

Calne Community

Neighbourhood Plan Review

Climate Change and Sustainability Topic Paper

Ver. REG 14 Draft DECEMBER 2023



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Introduction

This topic paper demonstrates how the update of the Calne Community Neighbourhood Plan (CCNP) incorporates information and policies concerning Climate Change and Sustainability. The aim of the topic paper is to:

- Summarise the planning policy and guidance including recent updates relevant to this subject
- Provide new evidence / guidance
- Provide relevant local information
- Summarise options for ways in which the CCNP can be updated to address this issue

Since the CCNP was ‘made’ in February 2018, there have been a number of changes and updates in the evidence base and policy context for this topic area.

The National Planning Policy Framework (NPPF) was updated in December 2023 and states that ‘Plans should take a proactive approach to mitigating and adapting to climate change, taking into account the long-term implications for flood risk, coastal change, water supply, biodiversity and landscapes, and the risk of overheating from rising temperatures.’¹ Simultaneously with taking radical action to limit further warming, we must ensure that development is adapted and resilient to the climate impacts which are already locked in.

The theme of sustainability and climate change mitigation and adaptation cuts across many aspects of what the Calne Community Neighbourhood Plan can address. It will be considered in the formulation of a range of Neighbourhood Plan policies which will run as a thread through the whole Plan:

- Natural Climate solutions (Natural Environment Chapter) - green infrastructure standards, biodiversity net gain, and tree canopy cover increases;
- Sustainable Transport (Getting Around Chapter) - parking, sustainable and active travel and safeguarding transport infrastructure and routes;
- Renewable energy and sustainable design and construction (Climate Change and Sustainable Development Chapter / Built Environment Chapter) - renewable energy, energy efficiency, sustainable design.

In summary the recommendation of this paper are:

- 1. The CCNP could open with a broad policy on climate change and principles of development** - this acknowledges that the issues are holistic and development today needs to be responsive to the changes that it will bring which will include warmer wetter winters, drier summers, more frequent intense periods of rainfall, more extreme weather events and sea level rise. This in turn will lead to increased risks of flooding, drought, overheating, air pollution, water shortages, nature degradation with reduced ability to store carbon and reduced soil condition with

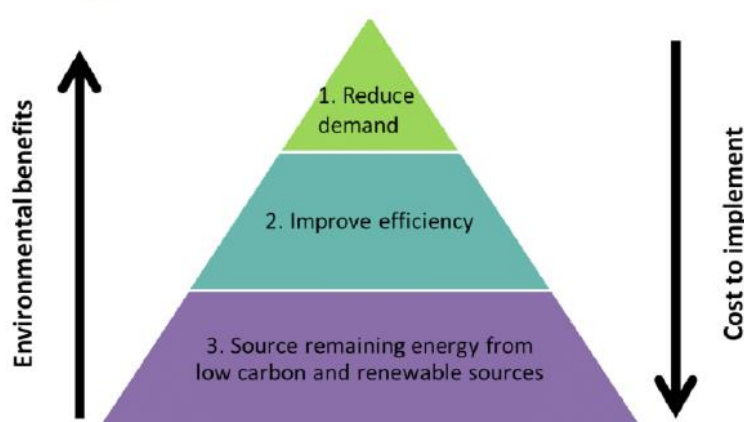
¹ https://assets.publishing.service.gov.uk/media/65a11af7e8f5ec000f1f8c46/NPPF_December_2023.pdf
Paragraph 158

consequential impacts on food production. This policy can set the overall strategic framework to help deliver the local climate change and sustainable development objectives. This opening policy can then also be linked to other policies that are threaded through the Plan as set out in the bullet points above.

2. The CCNP could have a chapter which specifically addresses **renewable energy and sustainable construction**. It could include a policy to address net zero carbon development and retrofit. This policy can use the current core strategy policy 41 as context but update the requirements (ahead of a policy update that is expected as part of the local plan review).

The policy can reference the energy hierarchy (see below) and reference certification schemes, for example, the Home Quality Mark (HQM) is an independently assessed certification scheme for new homes. It awards certificates with a simple star rating for the standard of a home's design, construction and sustainability. The assessments are focused on the needs and expectations of people living in the home. Every home with an HQM certificate meets standards that are significantly higher than minimum standards such as Building Regulations.²

Below: Energy hierarchy diagram (based on McLeod et al 2012 & WMRA 2009)



3. The government states that local planning authorities “should support community-led initiatives for renewable and low carbon energy” (NPPF paragraph 152). As part of moving towards a low carbon future in a changing climate, the CCNP can include a policy to support and encourage the generation of renewable and low carbon energy at the local level from sources such as hydro-electricity, geothermal, biomass or solar energy, particularly where it enables communities to take a more active role in the production of renewable and low carbon local energy.

This Topic Paper looks specifically at how renewable energy, energy efficiency and renewable energy generation can be integrated into the review of the Calne Community Neighbourhood Plan.

Parish and Town Level Context

² https://www.homequalitymark.com/wp-content/uploads/2020/01/HQM-Guide-document_BRE_115302_0120-v2.3.pdf

Sustainability and Climate Change in the Calne Community Area - Key issues and priorities:

- To mitigate the effects of climate change at the local level over four key areas:
 - Setting standards for energy efficiency of new and existing buildings
 - Encouragement and transition towards low or zero carbon energy generation
 - Enabling sustainable transport
 - Protection of the natural environment.
- Ensure benefits to the community through improved air quality, decreased fuel poverty together with greener, cleaner places to thrive
- Education, empowerment, and real community action to address the challenges and opportunities of climate change at the local level - the Neighbourhood Plan can play a role in this

Opportunities and projects

- Wiltshire Council initiatives to reduce emissions and to seek to make the county carbon neutral by 2030 such as group buying solar panel and storage / Climate Change
- Calne Without Parish Council Environment and Climate Change working group projects (e.g. thermal imaging camera loan scheme)
- Calne Town Council has appointed a Sustainability officer
- Supporting the aims of Community Action Groups (e.g. Sustainable Calne) to deliver projects such community energy BenCom (community benefits society)
- Calne Town Council have a formal Climate Emergency and Environmental Pledge and have set up a Climate Change & Environmental Pledge Advisory Working Group. This Group is tasked with Creating a plan to deliver the Climate Emergency and Environmental Pledge and provide annual updates on progress. Key tasks are:
 - Design and implement sustainability plans for buildings and services.
 - Support the reduction in carbon use across their premises.
 - Promote opportunities for the wider community to reduce carbon.
 - Create additional community green spaces including community orchards.
 - Support community groups to deliver projects and maintain outdoor spaces.

So far this has included

- Installation of Solar Panels on the Beversbrook Sports Facility
- Support for Local Groups - notably Sustainable Calne, and Friends of River Marden (River Warriors)
- Tree planting (including funding support for Avon Needs Trees)
- Commenced the installation of electric vehicle charging points in the Heritage Car Park in the centre of Calne

Calne Without Parish Council declared a Climate and Environment Emergency in April 2021 and set up a Climate Emergency and Environment Working Group (CEE WG) to support their work in this area.

The group's aims are:

- To engage with the community to raise awareness of the impact of climate change on our environment in Calne Without Parish.
- To support Wiltshire Council initiatives to reduce emissions and to seek to make the county carbon neutral by 2030.
- To produce a carbon neutral strategy and associated policies for Calne Without Parish Council.
- To create a Delivery Plan at the latest by June 2022, with the goal of completing the Plan by end of April 2024 or by next local elections.
- To pursue a community led approach to the initiatives which engages, empowers, enables, and communicates with the entire Calne Without Parish.
- To join and work alongside and in concert with Wiltshire local organisations in the delivery of policies and a Plan to support the achievement of carbon neutrality in Wiltshire by 2030.

In February 2022 CWPC conducted a survey to engage with residents in the parish communities on the impact of climate change and gain their views on which areas they felt CWPC should focus on. The areas covered by the survey were: Household Energy Use; Transport; Local & Organic Food; Waste & Recycling and Biodiversity & Local Environment and the analysis will form the basis of the initial Delivery Plan.

The majority of residents felt that Household Energy Use (65%) and Transport (66%) needed to be the focus for becoming carbon neutral. There was also a lot of responses that reflected how much people cared about the local environment and wanted to be involved in projects to increase biodiversity, such as rewilding verges, community orchards and allotments and supporting initiatives such as River Marden Restoration Work and the Calne Community Nature Reserve.

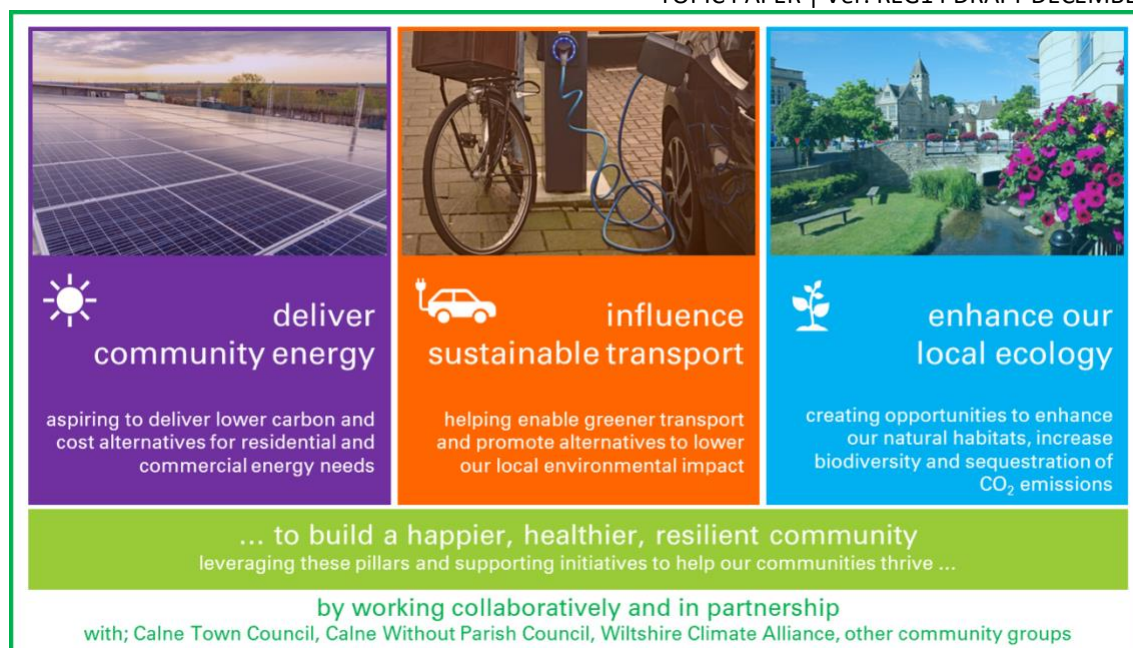
In September 2022 CWPC held an Energy Saving and Nature Day event which was well attended by local residents.

Sustainable Calne - Local Action Group

*The community in Calne have formed a local action group - Sustainable Calne, whose mission is 'Working together as a community to encourage and facilitate local action to help reduce the effects of the Climate Crisis for our world.'*³



³ <https://www.sustainablecalne.org.uk/>



Sustainable Calne’s focus relates to 3 key pillars of activity: community energy, sustainable transport and our local ecology, which ultimately lead to the intent of creating happy, healthier, and resilient communities - resilience is an important shift in emphasis to reflect the potential effects of climate and energy crises.

Sustainable Calne’s near term focus within this framework will be centred around:

- Enhancing our local ecology Create a flagship initiative ‘Greenspace Calne’ that identifies suitable green spaces across Calne and surrounding areas that can be used for increasing biodiversity, community allotments, tree planting, and ecological improvement (this could be in response to local residents).
- Be advocates for, and support measures to our protect green spaces.
- Give opportunities for people to learn about the threats to local ecology. The group will coordinate access to funding, approvals, and community resources to create a patchwork of green in our local areas.

Influencing sustainable transport

- Increase awareness of walking, cycling and other sustainable transport alternatives, including publicising local walks and cycle routes and planning/advocating for safer/more accessible options.
- Engaging with those who make decisions and helping to identify changes/connections in the network that could make a real difference
- Help identify what hinders the use of active travel
- Help promote and enable lower carbon transport alternatives, including raising awareness of air quality issues, benefits of electric vehicles, availability of EV charging sites, and cycling infrastructure.

Delivering community energy

- Support the formation of an anticipated community energy BenCom (community benefits society) via local engagement and the identification of suitable projects (including schools, public, and commercial buildings).
- Raise residential awareness of options for alternative energy and energy efficiency, including solar buying schemes, home insulation etc.

To support these initiatives, Sustainable Calne also propose focusing on:

Community engagement

Working on the basis that unless there is community engagement the pressure and inclination to make changes is unlikely to be successful -sustainability needs to involve everyone.

- Building a more collaborative, shared plan of action with Calne and Calne Without Town Councils.
- Raising the bar on our communications, including Facebook, a new website, creating links with local schools, and celebrating our successes and ongoing activities through newsletters and wider publicity.
- Driving up community membership through events and increasing the potential for hands on involvement for all skills and abilities. - empowering people to feel they can be part of the action.

This Topic Paper looks specifically at how renewable energy, energy efficiency and renewable energy generation can be integrated into the review of the Calne Community Neighbourhood Plan.

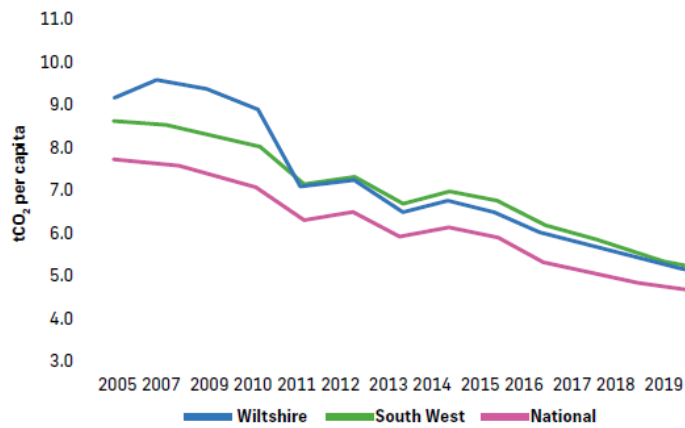
Evidence at the town and parish level: Emissions

The steep trajectory of cuts needed to meet our carbon reduction commitments means that the local and neighbourhood plans being developed now must deliver and be compatible with this scale and pace of emission reductions. The need to limit the impacts of global heating by minimising overall CO₂ [not just CO₂ but all greenhouse gasses e.g. CH₄ is a large issue and should also be mentioned]within our atmosphere necessitates urgent and immediate emission reductions.

The territorial CO₂ emissions for Wiltshire were in 2019 estimated to be about 2.6 Mt CO₂ p.a. these are emissions generated by activities within the county. However, this is really only half of the story as consumption based emissions, that include greenhouse gas emissions for products used here but manufactured elsewhere are likely to account for about the same amount again.

Recent historical data shows significant reductions in emissions from nearly 10 t CO₂ per capita p.a. in 2007 to about 5 t CO₂ per capita p.a. in 2019

Chart 3: Change in per capita CO₂ emissions over time

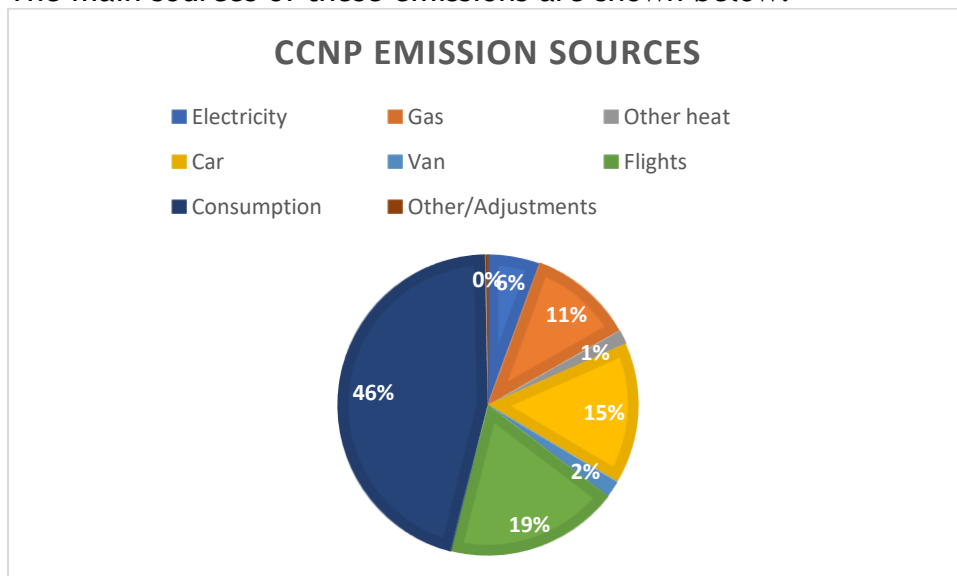


Looking at the CCNP area then data on CO₂ (e) data by LSOA from www.carbon.place gives the following estimates for total kg CO₂ emissions per capita p.a.

LSOA	31900	31901	31902	32690	32691	31898	31895	31896	31897	31903	31938	31904
Ward	Calne Central			Calne North			Chilvester & Abberd			Calne South	Cherhill	Derry Hill
Total	7130	7750	10000	9030	9750	7660	6340	5190	9690	9650	10900	9260
Electricity	486	490	496	431	367	380	440	478	394	500	639	594
Gas	1070	1120	1100	1000	833	855	991	713	939	1370	401	831
Other heat	32	38	26	27	33	40	15	78	17	22	679	570
Car	1290	1190	1110	1380	1170	1100	774	718	1440	1760	1750	1550
Van	91	98	89	555	60	108	64	57	136	193	229	170
Flights	1290	1060	2090	1720	2230	1400	955	475	2050	1760	2200	1740
Consumption	2850	3710	5100	3890	5030	3750	3080	2650	4680	4030	4950	3780
Other/Adjustments	21	44	-11	27	27	27	21	21	34	15	52	25
Population	2460	1410	1280	1980	1530	1740	2130	1400	2070	2190	1400	2350
Total Emissions	17.5	10.9	12.8	17.9	14.9	13.3	13.5	7.3	20.1	21.1	15.3	21.8

Note that this data estimates that the CCNP plan area emissions are 186 kt CO₂ (e) p.a. Also it should be noted that there are considerable variations between areas from a per capita emission of 5.2 t to over 10 t p.a.

The main sources of these emissions are shown below:



As was noted above, nearly half is estimated to be consumption related. Of the remaining territorial emissions, the largest source is travel (total 36%) with air travel being the largest item then car travel. Household power and heating (18%) has reduced in recent years as the portion of electrical generation from fossil fuels has reduced. While 77% of households in the CCNP area use natural gas heating it only generates 11% of the total CO₂ emissions.

There is information on housing types and ages as well the latest ONS census data provides heating types for the CCNP area.

Type of central heating in household		Total CCNP Area		
Type of central heating in household (13 categories) Code	Type of central heating in household (13 categories)	Total	% Total	
-9	Does not apply	-	0%	
1	No central heating	69	1%	
2	Mains gas only	7,280	77%	
3	Tank or bottled gas only	38	0%	
4	Electric only	803	8%	
5	Oil only	346	4%	
6	Wood only	18	0%	
7	Solid fuel only	10	0%	
8	Renewable energy only	33	0%	
9	District or communal heat networks only	18	0%	
10	Other central heating only	40	0%	
11	Two or more types of central heating (not including renewable energy)	801	8%	
12	Two or more types of central heating (including renewable energy)	52	1%	
	Total	9,508		

Evidence at the town and parish level: Energy Performance

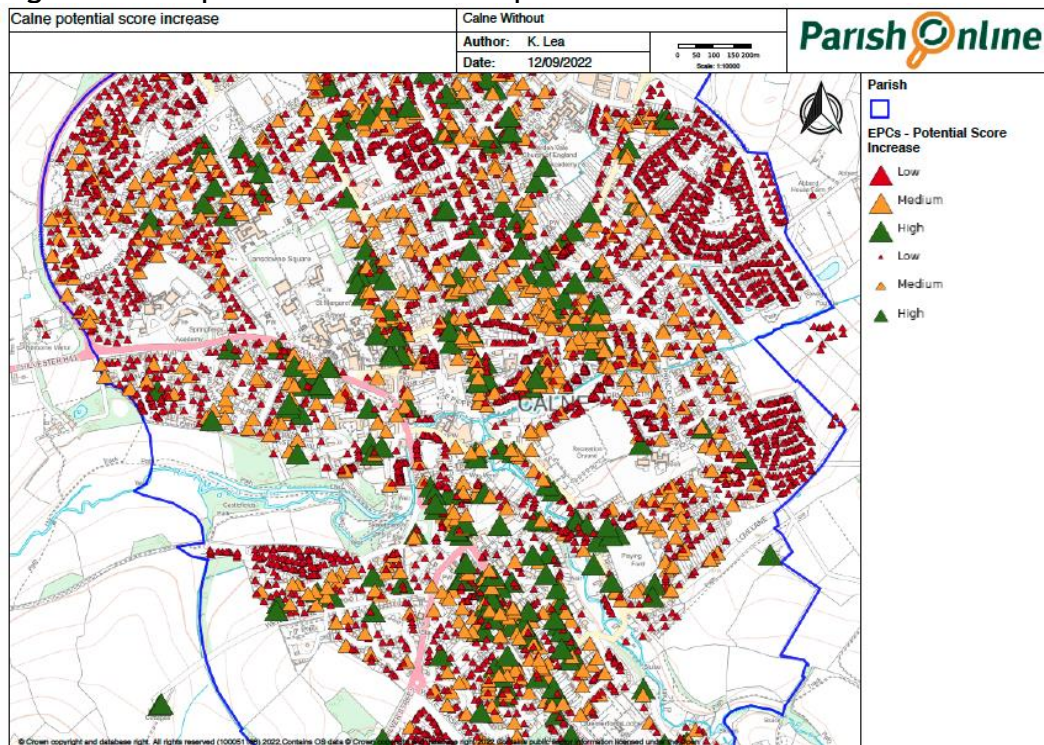
An Energy Performance Certificate - or EPC - is a document which sets out the energy efficiency of a property on a traffic light system of A to G - A being the most efficient. An EPC provides an indication of how much it will cost to heat and power a property. The Government's Clean Growth Strategy⁴ set targets to upgrade as many houses to EPC band C by 2035 (2030 for all fuel-poor households). There is scope for buildings in the area to be improved in terms of their energy performance and the Plan can support this. See map on the next page. Energy

⁴ <https://www.gov.uk/government/publications/clean-growth-strategy>

Performance Certificates (EPC) in Calne show that most of the town's homes have been rated B-G, though a high proportion are D/E with the most recent developments delivering A/B ratings. Looking to the future, we need 100% A standard rating to reach carbon neutrality.

Note: EPC ratings are usually issued when a house is sold and are likely to be dated (also a study suggested that 80% are inaccurate!)

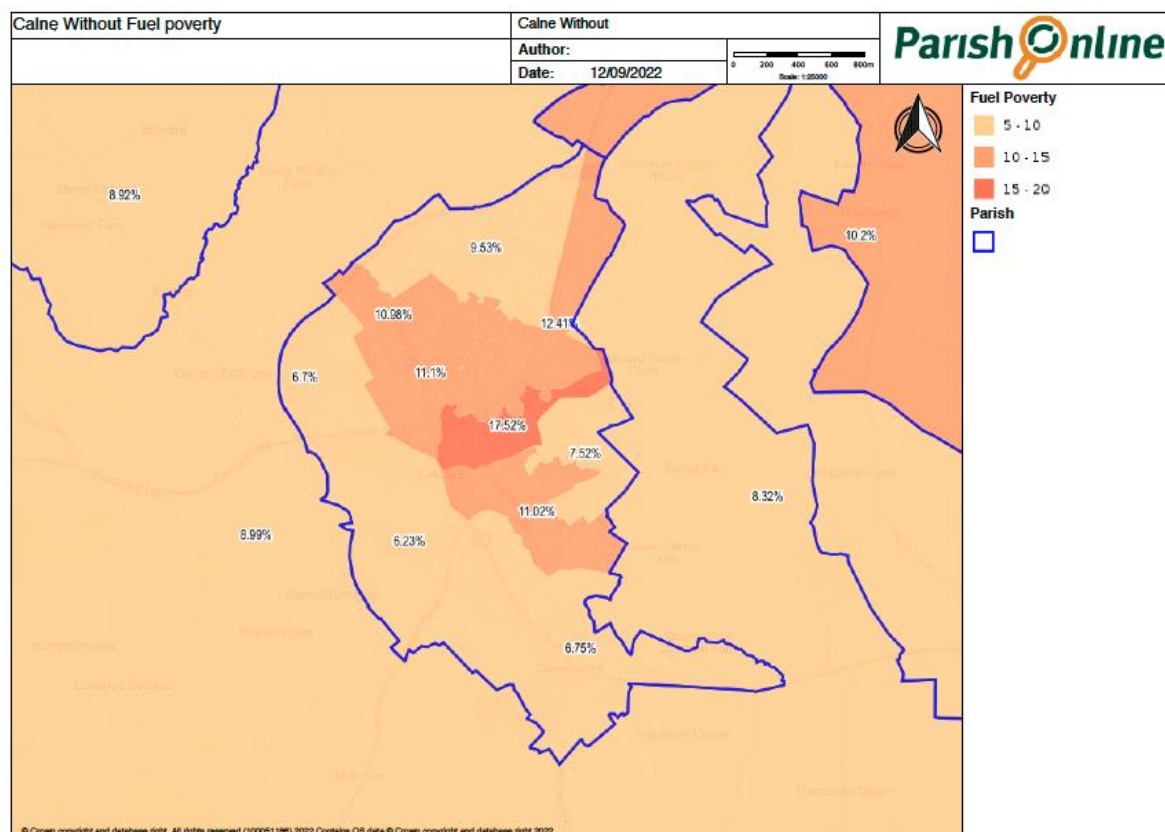
Figure 2: EPC potential increase map



Fuel Poverty in the CCNP Plan Area

Figure 3: Fuel Poverty

In addition to the environmental imperative, there are also socio-economic factors at play. Calne is a mixed residential town with some areas of significant



deprivation. In Calne fuel poverty ranges from affecting 6.23% to 17.5% of households with the higher percentages in the town. The England average of 10%⁵. Information about fuel poverty and energy sources for residential homes - nongasmap <https://www.nongasmap.org.uk/search?q=SN11+OAA>

National Law / Policy / Guidance

National Planning Policy Framework (NPPF)

The NPPF was updated in December 2023 and sets out the Government’s planning policies for England and how these should be applied in relation to plan-making and decision-making. There are numerous paragraphs within the NPPF that relate to climate and sustainability issues. Key paragraphs are:

Paragraph 7 references the UN’s Sustainable Development Goals as well as defining sustainable development as “meeting the needs of the present without compromising the ability of future generations to meet their own needs”.

Paragraph 8 sets out that sustainable development is comprised of three strands - an economic objective, a social objective and an environmental objective - which are interdependent and should be pursued in mutually supportive ways. This means that no one strand is more important than any other. This Statement primarily relates to the environmental objective. It does not promote the environmental objective over the economic or social objectives, but has deliberately been

⁵ (BEIS Fuel Poverty statistics, 2018 data)

produced to help the environmental objective gain greater visibility within decisions made by the Council as the Local Planning Authority alongside economic and social objectives. Paragraph 16 states plans should “be prepared with the objective of contributing to the achievement of sustainable development”.

Paragraph 157 states that “The planning system should support the transition to a low carbon future in a changing climate, taking full account of flood risk and coastal change. It should help to: shape places in ways that contribute to radical reductions in greenhouse gas emissions, minimise vulnerability and improve resilience; encourage the reuse of existing resources, including the conversion of existing buildings; and support renewable and low carbon energy and associated infrastructure”.

Paragraph 158 states that “Plans should take a proactive approach to mitigating and adapting to climate change, taking into account the long-term implications for flood risk, coastal change, water supply, biodiversity and landscapes, and the risk of overheating from rising temperatures [In line with the objectives and provisions of the Climate Change Act 2008]. Policies should support appropriate measures to ensure the future resilience of communities and infrastructure to climate change impacts, such as providing space for physical protection measures, or making provision for the possible future relocation of vulnerable development and infrastructure”.

Planning Policy Guidance

Planning Policy Guidance on Climate Change, revised in March 2019 sets out that in their development plan policies, local planning authorities:

1. Can set energy performance standards for new housing or the adaptation of buildings to provide dwellings that are higher than building regulations, up to the equivalent of Level 4 of the Code for Sustainable Homes.
2. are not restricted or limited in setting energy performance standards above the building regulations for non-housing developments

The Planning and Energy Act 2008 allows local planning authorities to set energy efficiency standards in their development plan policies that exceed the energy efficiency requirements of building regulations.

The National Planning Practice Guidance states that “when setting any local requirement for a building’s sustainability... [they are expected]... to do so in a way consistent with the government’s zero carbon buildings policy and adopt nationally described standards” (Reference ID: 6-009-20150327). It also states that “local authorities: can set energy performance standards for new housing or the adaptation of buildings to provide dwellings, that are higher than the building regulations, but only up to the equivalent of Level 4 of the Code for Sustainable Homes (this was approximately 20% above the 2013 Building Regulations across the build mix)...[and]...are not restricted or limited in setting energy performance standards above the building regulations for non-housing developments” (Reference ID: 6-012-20190315). The same paragraph also states that plans may “impose reasonable requirements for a proportion of energy used in development in their area to be energy from renewable sources and/or to be low carbon energy

from sources in the locality of the development”. However there have been changes since 2019 in standards and on what planning policy can do in regard to climate change mitigation and adaptation. See section below.

Standards

Written Ministerial Statements clarify national policy. On the 13th of December, the Minister of State for Housing issued a Written Ministerial Statement (WMS) for Planning - Local Energy Efficiency Standards Update. The WMS effectively addresses the theme of delivering net zero new development and is linked to the Government's New Homes and New Buildings Standards which will be mandated in law from 2025.

Through this statement, the Government have set a high bar test that will be applied by Inspector's when examining plans that go beyond Part L of Building Regs in terms of the energy efficiency of new homes and buildings. Therefore, there are implications for the CCNP in seeking to bring forward ambitious policies for the delivery of net zero carbon development which will need to be considered as part of Regulation 14 consultation (due to take place over February and March 2024), due to the late stage of plan drafting that the CCNP has reached at this point in time.

Building Regulations / Future Homes Standard and Future Buildings Standard

The Government has now updated Building Regulations and published Part L 2021 which includes requirements amounting to a 31% improvement reduction over Part L 2013 for new dwellings and a 27% improvement reduction for non-residential buildings. The updated Regulations came into force on 15 June 2022, and transitional arrangements mean for some developments these regulations will be applied from June 2023.

The Government has confirmed the intention to bring in significant improvements to Part L of the Building Regulations from 2025 equivalent to a 75% carbon reduction over Part L 2013⁶.

This effectively means from 2025 no new homes will be served by fossil fuel heating, but that decarbonisation of the final 25% is reliant upon decarbonisation of the electricity grid.

The response confirms that Government will not enact the outstanding amendments to the Planning and Energy Act 2008 (referred to above), which would have stopped local authorities setting planning policy requirements exceeding Building Regulations. Instead, the role of local authorities will be clarified through the new planning reforms. The Government also consulted in early 2021 on a Future Buildings Standard, relating to energy and ventilation standards for non-domestic buildings. The standard would again come in from 2025.

⁶ MHCLG (2021) The Future Homes Standard - Summary of responses received and Government response, available at https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/953791/Government_response_to_Future_Homes_Standard_consultation.pdf

The Government also consulted in early 2021 on a Future Buildings Standard, relating to energy and ventilation standards for non-domestic buildings. The standard would again come in from 2025. Whilst not including explicit carbon reduction, energy efficiency target or heat source requirement at this time, the consultation stated that “it is highly unlikely a new building will be able to meet the Future Buildings Standard without low carbon heating and very high levels of energy efficiency”. As with the Future Homes Standard, the specification will evolve over the coming years.

Net Zero Strategy: Build Back Greener (October 2021)

The Net Zero Strategy included a number of key policies of relevance to planning for the climate emergency, including:

- Committing to decarbonising the national grid by 2035;
- Committing to more onshore wind, solar and other renewables balancing generation and demand in the most efficient manner and taking account of the needs of local communities;
- Setting an ambition to ban the sale of new gas boilers and for all new heating appliances to be low carbon by 2035;
- Continuing the commitment to end the sale of petrol and diesel cars by 2030, and for all cars to be fully zero emission capable by 2035;
- Committing funding to help enable half of all town and city based journeys to be cycled or walked by 2030;
- Committing funding to create integrated bus networks, more frequent services and bus lanes and transformation of local transport systems with zero emission fleets and infrastructure

Heat and Buildings Strategy (October 2021)

The Government also published its Heat and Buildings Strategy in October 2021 which set out some specific commitments and intentions in relation to the decarbonisation of heat and buildings. Of particular relevance to planning for the climate emergency, the Strategy states: To meet Net Zero virtually all heat in buildings will need to be decarbonised;

- ‘No and low-regrets’ action should be accelerated in the 2020s, with improved energy performance and a fabric first approach as the first stepping-stone;
- The solutions for decarbonising heat in new buildings are clear: heat pumps and heat networks are proven scalable option and will play a key role, new builds have far fewer barriers to installation and designing in from the outset will avoid complex future retrofit;
- At least 200,000 of the national 600,000 per year heat pump installations target will be delivered in new builds by 2028. We need to act now to develop the market and bring down costs;
- Strategic decisions on the role of hydrogen for heating will be made by 2026. Even if this work proves it to be safe, feasible and cost-effective, it is unlikely to be suitable for all building types and locations which may be better suited to heat pumps and heat networks. Hydrogen will play its biggest role in areas with gas import facilities, salt caverns and other storage facilities.

- Energy planning is necessary at a local level and local authorities should develop whole-system Local Area Energy Plans with key stakeholders;
- Local authorities should take Net Zero into account in operating their statutory functions (e.g. planning) and in how they manage their own estate.

Net-Zero-Carbon-Buildings-A-framework-definition. April 2019

From November 2018 to March 2019, the UK Green Building Council (UKGBC) brought together an extensive range of industry stakeholders, including a task group, to build consensus on a framework definition for net zero carbon buildings in the UK.

The primary focus of the framework is to set in place a path to achieve net zero carbon buildings in both construction and operation (in-use energy consumption), whilst beginning to provide direction for addressing whole life carbon in the industry.

This provides an important framework and reference point for policies in construction.

Wiltshire Council Context

In January 2021, Wiltshire Council opened consultation on the Local Plan Review to 2036. This included a supporting document ‘Addressing Climate Change and Biodiversity Net Gain through the Local Plan - Raising the Ambition’ which sets out the Local Planning Authority’s proposed approach to low carbon development. Also in January 2021, a report from the Global Warming and Climate Emergency Task Group of the Wiltshire Council Environmental Select Committee issued a report⁷ that set out recommendations on planning policies for the Local Plan Review.

Published in early 2022, the 2022-2027 Climate Strategy sets out a framework for reducing emissions over the next 5 years to achieve the commitment to seek to make Wiltshire Carbon Neutral by 2030. The Council is working on delivery of this

Carbon Reduction Measures

The plan sets out recommendations for action across several areas:



Buildings

- 1.1 Improving energy efficiency
- 1.2 Reducing gas heating systems
- 1.3 Low carbon and energy efficient cooking, lighting and appliances



Industry

- 4.1 Shifting away from fossil fuels
- 4.2 More efficient processes



Transport

- 2.1 Travelling shorter distances
- 2.2 Driving less
- 2.3 Switching to electric vehicles
- 2.4 Improving freight emissions



Natural Environment

- 5.1 Increased tree coverage & tree planting
- 5.2 Land use management
- 5.3 Livestock management



Waste

- 3.1 Reducing the quantity of waste
- 3.2 Increasing the recycling rate



Energy Supply

- 6.1 Increase solar photovoltaic (PV) capacity
- 6.2 Increase the capacity of other renewable technologies

⁷ https://cms.wiltshire.gov.uk/documents/s186265/V3FINAL_GWCETG_SECOND_reportNov2020.pdf

commitment and commissioned a detailed technical study⁸ of the council's, and the county's, climate ambitions, so they have a clear picture of the way forward and the progress made so far. The work has been carried out by the Anthesis Group, specialists in providing support and expertise to organisations looking to be as sustainable as possible.

This encapsulates several action areas: Transport, Homes and Built Environment, Natural Environment, Energy, Green Economy and Waste.

In the Autumn of 2023, Wiltshire Council consulted on the Regulation 19 version of the Local Plan. The Plan is draft and still has some stages to go until it can be adopted as the new Local Plan for Wiltshire. The plan places the challenge of tackling climate change as a key challenge, and sets out the objective to utilise the plan to help mitigate and adapt to climate change by contributing to the delivery of sustainable development and helping to ensure that communities are resilient to the unavoidable consequences of a changing climate. There are a number of policies linked to climate change in the Plan, but the most directly relevant policies are:

- Policy 4 Addressing climate change
- Policy 85: Sustainable construction and low carbon energy
- Policy 86: Renewable energy installations
- Policy 87: Embodied carbon

Viability of building to zero carbon

The NPPF 2021 and Planning Guidance explain how viability should be addressed primarily at the plan making stage.

Paragraph 58 of the NPPF states that “it is up to the applicant to demonstrate whether particular circumstances justify the need for a viability assessment at the application stage. The weight to be given to a viability assessment is a matter for the decision maker, having regard to all the circumstances in the case, including whether the plan and the viability evidence underpinning it is up to date, and any change in site circumstances since the plan was brought into force”.

However, the Planning Practice Guidance states that “The price paid for land is not a relevant justification for failing to accord with relevant policies in the plan. Landowners and site purchasers should consider this when agreeing land transactions” (Reference ID: 10-002-20190509).

It must be recognised that careful balancing of priorities and viability may be needed in some circumstances, particularly where outline permissions have been granted with conditions and planning obligations informed by viability testing. However, we know that development needs to effectively tackle the Climate Emergency.

⁸ https://www.wiltshire.gov.uk/media/9234/Anthesis-Report-Wiltshire-County/pdf/Anthesis_Report_Wiltshire_County.pdf?m=637892413261870000

Achieving effective planning policies for zero carbon homes will require clarity up front on what is being required, and that they are priced-in to plan viability assessments at the outset.⁹

New houses can be built to zero-carbon standards on a cost-competitive basis in the mass market, but currently only a very small proportion are built to better than the minimum legal requirement for energy efficiency¹⁰. The UKGBC shared information on a national evidence base for zero carbon housing solutions of which PassivHaus is the most common, and clearly shows that the additional cost for delivering to this standard continues to fall and is now only 4-6% higher than a conventional build¹¹. But, it is acknowledged that the cost of retrofitting conventionally built homes in a few years' time will be significantly greater than that. A small number of sites will not technically be able to deliver to this standard due to topography or overshadowing.

A report published in 2022 CarbonBrief¹² has also shown how the Government's scrapping of various climate policies including the national zero carbon homes policy in 2015 have led to UK energy bills being £2.5bn higher than had they not been scrapped. In light of the current energy and cost of living crises, this is significant.

Net-Zero Toolkit

The Net-Zero Toolkit¹³ (Forest of Dean / West Oxfordshire / Cotswold Councils October 2021) is designed to assist in the planning, design and construction of a new build or retrofit housing project.

This toolkit provides a technical, go-to guide on what to consider in the very early stages of design; how to achieve fabric energy efficiency; what systems to include; where to go for expert advice; and what to consider once you have finished your housing project and you are handing over to occupants. The Toolkit aligns to the best practice technical specification standards in the LETI Climate Emergency Design Guide¹⁴. The guide recommends the operational targets for new homes set out on this page, which are consistent with the LETI Climate Emergency Design Guide. Energy use targets are more transparent and robust than carbon reductions targets and are the best way to ensure zero carbon is delivered in practice.

⁹ <https://lichfields.uk/blog/2020/april/7/planning-policies-for-zero-carbon-homes-and-communities/>

¹⁰ <https://phys.org/news/2020-06-zero-carbon-homes-green-recovery-covid-.html>

¹¹ <https://www.ukgbc.org/news/net-zero-carbon-buildings-design-delivery-and-cost-explored/>

¹² Carbon Brief (2022) Analysis: Cutting the 'green crap' has added £2.5bn to UK energy bills, available at <https://www.carbonbrief.org/analysis-cuttingthe-green-crap-has-added-2-5bn-to-uk-energy-bills>

¹³ <https://www.fdean.gov.uk/media/nzdh0poj/net-zero-carbon-toolkit.pdf>

¹⁴ <https://www.leti.london/cedg#:~:text=We%20are%20in%20a%20climate,a%20net%20zero%20carbon%20future.>

Image to the left: Energy Use targets as set out in the Net Zero Toolkit.

KPIs New housing	KPIs Retrofit housing
Space heating demand 15 kWh/m ² /yr	Space heating demand 65 kWh/m ² /yr* <small>*on average (range of 20-120 kWh/m²/yr)</small>
Energy Use Intensity 35 kWh/m ² /yr	Energy Use Intensity 60 kWh/m ² /yr <small>*on average</small>
Electricity generation intensity 120 kWh/m ² _{fp} /yr <small>m²_{fp} : m² building footprint</small>	Electricity generation intensity 120 kWh/m ² _{fp} /yr <small>m²_{fp} : m² building footprint</small>
Embodied carbon benchmark 500 kgCO _{2e} /m ² /yr	-

Information Box: Net Zero

Put simply, net zero refers to the balance between the amount of greenhouse gas produced and the amount removed from the atmosphere. We reach net zero when the amount we add is no more than the amount taken away.

This brings us back to the question of viability. Can the targets above be delivered? To answer this question we researched local authority development plans. Bath and North East Somerset Local Plan Review and Cornwall County Council have recently examined Local Plan material

that has been found to be sound and have a common approach to shaping policy to deliver net zero carbon. The Cornwall County Council Climate Emergency DPD which has been examined and found to be sound by the inspector (January 2023). The question of viability has been explored in the DPD as part of the ambitious policy formation to address the climate emergency through planning¹⁵. The draft Wiltshire Local Plan published in July 2023 also includes this same approach. Viability assessment indicated the need for some flexibility in policy requirements:

Space Heating Demand Limit

A space heating demand of less than 30 kWh/m²/yr would provide some flexibility to allow up-skilling of the local construction industry.

Total Energy Use Limit (EUI)

To reflect the relaxed space heating demand, the Total Energy Use target could be adjusted to a maximum of 40 kWh/m²/yr.

A policy in the CCNP that aligns to the technical information in the Net Zero Carbon Toolkit can be draft to require applications demonstrate how the proposal performs against the energy targets and Key Performance Indicators (KPIs) as set out in the toolkit - with the aim of demonstrating how the best possible standards will be delivered within any relevant constraints - reflecting the need for flexibility in policy requirements at this stage and the forthcoming Wiltshire Local Plan which is also seeking to address this issue.

Discussion: What policies can the CCNP include?

¹⁵ <https://www.cornwall.gov.uk/media/mfob2hbj/eb004-energy-review-and-modelling-report.pdf>

Our Neighbourhood Plan can only present policy that relates to the use and development of land, some of the key points from this paper can translate to the following for the Neighbourhood Plan:

Housing change targets:

- Reduced energy demand from existing buildings, including older and heritage buildings which there are many of in the rural areas in particular (policy support for retrofitting)
- Smarter & more flexible management of energy demand, including storage
- Decarbonised heat delivery (policy support for renewable energy - with an emphasis on support for community owned schemes as aimed for with Sustainable Calne)
- New buildings and developments that seek to achieve zero-carbon emissions where viable, (policy support for this though this may be constrained by viability - see later in this paper) and support for retrofitting of existing buildings

Emissions reductions also link to transport (NB - separate chapter in CCNP):

- Reduced private car travel and a comparable increase in active and public transport (policy on active travel)
- Enable a shift to electric vehicles (policy and identification of location areas where EV can be installed)

It is likely that the emerging Wiltshire Local Plan will contain climate adaptation policies, however the Neighbourhood Plan should continue to include policies that can be implemented at the local level and reflect the importance of addressing the Climate Crisis to the local community.

The Government's Energy White Paper¹⁶ has allowed greater discretion for development plans to create an interim policy framework for building performance, pending its future decisions on implementing the Future Homes Standard. Increasing numbers of Local Authorities around the UK are developing more ambitious energy policies. However, a 2019 government consultation on the implementation of the Future Homes Standard and uplift to Building Regulations proposed to restrict Local Authorities from setting their own standards. Consequently, the development of this policy has been subject to considerable challenge. In January 2021, the government confirmed that Local Authorities will be allowed to continue to set their own energy standards for the time being¹⁷.

The Government's policy approach to the energy performance of buildings, ever since the 2015 Written Ministerial Statement and the Planning & Energy Act 2008, has consistently been that the required standards (and optional standards where applicable) will be set through the Building Regulations and not through the planning system. There is already a pathway for the Building Regulations to become more demanding. Whilst there is nothing to stop Neighbourhood Plans

¹⁶ <https://www.gov.uk/government/publications/energy-white-paper-powering-our-net-zero-future>

¹⁷

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/956094/Government_response_to_Future_Homes_Standard_consultation.pdf

encouraging higher standards - and Qualifying Bodies engaging with land interests to encourage their delivery - requirements are set at a national level through the Building Regulations¹⁸ which are steadily strengthening regulatory requirements on development.

The report from the Global Warming and Climate Emergency Task Group of the Wiltshire Council Environmental Select Committee set out recommendations on planning policies for the Local Plan Review - these can form the basis for a policy in the CCNP. The paper “Addressing climate change and biodiversity net gain through the Local Plan - raising the ambition” (January 2021), for the emerging Wiltshire Council Local Plan Review, at paragraph 4.10 notes “There are numerous construction methods in operation across the country - e.g. Modern Methods of Construction and Passivhaus. Such methods generally focus on the performance of construction materials to ensure that buildings are more energy efficient (the so called - fabric first model). However, without an agreed, clear direction set out in planning policy, problems with enforcement and objections on design grounds are possible.” As the examiner for the Marlborough NP set out - these issues must also inform NP policy wording¹⁹ - and the policy for Marlborough was amended from ‘require’ to encourage’. What we are seeing is an increasing number of NPs coming forward that are including more detail on what they can ‘encourage’. As such we would suggest that CCNP could be reviewed to include more specific detail on expectations linked to the information / evidence set out above on things like space heating demand, and being ‘zero-carbon ready by design’. It may also be worth considered a policy, or more information linked to retro-fitting existing properties.

NOTE: we may not be able to impose any additions to the National and Local List of Planning Application Requirements (such as requiring an energy statement to be submitted as part of a planning application) - but should aim to include in the first instance and seek feedback from Wiltshire Council.

- 4. The CCNP could open with a broad policy on climate change and principles of development - this acknowledges that the issues are holistic and development today needs to be responsive to the changes that it will bring which will include warmer wetter winters, drier summers, more frequent intense periods of rainfall, more extreme weather events and sea level rise. This in turn will lead to increased risks of flooding, drought, overheating, air pollution, water shortages, nature degradation with reduced ability to store carbon and reduced soil condition with consequential impacts on food production. This policy can set the overall strategic framework to help deliver the local climate change and sustainable development objectives.**
- 5. The CCNP could have a chapter which specifically addresses Renewable energy and Sustainable construction. It could include a policy to address net**

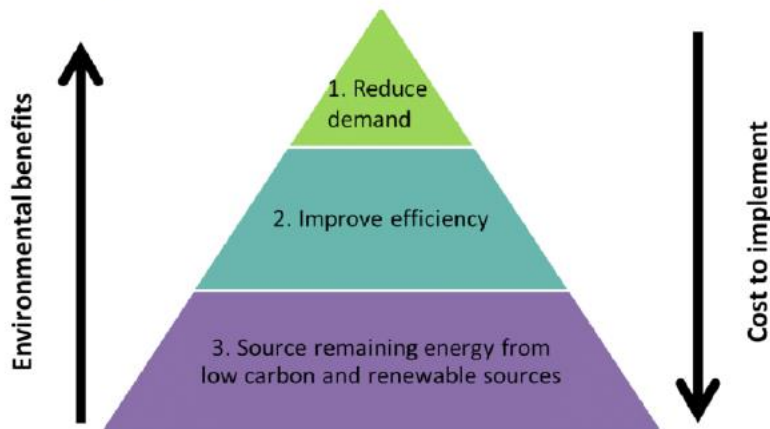
¹⁸ https://www.marlborough-tc.gov.uk/images/Neighbourhood_Plan/Marlborough_Examination_Report_-_FINAL_May_2022_web.pdf

¹⁹ https://www.marlborough-tc.gov.uk/images/Neighbourhood_Plan/Marlborough_Examination_Report_-_FINAL_May_2022_web.pdf

zero carbon development and retrofit. This policy can use the current core strategy policy 41 as context but update the requirements (ahead of a policy update that is expected as part of the local plan review).

The policy can reference the energy hierarchy (see below) and reference certification schemes, for example, the Home Quality Mark (HQM) is an independently assessed certification scheme for new homes. It awards certificates with a simple star rating for the standard of a home's design, construction and sustainability. The assessments are focused on the needs and expectations of people living in the home. Every home with an HQM certificate meets standards that are significantly higher than minimum standards such as Building Regulations.²⁰

Below: Energy hierarchy diagram (based on McLeod et al 2012 & WMRA 2009)



6. The government states that local planning authorities “should support community-led initiatives for renewable and low carbon energy” (NPPF paragraph 152). As part of moving towards a low carbon future in a changing climate, the CCNP can include a policy to support and encourage the generation of renewable and low carbon energy at the local level from sources such as hydro-electricity, geothermal, biomass or solar energy, particularly where it enables communities to take a more active role in the production of renewable and low carbon local energy.

²⁰ https://www.homequalitymark.com/wp-content/uploads/2020/01/HQM-Guide-document_BRE_115302_0120-v2.3.pdf