions by 2050. Five yearly carbon budgets have been introduced to help ensure that the targets are met and the ***UK Low Carbon Transition Plan: National Strategy for Climate and Energy (2009)*** outlines how the 34% target will be met. It also states that by 2020, 40% of electricity will be from low-carbon sources, nuclear, clean coal and renewable energy generation. The ***UK Renewable Energy Road Map (2011)***, published jointly by the four UK administrations in July 2011, outlined a plan of action to accelerate renewable energy deployment while driving down costs.

**2.1.4** The UK Government provides financial support for renewable energy generation through the ***Renewables Obligation*** and ***Feed in Tariff*** schemes. In Wales, the 'Renewables Obligation' places an obligation on electricity suppliers to generate a certain portion of electricity from renewable sources and is regulated by the 'Office for Gas and Electricity Markets' (Ofgem). Eligible renewable technologies include wind energy; hydropower; tidal and tidal stream energy; wave energy; photovoltaics; geothermal; all biomass material; landfill gas; sewage gas; and co-firing of biomass with fossil fuel.

**2.1.5** Six ***National Policy Statements (NPSs)*** for Energy Infrastructure were issued by the Department of Energy and Climate Change in 2011. Major energy project proposals (i.e. greater than 50MW) are dealt with at UK government level by the National Infrastructure Directorate (part of the Planning Inspectorate) and the NPSs set out national policy against which such proposals are to be assessed. Within Wales, Developments of National Significance (including energy generation proposals greater than 10MW but less than 50MW) are determined by Welsh Ministers. The exception to this is on-shore windfarms of all capacities above 10MW which are determined by Welsh Ministers.



2 Directive 2009/28/EC on the promotion of the use of energy from renewable resources.

**Wales Policy Context**

**2.1.6** Applying these UK wide principles, the ***Climate Change Strategy for Wales (2010)*** outlines the importance of renewable energy generation in meeting the energy demand in Wales and sets out a vision for the country up to 2050. The strategy intends to ensure that climate change is considered in all decision-making; that increased energy efficiency is delivered through making low carbon transport a reality; that the skills are developed to ensure that Wales can make the most of opportunities from a low carbon economy; that opportunities are taken to cut emissions and adapt to climate change where natural resources, land management pattern, and economic position allow; that the approach to Research & Development (R&D), technology, innovation and skills helps Wales gain maximum benefits from climate change related business and research; and that land use and spatial planning promote sustainable development and enable a move towards a low carbon economy which takes account of future climate impacts. The Strategy includes the targets of achieving 3% emission reduction per year and at least 40% emissions reduction by 2020 compared to 1990.

**2.1.7** In March 2010, the Welsh Government published ***'A Low Carbon Revolution – The Welsh Assembly Government Energy Policy Statement'*** which set out the potential for 22.5GW of installed capacity from renewable sources by 2020/2025, 2GW of which would be from onshore wind. The policy statement set out how this installed capacity should be achieved with individual 'aspirations' for different renewable energy technologies in Wales.

**2.1.8** ***Energy Wales: A Low Carbon Transition (2012)*** subsequently set out the Welsh Government's ambitions and intentions with regard to the move towards low carbon energy. The measures outlined included: improving the planning and consenting regime; putting in place a 21st Century energy infrastructure; coordinating and prioritising delivery through an energy programme; ensuring Wales benefits economically from energy developments; ensuring Wales' communities benefit from energy developments; focusing on energy projects of greatest potential benefit; unlocking the energy in our seas; and leading the way to smart living. This document was supported in 2014 by ***Energy Wales: A Low Carbon Transition Delivery Plan*** setting out progress so far, priorities for action and delivery targets for high level milestones.

**2.1.9** Welsh planning policy supports and helps to implement these Welsh Government principles and policies. Of particular relevance is ***Planning Policy Wales (PPW)*** supplemented by ***Technical Advice Notes (TANs).***

**2.1.10** ***PPW Edition 9 (2016)*** emphasises that planning policy at all levels should facilitate delivery of the ambitions of ***Energy Wales: a Low Carbon Transition*** and European targets. It is stressed that development of all forms of renewable and low carbon energy should be facilitated and that positive provision should be made to assess and deliver the area's appropriate contribution. Development Management decisions need to be consistent with national and international climate change obligations, including contributions to renewable energy targets and aspirations. It is indicated that renewable

energy projects should generally be supported by Local Planning Authorities (LPAs) provided environmental impacts are avoided or minimised, and nationally and internationally designated areas are not compromised.

**2.1.11** In relation to wind energy specifically, PPW states that this constitutes a key part of meeting the Welsh Government's vision for future renewable electricity production. Strategic Search Areas (SSAs) have been identified as the most appropriate locations for large scale wind farm development where development of a limited number of large-scale (over 25MW) wind energy developments is required to contribute significantly to the Welsh Government's onshore wind energy aspirations. It is indicated that the SSA boundaries have been drawn to allow for some local refinement but that they should not be significantly amended without local evidence. Further information is given on this in TAN 8 (refer below).

**2.1.12** ***Technical Advice Note (TAN) 8: Planning for Renewable Energy (2005)*** stresses the importance of improving energy efficiency and energy conservation as well as developing sources of renewable energy. The TAN covers all types of renewable energy and also gives advice on associated issues such as community benefits.

**2.1.13** The TAN introduced the concept of SSAs for the location of large scale wind farms (over 25MW) and identified seven SSAs throughout Wales. The boundaries are at a 'broad brush' scale, allowing local authorities to undertake local refinement. A Ministerial Letter in 2011 confirmed the ongoing commitment of the Welsh Government to limiting the development of large scale wind farms to the seven SSAs, and identifying maximum capacities within each area.

**2.1.14** Two of the SSAs are located predominantly within Neath Port Talbot. The identified targets for these SSAs are:

- **SSA E (Pontardawe)** – Maximum capacity of **152MW**.
- **SSA F (Coed Morgannwg)** – Maximum capacity of **430MW**.

**2.1.15** ***Technical Advice Note (TAN) 12: Design (2016)*** provides advice on national planning design policy with regards to good building design and the importance of considering design at an early stage of a planning application. It provides detail on how energy efficiency and energy conservation can be incorporated into planning and the design of a building..

**2.1.16** ***Practice Guidance: Planning Implications of Renewable and Low Carbon Energy (Welsh Government 2011)*** gives detailed advice on types of renewable and low carbon energy and the determination of planning applications.

## 2.2 Local Policy

**2.2.1** Local planning policy is set out in the ***Neath Port Talbot Local Development Plan (2011-2026)***[3]. Policy SP18 is a strategic policy which sets out the overall strategy for renewable and low carbon energy, while policies RE1 and RE2 deal respectively with proposals for renewable / low carbon energy development and the incorporation of renewable / low carbon energy within other types of development.

**2.2.2** SP18 sets out the broad measures that will be taken to ensure that national renewable energy and energy efficiency targets will be met while balancing impacts on the environment and communities. The more detailed policies RE1 and RE2 set out in detail how the requirements of SP18 are to be achieved.

**Policy SP18**

**Renewable and Low Carbon Energy**

A proportionate contribution to meeting national renewable energy targets and energy efficiency targets will be made while balancing the impact of development on the environment and communities. This will be achieved by:

1. Encouraging where appropriate, all forms of renewable energy and low carbon technology development;
2. Encouraging energy conservation and efficiency measures in all new major development proposals;
3. Ensuring that development will not have an unacceptable impact on the environment and amenity of local residents.

**LDP Objective: OB 19**

**Policy RE1**

**Criteria for the Assessment of Renewable and Low Carbon Energy Development**

Proposals for renewable and low carbon energy development will only be permitted subject to the following criteria:

1. Large scale wind farm developments (>25MW) will be expected to be located within the boundaries of the refined Strategic Search Areas.

3 Section 5.3 (Environment and Resources) - Neath Port Talbot County Borough Council Local Development Plan (2011-2026) (January 2016).

2. Proposals for wind farms of any size outside the SSAs will only be permitted where it is demonstrated that there will be no unacceptable impact on visual amenity or landscape character through the number, scale, size, design and siting of turbines and associated infrastructure.

3. Small scale wind farm developments (<5MW) will be required to demonstrate that impacts are confined to the local scale.

4. All renewable energy or low carbon energy development proposals will be required to demonstrate that:

(a) Measures have been taken to minimise impacts on visual amenity and the natural environment;

(b) There will be no unacceptable impacts on residential amenity;

(c) The development will not compromise highway safety;

(d) The development would not interfere with radar, air traffic control systems, telecommunications links, television reception, radio communication and emergency services communications; and

(e) There are satisfactory proposals in place for site restoration as appropriate.

**Policy RE2**

**Renewable and Low Carbon Energy in New Development**

Schemes that connect to existing sources of renewable energy, district heating networks and incorporate on-site zero / low carbon technology (including microgeneration technologies) will be encouraged.

The following proposals will be required to submit an Energy Assessment to determine the feasibility of incorporating such a scheme and where viable, would be required to implement the scheme:

(a) Residential development for 100 or more dwellings;

(b) Development with a total floorspace of 1,000 sqm or more.



**2.2.3** A number of background studies supported the development of these policies, in particular:

- ***TAN 8 Annex D Study of Strategic Search Areas E and F: South Wales [Final Report] (Arup December 2006)***: a consortium of five local authorities including Neath Port Talbot CBC commissioned Arup Consultancy to further refine the SSAs set out in TAN 8. The refined boundaries were formally adopted through the LDP process and are shown in Figures 3.1 and 3.2.

- ***Carbon Management Energy Efficiency Report: Heat Mapping & District Heating Feasibility Study (2010)***: a high level feasibility study to establish an estimate of waste heat availability in and around Port Talbot and the potential for a district heating network to be established.

- ***Neath Port Talbot District Energy Master Plan Study (2012)***: building upon the 2010 study above, a District Energy Master Plan Study was undertaken evaluating the financial conditions needed for the implementation of a District Energy system. This indicated potential for a Port Talbot District Energy system covering the wider Port Talbot area (i.e. from the Town Centre to the mouth of river Neath), using Neath Port Talbot Hospital as the start up node.

- ***Neath Port Talbot County Borough Council Renewable Energy Assessment (2012)***: the assessment examined the potential within Neath Port Talbot for the production of all types of renewable energy. It was concluded that overall, the amount of renewable electricity generation in Neath Port Talbot exceeded the UK-wide target. Heat demand potentially met by renewable energy sources however, was substantially below the 12% target.

**2.2.4** The district energy / heating studies have been followed up more recently by the ***Neath Port Talbot District Heating Feasibility Study (2016)***, updating previous studies and findings and undertaking a detailed evaluation of the potential for district heating schemes within the area.

**2.2.5** Planning applications will need to be determined in accordance with the LDP policies above (and other relevant policies in the Plan) unless material considerations indicate otherwise. The remainder of this SPG contains advice and guidance about the implementation of these policies.

# 3 Implementation of Policy RE1

**3.0.1** Policy RE1 (Criteria for the Assessment of Renewable and Low Carbon Energy Development) covers all types of renewable and low carbon energy. Policy criteria 1, 2 and 3 are concerned with wind farms and the approach to be taken within and outside the refined Strategic Search Areas (SSAs), while criterion 4 is generally applicable to all renewable / low carbon technologies.

## 3.1 Policy RE1 Criteria 1, 2 and 3

### Strategic Search Areas (SSAs)

**3.1.1** As outlined in Chapter 2, ***Technical Advice Note (TAN) 8: Planning for Renewable Energy (2005)*** identified seven SSAs (areas identified as being suitable for the location of large scale onshore wind developments) within Wales, two of which are predominantly within Neath Port Talbot [SSA E (Pontardawe) and SSA F (Coed Morgannwg)]. The SSAs were delineated using 'broad brush' roughly defined boundaries allowing local authorities to undertake local refinement taking into account local features and more detailed analysis.

**3.1.2** While TAN 8 introduced notional targets for power generation in megawatts (MW) for each SSA, these were amended by a Welsh Government Ministerial Letter issued in July 2011 which clarified the policy approach that should be taken to SSAs and indicated that the SSA capacities that had previously been identified were the maximum appropriate figures for each SSA.

**3.1.3** The refinement of the SSAs within Neath Port Talbot was the subject of extensive discussion at the LDP Examination in Public in 2015, the outcome of which was that the Arup study undertaken to inform the refinement process was accepted by the Inspectors as being a 'thorough, robust and appropriate basis for the refined boundary'. The amended boundaries were therefore formally adopted and included on the adopted LDP Proposals Map. The refined SSAs are illustrated in **Appendix A**.

**3.1.4** For the SSAs within, or partly within, Neath Port Talbot, the identified capacity figures are 152 MW for SSA E and 430 MW for SSA F. The Welsh Government compiles information on the proposed, approved or operational outputs from the SSAs which is regularly updated and is available on the WG Website[(4)].

### Policy Implementation

**3.1.5** Criteria 1, 2 and 3 of Policy RE1 set out the policy requirements for wind farm developments. Criterion 1 sets out the Council's expectation that large windfarms (defined as those that would generate more than 25MW) should be located within the refined SSA boundaries. Since the refined SSAs have been defined following thorough landscape and



4 Technical Advice Note (TAN) 8 Database 2015 - Review of Wind Farm Development: http://gov.wales/docs/desh/publications/150914windfarm-development-database-summary-table-en.pdf

visual sensitivity assessments, it is acknowledged in policy terms (as set out in TAN8) that significant change in landscape character as a result of wind farm developments can be accepted within their boundaries.

**3.1.6** Within the refined SSAs the intention is to maximise installed wind turbine capacity taking into account relevant site constraints. Development proposals that might constrain this capacity (including smaller wind farms and other types of renewable energy schemes) would be resisted. However, medium scale (5-25MW) wind farms could potentially be acceptable within the refined SSAs provided they do not constrain the SSAs overall generating capacity.

**3.1.7** Elsewhere, outside the refined SSA boundaries, criterion 2 sets out the requirements that will apply to wind farm proposals of all sizes, indicating that proposals will have to demonstrate no unacceptable impacts on visual amenity or landscape character. Criterion 3 covers small scale developments, which are required to confine any impacts to a local scale. Guidance on the general considerations that will need to be addressed for the various categories of wind farm and other types of renewable and low carbon energy is set out in more detail in the sections below.

**3.1.8** The potential cumulative visual effects that a proposal may have in combination with other existing, consented or proposed larger scale developments will need to be assessed, taking into account landscape designations and other sensitive areas [in particular areas designated as Undeveloped Coast (LDP Policy EN1), Special Landscape Areas (LDP Policy EN2) and Green Wedges (LDP Policy EN3)]. Parts of Neath Port Talbot also abut the Brecon Beacons National Park and fall within its setting. Potential effects of wind farm developments on the National Park and its special qualities will need to be carefully considered in the context of the purposes of the National Park.

## 3.2 All Types of Renewable/Low Carbon Energy Technologies (Criterion 4)

**3.2.1** The fourth criterion of Policy RE1 relates to all types of renewable / low carbon energy and indicates matters that will need to be taken into account in determining applications. A summary of the different types of renewable and low carbon energy technologies is given in **Appendix B**, with more detailed information available from the Welsh Government publication 'Practice Guidance - Planning Implications of Renewable and Low Carbon Energy'[(5)].

### Domestic Household Developments

**3.2.2** Many domestic renewable / low carbon technologies are classed as 'permitted development' and can be installed without needing planning permission, although there are specific limits relating to size and position, and listed buildings or properties within conservation areas are more strictly controlled. Listed Building Consent will be required for any proposal that affects the character or setting of a listed building, including structures within its curtilage.

5 Practice Guidance - Planning Implications of Renewable and Low Carbon Energy (Welsh Government 2011): http://gov.wales/topics/planning/policy/guidanceandleaflets/planningimplications/?lang=en

**3.2.3** Information about permitted development rights in Wales is available from the Planning Portal[6]. Householders considering the installation of renewable / low carbon technologies are advised to contact the Planning Department for further advice.

## 3.3 Matters for Consideration

**3.3.1** Matters that will need to be taken into consideration in relation to all types of renewable / low carbon energy include visual amenity, cultural and residential impacts on local communities, effects on the natural environment, highway safety implications, effects on communications, and site restoration. Particular attention will need to be given to potential impacts on the landscape, townscape or seascape, nature conservation, wildlife interests, areas of historical and cultural importance and the potential for pollution, noise, dust, vibration, reflected light and shadow flicker.

### The Assessment of Landscape and Visual Impacts

**3.3.2** For windfarms outside the refined SSAs and other types of renewable / low carbon energy, the assessment of landscape and visual effects (including impacts on landscape, seascape, townscape and communities) will be of primary importance. Impacts on skylines, views and panoramas will be important considerations. These impacts should be identified in relation to significant receptors (local residents or communities) as well as the wider landscape generally.

**3.3.3** Landscape and Visual Impact Assessment (LVIA) will be required as part of the Environmental Impact Assessment (EIA) process for many proposals, but should be undertaken in all cases where there is likely to be a significant visual impact from a renewable or low carbon energy proposal. This will need to include assessments of the effects of the changes brought about by the proposed development on the landscape (as a general resource) and its visual effects on specific views and visual amenity generally. The significance of the effects will also need to be assessed. The LVIA will need to be proportionate to the scale and nature of the proposed development.

**3.3.4** ***Landscape Effects:*** these will need to include effects on rural landscapes, seascapes and townscapes. The following matters will normally need to be addressed:

- Effects on protected or designated landscapes (for example the National Park or Special Landscape Areas), and the extent and importance of the likely changes caused by the proposed development;
- LANDMAP: Natural Resources Wales' (NRW) LANDMAP resource[7] should be used in order to provide a consistent approach and there will be a need to distinguish between the value and significance of a landscape and its sensitivity to change.
- The contribution that landscape character has on place and quality of life; and

6 https://www.planningportal.co.uk/wales_en/info/2/do_you_need_permission
7 https://naturalresources.wales/planning-and-development/landmap/?lang=en

- The effects that the proposed changes may have on individual components of the landscape; aesthetic or perceptual qualities and the character of the landscape in different areas.

**3.3.5** ***Visual Effects:*** this relates to the ways in which the surroundings of individuals or groups of people may be affected by change in the landscape, and how people will be affected by changes in views and/or visual amenity at different places. The following matters will normally need to be addressed:

- The area in which the development may be visible;
- The different groups which may be affected by views of the development;
- The places where they will be affected;
- The nature of the views and visual amenity at those points; and
- Changes in specific views.

**3.3.6** ***Significance:*** assessing the significance of the identified effects will need clear judgement and there should be transparency in both significance assessments and the evaluation of significance. There will not necessarily need to be a specific scale of levels of significance or tables/matrices etc., although these can help to support the judgements made, but it should be made clear what the significant effects are, preferably through well argued narrative text. A two step approach is recommended:

- *Step 1: Assess against agreed criteria.* These should include the sensitivity of the receptor and the magnitude of the effect; and
- *Step 2: Combining the judgements.* The rationale for the overall judgement making clear how judgements about sensitivity and magnitude have been combined.

**3.3.7** The overall significance judgement should be as consistent and transparent as possible, with an emphasis on written explanations of different categories of significance etc. Numerical scoring or weighting of material should be avoided or at least treated with considerable caution, since it can suggest a spurious level of precision.

**3.3.8** ***Cumulative Effects:*** these are the effects of the proposed development in conjunction with other developments (either associated with it or separate) either completed, under construction or proposed. Deciding which other developments need to be considered is a matter of judgement but should be kept in proportion to the project.

**3.3.9** Further advice on Landscape and Visual Impact Assessment is available in GLVIA3[8] and the Smaller Scale Wind Turbine Development guidance[9] (prepared for the Heads of the Valleys Landscape Officers and Planners Group). In addition, further advice on landscape issues will be available in the Council's Landscape and Seascape SPG.

**Cultural and Historic Heritage Impacts**

**3.3.10** Landscape, seascape and townscape can have cultural and historic associations that are important for the local community, visitors and the wider national interest. Cultural associations could include art works or literature (in *English* or *Welsh*) relating to the landscape, while features of historic importance could include listed buildings, scheduled monuments, conservation areas and registered Historic Landscapes and Parks and Gardens.

**3.3.11** Information about the historic and cultural environment can be found within the NPT LANDMAP Study[10] and further advice on the historic built environment will be available in the Council's Historic Environment SPG.

**Biodiversity**

**3.3.12** All types and scales of renewable / low carbon energy have the potential to impact on natural habitats and/or species. There is a wide range of sites with local, national and international designations within and near to Neath Port Talbot which will need to be taken into consideration, but any site development could affect important features of biodiversity interest. Any proposal may therefore need to address biodiversity issues, and developments within or near to any designated site will be subject to significant constraints and ultimately development may not be feasible depending on the potential impact and the importance of the site in question.

**3.3.13** Internationally designated sites comprise Natura 2000 and Ramsar sites. There are three such sites partly within Neath Port Talbot, with others further afield that could also be affected by developments in the County Borough. Any proposals that could have an adverse effect on such a site would not be permitted except under certain very limited and specific circumstances. Proposals likely to significantly affect any such site will need to be subject to Habitats Regulations Assessment (HRA).

**3.3.14** Nationally designated sites include Sites of Special Scientific Interest (SSSIs)[11], which are protected by national policy with presumption against development likely to cause any damage. Policy relating to internationally and nationally designated sites is set out in Planning Policy Wales and associated documents.



8 Guidelines for Landscape and Visual Impact Assessment (Third Edition)(Landscape Institute and Institute of Environment Management and Assessment April 2013).
9 Planning Guidance for Smaller Scale Wind Turbine Development Landscape and Visual Impact Assessment Requirements (April 2015).
10 Neath Port Talbot LANDMAP Landscape Assessment (White Consultants 2004).
11 There are currently 20 SSSIs designated within the County Borough.

**3.3.15** Locally designated sites include Sites of Interest for Nature Conservation (SINCs), Local Nature Reserves (LNRs) and Regionally Important Geodiversity Sites (RIGS). LDP Policy EN6 sets out requirements relating to locally designated sites, requiring proposals to conserve and where possible enhance the natural heritage importance of the site unless the development cannot be located elsewhere and its benefits outweigh the natural heritage importance of the site. This policy also relates to any sites supporting Local Biodiversity Action Plan or S7[12] habitats or species.

**3.3.16** Further information on all types of designated sites and important and protected habitats and species is available from PPW[13], TAN5[14] and the Council's Biodiversity and Geodiversity SPG. Renewable / low carbon energy proposals are likely to have impacts on habitats and species, these impacts may be particularly complicated and varied in areas that have previously been undisturbed by existing development. Specific issues will depend on location and the type of technology involved, but common issues relate to impacts on bird and bat species and effects on moorland peat in the case of wind farms.

**3.3.17** Such issues will need to be fully assessed and impacts (direct, indirect and cumulative) addressed as part of any planning application. Deep peat (>50cm) is a significant carbon store. All developments, particularly in upland locations, should fully take into account impacts on deep peat and the design of the development will be expected to demonstrate that impacts on deep peat are avoided as far as possible. This is in order to ensure that the release of carbon as a result of construction works is minimised and will help to ensure that the development fully contributes towards the low carbon energy generation objective. It should be noted that both direct and indirect impacts (e.g. through alteration of hydrology) will be expected to be fully assessed and addressed.

### Grid Connections

**3.3.18** In many cases the technical details of the connection of a renewable / low carbon energy proposal to the electricity distribution grid will not be a planning consideration. However, in some cases, parts of the connection infrastructure, such as sub-stations and kiosks may require permission as part of the overall scheme. It is recommended that developers conduct initial discussions with the Distribution Network Operator (DNO) and the planning authority at an early stage in the development of the project in order to identify routes for grid connection infrastructure which avoid areas of high landscape, ecological, cultural, historical or archaeological sensitivity. Preference will be for sub-surface connections where possible.

### Mitigation Measures

**3.3.19** It may be possible to address the impacts of proposals through securing mitigation measures from the developer through the imposition of conditions on the planning consent or through legal agreements or obligations under S106 of the Town and Country Planning



12 Section 7 of the Environment (Wales) Act: Lists of species and habitats which are of principal importance for the purpose of maintaining and enhancing biodiversity.

13 Chapter 5 'Conserving and Improving Natural Heritage and the Coast': Planning Policy Wales Edition 9 (2016) - Welsh Government.

14 Technical Advice Note 5: Nature Conservation and Planning (2009) - Welsh Government.

Act 1990 (as amended). Such mitigation measures would need to be related to the impacts that would be caused by the proposed development and be designed to alleviate such effects.

**Renewable Energy and Mineral Resources**

**3.3.20** Where a proposed renewable / low carbon development would be located on significant coal or other mineral resources (particularly those that might be worked by opencast or quarry methods), the extent and scale of the reserves that would be sterilised or constrained should be identified. The Council will have to assess the relative benefits of allowing a development to proceed against its duty of protecting coal and mineral resources. In some cases however, it may be feasible to consider extracting the coal or other minerals before development of the renewable / low carbon energy proposal.

**Design and Construction**

**3.3.21** Renewable / low carbon energy developments should be designed as far as possible to minimise visual intrusion. Ancillary buildings, storage areas, technical equipment and means of enclosure should be kept to the minimum necessary, be designed to be unobtrusive and be located to be screened from view where possible. In rural areas access tracks should have a rural unmade character as far as possible and electrical cabling should wherever possible be underground or carried on wooden poles.

# 4 Implementation of Policy RE2

**4.0.1** Policy RE2 seeks to encourage the use of renewable or low carbon energy, including the connection to existing supplies, the provision and use of district heating networks and the use of on-site renewable / low carbon technology.

**4.0.2** The Council is generally supportive of small scale proposals such as domestic solar panel installations or proposals to install renewable energy technologies in existing buildings. In some instances, express planning permission may not be required for such installations. Information about the need for planning permission is available from the Planning Portal[(15)]. Detailed advice about the technologies available and their suitability for different situations is available from the Welsh Government[(16)].

**4.0.3** Some types of renewable / low carbon energy installation may not be appropriate for sensitive buildings, sites or areas (e.g. Listed Buildings or Conservation Areas) and in all cases, careful consideration should be given to the design of installations and their effects on the appearance of a building or area. Further advice on design matters is available in the Council's Design SPG.

## 4.1 Thresholds and Requirements

**4.1.1** Policy RE2 requires the submission of an 'Energy Assessment' for any proposal for 100 or more dwellings or where developments result in new floorspace of 1,000 sqm or more.

**4.1.2** Schemes that are shown by the assessment to be viable will be required to be implemented as part of the development. In order to meet the requirements of Policy RE2, an Energy Assessment will need to address the matters set out in **Appendix C**.

**4.1.3** New applications submitted on sites which previously had planning approval or applications for the renewal of a planning consent will be assessed using the renewable / low carbon energy policies contained within the LDP. This may mean that the requirement for an Energy Assessment will need to be met even where there has been no previous requirement, reflecting changes in policy context since the original application.

## 4.2 Division and Phasing of Sites

**4.2.1** The above thresholds for requiring an Energy Assessment will apply to all developments of the sizes indicated or above. Where a site has been subdivided or phased into more than one parcel of land and the total number of units or development floorspace on each parcel falls below the relevant threshold, the site will be treated as one development and an Energy Assessment will be required for the site as a whole.



15 https://www.planningportal.co.uk/wales_en/info/2/do_you_need_permission
16 Generating Your Own Renewable Energy: A Planning Guide.

**4.2.2** For example, if a parcel of land forms part of a larger site but has been subdivided either before or after the grant of planning permission, the submission of an overall Energy Assessment will be needed, and where relevant its findings will need to be incorporated into the overall development.

# 5 Community Benefits

**5.0.1** Welsh Government guidance acknowledges that there may be a need to mitigate the impact of some renewable or low carbon energy developments and recognises the established principle of such measures being made the subject of conditions or legal agreements / obligations required to make the proposal acceptable and allow planning permission to be granted. A clear distinction is however drawn between requirements of this type which are necessary to make a proposal acceptable and voluntary arrangements entered into by developers which secure benefits for host communities but should have no influence on the determination of any planning application.

**5.0.2** Paragraph 12.10.5 of PPW states:

> *'The Welsh Government supports the principle of securing sustainable community benefits for host communities through voluntary arrangements. Such arrangements must not impact on the decision making process and should not be treated as a material consideration unless it meets the tests set out in Circular 13/97'.*

**5.0.3** Paragraph 2.16 of TAN 8 - Planning for Renewable Energy also states:

> *'Experience has shown that there are opportunities to achieve community benefits through major wind farm development. Some benefits can be justified as mitigation of development impacts through the planning process. In addition, developers may offer benefits not directly related to the planning process...Local Planning Authorities, where reasonably practical, should facilitate and encourage such proposals...However, such contributions should not enable permission to be given to a proposal that otherwise would be unacceptable in planning terms'.*

**5.0.4** An annex attached to the TAN indicates a number of examples of where community benefits have successfully operated. The Welsh Government and a number of major energy generating companies have also signed a document entitled 'Declaration for Community Benefits by Onshore Wind Farm Developers and Operators in Wales'. The declaration makes a promise to ensure that communities are fully engaged and that they receive long term positive benefits.

**The Need for a Policy**

**5.0.5** As a consequence of the identification of the two Strategic Search Areas (Areas E & F) within Neath Port Talbot a large number of wind farm developments have been proposed within the County Borough. There has also been considerable interest in other renewable energy developments, including solar farms, biomass, tidal power and hydro power.

**5.0.6** The impacts associated with such developments are considered in great detail via the planning process. It is acknowledged however that in addition to having an impact upon the environment, such developments can also have an impact upon the communities which host and/or are situated close to the developments. Shorter term impacts are also experienced by those communities located on the construction route of larger scale projects. Despite mitigation against environmental impacts being secured through the planning process via the imposition of a combination of conditions and legal agreements, this is not often perceived to be a benefit to the communities affected by the development. The Council has acknowledged this issue and has a proven track record of securing funds for the communities who are most affected by energy generating developments.

**5.0.7** These funds however have been secured on an ad-hoc basis having regard to what has been secured elsewhere. A policy[17] was therefore adopted in 2015 following public consultation to ensure that future funds are negotiated and secured in a consistent manner and the geographical areas of spend identified are reasonable and appropriate to the development. It is also important to ensure that the funds are spent to ensure maximum benefit and outcomes for the community.

**5.0.8** Notwithstanding the above, it should be noted that 'community funds' are not a mandatory requirement of developers and cannot be secured to mitigate any potential harm which could be caused as a consequence of a development. Nevertheless, this policy sets out the Council's expectations in relation to these voluntary contributions and also outlines the approach which will be taken with developers to secure a consistent and transparent approach to the securing of such funds. This approach will be applied to all proposals for renewable energy generating developments whether they are to be determined by the Council, by Welsh Ministers under the Developments of National Significance procedure, or by the Secretary of State under the Nationally Significant Infrastructure Projects procedure.

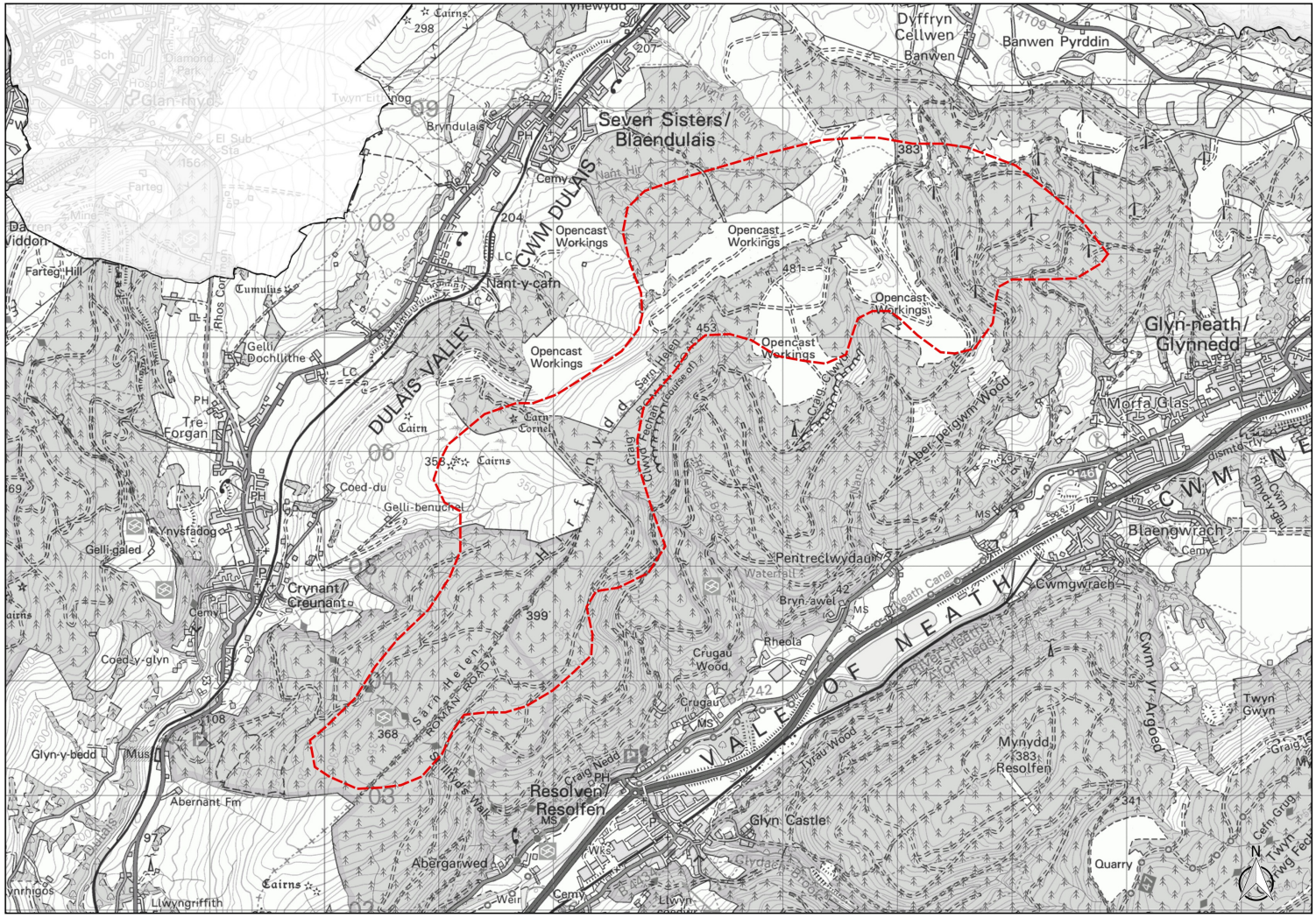
**5.0.9** It is also acknowledged that as subsidies from the Government change, the viability of such schemes will also change. This will be taken into account, but evidence has shown that the costs of the plant have generally reduced in line with the reduction in subsidies, and as such most, if not all, energy generating developments can make some contribution towards a community fund. If this is not the case, then a developer should demonstrate to the Council why they are unable to provide the expected contribution.



17 Community Funds Policy Relating to Renewable Energy Generating Developments (NPTCBC 2015).

# Appendix A: Refined Strategic Search Areas

**Figure A.1 Refined Areas: SSA E**



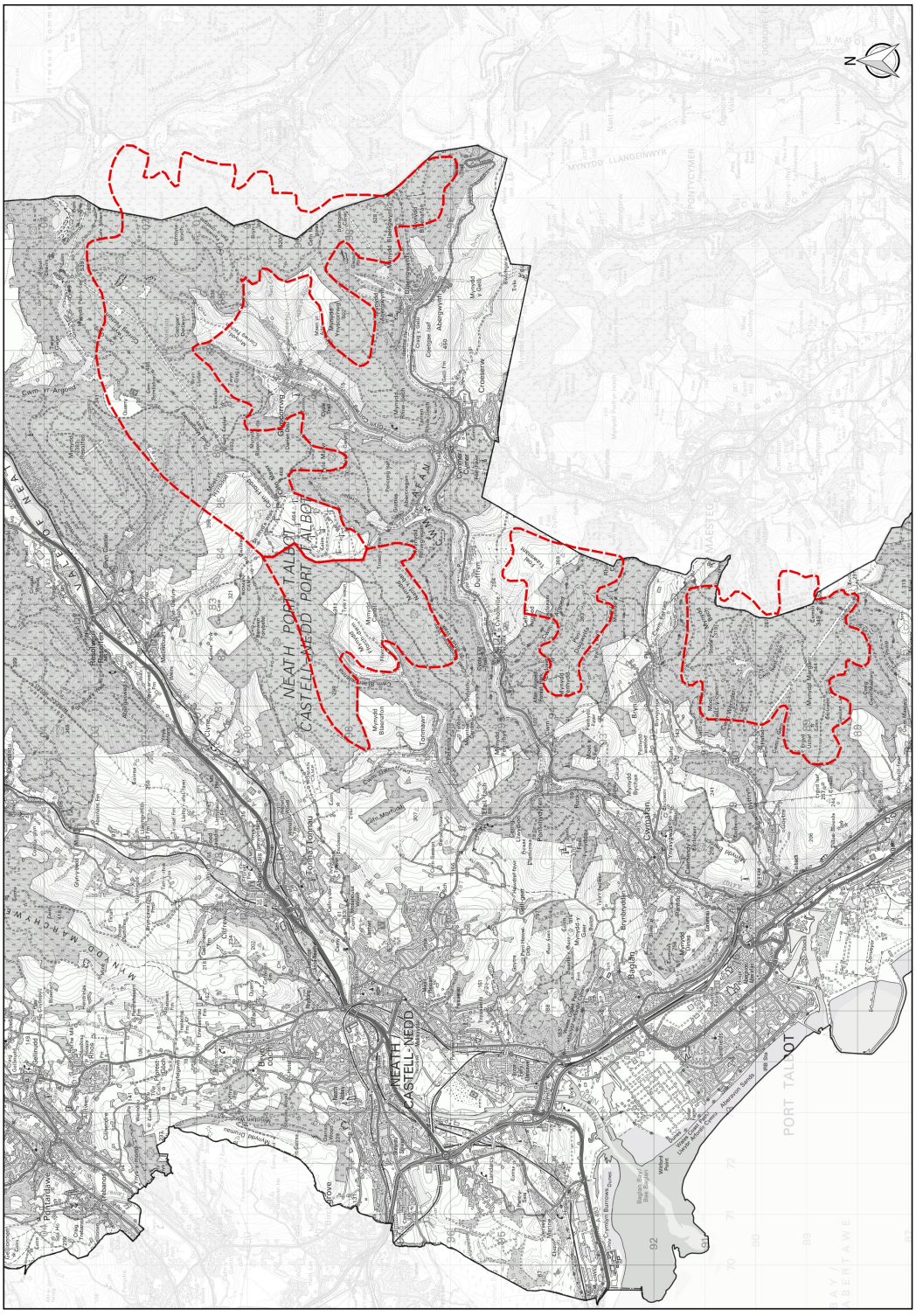



**Figure A.2 Refined Areas: SSA F**

# Appendix B: Renewable / Low Carbon Energy Technologies

**B.1** A brief summary of the principal types of renewable and low carbon energy technologies is given below. More detail is given in 'Practice Guidance - Planning Implications of Renewable and Low Carbon Energy'[(18)].

### Wind

**B.2** Wind energy is harnessed through a rotor connected to an electrical generator, usually mounted on a tower or mast. On-shore turbines range from 5 watt battery charging models up to 2-3 megawatt commercial scale turbines. The number of turbines used per site ranges from the deployment of single turbines up to large groups of turbines (wind farms) capable of generating tens of megawatts.

### Biomass

**B.3** Biomass is material of recent biological origin, derived from plant or animal matter. 'Dry' biomass is commonly combusted either to generate heat or to produce electricity. Other types of biomass can be anaerobically digested to generate 'biogas' or used to produce transport 'biofuel'. Biomass can be used as fuel for heating systems, electricity generation or combined heat and power (CHP) plant. The most common types of biomass include woodfuel from forestry sources, energy crops or wood waste, agricultural residues and the biodegradable fraction of municipal solid waste.

### Anaerobic Digestion

**B.4** Anaerobic Digestion (AD) is a process which uses bacteria to break down plant or animal matter by microbial action in the absence of air, to produce a gas with a high methane content which can be used as a substitute for fossil gas. Sewage sludge, farm slurry, and some elements of municipal solid waste are the main types of organic feedstock, and in addition to gas the process produces a nitrogen-rich liquor (digestate) and residual solid by-products which can be used as fertiliser or soil conditioner. An anaerobic digestion plant normally comprises a digester tank, equipment buildings, a biogas storage tank, a flare stack, and pipework.

### Biofuels

**B.5** Biofuels are biomass-derived liquids that are used as transport fuel. They are usually produced from plant materials blended with mineral fuels. Bioethanol is made from fermenting crops (e.g. sugar cane, wheat or maize), while biodiesel is made from soy and oilseed rape or similar, or by processing oily wastes such as used cooking oil and animal fats.



18 Practice Guidance - Planning Implications of Renewable and Low Carbon Energy (Welsh Government 2011): http://gov.wales/topics/planning/policy/guidanceandleaflets/planningimplications/?lang=en

### Hydropower

**B.6** Hydropower uses flowing water to generate electricity using a turbine or Archimedes screws. The energy generated is proportional to the volume of water and vertical drop or head. Schemes can be small scale 'run of river' systems with no water storage necessary, or may be developed in conjunction with water storage / reservoirs. Key elements are a water source with sufficient flow and head, an inlet pipeline (penstock) to direct water, turbine generating equipment and housing, a tailrace to return water to the watercourse, and electricity transmission equipment. In some cases appropriate fish ladders or other mechanisms may be required to avoid harm to wildlife.

### Solar

**B.7** Solar energy generation involves either the provision of hot water via solar thermal systems or electricity via solar photovoltaic (PV) systems. Solar thermal systems use solar collectors, usually placed on the roof of a building, to heat water, while solar PV systems use solar cells (normally grouped together into roof mounted panels) to generate electricity. Other forms of solar PV technology include solar tiles, which can be integrated into new buildings or refurbishments alongside conventional roofing tiles or slates. Commercial scale solar PV schemes consist of freestanding arrays of solar panels mounted on fixed frames or systems that track the sun and which feed their electricity into the national grid, either roof mounted on large flat roofs, or on the ground.

### Heat Pumps

**B.8** Heat pump systems capture thermal energy from air, water or the ground. The heat energy is absorbed into a fluid and passed through a compressor to raise its temperature. They can be used for space heating, water heating, heat recovery, space cooling and dehumidification. Although all the heat delivered by heat pumps comes from renewable energy, a supply of electricity is required to pump the system, which may or may not come from renewable sources.

### Geothermal

**B.9** Geothermal energy consists of heat within the rocks below the earth's surface resulting from the radioactive decay of minerals deep within the earth. It can be used as a direct source of renewable heat, or to generate electricity. Use of geothermal energy generally involves the drilling of wells or boreholes several kilometres deep. Carbon dioxide emissions from geothermal plant are usually very low as fossil fuels are not used.

### Fuel Cells

**B.10** Fuel cells are electrochemical energy conversion devices that produce electricity from the energy contained in a fuel. The normal fuel cell process uses oxygen (usually obtained from the air) to react with hydrogen to produce electricity, heat and water, with no other emissions. Overall emissions will depend on the process used to produce the hydrogen. Fuel cells are used in a wide range of applications including power storage, transport and to drive Combined Heat and Power plants.

### Combined Heat and Power

**B.11** Combined Heat and Power (CHP) plants produce both electricity and useful heat or heat, power and chilling (known as Combined Cooling, Heat and Power (CCHP) or Trigeneration). This can be a more efficient use of fuel than using thermal processes to produce electricity only, but depends on the balance of demand for power and heat being appropriate and the plant being located close to the source of heat demand. CHP is often used in industry and also in district heating schemes. Whether a CHP scheme is a renewable or a low carbon energy technology will depend on the fuel source.

### District Heating

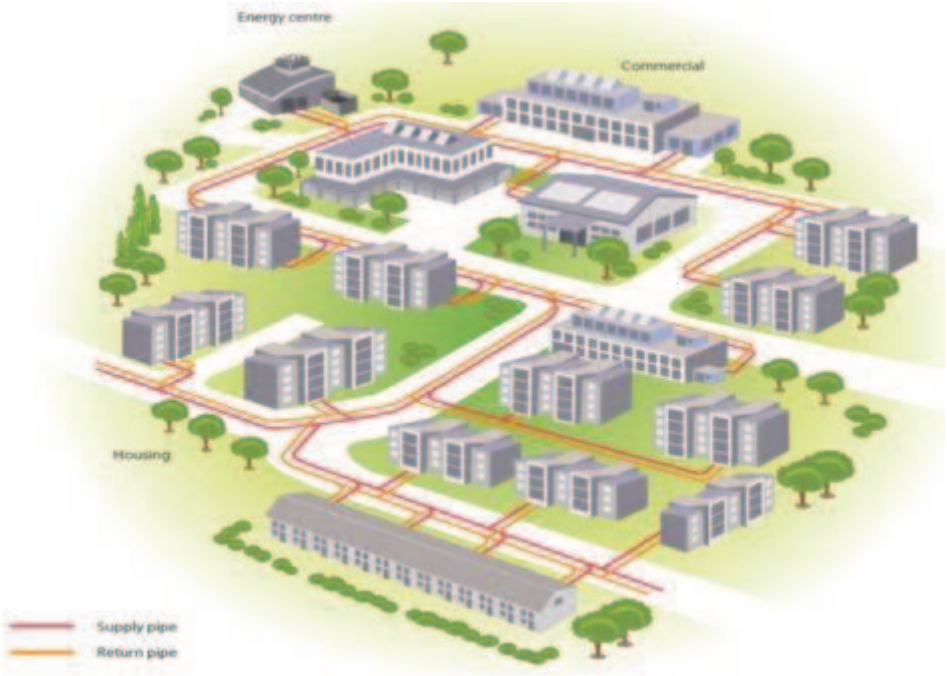
**B.12** District heating describes the provision of heating and hot water to multiple buildings from a central heat source through a network of pipes. This is normally a more efficient way of generating and delivering heat and/or electricity or cooling than multiple individual systems. In particular, it has the following potential benefits:

- It allows larger combustion plant to be used which tend to be more efficient than smaller equipment, potentially reducing the cost and increasing the carbon efficiency of heating;
- It supports the use of Combined Heat and Power technology by providing the means to distribute the heat produced for beneficial use; and
- In areas where air quality is an issue, it can allow the combustion process to be moved to a different location thereby avoiding the avoiding the introduction of additional pollutants into the local atmosphere.

**B.13** Normally, systems include an energy centre, a network of insulated pipes and a series of heat exchangers with heat meters in buildings being supplied with heat.

**B.14** The scale of systems can range from a single boiler supplying a group of dwellings to large scale schemes supplying a whole district or community. A wide range of energy sources can be used, which can help to future-proof the system to technological advances.

**Picture B.1 District Heating System**




## Waste Heat

**B.15** Waste heat refers to heat produced by machines, electrical equipment and industrial processes etc. which is unused and regarded as a waste by-product. When an end-use can then be found for this heat, it can be considered a low carbon technology as the source fuel is then being used more efficiently and will offset the need for additional heating fuel by the new end-user. Larger sources of waste heat can also be used to supply district heating systems serving nearby homes and businesses.

## Energy from Waste

**B.16** Energy can be recovered from waste by either combustion or thermal processing, and can take the form or electricity or heat. Schemes are commonly associated with municipal recycling facilities.

# Appendix C: Energy Assessment Requirements

**C.1** Energy Assessments, as required by Policy RE2 for larger scale developments, will be expected to investigate fully the feasibility of incorporating any type of renewable or low carbon energy into new development schemes. An assessment will be expected to include the following information:

1. The likely energy demand of the development;

2. The potential for renewable / low carbon energy generation on the site;

3. The availability and potential to connect to existing sources of renewable / low carbon energy;

4. The potential for incorporating or being part of a District Heating System; and

5. The potential to share renewable / low carbon energy generated on the site.

**C.2** These requirements are considered in more detail below.

## [1] Energy Demand Assessment

**C.3** Decisions about which technologies are the most suitable to be used in any new development should be based on information about the predicted energy demand of that development. This could include information on how energy is used at different times of the day and year, how this breaks down between different uses and whether the energy use is discretionary (i.e. variable depending on specific changing requirements) or non-discretionary (i.e. more constant and predictable demand such as lighting, heating, hot water etc.). An Energy Demand Assessment should be used to analyse and understand how this breaks down.

**C.4** Understanding the predicted energy demand allows decisions to be made about which type(s) of renewable / low carbon technology are most appropriate. It would also allow the ability of existing electricity or gas networks to supply a new development to be assessed (which might require a developer to put more investment into reducing energy demand or increasing energy efficiency etc.).

**C.5** An understanding of how demand varies across the day and the year can then be used to inform decisions about the best and most suitable renewable energy technologies to meet the demand profile.

## [2] Renewable / Low Carbon Energy Generation Potential On-Site

**C.6** The Energy Assessment will need to consider the feasibility of making provision for renewable / low carbon energy generation within the development site. All relevant types of energy generation should be addressed (see **Appendix B**). Detailed information about renewable / low carbon energy technologies is given in 'Practice Guidance - Planning Implications of Renewable and Low Carbon Energy'[19].

**C.7** In order to fully assess the on-site potential, the factors set out in the following sections should be fully assessed and incorporated into the appraisal.

### Energy Supply Issues

**C.8** Some renewable / low carbon technologies are 'intermittent' while others are capable of constant generation. Intermittent technologies such as wind or solar power cannot supply electricity continuously but will vary depending on the availability of their energy source. Baseload technologies including biomass, gas CHP, heat pumps and fuel cells can provide a continuous supply. These characteristics should be evaluated and the most appropriate technology/ies to serve the development proposed should be identified accordingly. Further information on these matters is available from Planning Implications of Renewable and Low Carbon Energy[20].

**C.9** More specific issues that should be considered include the predictability and timing of maximum and minimum energy generation. For example, PV technology will normally generate maximum amounts of power in the middle of the day during the summer when demand is low. The suitability of the technology for a particular development will therefore depend on the area available for the technology and winter/night time back-up may be required, or capacity to absorb excess generation.

**C.10** There may be opportunities however to combine technologies based on their supply characteristics. For example, wind turbines will generate more electricity in the winter and can also generate at night. This can complement PV systems which generate more electricity in the summer and only during the day.

### Development Scale

**C.11** Larger scale developments will generally have a larger demand for energy and can therefore select renewable / low carbon technologies that can operate at a larger scale. For example, larger employment development can have more opportunity to integrate energy generation with any industrial processes within the building. Developments taking larger areas of land are also generally able to create more space for energy generation schemes which allows a greater choice of technologies.

**C.12** Larger residential and mixed use developments can also offer more opportunities for larger scale technology or possibly centralised energy generation options. These can have cost advantages over smaller scale schemes and also offer the opportunity to consider

19 Practice Guidance - Planning Implications of Renewable and Low Carbon Energy (Welsh Government 2011): http://gov.wales/topics/planning/policy/guidanceandleaflets/planningimplications/?lang=en

20 Practice Guidance: Planning Implications of Renewable and Low Carbon Energy (Welsh Government 2011).

links to other surrounding developments to achieve greater economies of scale. In this respect, the potential for community involvement to increase the market size of a development is potentially important.

**Site Topography and Orientation**

**C.13** The topographical nature of a site will have significant implications for its suitability for exploiting naturally occurring renewable / low carbon energy resources. In particular, the exposure of a site to prevailing winds will significantly influence its potential for benefiting from wind energy generation. Similarly, its orientation and the potential to deliver a site layout incorporating south facing buildings or structures will significantly influence the potential for solar power generation.

**Proposed Site Layout**

**C.14** Proposed site layouts and the siting of buildings, structures and spaces should be assessed for their suitability for the installation of renewable / low carbon energy technologies, in particular solar panels. If the planned layout is not suitable, the possibility of amendments should be investigated to make it more suitable and maximise the benefits available.

**Suitability of the Locality**

**C.15** Nearby existing uses may be sensitive to the installation of renewable / low carbon technologies and there may be potential impacts on the amenity of nearby properties, all of which should be carefully assessed. There may be avoidance or mitigation measures that should be implemented to overcome such issues.

**Viability and Cost Effectiveness**

**C.16** The aim of the policy is to incorporate renewable / low carbon energy into developments for environmental reasons rather than to provide cost savings for the occupiers, although this will often also be achieved. If there is no immediate financial benefit from renewable / low carbon energy installations or it is deemed not 'cost effective', this would not be a reason in itself for provision under the policy to be waived . However, if the cost of installing renewable / low carbon energy technologies is such that the financial viability of the development is called into question, this aspect could be taken into consideration in final decisions about the technologies required. Where appropriate, information about development viability would therefore be relevant in some circumstances.

## [3] Potential to Connect to Existing Renewable / Low Carbon Energy Sources

**C.17** The Energy Assessment should examine any relevant existing local renewable / low carbon energy schemes and where appropriate fully assess the feasibility of connecting the proposed development to any suitable sources of energy. Energy from any of the energy technologies set out in **Appendix B** may be available, and suitable sources that could meet or partially meet the energy demands of the proposed development should be fully investigated and included in the Energy Assessment.

## [4] Potential for District Heating Systems

**C.18** District heating systems involve the provision of heating to buildings or dwellings etc. through the use of a pipe network that distributes heat from the location where it is generated to a location where it can be beneficially used (see **Appendix B** Para.B12).

**C.19** Although there may be high investment costs associated with a district energy scheme, the addition of a commercial or industrial load, or connection to users beyond the development or provision on a mixed use development could help to overcome this issue. These aspects should be further investigated in cases where district heating has potential. As indicated in Section 2, studies have been undertaken into the potential for district heating systems within Neath Port Talbot, and these should be referred to for further information (refer to Para 2.2.3).

## [5] Potential to Share On-Site Renewable / Low Carbon Energy

**C.20** Similarly, renewable / low carbon energy generated on a site that would be surplus to on-site requirements or not suitable for use within the proposed development could be made available to use by other nearby developments including but not limited to, residential areas etc. Where appropriate, the potential for this type of energy sharing should be fully investigated and implemented.

Neath Port Talbot
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