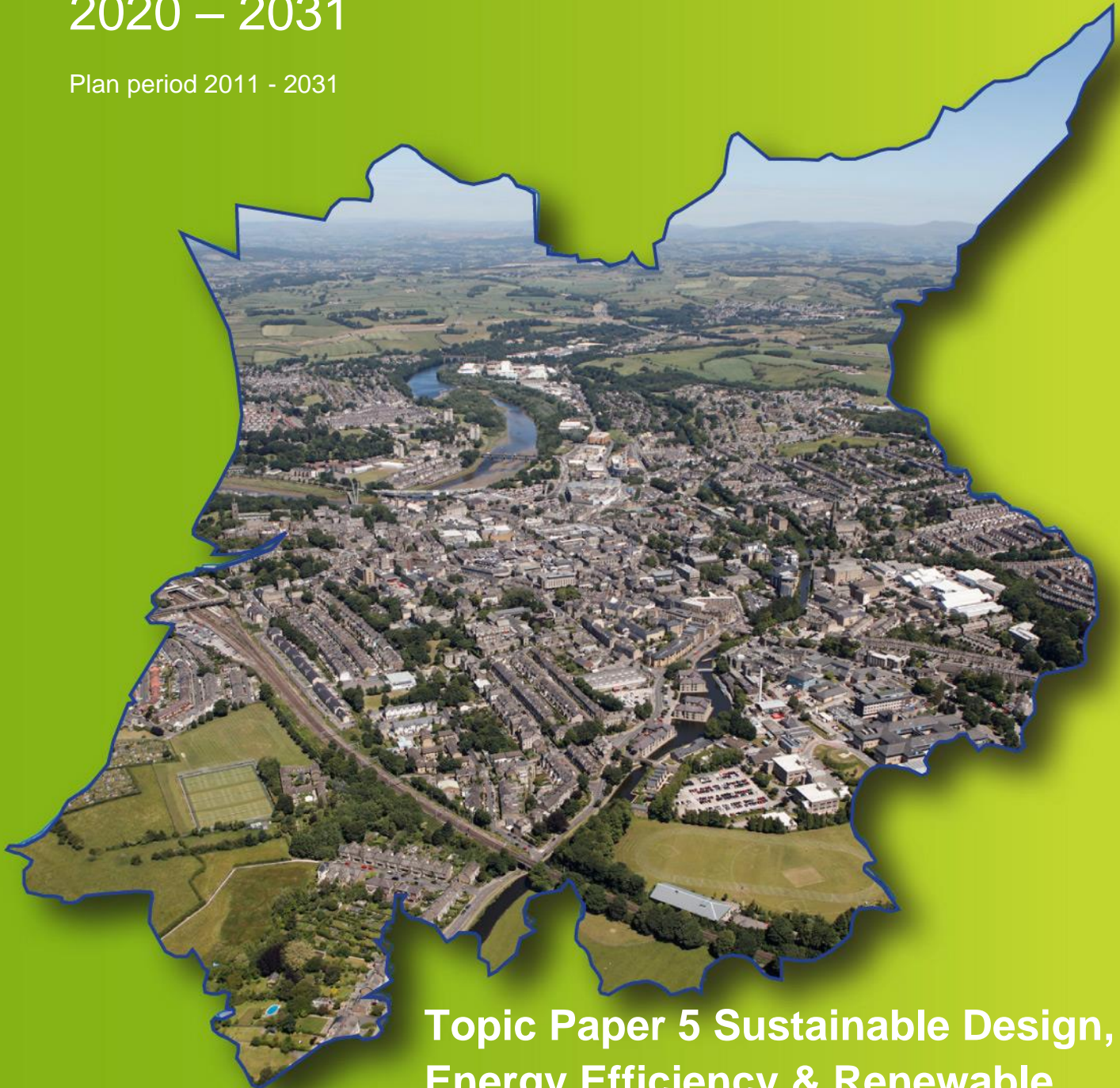


A Local Plan for

Lancaster District

2020 – 2031

Plan period 2011 - 2031



**Topic Paper 5 Sustainable Design,
Energy Efficiency & Renewable
Energy Consideration of Alternative
Policy Approaches**
[May 2021]

Contents

1.0	Introduction	2
2.0	Policies relating to Sustainable Design, Energy Efficiency and Renewable Energy	5
	POLICY DM2: SPACE AND ACCESSIBILITY HOUSING STANDARDS.....	6
	POLICY DM29: KEY DESIGN PRINCIPLES.....	10
	POLICY DM30: SUSTAINABLE DESIGN	19
	POLICY DM53: RENEWABLE AND LOW CARBON ENERGY GENERATION	37
3.0	Appendix (SPD content)	52

1.0 Introduction

This document sets out what alternative options have been considered in the Climate Emergency Local Plan Review (CELPR) and has been prepared specifically in relation to the topics of sustainable design, energy efficiency and renewable energy.

lehighlighted as possibilities for amendments as part of the CELPR. The policies from this list that related to sustainable design, energy efficiency and renewable energy are as follows:

POLICY NUMBER	POLICY TITLE	POLICY DESCRIPTION	IMPLICATIONS ON CLIMATE CHANGE
DM2	Housing Standards	The policy looks at adaptability and in-door space standards and seeks a proportion of new development to achieve these standards.	This policy could be considered in the context of the Local Plan Review in the context of extending the scope of the standards covered to include energy efficiency standards, subject to the outcomes of the Government's 'Future Homes Standard'
DM29	Key Design Principles	The policy sets out a series of key design principles which new development proposals (of any scale and in any location) should consider.	The key design principles have a wide application across all development in the district, regardless of scale, location or nature. This means that amendments to design policy that reflect the Climate Change agenda are considered to be an important consideration through the Local Plan Review process.
DM30	Sustainable Design	The policy seeks to support the role of sustainable design and construction methods within new development.	This policy specifically relates to the sustainable design and construction of new development. As with the previous iteration of the Development Management DPD, the policy is more permissive on this matter due to wider viability matters and the general direction of nation policy. However, the policy could clearly be tightened in light of the Climate Emergency declaration.
DM53	Renewable and Low Carbon Energy Generation	The policy seeks to identify and support opportunities for renewable sources of energy generation within the district in the context of national planning policy.	Through the Local Plan Review, there will be an opportunity to offer wider support towards a range of sources of renewable energy (at various scale). The policy could be reviewed in relation to the area of search for on-shore wind.

Scoping consultation outcomes

During the consultation, sustainable development, energy efficiency and renewable policies were frequently mentioned by the respondents. Issues raised related to retrofitting, low carbon construction and materials, energy efficiency, microrenewables, onshore wind, low carbon heating, zero carbon homes, green infrastructure, water management, and electric vehicle charge points.

The enhancement of policies to address sustainable development, energy efficiency and renewable

energy was supported by the majority of respondents, including members of the public, local action groups, Lancaster University, Highways England, Natural England, Arnside and Silverdale AONB, and parish and town councils.

Responses received on behalf of developers regarding higher energy efficiency standards, and requirements for microrenewables and electric vehicle charge points were, however, less positive, with the majority of the opinion that the current policy framework is appropriate, compliant with national policy, and no substantial change to the Council's approach is necessary. Concern has been raised that a mandatory requirement for these actions would be unsound. Though some acknowledged they would support the strengthening of policies if deemed viable with appropriate evidence, and others discussed their already existing role in providing electric vehicle charging in their developments.

A range of suggestions have been made about how the Local Plan can address the issues raised. It is important to note that when considering these, policy and legislation must be considered and therefore not all ideas and proposals will be implementable:

- Greater encouragement and support for retrofitting properties.
- Greater encouragement for the usage of modern methods of construction and low carbon materials, such as timber. Additionally, look to setting minimum requirements for the use of recycled building materials, such as recovered aggregate.
- Set energy efficiency standards for new development beyond national policy, such as the inclusion of Passivhaus standards.
- Provide greater support for microrenewables, possibly requiring a mandatory inclusion on new developments.
- Hold developers accountable in maintaining infrastructure on developments, such as SuDS.
- Provide full and robust support to renewable projects, strengthen policy support in acceptable locations. Identify and protect space for solar farms. With a consideration for hydropower and tidal power also.
- The Council should support and prioritise developments that seek to deliver exemplary sustainability objectives, energy efficiency, and sustainable design, construction and operation.
- Reduce the 350m urban buffer zone for wind power. Generally strengthen support for onshore wind.
- Policy DM53 should include district heating within the policy, not just the supporting text. This policy should also cross reference to the environmental policies to ensure protection of

designated sites and compliance with habitat regulations.

- Strengthen the wording in Policy DM30 to include 'reduce or eliminate emissions' and 'by installing microgeneration'.
- Must ensure developers provide affordable homes.
- Tighten all policies that currently favour developer's outdated building standards, the aforementioned approaches should not just be an add on. Change 'encouraging' 'advising' 'supporting' to 'expecting' 'requiring' 'shall'.
- Industrial buildings must be recognised as a site to address energy efficiency and water management due to their relatively poor performance. They are also deemed to be a suitable site for solar PV.
- Create a requirement for new developments to include productive land, such as
- gardens, allotments & orchards.
- Consider measuring the emissions and track estimated performance of developments when planning permission is considered. Ensure applicants provide a statement and calculation of carbon emissions justifying climate change credentials of their proposals.

2.0 Policies relating to Sustainable Design, Energy Efficiency and Renewable Energy

The existing policies in the adopted Local Plan that relate to sustainable design, energy efficiency and renewable energy, and were included within the list of 32 policies proposed for amendment during the scoping consultation that ran between September and November 2020, are as follows:

- **DM2: Housing Standards**
- **DM29: Key Design Principles**
- **DM30: Sustainable Design**
- **DM53: Renewable and Low Carbon Energy Generation**

These policies are set out below, with their associated supporting text. The proposed new policy changes are illustrated as strikethrough text and new additional text.

A discussion of the alternative policies and policy detail considered is given for each, including information on the SA/SEA/HRA work that is being undertaken as well as how the policies ensure better outcomes in relation to climate change.

How do the policies in this topic paper ensure better outcomes in relation to Climate Change?

In January 2019, Lancaster City Council declared a climate emergency. This recognised the importance of the District in contributing to climate mitigation to help global efforts to stem greenhouse gas emissions as well as recognising the potential impact that a changing climate could have on the District and a call for a concentrated effort to develop in ways which are designed to help adapt to climate change and build a climate resilient and ecologically supported District. This section of the local plan review covers Sustainable Design, Energy Efficiency and Renewable Energy. The policies reviewed in this section additionally support many of the recommendations of the People's Jury on Climate Change especially those related to supporting local growing of food, many of those suggested for new housing (esp. renewable energy, flooding and sustainable materials considerations), supporting active travel, supporting the growth of renewable energy, and encouraging EV network development. In order to support the previous, the following policies have been assessed and where applicable strengthened, added to and in some parts significantly modified to ensure that the District develops with climate change considered from design phase to the legacy that is left for future generations. It is considered that the amendments to these policies will ensure that the District will not only support its own climate

commitments it will also play a key role in delivering to national climate targets while ensuring the District is a beautiful, healthy place to live.

Proposed Planning Policies

Policy DM2: Housing Standards

POLICY DM2: SPACE AND ACCESSIBILITY HOUSING STANDARDS

The Council in accordance with national policy and practice guidance has considered the overall need and viability across the district and has chosen to implement optional housing standards on new residential development. Proposals for residential development will be supported where:

- I. All new dwellings (market and affordable) meet the Nationally Described Space Standard (or any future successor)
- II. At least 20% of new affordable housing and market housing on schemes of more than ten dwellings will be expected to meet Building Regulations Requirement M4(2) Category (accessible and adaptable dwellings).

Applicants will be expected to design schemes in accordance with the nationally described space standards, including sufficient built-in storage. Applicants must submit appropriate supporting documentation alongside the planning application to ensure that compliance with the standards can be verified, including completion of an internal space compliance statement.

Where it can be demonstrably argued through the provision of evidence by an applicant and agreed with the Local Planning Authority that building homes to Nationally Described Space Standards will result in schemes being unviable, consideration will be given to how viability constraints may be overcome, which may result in flexibility being given to the requirements of the policy.

A flexible approach will be taken to the delivery of accessible and adaptable dwellings under Building Regulation M4(2) where exceptional circumstances are demonstrated, such circumstances could include site topography or vulnerability to flooding.

Supporting text:

4.16 In 2015 the Government rationalised housing and energy standards¹, by reducing the number of standards applied within the planning system, leaving many areas such as energy performance to

¹ National Housing Standards (DCLG 2015) <https://www.gov.uk/government/publications/technical-housingstandards-nationally-described-space-standard>

Building Regulations rather than planning. The intention of this has been to reduce burdens on developers and to stimulate housing growth. There are now four areas where local planning authorities can opt to implement standards that exceed the minimum Building Regulations, these are water efficiency, access, renewable energy provision and adaptable homes including wheelchair accessibility homes and Nationally Described Space Standards. Where these standards are implemented the Council must demonstrate that a need exists, and that development would be viable.

~~4.17 The district is not currently located in an area of water stress and as such optional water efficiency standards will not be implemented locally. The Council will monitor the situation with regard to water stress, to ensure that local policy remains up to date.~~

4.18 Over the lifetime of the Local Plan the population of the District will see a significant increase in older people, with an expected increase of 30% of those aged 65 and over, and 59% of those aged 80 plus. The household survey of 2017 carried out as part of the Strategic Housing Market Assessment identifies that the majority of older people, where possible, want to remain in their own homes. At times this may require adaptations to homes to ensure they remain suitable for people across their lifetimes including where there is a change in health or mobility.

~~4.19 The Council understands from the Spring Statement 2019 that a future Homes Standard will be brought in by the Government in the coming years (by 2025), to increase energy efficiency standards beyond that currently required under mandatory Building Regulations Part (L) by removing traditional fossil fuel heating systems in new dwellings. Until such a time, the Council will encourage proposals which seek to go beyond required standards (i.e. in meeting the energy efficiency savings equivalent to the now abolished Code Level 4 of the Code for Sustainable Homes).~~

4.20 Building Regulation M4(2) is an optional Building Regulation which exceeds the mandatory standards M4(1), the Regulation enables adaptations to the home, for example, the provision of a stair lift or shower room and for level access from the driveway to the home. Implementing these standards means that people can adapt their home to meet their needs without having to move.

4.21 In recognising the ageing population of the district and the needs of all people regardless of age who may have a mobility impairment, the Council considers it important to implement the optional building regulation M4(2) with evidence in the Strategic Housing Market Assessment (Part II) identifying a figure of 20% to be appropriate and viable taking account of current and future population needs. This figure applies for both market and affordable housing across any proposed scheme. In the interests

of supporting the delivery of smaller schemes and the recognition that costs are often harder to absorb, the requirement will only apply to schemes of more than ten dwellings.

4.22 In exceptional circumstances it may not be appropriate to implement the housing standards on a proposed scheme. However, this will be agreed in discussion with the Council at the time of an application.

4.23 The Strategic Housing Market Assessment (Part II) has identified a low level of household need for wheelchair accessible or adaptable properties. There are significant costs involved in building homes which meet wheelchair adaptable (able to be adapted for a wheelchair user) or accessible (built ready for wheelchair use) standards. In 2013 for a three bedroom home costs were projected on average to be in the region of £10,000 for a wheelchair adaptable home and £25,000 for a wheelchair accessible home. In light of these costs, the low level of need and the limited viability in building homes to such a standard, the Council offers strong support to proposals which are built to these standards but the Council has not made a specific requirement for them to form part of future market residential schemes.

4.24 Evidence has shown that developers in general are not building to current Nationally Described Space Standards. Smaller new homes such as those with 1, 2 and some 3 bedrooms fall considerably short of the space standards (including storage space). As such, the Council believes there to be a need for the Nationally Described Space Standard to be implemented locally as space inside the home can be an important determinant on quality of life. Therefore all new residential dwellings will be required to be built to the Nationally Described Space Standard (or any future successor). There may be instances where it would not be appropriate to build to such standards, this may for example include specific needs. Each case will therefore be considered on its own merits.

Policy DM2: What alternative approaches were considered?

Policy DM2 and the accompanying text are situated within the Housing Chapter of the DMDPD which seeks to ensure new development meets the identified housing need. The policy is specific in terms of its remit, seeking to ensure that new homes provide sufficient living space for basic daily activities and accessibility to meet a growing need to accommodate older people. It is considered that the policy should retain its specific clearly defined remit.

Whilst energy efficiency and water efficiency do relate to the standards to which houses are built, the

inclusion of additional requirements is better suited to the policies in Chapter 9: The Design of Development and specifically to policy DM30: Sustainable Design. It is therefore not proposed to amend policy DM2 in this regard.

An alternative approach considered for this policy was the inclusion of energy and water efficiency standards. However it was considered that adding these matters would create a single policy covering multiple issues which would reduce its clarity.

How does this policy ensure better outcomes in relation to Climate Change?

This adopted ‘sound’ Local Plan policy remains unchanged, other than the title. The supporting text was changed to reflect that the District does now need to be aware of water stress and water efficiency will be considered going forward. This is extensively covered now in policy DM30.

SA/SEA/HRA considerations (completed by consultants AECOM):

The policy has not been changed and therefore there are no implications for the SA. Alternatives relating to the adoption of optional standards on water and energy efficiency are covered through policies DM29: Key Design Principles, DM30: Sustainable Design and DM53: Renewable and Low Carbon Energy Generation.

Therefore, no appraisal or policy recommendations are considered necessary for Policy DM2.

HRA Screening

Policy Number	Policy Title and Description	Implications on Climate Change	Suggested Changes by LCC	Screening Outcome	City Council comments
Policy DM2	Housing Standards The policy looks at adaptability and in-door space standards and seeks a proportion of new development to achieve	This adopted ‘sound’ Local Plan policy remains unchanged. The supporting text was changed to reflect that the District does now need to be aware of	An alternative approach considered for this policy was the inclusion of energy and water efficiency standards, however it was considered that adding these matters	No Likely Significant Effects. Screened out. This policy aims to ensure that the houses built meet standards (National Space Standards and Building	Comments noted.

	these standards.	water stress and water efficiency will be considered going forward. This is extensively covered now in policy DM30.	would create a single policy covering multiple issues which would reduce its clarity.	Regulation M4 (2)).The addition of the suggested changes to this policy will not affect European sites.	
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Policy DM29 Key Design Principles

POLICY DM29: KEY DESIGN PRINCIPLES

General Principles

New development should be as sustainable as possible and make a positive contribution to the surrounding landscape and / or townscape. The Council will expect development to:

- I. Contribute positively to the identity and character of the area through good design, having regard to local distinctiveness, appropriate siting, layout, palate of materials, separation distances, orientation and scale;
- II. Ensure opportunities are taken to maximise solar gain and solar electric/thermal energy generation through the orientation and design of buildings for the purpose of energy efficiency and energy generation;
- III. Ensure there is no significant detrimental impact to amenity in relation to overshadowing, visual amenity, privacy, overlooking, massing and pollution;
- IV. Ensure that safety and security are fully considered through the design process;
- V. Promote diversity and choice through the delivery of a balanced mix of compatible buildings and uses; **and**
- VI. Create buildings and spaces that are adaptable to changing social, environmental, climate, technological and economic conditions; **and**;
- VII. Meet the requirements of Policy DM30 'Sustainable Design and Construction', ensuring the developments contribute to both mitigating and adapting to climate change, and are resilient to the ongoing and predicted impacts of climate change.

Accessibility and Highway Safety

- VIII. Be accessible to all sectors of the community, including people with disabilities;
- IX. Promote and enhance access and permeability by creating places that connect with each other and existing services, and are easy to move through;
- X. Incorporate suitable and safe access to the existing highway network and road layout design, in line with the latest standards;
- XI. Ensure that highway safety and efficiency is maintained or improved, **and that modal shift and active travel is enhanced**; and
- XII. **Demonstrate how the development will maximise opportunities for accessible travel**, cycling and walking linkages through and to/from a site to promote sustainable **healthy active** travel.

Green and Blue Infrastructure and the Natural Environment

- XIII. Incorporate green and blue infrastructure, as an integral part of the development to maximise the functionalities, benefits and values that green and blue infrastructure can provide and enhance with regards to climate change, recreation, ecology, landscape, active travel, the historic environment, and water management.
- XIV. Deliver net gains in green and blue infrastructure, and retaining and enhancing, ~~where possible~~, appropriate amounts of garden / outdoor space for occupiers of both proposed and neighbouring uses, as well as providing opportunities for food growing space and the incorporation of space for onsite composting; and
- XV. Provide sufficient landscaping areas / buffer zones and appropriate levels of open space provision to mitigate development impacts on adjoining sensitive uses and the open countryside.

Other Environmental Considerations

- XVI. Minimise impacts on air quality (including odour), noise and light pollution;
- XVII. Locate new development sensitive to pollution in locations where existing sources of noise, light or air pollution can be satisfactorily mitigated;
- XVIII. Improve existing ground conditions and protect existing soil quality through addressing and remediating contaminated land and land instability issues where they exist;
- XIX. Enhance opportunities for protected species such as bats and swifts through the inclusion of appropriate roosting and nesting habitats;
- XX. Incorporate sustainable surface water drainage through appropriate management techniques maximising, ~~where possible~~, their opportunity to deliver amenity and biodiversity enhancements. Consideration should also be given to the direction of Policy DM359 in relation to water efficiency matters;
- XXI. Incorporate electric vehicle charging points in line with the guidance contained within Policy DM31 and the forthcoming Supplementary Planning Document on this matter; and
- XXII. Incorporate appropriate waste and recycling facilities with consideration given to the content of the Planning Advisory Note on this subject.

Where major development proposals are likely, due to their size, location and scale, to have an adverse impact on the local built environment, the Council will encourage applicants to make use of Design Panels to assess such impacts at the pre-application stage. The views and recommendations of Design Panels will be given due consideration in the decision making process.

Gateway Locations

New development located at the entrances / gateways to major settlements (Morecambe, Lancaster and Carnforth) must be of a high standard of design and contribute towards creating a positive statement when entering these settlements. This approach is of particular importance on the southern and northern approaches to Lancaster via the A6; the eastern approaches to Lancaster via the A683 (Caton Road & Parliament Street); and the northern approach to Carnforth via the A6).

Supporting text:

Ensuring Privacy

9.3 New dwellings should be as private and free from overlooking and overshadowing as possible. To achieve this, development proposals should give consideration to the following principles:

- There should normally be at least 21 metres between dwellings where windows of habitable rooms face each other and 12 metres where a habitable room faces onto a side wall with no such window;
- For every half-metre change in levels between properties, a further 1 metre separation should be provided;
- The main windows of habitable rooms should not be overshadowed by boundary walls, fences or two-storey gable walls; and
- There should be an avoidance of excessively high screening.

9.4 The highlighting of minimum distances does not mean that they will always be acceptable. There may be instances where these minimum distances need to be increased or reduced depending on circumstances, for example site topography or density considerations.

Garden Space

9.5 The Council recognises the importance that private **and communal** garden space can provide, both to the health and well-being of residents but also the benefits that it can provide to the natural environment, particularly in urban locations. The following levels of provision will be **encouraged expected**:

- With the exception of flats, new houses should look to ensure that at least 50sqm of usable private garden space is provided, which is not directly overlooked by neighbouring properties;
- Rear gardens should look to achieve at least 10 metres in depth, unless there are overriding design reasons to justify a reduced depth. This is provided that the garden area still provides a minimum 50sqm of useable, private amenity space (which must be proportionate to the size of dwelling – for example 50sqm for a two-bedroom house and an extra 10sqm for each additional bedroom) and providing neighbouring private amenity open space will not be overlooked;
- Small north facing gardens should normally be avoided;
- Flat developments should provide a reasonable amount of communal amenity space per unit of accommodation. The actual provision required will depend upon the site and building characteristics;

- Provide opportunities for the growing of food for personal consumption;
- Include edible plants and trees within the landscaping.

Accessibility

9.6 The Council will ensure that new development is proposed in locations that are sustainable, accessible and well-connected to existing services. Any proposed development should be accessible to adequate bus, cycling, walking and adaptive mobility links to benefit non-car users. Active travel routes (cycling, walking, adaptive mobility) should also be separated from streets and roads by verges and should be linked to existing networks and plan for future linkages. ~~Developments should have access to a wide range of sustainable transport methods without being limited to the use of private cars to access the site (see Policy DM60).~~

9.7 Proposals for new development should also incorporate safe and appropriate access arrangements that are not detrimental to highway safety and satisfy the local highway authority. Wherever possible, active travel routes connecting to schools should be separated from roads to support safe active travel to schools. Main active travel routes should be of sufficient width to accommodate multiple modes of travel (cycling, walking, adaptive mobility) and should be unobstructed (such as by planters, streetlamps, trees, etc.).

9.8 The Council will seek to ensure that all new developments ~~is-are~~ fully accessible to all members of the community and therefore compliant with the most relevant and up-to-date legislation. Routes should include measures to ensure that they provide equitable access to the site for all users. This should include the use of tactile pavement and dropped kerbs at junctions and key crossing points. This is particularly important for public buildings and development that would generate significant footfall.

The Natural and Built Environment

9.9 It is important that new development protects and enhances the natural and built environment. New development can make a positive contribution to the surrounding landscape or townscape, and the Council will ~~ensure~~ expect that new development achieves this by seeking high quality design, layout and landscaping. Key to which is the delivery of green and blue infrastructure and harnessing the multifunctionalities of green and blue spaces through the design of a proposal. As set out in the Council's Green and Blue Infrastructure Strategy, there are six key overarching uses/benefits that green and blue infrastructure can provide that should be carefully considered and, where appropriate, incorporated into the design of development:

- Recreation

- Ecology
- Landscape
- Active Travel
- Historic Environment
- Water Management

9.10 Consideration should also be given to how green and blue infrastructure as part of a new development sits within the context of the existing wider green and blue infrastructure network, and how opportunities onsite could be sought to enhance and extend that network, or for example, create a stepping stone habitat. Development proposals should also be in accordance with policy DM43.

9.11 New low and zero carbon buildings can deliver biodiversity gain, particularly for protected species and thereby contribute to both climate and ecologically sustainable buildings and developments. Creating habitats as an integrated part of buildings supports whole ecosystem approaches to supporting biodiversity and supports global conservation efforts particularly in regard to migratory species. Many protected species rely on built structures as habitat however low and zero carbon buildings often, as a nature of their design, do not provide spaces for nesting and roosting. It is therefore critical that biodiversity is considered early in the design process and measures included to support building-reliant species. Additionally, if nesting and roosting places are considered in the design, the potential for poorly placed nests and roosts affecting human residents can be minimised.

9.12 Consideration should be taken in the placement of the nesting and roosting places as different species prefer different facing aspects. There are technical design guides available as well as ready-made products that can be included into buildings to support this aim. For smaller species, there is a wide range of ready-made products for many different species that can be incorporated into the build. Some of these include: bat access roof tiles, bat roost bricks, bat roof blocks, enclosed bat boxes, swift boxes, ready-made swallow and house martin nests, house sparrow brick boxes, and sparrow terraces. For larger species, such as barn owls and peregrines, more significant design considerations are often required through built-in design features, though there are also ready-made nesting products for large species.

Pollution and Waste Management

9.103 The Council will seek to ensure that new development minimises any adverse impacts arising from pollution, including noise, light, air, odour and ground pollution, through appropriate location, operation and design. Applicants should also consider the impact of existing sources of pollution when

locating new development. Clearly, new development that is sensitive to pollution is not appropriate where existing sources of noise, light or air pollution cannot be satisfactorily mitigated, or where it would prejudice the viability of other important land uses by reasons of its sensitivity to pollution.

9.14 4 New development ~~should~~ **must** also provide for the storage of refuse and recyclable materials in easily accessible and safe locations, having regard to relevant urban design considerations (i.e. not having a significant detrimental impact upon the setting of a property or street scene). To provide further information on how this can be achieved the Council has published a Planning Advisory Note (PAN) 'Waste and recycling provision at domestic dwellings'.

Gateway Locations

9.152 If new development is to be located in a key gateway location then the Council will seek to ensure that it achieves a high standard of design and creates an attractive, welcoming entrance to key settlements in the district.

Design Review Panels

9.163 In accordance with paragraph ~~62~~ 129 of the National Planning Policy Framework³⁴ the Council will encourage the use of Design Review Panels to assess the impacts of major development proposals, particularly those which due to their size, scale and location may have an impact on their surroundings. The views and recommendations of these panels will be given due consideration in determining a planning application.

Policy DM29: What alternative approaches were considered?

The Policy sets out the general design principles that the City Council expects all new developments to achieve. The principles established by this policy remain important. It is considered that the policy should retain this function with additional amendments, other than the minor ones discussed below, not considered appropriate.

The City Council are however proposing significant amendments to Policy DM30 'Sustainable Design' in relation to the climate change Local Plan review. It is Policy DM30 that that the Council propose will provide the policy response for ensuring that climate change considerations are fully considered as part of the development management process.

In order to provide clarity, the Council are proposing that as part of the review some elements relating

to sustainable design and construction are removed from Policy DM29 and included instead in Policy DM30. This would provide a more appropriate location and would ensure that all issues relating to sustainable design and construction are included in one place.

Alternative approaches considered could include:

- Retain Policy DM29 as it is in the adopted Development Management document maintaining repetition with Policy DM30.
- Expand Policy DM29 to include all issues relating to design including those now proposed in the revised Policy DM30. This would result in a lengthy policy covering all design principles.

Having considered both approaches it is the Council's view that the proposed expansion of Policy DM30 provides the most appropriate approach. It is considered that a single policy, such as an expanded Policy DM29, covering multiple issues would reduce its clarity and that to retain the current approach causes confusion as to where issues relating to sustainable design and construction are considered.

An amended and expanded Policy DM30 provides greater clarity on the issues relevant to sustainable design and construction. It also ensures a proactive and focused policy for adapting and mitigating against climate change.

How does this policy ensure better outcomes in relation to Climate Change?

There are multiple amendments in the policy wording which directly contribute to the mitigation of and adaptation to climate change. Ensuring schemes meet the requirements of the policy will achieve the following outputs:

- The addition of maximising solar gain for natural light and energy reduces energy use and therefore emissions.
- The requirements for the consideration of orientation and energy efficiency will lead to a reduction in energy demand while connection to renewable sources will reduce usage from the grid (which is not yet decarbonised).
- The requirements for the consideration of reusing and recycling materials takes account for embodied carbon, and reduces the demand for materials, which consequently reduces land degradation and emissions.
- The requirements for the consideration of including green and blue infrastructure, benefits mitigation as they also absorb carbon, and improve air quality. They can contribute to climate adaptation as well through providing cooler local areas and improved flooding resilience. Open

green spaces further manage surface water run-off and provide storage for excess water, particularly in urban areas. They can also temporarily store storm water and aid with infiltration. Peatland, wetland and woodland maintenance and restoration reduces flood risk as they increase the water retention capacity and intercept rainfall, which slows the infiltration process. They also play a critical role in carbon sequestration contributing to climate mitigation.

- There is a provision for the inclusion of growing space in new developments to support the local growing of food. This helps to reduce transport and agricultural input associated emissions.
- Expanding the inclusion of habitat creation for protected species as a key development component supports both an adaptation and mitigation response to the climate emergency, supports local resilience and also provides for mitigation of the intrinsically intertwined ecological crisis. The inclusion of ensuring nesting as well as roosting spaces for protected species, aside from providing key habitat and biodiversity gains, also supports climate adaptation for humans in that birds and bats are key at managing insect disease vectors that are changing distributions with the warming climate.
- The requirement for adequate space for on-site composting will recognised the circular nature of the food system as well as its contribution to greenhouse gas emissions and help mitigate waste associated emissions aiding in climate mitigation.

It is considered that this policy provides a vast array of positive climate mitigation and adaptation contributions.

SA/SEA/HRA considerations (completed by consultants AECOM):

Alternatives in the context of SA/SEA need to be strategic in nature, meaningful and deliverable. Procedural choices such as where to include policy details are not necessary to test in the SEA, as they would not lead to different outcomes in terms of sustainability.

With regards to meaningful choices in relation to 'general design principles', no reasonable alternatives have been identified at this stage for this SA Topic. Instead, the SA process has been utilised to provide a broad commentary on the policy amendments and make further recommendations for enhancement where appropriate.

Many of the SA recommendations correspond with feedback and suggestions provided from stakeholders, reiterating the benefits and appetite to be proactive in tackling climate change.

Suggested changes by Lancaster City Council	SA topics likely to be affected	Delivery / potential conflicts	City Council Response
Introduces / emphasises the importance of energy efficiency measures as a key design principle.	Lowering carbon emissions +ve	These are all high-level design principles that should form a standard part of new developments if a shift to zero carbon economy is to be successful.	Comments noted.
Introduces a clause to encourage food growing and composting	Natural resources +ve Waste +ve Lowering carbon emissions +ve		
Highlights the importance of blue and green infrastructure and their multi-functional benefits.	Biodiversity +ve Health and wellbeing +ve Climate change adaptation +ve		

Further recommendations	SA topics likely to benefit	Delivery and potential conflicts	City Council response
A key principle of development should be to ensure connectivity and continuity between surrounding areas (in terms of green and blue infrastructure, active travel routes, ecological networks etc)	Transportation +ve Climate change adaptation +ve Biodiversity +ve	Delivery may require comprehensive approaches to development to ensure that different phases of growth (potentially involving different developers) are integrated. With regards to enhancements to existing built up areas, coordination of council owned assets will be important.	The City Council believe that this is addressed under Policy DM43 without the need for additional reference.

HRA Screening

Policy Number	Policy Title and Description	Implications on Climate Change	Suggested Changes by LCC	Screening Outcome	City Council comments
Policy DM29	Key Design Principles The policy sets out a series of key design principles	The key design principles have a wide application across all development	Introduces / emphasises the importance of energy efficiency measures as a	No Likely Significant Effects. Screened out. This policy is associated with the	Comments noted.

	which new development proposals (of any scale and in any location) should consider	in the district, regardless of scale, location or nature. This means that amendments to design policy that reflect the Climate Change agenda are considered to be an important consideration through the Local Plan Review process.	key design principle.	design of new developments . These are statements of intent and aspirations. The addition of the suggested changes to this policy is not expected to have any implications on European sites and potentially some beneficial effects through addressing Climate Change issues.	Comments noted.
			Introduces a clause to encourage food growing and composting		Comments noted.
			Highlights the importance of blue and green infrastructure and their multi-functional benefits.		
		Further recommendations	A key principle of development should be to ensure connectivity and continuity between surrounding areas (in terms of green and blue infrastructure, active travel routes, ecological networks etc)		The City Council believe that this is addressed under Policy DM43 without the need for additional reference.

Policy DM30: Sustainable Design

~~POLICY DM30: SUSTAINABLE DESIGN~~

~~Sustainable design has an important role to play in improving the overall sustainability performance of new development, offering opportunities to deliver improved efficiency and reduced environmental impacts. The Council is supportive of proposals that deliver high standards of sustainable design and construction.~~

~~In delivering sustainable development the Council will encourage development to deliver high standards of sustainable design and construction through consideration of:~~

- ~~I. Measures to reduce energy consumption and carbon dioxide emissions, and water consumption;~~
- ~~II. Opportunities for energy supply from on-site, decentralised, renewable or low carbon energy systems;~~
- ~~III. Opportunities to contribute to local and community-led energy initiatives;~~
- ~~IV. Account of landform, layout, building orientation, massing and landscaping to minimise energy, water consumption and water efficiency measures;~~
- ~~V. Use of materials that reduce energy demand (for example, insulation) and increase the energy efficiency of the building/development; and~~
- ~~VI. The reuse of existing resources (including the conversion of existing buildings) where this would be 'fit for purpose'.~~

POLICY DM30a: SUSTAINABLE DESIGN AND CONSTRUCTION- New Development

Development should contribute to both mitigating and adapting to climate change targets to reduce greenhouse gas emissions. Development must utilise the landform, layout, building orientation, massing and landscaping to minimise energy consumption and maximise energy efficiency measures.

[New Residential Development](#)

New residential development is defined as new dwelling houses, flats (Class C3) and new build Houses in Multiple Occupation (Class C4 or Sui Generis).

Development proposals for all new residential development will be required to achieve the following:

On adoption of this Local Plan:

- A minimum 31% reduction in carbon emissions against Part L of the Building Regulations 2013.

By 01/01/2025:

- A minimum 75% reduction in carbon emissions against Part L of the Building Regulations 2013 to be achieved through a reduction in energy consumption via a fabric first approach.

By 01/01/2028:

- Net zero carbon emissions to be achieved using the approach in the energy hierarchy.

The carbon emission reduction requirements will apply at the date of commencement of each new dwelling.

The carbon reduction requirements must be met by using a fabric first approach and the following energy hierarchy to minimise the impact on viability:

- i. Minimise the demand for energy;
- ii. Maximise energy efficiency;
- iii. Utilise renewable energy;
- iv. Utilise low carbon energy; and
- v. Utilise alternative energy sources.

New Major Non-Residential Development

Major development within Use Classes C1 (Hotels) and C2/C2A (Residential Institutions) and major non-residential buildings, excluding uses within Classes B2 (General Industrial), B8 (Storage and Distribution), E(g)(iii) (Industrial Processes) and agricultural buildings, will be required to meet the most up to date BREEAM 'Excellent' standard. Where the 'Excellent' Standard cannot be achieved, evidence must be submitted with an application to the satisfaction of the City Council. The BREEAM 'Very Good' standard must be met as a minimum.

Low Carbon and Renewable Energy

Proposals must include opportunities for low carbon energy and renewable technologies, or other sustainability measures to be integrated into the build. The design of buildings must facilitate climate adaptation and mitigation measures as well as ensuring that the structure and fabric can be retrofitted through the lifetime of the building.

Conversions of Existing Buildings

Where existing structures are being converted to new uses the Energy Statement must show that energy demand has been reduced to the lowest practical level using energy efficiency measures, heating/cooling systems have been selected sustainably and that on-site renewable energy will be installed unless evidenced to be unfeasible.

Future Changes to National Requirements

In the event that national building regulations are updated or there is any change in planning policy or legislation which require higher standards to be met than those set out in the Local Plan, these will supersede the local policy requirement. Any change in the implementation of this policy will be set out in further guidance published separately by the council.

Sustainable Design Statement

The above issues and requirements are to be evidenced in a Sustainable Design Statement to be submitted with the planning application. The Sustainable Design Statement shall include an Energy Statement.

The submission of an Energy Statement will be required to demonstrate compliance with this policy for all new residential developments and major non-residential developments (including residential institutions – Class C2 and C2A and the non-residential part of mixed-use developments).

The Energy Statement must include evidence to show how the design and build of the development will meet the requirements of this policy, how the energy hierarchy has been used to minimise the impact on viability, how monitoring and evaluation will take place during the construction/built stages and the provision of post occupancy advice to residents, to ensure the performance gap between design and build is minimal. The Energy Statement should include an assessment of whole life cycle emissions.

Supporting text:

~~9.14 Sustainable design can make a positive contribution to improving the overall sustainability of the district. Through sensible construction and design, new developments offer opportunities to minimise the use of resources (including energy and water), deliver improved energy efficiency, avoid negative environmental impacts and importantly deliver developments that mitigate and are resilient to the impacts of climate change. Opportunities to improve the sustainability performance of new developments will be encouraged by the Council.~~

~~9.15 Building Regulations establish the minimum requirements that buildings must meet. They ensure that buildings are safe and structurally sound, conserve energy and provide access for those with disabilities. Checking compliance with Building Regulations is a separate process to securing planning approval; however, both processes must be complied with. In the context of sustainable design applicants are encouraged to consider both together at the design stage as this will help to avoid problems, delays and increased costs as proposals are progressed through to application stage.~~

~~9.16 Whilst opportunities to deliver enhancements in renewable energy provision and energy / water efficiency performance of new developments in advance of those required by Building Regulations will be encouraged by the Council, specific local targets have not been set. The Council will continue to support proposals that seek to deliver innovative and high standards of sustainable design and~~

~~construction, with low carbon and energy efficient developments being encouraged.~~

Supporting text :

Ensuring that the District's future growth supports climate resilience and is as sustainable as possible is at the forefront of all decisions. Through sensible construction and design, new developments offer opportunities to minimise the use of resources, deliver improved energy and water efficiency, contribute to a healthy environment, increase biodiversity, support residents and users to use active travel, and importantly deliver developments that support climate adaptation and mitigation and are resilient to the impacts of climate change. Opportunities to improve the sustainability performance of new developments will be encouraged by the Council.

Energy efficiency and Renewable requirements in new buildings

Lancaster City Council commissioned consultants Three Dragons to consider the viability implications of setting energy efficiency and renewable requirements in new buildings, with requirements subsequently included in the policy. To ensure that these standards are being met, it is expected that adherence with these standards will be monitored at the construction and post construction phase.

Fabric First Approach

There are various ways in which to achieve the carbon reduction requirements in policy DM30a. The Council is prioritising a fabric first approach to reduce the demand for energy and have included an energy hierarchy within the policy. The prioritisation of a fabric first approach will minimise the impact upon viability. The fabric first approach will require developers to consider how new homes are designed and built to improve the performance of the fabric. This will include improved U-values for structure, enhanced attention to air tightness and thermal bridging to reduce the dispersal of heat, orientation of buildings to maximise solar gain with the inclusion of measures to prevent over-heating.

Achieving Net Zero

Net zero in the context of Policy DM30a refers to having zero or negative CO₂e emissions associated with a building's annual operational energy consumption. Achieving net zero will require the combination of building a highly energy efficient building using a fabric first approach plus on-site or demonstrated connected off-site renewable electricity generation.

Transition Arrangements for Carbon Reduction Measures

The Council wishes to avoid perpetuating the building of new homes without the implementation of appropriate carbon reduction measures into the future. It is appreciated that developers will need time

to adapt to the carbon reduction measures within policy DM30a and the phased introduction of the measures within policy DM30a aims to provide an appropriate transition period. However, on large sites, where planning permission is granted using the carbon reduction requirements at the time of the permission, new homes may be built to the lower requirements for several years into the future. To avoid this, the Council will grant planning permissions subject to conditions which will ensure new homes are built in accordance with the carbon reduction requirements at the time they are built.

The proposed transitional arrangement for the changes to the Building Regulations will require building/initial notices for each home to be submitted by June 2022 and a commencement made on each home by June 2023. All new homes granted planning permission on or after adoption must be built to meet the 31% reduction in carbon emissions against Part L of the Building Regulation 2013. As the timescales, taking into account the time which regularly elapses between a planning permission being granted and homes being built, will be similar to the implementation of the Building Regulations, the impact of the introduction of standard from adoption on developers will be minimal.

A 75% reduction in carbon can be achieved using existing or similar building techniques and a technological approach. While this may be a simpler approach than the fabric first approach required by the policy, it is appreciated that additional technology will have a greater impact upon viability. The policy therefore requires a fabric first approach to minimise the impact on viability. It is however understood that adapting to the fabric first approach will require changes to the way in which homes are designed and built and for this reason the policy delays the introduction of this requirement until 2025. Measures do however need to be in place to ensure that new homes built after this date meet this requirement rather than the lower requirement. The same issues apply to the 2028 requirement for zero carbon emissions. For schemes where the build period is likely to extend beyond 2025 or 2030, developers will be expected to provide details of the phasing.

The Energy Statement must include the information necessary to show compliance with the carbon reduction requirements in place at the time the planning permission is issued, and a plan for the implementation of the future standards. A planning permission will be subject to conditions requiring the submission and approval of further Energy Statements showing how the 2025/2028 requirements will meet for homes commenced after those dates and to ensure that they are built to meet these requirements.

Energy Use in new Developments (Energy Hierarchy)

The location, density, mix of uses, detailed design, orientation and the materials chosen all have a major impact on a buildings energy efficiency. Implementation of the Energy Hierarchy within the design of new buildings ensures that the first consideration is to minimise energy use and demand such as through building fabric efficiency and connecting the building to active travel networks. Once energy demand has been minimised, energy efficient electrical fittings and efficient heating and hot water systems can then be included followed by the installation of renewable and low carbon technologies to offset the emissions from what energy is used on site.

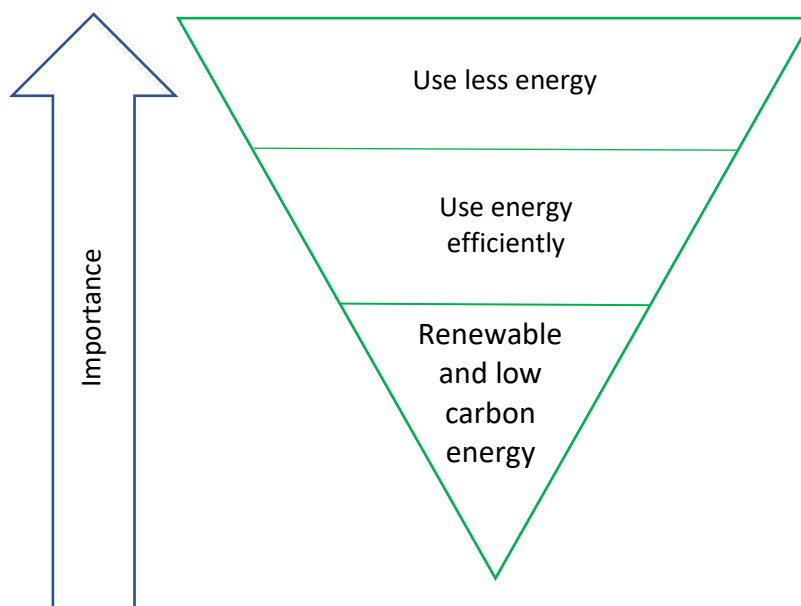


Figure 1: The energy hierarchy should be used to guide and prioritise how energy use is minimised and supplied to meet carbon emissions reductions.

Schemes should consider the Energy Hierarchy at the start of the design process ensuring that measures to reduce carbon and improve efficiencies are incorporated in the build process:

1. Use Less Energy

The siting, design, layout and orientation of buildings can have a significant impact on their sustainability. As most energy use in a building is from heating, one of the simplest methods of reducing energy demand is to use passive solar design to provide light and heat through natural sunlight and solar heat gain, therefore reducing the need for artificial light and heat. Not only does this significantly

reduce overall energy consumption but it can also offer occupants a pleasant living and working environment.

The latest UK climate projections (Met Office, 2019) highlight that across the UK average temperatures will rise especially during summers. In line with this and improved fabric efficiency standards, buildings will need greater protection from overheating to prevent uncomfortable internal temperatures. Considerations should be taken for preventing solar gains in summer such as through the use of external solar shading or shutters. The building design should also support the mitigation of overheating wherever possible such as maximising natural ventilation, reducing internal heat gains from building services and considering construction type, layout and utilizing additional thermal mass in design. It should also be considered where external hard surfaces are located to minimise their warming effect such as when the building is being naturally ventilated. The potential for incorporating features that provide shade, shelter and cooling should be identified. This could include the use of suitable landscaping, green roofs and walls, and local water features.

2. Use Energy Efficiently

Once the demand for energy has reduced, measures to make the best or most efficient use of energy should be considered. The use of energy efficient lighting and electrical fittings is critical. The energy efficiency of a building is influenced by the use of space, insulation and materials within a building.

Heat loss from buildings should be minimised in order to maximise the efficiency with which energy is used. A range of measures can be incorporated into a development to deliver improvements in energy efficiency. For example, high levels of insulation can be integrated into the main building fabric and consideration should also be given to utilising materials with a high thermal mass. These have the capacity to store heat, helping to reduce variations in temperature within a building.

3. Renewable and Low Carbon Energy

Having considered the above elements of the Energy Hierarchy, developers should then look at how the remaining energy needs on site can be met through renewable and low carbon energy sources.

Renewable sources of heating and power include ground, water and air source heat pumps, photovoltaics, solar thermal, biomass and wind (large and small scale). Heat pumps can also be used to provide cooling from the ground and water. In some cases, this can be combined with heating to provide seasonal storage of heat. Low carbon sources of heating include energy from waste processes and gas fired combined heat and power.

District heating is a key way to help deliver efficient, renewable and low carbon heat to residents. For new developments, priority is expected to be placed on how thermal energy can be delivered through heat networks. With changes in climate it may be necessary to cool more buildings and so wherever possible cooling networks are expected to be used.

Energy Statement

The Council requires that development proposals be accompanied by an Energy Statement which should be submitted with the planning application. This should set out measures to reduce carbon emissions from energy use. It should:

- Set out how the energy hierarchy has been followed.
- Set out the projected annual energy demands for heating, cooling, hot water, lighting and power from the proposed development against the appropriate baseline (current Building Regulations Part L standards), along with the associated CO2 emissions.
- Show how these demands have been reduced via energy efficiency measures and set out the CO2 emissions associated with the remaining energy demand and the % emissions saving that will be achieved. The information should include U-values for the structure, air tightness and thermal bridging values, the G-value of glass, ventilation and heat recovery efficiency and water efficiency. A Simplified Building Energy Model (SBEM) for non-domestic buildings, and a Standard Assessment Procedure (SAP) for residential development, will be required.
- Set out the choice of heating and cooling systems and how these have been selected, and the residual CO2 emissions that the development will generate after energy efficiency and sustainable heating/cooling have been taken into account.
- Demonstrate how the incorporation of on-site renewable energy has been maximised to offset residual CO2 emissions.
- Details on the monitoring and evaluation that will take place during the construction/built stages to ensure that there is no performance gap between the design, construction and operation of the building.
- An accessible and non-technical operation manual for residents to ensure that on occupation, the building continues to ensure the carbon reduction requirements are met.
- An assessment of whole life carbon resulting for operational and embodied carbon.

Where changes in national guidance result in amendments to the Standard Assessment Procedure (SAP) for residential development, the council will accept the latest equivalent standard, providing the

development demonstrates that it is equivalent to, or exceeds the policy standard set out in the Local Plan.

PassivHaus

Where proposals which seek to follow the PassivHaus route to meeting the requirements set out in DM30a are proposed a full Energy Statement will not be required. It will be sufficient to submit the technical information required to demonstrate that the PassivHaus standard can be achieved. Prior to commencement a 'pre-construction compliance check' completed by a PassivHaus certifier will be required and secured by condition. Upon completion, a Quality Approved PassivHaus certificate for each dwelling/building will be required.

BREEAM

Where proposals seek to achieve BREEAM 'Excellent' or 'Very Good' standard, a full energy statement will not be required if Pre-Approval confirmation is available. It will be sufficient to submit the Pre-Approval confirmation with the application and BREEAM Certification post construction.

Integration of additional renewable energy in new development

The Council will expect proposals for new residential development to include opportunities for low carbon energy technologies or other sustainability measures to be offered to the purchaser at the point of sale. Opportunities to select particular low carbon technologies or other sustainable measures should be available to purchasers the same way that other 'optional extras' are presented for example floor type, kitchen units, etc. By offering the opportunity to include such measures and ensuring that the fabric can support future installations at the start of the process, will allow buyers to secure improvements integrated as part of the build rather than retrofitted at a later date. The ability to do this should be made available to purchasers at the start of the process.

POLICY DM30b: SUSTAINABLE DESIGN AND CONSTRUCTION- Water Efficiency

The Council in accordance with national policy and practice guidance has considered the pressure on the water supply across the district and has chosen to implement optional water efficiency standards for new residential development.

All new residential developments must achieve as a minimum the optional requirement set through the Building Regulations Requirement G2: Water Efficiency or any future updates to the requirement.

All major non-residential development should incorporate water conservation measures so that predicted per capita consumption does not exceed the appropriate levels set out in the applicable BREEAM 'Excellent' standard. Where the 'Excellent' Standard cannot be achieved, evidence must be submitted with an application to the satisfaction of the City Council. The BREEAM 'Very Good' standard must be met as a minimum.

The design of new developments should consider the inclusion of water efficiency and consumption measures such as rainwater recycling, green roofs, and water butts in the construction of new buildings.

Sustainable Design Statement

The above issues and requirements are to be evidenced in a Sustainable Design Statement to be submitted with the planning application.

Supporting text

Water Efficiency

The effects of climate change have increased the pressure on water resources. This is acknowledged at paragraph 149 of the NPPF which states that plans should mitigate and adapt to climate change taking account of water supply. Warmer summers have resulted in increases in water consumption and a reduction in available supply. At the same time, population and housing growth in our region has meant that water companies have been asked to accommodate the new growth, yet at the same time their abstraction licenses are being reduced.

Pressure on water supplies can be addressed in part by water efficiency measures to reduce average consumption. Reducing water consumption will also reduce the energy and carbon use associated with the processing of clean water supplies. Improving the energy efficiency of water use, has dual benefits of reducing bills and reducing the amount of water flowing into the sewer system, thereby helping to reduce flood risk. Domestic water consumption can be considerably reduced by building new homes to high water efficiency standards. Appropriate measures to improve water efficiency include, but are not limited to dual flush toilets, low flow bathroom and kitchen fittings, low water consumption appliances, grey water and water recycling systems, water butts and other on-site water retention systems.

To address the climate change demands on water supply, both the Environment Agency and United Utilities have requested that the Council adopt the optional water efficiency standards in the Building Regulations, currently at 110 litres/person/day. The National Framework for Water Resources identifies 'that our region faces the second highest pressures on Water Resources' and 'that increased water consumption, driven by population increases, is the largest driver of additional water need in the region. Increased public water supply drought resilience, increased protection for the

environment and the impact of climate change reducing water availability of existing supplies also have impacts on water availability.’³ Water Resources West state, ‘Even with these reductions in consumption [adoption of the water efficiency Building Regulation Requirements] parts of our region will need new water resource to be developed. If the planned reductions are not achieved then more significant costly water resources will need to be development. It is therefore important the measures are taken across the region to support the achievement of the lower capita consumption.’

It is important to ensure that new commercial development contributes to reducing additional pressures on the water supply where possible. This policy required that all new commercial or non-residential development, including all non-C3 use classes, incorporate water conservation measures so that predicted per capita consumption does not exceed the appropriate levels set out in the applicable BREEAM ‘Excellent’ standard. This requirement was previously incorporated within policy DM35. **Information will follow: on viability (where is it viable or not, what types of development may not be feasible).**

POLICY DM30c: SUSTAINABLE DESIGN AND CONSTRUCTION- Materials, Waste & Construction

Proposals for major developments should demonstrate how it achieves sustainable development taking into account the following principles:

Materials and Waste

1. Materials that arise through demolition and refurbishment are reused and recycled wherever possible, including the reuse of excavated soil and hardcore within the site;
2. Green/blue roofs and/or walls have been incorporated into the structure of buildings where appropriate to improve water management in the built environment, improve air quality, provide space for biodiversity and aid resilience and adaptation to climate change;
3. Proposals for major development must be accompanied by a site waste management plan setting out how site waste will be managed during the construction phase.

Construction Process

4. Where possible, use local suppliers, renewable and/or low carbon materials and modern methods of construction.

Sustainable Design Statement

The above issues and requirements are to be evidenced in a Sustainable Design Statement to be submitted with the planning application.

Supporting text

New development must also provide for the storage of refuse and recyclable materials in easily accessible and safe locations, having regard to relevant urban design considerations (i.e. not having a significant detrimental impact upon the setting of a property or street scene). To provide further information on how this can be achieved the Council has published a Planning Advisory Note (PAN) 'Waste and recycling provision at domestic dwellings'.

During the construction process, better site practices and the re-use of on-site materials can reduce both the need for new primary resources and the need to dispose of on-site waste. The development has a legal duty under the Waste Regulations 2011 to take all reasonable measure to prevent, reuse, recycle and recover waste (in that order).

Policy DM30 What alternative approaches were considered?

Policy DM30 encompasses some of the most important issues relating to climate change and has therefore undergone significant update. Several alternative approaches were considered for this policy:

- **Maintain current wording within the adopted Development Management document** which states that the council will only encourage consideration of sustainable design rather than require it. In view of the Council's climate emergency declaration, continuation of an approach based on encouragement alone is no longer considered appropriate. The NPPF makes it clear that Plans should take a proactive approach to mitigating and adapting to climate change. The revised wording is consistent with the requirement for a proactive approach and will ensure that sustainable design and construction are at the forefront of the design process. Continuation of an encouragement-only approach would not lead to a step change in sustainable design as envisaged by the review.
- **Adopt higher energy efficiency standards:** Consultants Three dragons undertook assessment work on this matter which has shown that a stepped approach is the most appropriate to achieving net zero. This allows time for the development industry to adjust to the changes that the policy will have, whilst ensuring that the climate change commitments set out in the

declaration are being addressed. The work that Three Dragons undertook highlighted that a fabric first approach was seen to be the most appropriate and viable approach and therefore this has been taken forward into the policy.

- **Not adopt higher energy and water efficiency standards** and rely on improvements to building regulations to secure improvements. In relation to energy efficiency Lancaster City Council have declared through its climate emergency declaration an intention to deliver a step change by 2030. Reliance on building control improvements alone would not secure this improvement. There is also the risk that national improvements could be delayed or reduced leaving the Council unable to secure additional improvements in the energy performance of new buildings above those set at a national level.

Moving Forward with this option would fail to secure the improvements in energy and water efficiency envisaged by the climate change local plan review and importantly the climate emergency declaration made by the Council. It is for this reason that this option has not been taken forward and that instead the Council, supported by evidence provided by Three Dragons, has sought to progress a proactive and ambitious sustainable design and construction policy.

- **Failure to adopt the optional Building Regulation Requirements for Water Efficiency.**
This option will fail to address the pressures on water demand and supply highlighted by the Environment Agency and United Utilities. It will fail to contribute to reducing the amount of water required to be disposed of, thereby failing to meet the opportunity to reduce the risk of flooding, nor will it reduce the costs of bills for occupiers.
- **Retain the non-residential requirements for water conservation within policy DM35.** It was considered that relocating the policy requirement into the section on sustainable design would ensure all similar matters were located together and provide a clearer direction for designers.

How does this policy ensure better outcomes in relation to Climate Change?

This policy has been significantly amended to truly put climate change considerations at the heart of development in the District. This policy is now divided into 7 key areas which directly relate to the ways in which developments can reduce their climate impact while ensuring that they are robust and future thinking in relation to predicted changes in weather.

- **Energy and design:** This section relates to the ways in which developments can be designed

to minimise energy and water consumption and maximise energy and water efficiency. It also includes the importance for low carbon and renewable energy generation and distribution and the key ways in which these schemes can benefit the local community. It also highlights the importance of building buildings that can be retrofitted throughout the lifetime of the building and are designed for renewables. It places new requirements for commercial buildings to meet at the very least BREEAM 'very good'. These changes will contribute to a lowering of emissions for climate mitigation as well as support for energy systems that are resilient to climate change. It also includes material and construction processes that aim at reducing build associated emissions.

- **Materials and waste:** This section requires that the full lifecycle of the building is considered from concept to demolition. It also considers designing for lifecycles of the building for adaptability and retrofitability. It aims to reduce the amount of waste produced and support the reuse and recycle of waste thereby decreasing the amount of waste associated emissions. These measures are also to address embodied carbon of buildings. It also includes the ways in which green walls and roofs can be incorporated and the importance of designing buildings with structures to accommodate inbuilt green infrastructure. The inclusion of green walls and roofs can help improve water management through acting as rainwater retention systems thereby reduces flooding. They also provide space for biodiversity which aids climate adaptation and resilience. They further assist in climate adaptation as it improves the microclimate and air quality which mitigates climate extremes.
- **Water efficiency:** These changes will help the District adapt to a warmer and less water secure future climate as well as recognise the importance of water conservation to address demands on water supply though increased population. Additionally, water conservation and efficiency measures support climate mitigation through reducing emissions associated with water treatment.
- **Construction process:** This section focuses future development on using materials that have lower embodied carbon and reduced construction and transportation associated emissions.
- **Sustainable Design Statement:** This requires new developments to evidence their efforts at sustainable design through a Sustainable Design Statement. This aims at ensuring that sustainability is considered from design on.

The support throughout for a prioritisation of sourcing locally and including community participation, can support a green recovery, local green jobs and reduced associated transport emissions. As is evident, this significantly amended policy provides a vast array of positive climate mitigation and

adaptation contributions.

SA/SEA/HRA considerations (completed by consultants AECOM):

Alternatives in the context of SA/SEA need to be strategic in nature, meaningful and deliverable. Procedural choices such as ‘not amending the policy’ or ‘not introducing standards’ are not necessary to test in the SEA, as they simply represent the baseline position. It is widely accepted that higher standards would be beneficial across a range of sustainability objectives. However, options which test varying levels of standards are heavily influenced by viability, and this is the key factor in determining what is appropriate and acceptable.

With regards to meaningful choices in relation to sustainable design and construction, no reasonable alternatives have been identified at this stage for this SA Topic. Instead, the SA process has been utilised to provide a broad commentary on the policy amendments and make further recommendations for enhancement where appropriate.

Many of the SA recommendations correspond with feedback and suggestions provided from stakeholders, reiterating the benefits and appetite to be proactive in tackling climate change.

The SA and HRA were undertaken on a combined Policy DM30. This combined all sustainable design topics under a single sustainable design and construction policy. Since undertaking the SA and HRA the Council have sought to simplify the policy sub-dividing it into 3 policies: Policy DM30a Sustainable Design and Construction – New Development, Policy DM30b Sustainable Design and Construction – Water Efficiency and Policy DM30c Sustainable Design and Construction – Materials, Waste and Construction. Whilst now subdivided the comments provided in the SA and HRA assessment on what at the time of the assessment was one single combined policy remain correct. This will be kept under review as the policies continue to develop through the Local Plan process.

Suggested changes by Lancaster City Council	SA topics likely to be affected	Delivery / potential conflicts	City Council Response
Climate change adaptation is given a stronger focus	Lowering carbon emissions +ve	The policy is more demanding with regards to climate change issues and sustainable design and construction. This	The policy seeks to implement the energy hierarchy focusing on a fabric first approach to reduce energy
Stronger wording relating to the need for low carbon and sustainable			

developments rather than 'encouraging'.	Climate change adaptation +ve Natural Resources +ve Waste +ve	will need to be balanced against viability concerns. 10% renewable energy requirement might not always be the most cost-effective way of achieving carbon emissions reductions. Greater reductions could potentially be achieved through efficiency measures. An alternative approach would be to secure a reduction in regulated emissions, being mindful of the energy hierarchy.	consumption and reduce emissions. The policy has been amended to remove a specific 10% renewable energy requirement.
Requirement to ensure retrofitting / future proofing with low carbon technologies.			
10% renewable energy requirement for new development			
BREEAM excellent for non residential development			
Energy statement to ensure audit trail and delivery			
Reuse of wastes and minerals is much strengthened			
Introduction of optional water standards			

Further recommendations	SA topics likely to benefit	Delivery and potential conflicts	City Council Response
Consider setting up a carbon offset fund to enable emissions to be 'reduced' offsite should it be more cost effective and on-site measures make the scheme marginally viable	Lowering carbon emissions	Requires a formal management process to address carbon offsetting.	The policy looks to promote the energy hierarchy prioritising a fabric first approach. The encouragement of off-site measures is not supported within this policy.

HRA Screening

Policy Number	Policy Title and Description	Implications on Climate Change	Suggested Changes by LCC	Screening Outcome	City Council comments
Policy DM30	Sustainable Design The policy seeks to support the role of sustainable design and construction methods within new development.	This policy specifically relates to the sustainable design and construction of new development. As with the previous iteration of the	Climate change adaptation is given a stronger focus	No Likely Significant Effects. Screened out. This policy is associated with the design of new developments . These are statements of intent and	Comments noted
			Stronger wording relating to the need for low carbon and sustainable developments		Comments noted

	<p>The policy has been sub-divided into three parts - DM30a – Sustainable Design and Construction-New Development</p> <p>SM30b Sustainable Design and Construction – Water Efficiency; and</p> <p>DM30c Sustainable Design and Construction – Materials, Waste and Construction</p>	<p>Development Management DPD, the policy is more permissive on this matter due to wider viability matters and the general direction of nation policy. However, the policy could clearly be tightened in light of the Climate Emergency declaration.</p>	rather than ‘encouraging’.	<p>aspirations. The addition of the suggested changes to this policy is not expected to have any implications on European sites and potentially some beneficial effects through addressing Climate Change issues.</p>	Comments noted
			Requirement to ensure retrofitting / future proofing with low carbon technologies.		The policy has been amended to remove a specific requirement.
			10% renewable energy requirement for new development		Comments noted
			BREEAM excellent for non-residential development		Comments noted
			Energy statement to ensure audit trail and delivery		Comments noted
			Reuse of wastes and minerals is much strengthened		Comments noted
			Introduction of optional water standards		Comments noted
	Further recommendations	<p>Consider setting up a carbon offset fund to enable emissions to be ‘reduced’ offsite should it be more cost effective and on-site measures make the scheme marginally viable</p>	<p>The policy looks to promote the energy hierarchy prioritising a fabric first approach. The encouragement of off-site measures is not supported within this policy.</p>		

POLICY DM53: RENEWABLE AND LOW CARBON ENERGY GENERATION

The Council is committed to supporting the transition to a lower carbon future **as a matter of urgency** and will seek to maximise the renewable and low carbon energy (**electricity and thermal**) generated in the District where this energy generation is compatible with other sustainability objectives.

The Council will support proposals for renewable and low carbon energy schemes, including ancillary development, where the direct, indirect, individual and cumulative impacts on the following considerations are, or will be made, acceptable (unless material considerations indicate otherwise):

- As a result of its scale, siting or design impacts on the landscape character, visual amenity, biodiversity, geodiversity, **water quality**, flood risk, townscape and historic assets of the district, highway safety, aviation and defence navigation system/communications are satisfactorily addressed;
- Impacts on the amenities of sensitive neighbouring uses and local residents are minimised (including by virtue of noise, dust odour, shadow flicker, air quality or traffic);
- The wider environmental, economic, social and community benefits directly related to the scheme outweigh any significant adverse effects; and
- The proposal is consistent with other relevant policies within the local development plan.

In areas that have been designated for their national importance, as identified in the National Planning Policy Framework, large-scale renewable energy infrastructure will only be permitted where it can be demonstrated that it would be appropriate in scale, located in areas that do not contribute positively to the objectives of the designation, is sympathetically designed and includes any necessary mitigation measures.

The Council will require that where renewable energy installations become non-operational ~~for a period in excess of one year~~ the facility will be removed and the site will be fully restored to its original condition ~~within one year~~ **as soon as is reasonably practical**. **Community led schemes are encouraged and for all schemes it will be expected to allow for community investment where applicable.**

Onshore wind energy generation

Proposals for wind turbines will **only** be supported where they are located within an area identified as suitable for wind energy as shown on the Local Plan Policies Map and in Figure 13.1 (Areas identified as suitable for Wind Energy).

Applications for turbines will be acceptable where the relevant national and local policy, and up to date legislation can be met.

Wind turbines in the areas identified as suitable for wind energy will be considered acceptable where the development can be positively assessed against the criteria outlined in (I) to (IV),

National Planning Policy, the relevant Ministerial Statements and/or Guidance and following consultation, it can be demonstrated that the planning impacts identified by affected local communities have been fully addressed and therefore the proposal has their backing.

Hydro energy generation

The Council will be supportive of proposals for hydropower providing proposals are in conformity with other policies in the Local Plan. Any applications for hydropower schemes will be expected to be accompanied by a Flood Risk Assessment, Water Framework Directive Compliance Assessment and evidence of discussions with the Environment Agency around requirements.

Consideration must be given to the location, siting and design of the scheme, ensuring that there are no individual or cumulative adverse impacts on the environment and amenity. In all cases mitigation will be required to protect river flow, river continuity for fish and provide for sediment transfer.

Solar energy generation

The Council will be supportive of proposals for solar energy generation providing proposals are in conformity with other policies in the Local Plan.

For standalone solar panel arrays, it is expected that:

- The impact of glare and glint should be taken into account;
- Site security (if used) should aim to be as unobtrusive as possible;
- Where necessary, the site should be screened (wherever possible with coppice, hedges or trees) and measures taken to mitigate harm to visual amenity;
- Where possible a plan for seasonal grazing of livestock should be included;
- It is expected that applications will include quantified plans for biodiversity net gain; and
- It will not adversely affect the use of the best and most versatile agricultural land.

Other renewable and low carbon technologies

The Council will support renewable or low carbon energy schemes compatible with this policy, other policies within the Local Plan, and where impacts can be satisfactorily addressed.

In addition to the above renewable and low carbon energy sources, other forms of renewable and low carbon electric and thermal technologies may include:

- Heat pumps;
- Geothermal heat;
- Energy and/or heat from waste;
- Biomass;
- Solar thermal;
- Combined heat and power;
- Pumped storage hydroelectricity; and
- Battery storage.

This is not an exhaustive list and it is recognised that technologies will evolve and emerge.

Energy Distribution: District Heating and Cooling

The Council will support proposals for, and encourage the inclusion of, heating and cooling distribution networks, providing they are in conformity with Local Plan policies.

Where feasible, new major development should connect to existing networks, or provide new networks.

It is expected that networks:

- Connect to an existing or new/purpose-built district heating/cooling network.
- Are designed for cost effective future connection to a proposed or planned network.
- Employ individual or communal sustainable, renewable, or low carbon heating and/or cooling.
- Use of ambient or secondary heat sources (in conjunction with heat pumps where required).
- Demonstrate compliance with appropriate technical standards (currently CIBSE's Heat Networks Code of Practice for the UK);
- Be registered with the Heat Trust;
- Use renewable and/or low carbon sources for their energy centre or provide an evidenced timeline and technology pathway towards system decarbonisation by 2030;
- Provide heat and/or cooling services at a fair and affordable price; and
- Where refrigerants are to be used, the global warming potential should be taken into account.

The requirements of this policy are to be evidenced in a Sustainable Design Statement to be submitted with the planning application.

Supporting text:

The Council encourages renewable and low carbon energy deployment in new developments as well as standalone schemes and retrofits to contribute to meeting emissions targets. In addition to aiding in climate mitigation through emissions reductions, the transition to renewable and low carbon energy, supports reduced energy vulnerability and increased resilience to climate change impacts. ~~The district has the potential to take a leading role in the transition to a low carbon future on account of its topography and natural assets. These~~ The topography and natural assets in the district create the opportunities for increased deployment of ~~across~~ a range of renewable and low carbon technologies. This must, however, be balanced with the need to protect the district's high-quality landscape, much of which is protected by international and national designations and sites that hold a functional linkage to sites of national or international importance.

~~13.4 This is supported by evidence on potential deployment capacities for different renewable energy and low carbon technologies, identified within the Lancashire Sustainable Energy Study which was produced in April 2011 and updated for all Lancashire Authorities in 2012. The study concludes that the Lancaster district has a deployable potential, from a range of renewable and low carbon technologies, of 97MW by 2030. This takes account of current generating capacity and then based on identified constraints, factors in a more realistic mix of technologies appropriate to the resource capabilities of~~

~~the area.~~ The Energy White Paper 2020 establishes national targets of generating 40GW of electricity from offshore wind by 2030 and installing 600,000 heat pumps per year by 2028. It additionally encourages households to adopt new technologies, such as roof top Solar PV. The Government acknowledge that a low-cost net-zero energy system is likely to be composed predominantly of wind and solar, describing onshore wind and solar as 'key building blocks of the future generation mix, along with offshore wind'.

District heat networks are also supported through anticipated new funding under the Green Heat Network Fund. The Government will enable Local Authorities to designate new heat network zones, no later than 2025. This process entails the identification of areas which can be readily connected to a low-carbon heat work and mandating connection unless it is not cost-effective to do so. The Council are supportive of renewables and low carbon technologies, in line with the Government's ambitions.

13.5 All projects, regardless of their size, will be supported in principle by the Council subject to ~~the satisfying criteria (i) to (iv) and where they relate to wind turbines within the area identified as being suitable for wind energy and have community support,~~ as set out in Policy DM53, ~~and takes account of the 2015 Ministerial Statement.~~ Each location and situation is different, so all proposals will be assessed and considered on their individual merits. It is recommended that pre-application advice is sought from the Council prior to pursuing a planning application. The Council recognise that small-scale projects can make a valuable contribution to renewable and low carbon energy generation, as well as the national targets for the reduction in greenhouse gas emissions. These schemes also offer opportunities to add direct benefits to local communities by meeting their local needs, supporting green jobs, providing local ownership of community energy use and ~~helping the fight against~~ reducing fuel poverty. National Planning Policy and Guidance acknowledges that all communities have a responsibility to help increase the use and supply of renewable and low carbon energy. However, this must not negatively impact upon environmental protections and the planning concerns of local communities.

13.6 The Council will expect developers to work in partnership with the local community in developing proposals for renewable and low carbon energy and demonstrate how the concerns and requirements of the local community have been taken into consideration and informed the submitted proposal. Community-led initiatives for the development of renewable or low carbon energy will be supported (when considered to be in accordance with all other relevant policies).

13.7 In delivering proposals the Council will negotiate, where appropriate, community benefits for the local area. This could include the provision of educational opportunities for local schools as well as

opportunities for shared ownership.

13.8 In delivering future proposals the Council will create a positive and enabling environment for increased deployment, working with developers and local communities to ensure the delivery of appropriate and well-planned proposals whilst also ensuring the protection of the district's landscape and townscape. This is especially relevant as large portions of the district are protected by environmental designations.

13.9 Developers will be expected to provide evidence ([where applicable](#)) to support their proposals including landscape, visual, [noise](#), [emissions](#), [Flood Risk Assessment](#) and ecological assessments (including where required an Environmental Impact Assessment (EIA) and Habitats Regulation Assessment (HRA)) and to demonstrate that any impacts can be satisfactorily mitigated where negative impacts cannot be solely removed through site selection. Mitigation and compensatory measures should be investigated as part of this process.

13.10 Future proposals and their ancillary development, which would result in adverse effects, either individually or cumulatively with nearby development will not be supported. In submitting planning applications, applicants will be expected to submit supporting information and evidence that is proportionate to the scale of development proposed and reflect the sensitivities of the nearby environment. This should reflect the latest best practice guidance and include landscape, visual, ~~and~~ ecological [and flood risk](#) assessments. The Landscape Character Assessment and local Conservation Area appraisals will be among the key tools in assessing potential impacts. Such assessments should seek to assess both the individual and cumulative impacts of development.

13.11 In considering small-scale proposals the Council will require evidence of how the site has been assessed taking into account the constraints of the site and the opportunities for micro-siting to reduce impacts. Larger scale proposals will already have undertaken this work as part of the site selection process, with this already evidenced as part of the Environmental Impact Assessment.

13.12 Where impacts are identified, the Council will require applicants to demonstrate to its satisfaction how these have been reduced through appropriate mitigation including careful siting, landscaping and design. This could include the use of existing landforms to limit visual impacts on sensitive views and local amenity, creating a design layout that is sympathetic to the local landform and neighbouring land-uses, and limiting the impact of cabling, tracks, hardstanding and buildings by underground avoidance and restoration as well as the use of sympathetic materials in construction.

13.13 As outlined within Policy DM53, the Council is committed to the transition to a low carbon future, as demonstrated through its Climate Emergency declaration. Development proposals that could feasibly supply or connect into a ~~D~~district ~~H~~heating and/or cooling ~~N~~network are encouraged to do so. Investigation into the viability of connecting to a network will be required to be evidenced as part of an application. Where no connection can be made into an existing nearby ~~D~~district ~~H~~heating and/or cooling ~~N~~network, the potential delivering a new ~~D~~district ~~H~~heating and/or cooling ~~S~~scheme should be explored, especially for larger developments.

~~13.14 Renewable and low carbon energy proposals will be supported where compatible with the above policy and where impacts can be satisfactorily addressed. Where impacts are identified the Council will require applicants to demonstrate to its satisfaction how impacts have been minimised, how impacts have been mitigated and finally where relevant what compensatory measures are proposed to support the scheme sufficiently to outweigh any outstanding impact.~~

13.15 Due to changes in national planning policy, wind turbine proposals will be considered in accordance with relevant national policy and guidance, including the Government's Written Ministerial Statement (WMS) published on the 18th June 2015. The WMS states that the Local Planning Authority, when determining planning applications for wind energy development involving one or more wind turbines, should only grant planning permission if:

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

13.16 Whether the proposal has the backing of the affected local community is a planning judgement for the Local Planning Authority. In response to national guidance, the Council through the Local Plan, has been investigating potential areas that could be identified as suitable for wind energy. This has involved the consideration of a number of environmental designations and other potential constraints, to help guide the most appropriate locations for wind energy development. Areas identified as suitable for wind energy development are identified on the maps below (these are the areas shown in ~~white~~ blue in Figure 13.1 that are not covered by a designation or constraint). However, as noted in Policy DM53, only where individual proposals within these areas are positively assessed against criterion (I) to (IV), and demonstrated to have the backing of the local community will they be considered suitable

within these areas. As each development proposed and individual site will differ, the suitability of emerging proposals will be assessed based upon their individual merits.

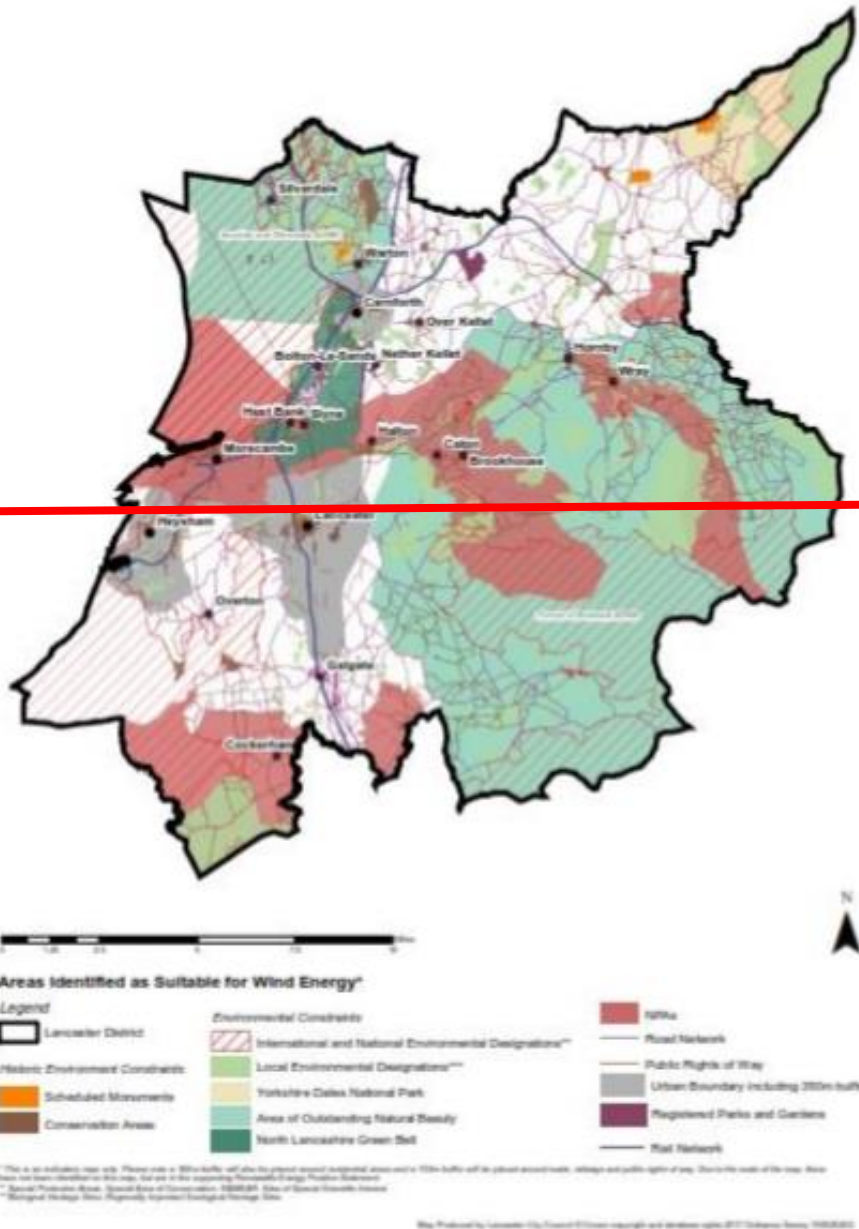
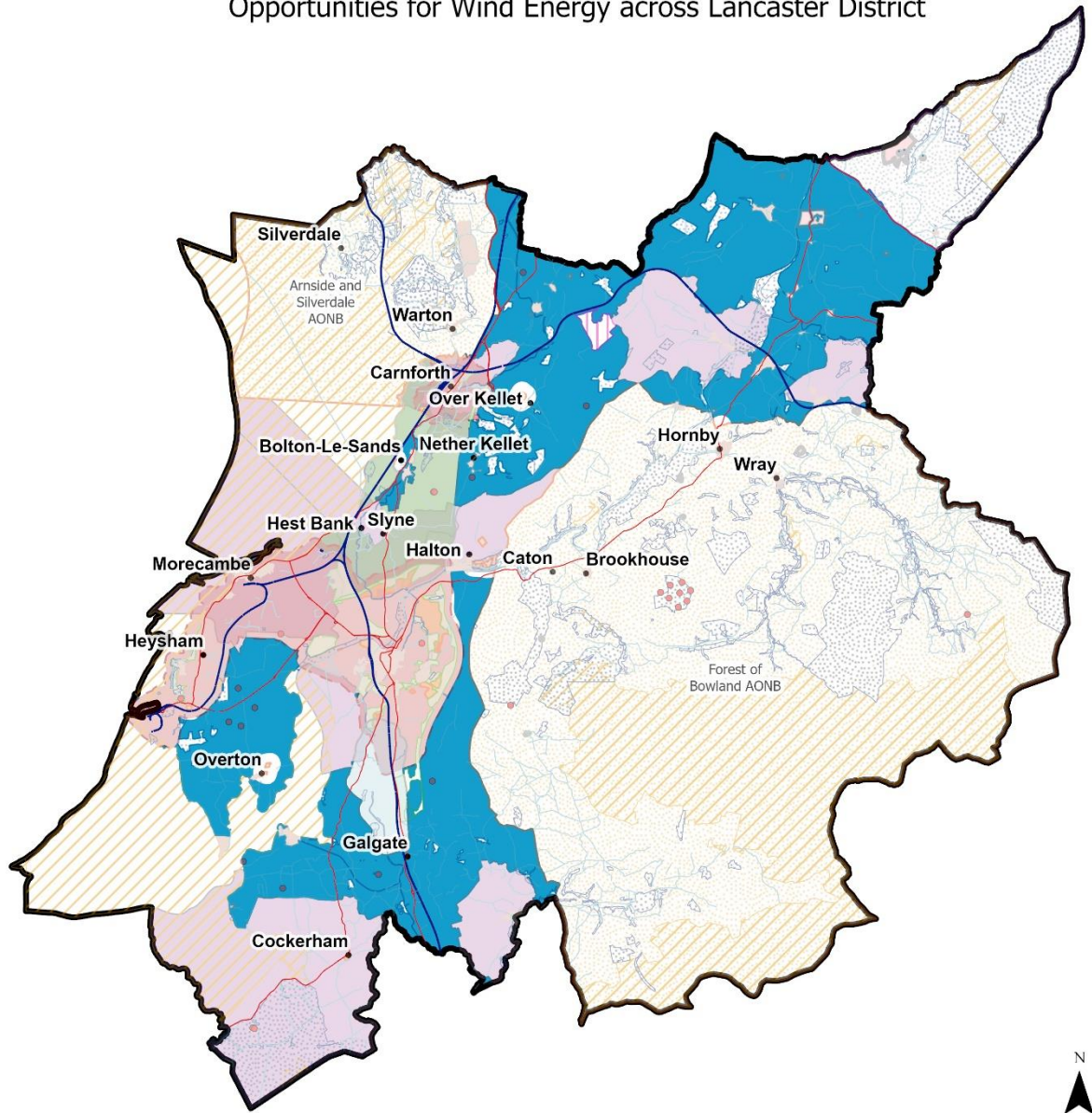


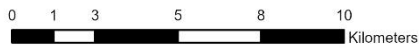
Figure 13.1: Areas that are not covered by the constraints (i.e. areas in white) are areas that are considered to be suitable for wind energy development (subject to compliance with other planning policy considerations).

Opportunities for Wind Energy across Lancaster District



Legend

- | | | |
|---------------------------|---|---|
| Lancaster District | Historic Environment Constraints | Major Road Network |
| Current Wind Turbines | Conservation Areas | Public Rights of Way |
| Suitable For Wind Energy | Schedulded Monuments | Rail Network |
| Housing Delivery | Environmental Constraints | Urban Boundary (inc. 350m buffer) |
| Strategic Growth | International and National Environmental Designations** | Neighbourhood Plan Areas |
| H1 - Urban Housing | Local Environmental Designations*** | Bailrigg Garden Village Area of Search (2022-2023) (inc. 350m buffer) |
| H2 - Rural Housing | Local Landscape Designations | North Lancashire Green Belt |
| H3 - Heritage Led Housing | Yorkshire Dales National Park | Registered Parks and Gardens |
| | Area of Outstanding Natural Beauty | |



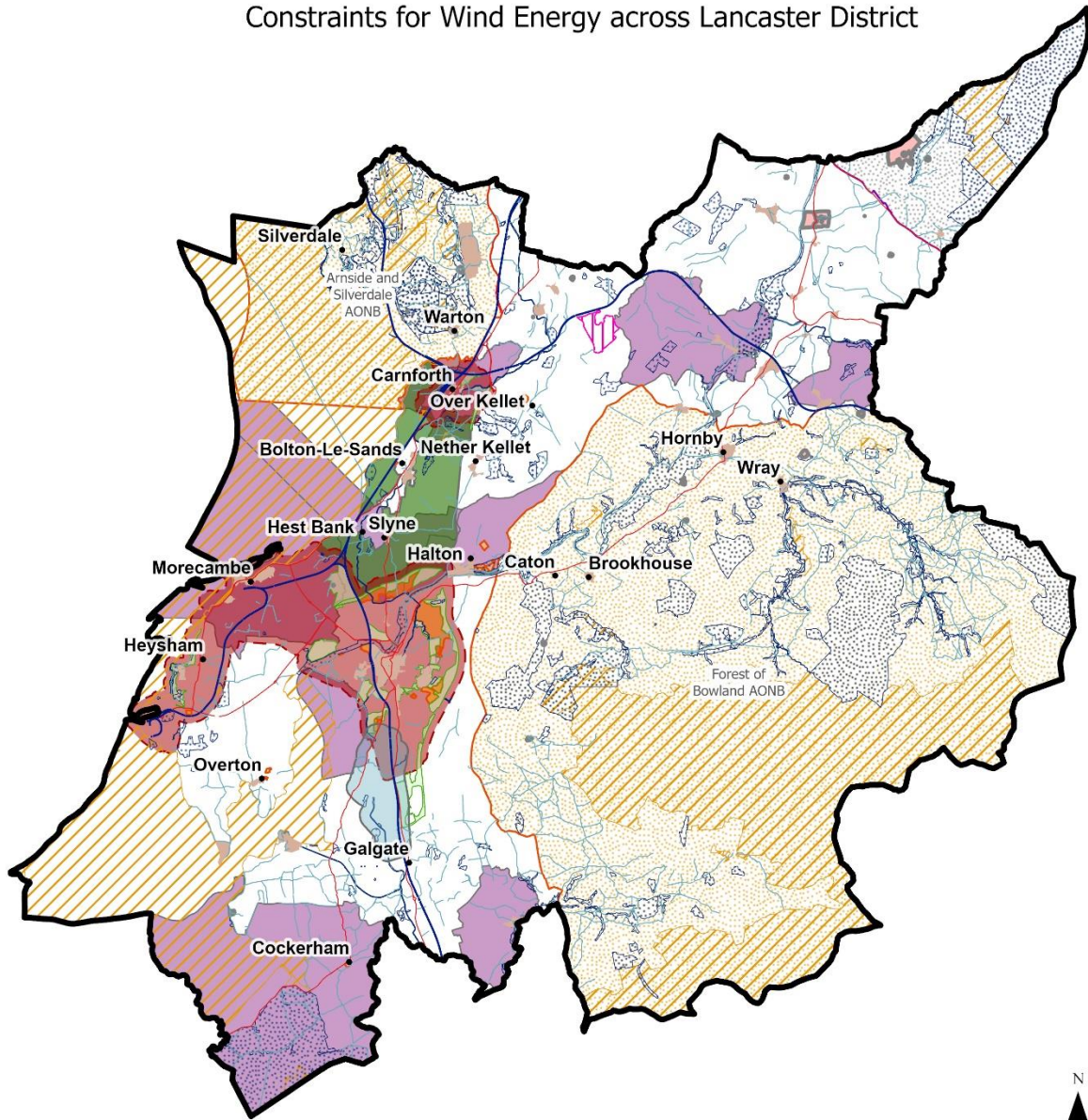
* This is an indicative map only. A 350m buffer will be placed around residential areas and a 150m buffer will be placed around roads, railways and public rights of way.

** Special Protection Areas, Special Areas of Conservation, RAMSAR and Sites of Special Scientific Interest.

*** Biological Heritage Sites and Regionally Important Geological Heritage Sites.

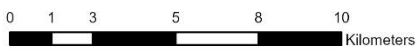


Constraints for Wind Energy across Lancaster District



Legend

- | | | |
|---|---|---|
| Lancaster District | International and National Environmental Designations** | Major Road Network |
| Housing Delivery | Local Environmental Designations*** | Public Rights of Way |
| Strategic Growth | Local Landscape Designations | Rail Network |
| H1 - Urban Housing | Yorkshire Dales National Park | Urban Boundary (inc. 350m buffer) |
| H2 - Rural Housing | Area of Outstanding Natural Beauty | Neighbourhood Plan Areas |
| H3 - Heritage Led Housing | | Bailrigg Garden Village Area of Search (2022-2023) (inc. 350m buffer) |
| Historic Environment Constraints | | North Lancashire Green Belt |
| Conservation Areas | | Registered Parks and Gardens |
| Scheduled Monuments | | |



* This is an indicative map only. A 350m buffer will be placed around residential areas and a 150m buffer will be placed around roads, railways and public rights of way.
 ** Special Protection Areas, Special Areas of Conservation, RAMSAR and Sites of Special Scientific Interest.
 *** Biological Heritage Sites and Regionally Important Geological Heritage Sites.



Policy DM53: What alternative approaches were considered?

Policy DM53 encompasses some of the most important issues relating to climate change and as a result has undergone a significant change. This is to reflect the rapidly advancing climate change agenda and new technologies and energy generation approaches that are becoming more accessible and affordable.

An alternative approach to the policy that was considered was maintaining the current wording within the adopted Development Management document which encourages renewable and low carbon approaches to development, but does not explicitly discuss what these are and how they should be incorporated into schemes and achieved. In addition, in view of the Council's climate emergency declaration, the continuation of an approach based on encouragement alone is no longer considered appropriate. The NPPF makes it clear that Plans should take a proactive approach to mitigating and adapting to climate change. The revised wording is therefore consistent with the requirement for a proactive approach, albeit within the confines of comes national policy considerations, and will ensure that renewable and low carbon energy generation is a top priority.

It was also considered necessary to update the wind energy constraints map to take account of changes to policy designations since it was previously produced a number of years ago. Whilst the option to simply retain this in its current form was considered, officers took the decision to produce two separate maps- one showing the constraint areas and one showing the opportunity areas for wind energy generation. This reflects the advancing agenda around renewable energy generation, and makes it easier for applicants to clearly see the areas where wind energy generation will be acceptable in principle.

How does this policy ensure better outcomes in relation to Climate Change?

This policy has been significantly amended to ensure better outcomes in relation to climate change. The urgency of the need to act on the climate emergency is picked up but most critical is the inclusion of specific policy requirements on a number of renewable technologies, covering both energy generation and energy distribution networks. This has moved the policy from focusing purely on wind energy generation to also now considering hydro, solar and six additional potential technologies (with acknowledgement that the industry is growing) as well consideration for heating and cooling networks. With relation to the later, the policy recognizes the impact of a warming climate and seeks to get ahead of the curve and suggest ways forward for lower carbon cooling. The implementation of this policy will

allow for these technologies to be utilised more easily within schemes, with the policy clearly stating that the Council will give support (in principal).

Ensuring that energy is locally available from low carbon and renewable sources supports emissions reductions from energy ahead of grid decarbonization and contributes to the District's commitment to contributing to climate mitigation. Support for an increase of decentralized energy production from a range of renewable and low carbon sources additionally contribute to climate adaptation and resilience. The technologies also support the green recovery and creation and continuation of green jobs. The reiterated support for community led and options for community investment support the green recovery as well as local resilience.

In addition to aiding in climate mitigation through emissions reductions, the policy supports the transition to renewable and low carbon energy, supports reduced energy vulnerability and increased resilience to climate change impacts. The existing policy is strengthened to explicitly state support in principle for renewables and expanded to include more renewable and low carbon energy options as well as distribution networks. The key outputs of the policy ensure that the impacts of climate changes are adapted to and also mitigated.

SA/SEA/HRA considerations (completed by consultants AECOM):

Alternatives in the context of SA/SEA need to be strategic in nature, meaningful and deliverable. Procedural choices such as 'not changing policy wording' are not necessary to test in the SEA, as they would not lead to different outcomes in terms of sustainability.

With regards to meaningful choices in relation to 'renewable and low carbon energy generation', no reasonable alternatives have been identified at this stage for this SA Topic.

One possibility would be to remove opportunity areas for onshore wind energy and instead rely upon larger scale opportunities that have been discussed and are in development such as the Morecambe Bay Tidal Bridge. This would avoid environmental impacts on shore associated with large scale wind. However, given the urgent need to address climate change and the role that different renewable sources will play, this is not considered to be a reasonable approach. Onshore wind schemes will still be required to address environmental issues and gain community support, and a potential tidal scheme is only in developmental stages, and may not materialise.

Therefore, rather than comparing specific spatial alternatives for low carbon generation, the SA process has been utilised to provide a broad commentary on the proposed policy amendments and make further recommendations for enhancement where appropriate.

Suggested changes by Lancaster City Council	SA topics likely to be affected	Delivery / potential conflicts	City Council Response
The urgency of the climate emergency is made clearer	Lowering carbon emissions +ve Natural resources ? Health and Wellbeing ? Biodiversity ?	Greater emphasis on the role of various technologies likely to encourage prospective developments. Could there be competing demands for land for housing/ employment / agriculture that hold back larger scale renewables? The need for community support could make wind schemes difficult to implement.	Comments noted. No change is considered necessary. The wording in the policy reflects national policy.

Further recommendations	SA topics likely to be affected	Delivery and potential conflicts	City Council Response
Identify and allocate land to support <u>offshore</u> energy schemes – safeguarding of important infrastructure.	Lowering carbon emissions +ve Biodiversity -ve? Natural resources -ve?	Safeguarding infrastructure and land for prospective offshore energy generation schemes needs to be evidenced, rather than being speculative.	Policy SG13 ‘Heysham Gateway’ of the Strategic Policies and Land Allocations document looks to support the infrastructure requirements for offshore energy schemes. The policy recognises the opportunities that Heysham provides to support additional

			offshore energy deployment. Safeguarded land for the National Grid is already identified.
Identify land for energy storage facilities.	Lowering carbon emissions +ve	It may be beneficial to identify land close to existing and planned energy generation infrastructure to support storage facilities.	Whilst this is supported the City Council have not been made aware by stakeholders of the need to identify additional land. This will be kept under review as the Plan is prepared.
Consider safeguarding land that is identified as being suitable for strategic renewable energy opportunities (for example, do not allow housing / employment development in wind opportunity areas)	Lowering carbon emissions +ve Housing ?	Sufficient land for housing and employment has already been identified within the Adopted Local Plan. It is therefore unlikely that delivery would be significantly affected. Such a policy measure could be restrictive of other land uses though.	The City Council have sought to provide a positive criteria-based approach to support the increased deployment of renewable energy. This is consistent with national planning policy. The policy is positively worded to support renewable energy schemes where appropriate on a case by case basis.

HRA Screening

Policy Number	Policy Title and Description	Implications on Climate Change	Suggested Changes by LCC	Screening Outcome	City Council comments
Policy DM53	Renewable and Low Carbon Energy Generation The policy seeks to identify and support opportunities for renewable	Through the Local Plan Review, there will be an opportunity to offer wider support towards a range of sources of renewable	The urgency of the climate emergency is made clearer	No Likely Significant Effect. Screened out. The current policy states that “In areas which have been designated for their national	Comments noted.

	<p>sources of energy generation within the district in the context of national planning policy.</p>	<p>energy (at various scale). The policy could be reviewed in relation to the area of search for on-shore wind.</p>		<p>importance, as identified in the National Planning Policy Framework, large-scale renewable energy infrastructure will only be permitted where it can be demonstrated that it would be appropriate in scale, located in areas which do not contribute positively to the objectives of the designation, is sympathetically designed and includes any necessary mitigation measures.’ It also goes on to state that ‘Developers will be expected to provide evidence to support their proposals including landscape, visual and ecological assessments (including where required an Environmental Impact</p>	
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				<p>Assessment (EIA) and Habitats Regulation Assessment (HRA)) and to demonstrate that any impacts can be satisfactorily mitigated where negative impacts cannot be solely removed through site selection. Mitigation and compensatory measures should be investigated as part of this process.’ Large scale renewable energy, particularly wind farms, could pose likely significant effects for European sites but the policy only supports such schemes where they are appropriately sited. As this wording is to remain, the addition of the suggested change will to this policy is</p>	
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				not expected to have any implications on European sites.	
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3.0 Appendix (SPD content)

It is anticipated that the information set out in this appendix will be included within an SPD but was considered prudent to include here for information purposes. The SPD will likely provide additional explanation to some of the policy requirements set out in this document.

Sustainable Homes Checklist

All applicants should have regard to the Sustainability Homes checklist outlined below. Whilst there is no requirement for applicants to submit the checklist, the City Council do encourage consideration of the checklist to inform important early decisions and the design process. Applicants should explain which elements of the checklist they have incorporate into their scheme within the Sustainable Design Statement.

Consideration of the checklist at design stage adds value to the developments and ensures climate change is central to schemes and contributes to meeting the aims of the climate change declaration. It is not the intention of the City Council to add additional burdens on applicants, but the importance of these matters must be recognised. The submission of information should be proportionate and relevant to the development proposed. Householder applications are not required to submit the checklist but are encouraged to consider the contents in formulating their projects.

Biodiversity		
Considerations	Met	Evidence
Achieve a minimum 10% Biodiversity Net Gain	<input type="checkbox"/>	
Retain existing mature trees, hedgerows and other habitats	<input type="checkbox"/>	
Plant new trees	<input type="checkbox"/>	
Create hedgehog holes in fences	<input type="checkbox"/>	
Provide hedges instead of fences	<input type="checkbox"/>	
Undertake a tree survey	<input type="checkbox"/>	
Determine if the development is likely to affect biodiversity	<input type="checkbox"/>	
Complete a Preliminary Ecological Appraisal (PEA) survey of the site	<input type="checkbox"/>	
Indicate geological conservation interests	<input type="checkbox"/>	
Consider the Habitat Regulations of the development	<input type="checkbox"/>	

Carry out an Ecological Impact Assessment	<input type="checkbox"/>	
Landscape with prioritisation of native species	<input type="checkbox"/>	
Create a new habitat site	<input type="checkbox"/>	
Carry out a protected species survey	<input type="checkbox"/>	
Calculate the DEFRA metric of the onsite biodiversity	<input type="checkbox"/>	
Determine how the biodiversity net gain area will be managed for the next 30 years		

Design, construction, and climate change considerations		
Considerations	Met	Evidence
Plug sockets at 70cm above floor height on the ground floor	<input type="checkbox"/>	
Reflective blinds (must not impact any receptors)	<input type="checkbox"/>	
Insect screens	<input type="checkbox"/>	
Ceiling fans	<input type="checkbox"/>	
Designed with the use of low carbon construction materials, such as timber frames and recycled cement compositions	<input type="checkbox"/>	
Suitable and accessible outdoor storage for refuse and recycle bins	<input type="checkbox"/>	
Built-in refuse and recycle bin storage in kitchens	<input type="checkbox"/>	
Community compost site	<input type="checkbox"/>	
Designed to minimise overheating	<input type="checkbox"/>	
Additional space to facilitate working from home	<input type="checkbox"/>	
Calculated and offset embodied carbon emissions	<input type="checkbox"/>	
Calculated and offset construction emissions	<input type="checkbox"/>	
Seek to limit CO2 production to the minimum possible, be carbon neutral, or show a dwelling emission rate of less than 0.00 tonnes CO2 per year, if possible	<input type="checkbox"/>	
Using locally sourced suppliers and materials	<input type="checkbox"/>	
Use low carbon and/or renewable materials	<input type="checkbox"/>	

Use of building materials including those used for building fabric, paints, plastering, roofing, flooring, etc. that are low to no VOC. The plan should also consider the cumulative impact of combined VOCs.	<input type="checkbox"/>	
Use materials with optimised biocide performance or low to no biocides. Considerations should be taken of the transport dynamics and cumulative environmental risk of the building materials.	<input type="checkbox"/>	
Produce a maintenance plan for features that require ongoing management	<input type="checkbox"/>	
Consider the reuse and refurbishment of any existing buildings on the site to prevent unnecessary demolition	<input type="checkbox"/>	
Designed for long-term use/recoverability/longevity/adaptability and flexibility	<input type="checkbox"/>	
Minimise the quantity of new materials used. Where applicable, demolition material will be repurposed for use in the development.	<input type="checkbox"/>	
Construction must be carried out in a way which produces the minimum of waste	<input type="checkbox"/>	
Assess the risk of overheating and drought	<input type="checkbox"/>	

Green Space		
Considerations	Met	Evidence
Garden space	<input type="checkbox"/>	
Community space for food growing, such as an allotment or orchard	<input type="checkbox"/>	
Inclusion of edibles in landscaping	<input type="checkbox"/>	
Recreational open space with multifunctional usage	<input type="checkbox"/>	
60% green and blue space	<input type="checkbox"/>	
Tree lined streets	<input type="checkbox"/>	
Sustainable Transport		
Considerations	Met	Evidence
Secure bike storage	<input type="checkbox"/>	
Considered the principles of the 15/20 minute neighbourhood, being able to demonstrate access to local amenities, such as healthcare provision, a food shop and a school, within 1 mile/20 minute walk	<input type="checkbox"/>	

Electric Vehicle Charge Points, for those with driveways or garages	<input type="checkbox"/>	
Provide car-free zones, active travel only	<input type="checkbox"/>	
Construct green active travel routes, that connect to and enhance the existing network	<input type="checkbox"/>	
Provide a Transport report (for 5+ dwelling apps) / Transport Statement (35+ dwelling apps)	<input type="checkbox"/>	
Provide a Travel Plan required on 35+ dwellings	<input type="checkbox"/>	
Locate, lay out and design to allow for modal shift, designing out car dependency		
Prioritise the needs of pedestrians, cyclists and users of public transport		
Provide bike storage at public transport service stops		
Public transport services are within reasonable safe walking and cycling travel distance for all parts of the development. For walking this is considered to be ¼ mile, and ¾ mile for cycling.		

Water Management		
Considerations	Met	Evidence
Rainwater harvesting tank	<input type="checkbox"/>	
Green roof	<input type="checkbox"/>	
Green wall/s		
Water consumption rate of 110 litres or less per person per day	<input type="checkbox"/>	
Rain garden	<input type="checkbox"/>	
Porous and permeable surfaces	<input type="checkbox"/>	
Retention Ponds	<input type="checkbox"/>	
Soakaways	<input type="checkbox"/>	
Bioretention system	<input type="checkbox"/>	
Dry swales	<input type="checkbox"/>	
Use the Water Efficiency Calculator to evidence water consumption	<input type="checkbox"/>	
Provide a Flood Risk Assessment to be evaluated by the Environment Agency, if the site is within Floodzone 2/3	<input type="checkbox"/>	
Ensure there is no increase in surface water runoff from the development	<input type="checkbox"/>	

Ensure that the Sustainable Drainage Scheme is supported by technical reports and details of whole life management and maintenance	<input type="checkbox"/>	
Ensure there is no more than 20% impermeable surfaces throughout the development	<input type="checkbox"/>	

Energy Efficiency		
Considerations	Met	Evidence
The highest energy efficient water appliances and fixtures	<input type="checkbox"/>	
The highest energy efficient electrical appliances and fixtures	<input type="checkbox"/>	
The highest energy efficient lighting	<input type="checkbox"/>	
Building sited and orientated to maximise solar gains for heat and light, to reduce energy consumption	<input type="checkbox"/>	
MVHR System	<input type="checkbox"/>	
Air Tightness and Insulation	Passivhaus levels of thermal insulation	<input type="checkbox"/>
	Passivhaus levels of air tightness	<input type="checkbox"/>
	FHS levels or better of thermal insulation	<input type="checkbox"/>
	FHS levels or better of air tightness	<input type="checkbox"/>
Equipped with smart meters	<input type="checkbox"/>	
EPC rated B or above	<input type="checkbox"/>	
Light wells or sky lights	<input type="checkbox"/>	

Renewables		
Considerations	Met	Evidence
Solar PhotoVoltaic	<input type="checkbox"/>	
Solar Thermal	<input type="checkbox"/>	
Connected to or creates a district heating network	<input type="checkbox"/>	
Building sited and orientated to maximise solar gains for Solar PV and/or thermal	<input type="checkbox"/>	
Heat pumps	Air Source Heat Pump	<input type="checkbox"/>
	Ground Source Heat Pump	<input type="checkbox"/>

	Combined Heat and power system	<input type="checkbox"/>	
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How will the inclusion of this checklist in an SPD ensure better outcomes in relation to Climate Change?

This sustainability checklist aims to get applicants thinking about the impacts of climate change from the outset and ensure it is given appropriate attention at the design stage. The checklist is designed to focus developments on meeting climate targets. If adopted, it will result in the creation of schemes that support climate adaptation, mitigation and resilience and are centred on creating healthy, future proofed spaces for people to live and work. Additionally, as the ecological emergency is intrinsically tied with the climate emergency, the developments will combine climate benefits with integrated ecological benefits. The checklist will draw attention to the benefits, but equally what is missing in a proposal, and ultimately lead to schemes being better designed within the central consideration of climate change.