

Cheshire West & Chester Council

# Energy and Carbon Reduction Strategy 2016-2020

Save, Generate, Sustain



low co<sub>2</sub>uncil



Cheshire West  
and Chester

## Contents

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3	Foreword
4	Introduction and Background
5	Vision
6	Key Priorities
7	Priority 1- Efficient use of energy by the Council
8	Priority 2 - Increasing energy security in the Borough
9	Priority 3 – Tackling Fuel Poverty
10	Priority 4 - Supporting Community Energy
11	Priority 5 - Creating a strong Energy Sector and supporting a Low Carbon Economy
12	Priority 6 - Supporting policy development and project delivery across the Council
15	Performance Framework





# Foreword

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There is a growing consensus that we need to undertake actions now to help us move towards securing long term, sustainable and affordable energy.

Cheshire West and Chester Council recognise its responsibilities in terms of estate management, service provision and leadership. The Council also understands that its influence extends to the community, local businesses and other public service providers.

Over the last few years, the Council and its partners have delivered a range of exciting and innovative initiatives aimed at delivering a sustainable future and responding to the wider challenges of climate change and energy security.

We must build upon opportunities to develop and support effective energy management, local energy networks, local employment in the low carbon sector, business continuity in the face of climate change, as well as the wider sustainability benefits such as reducing fuel poverty, improving health and well-being, local resourcing, community and business engagement and involvement.

The Council must lead by example to ensure that the Council's services are being delivered with the most efficient sustainable resources.

This overarching document outlines the work of the Energy and Carbon Reduction Team and is supported by individual Action Plans which are annexed to this Strategy. The suite of documents sets out how the Council's vision is delivered by working in collaboration with others to find more energy sustainable solutions for Cheshire West and Chester.

I fully support this Strategy and look forward to seeing our ambitions being realised over the coming years.



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**Councillor Karen Shore**  
Cabinet Member for Environment

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## Introduction and background

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In April 2014, the Council established the Energy and Carbon Reduction Team to lead and deliver a range of energy programmes, to manage the Council's energy related activity effectively, and to provide long term sustainable energy solutions to all residents, businesses and partners to create a Borough where people want to live, invest and work now and in the future.

This Strategy sets out the Energy and Carbon Reduction Team's priorities for the four year period up to 2020, and sets out how the Council will ensure that low carbon, sustainable and energy efficient considerations are embedded in our own activity and in the services and support provided to those who live and work in the Borough.

National legislation and regulations both require and encourage local authorities, businesses and consumers to address energy issues as well as the causes and consequences of climate change. The key legislative drivers are set out under the relevant priority areas.

There are number of strategies and plans currently in existence – all are outdated and do not reflect current priorities and ambitions. This overarching Energy & Carbon Reduction Strategy will bring together our priorities into a single document which will be used to steer our activity over the next four years.

This Strategy covers six priorities that have been developed to drive forward current activity and new ambitions in line with national regulatory and strategic drivers; they also build upon the themes detailed in The Councils Plan. These six key priorities will be targeted over the course of the Strategy and will allow the Council to deliver best practice in terms of promoting sustainability and implementing carbon reduction measures.

The six priorities are:

1. Efficient use of energy by the Council
2. Increasing energy security in the Borough
3. Tackling Fuel Poverty
4. Supporting Community Energy
5. Creating a strong Energy Sector and supporting a Low Carbon Economy
6. Supporting policy development and project delivery across the Council

The Energy and Carbon Reduction Team will take the lead on the first 5 priorities, but will play a supporting role in priority 6. Monitoring will be undertaken periodically as required and performance reported in a number of ways including internal channels, direct reporting to Central Government and publishing results on the Cheshire West and Chester Council website.



## Our Vision

To effectively manage energy resources by enabling initiatives to save, generate and sustain energy for the Council, residents and partners. This Strategy supports the delivery of many outcomes within the THRIVE agenda set out in the Council Plan 2016-20. It specifically contributes to Thriving Communities:



Through this Strategy, by 2020 we expect to see:

### Theme: Thriving communities

**Priority:** Good quality and affordable housing that meets the needs of our diverse communities

- Promote home energy efficiency and tackle fuel poverty

**Priority:** Cleanest, safest and most sustainable neighbourhoods in the country

- Lower levels of greenhouse gas emissions from the Council, partners, businesses and communities
- More energy efficient lighting
- Improving the efficiency of our homes
- Supporting renewable energy opportunities



## Energy and Carbon Reduction Team - Our Key Priorities

Priority		Links to the Council Plan
<b>Priority 1</b>	Efficient use of energy by the Council	<ul style="list-style-type: none"> <li>• Lower levels of CO<sub>2</sub> emissions from the Council, partners, businesses and communities</li> <li>• Resources are well managed, costs are reduced</li> </ul>
<b>Priority 2</b>	Increasing energy security in the Borough	<ul style="list-style-type: none"> <li>• Supporting renewable energy opportunities</li> <li>• Retain existing and attract new businesses</li> </ul>
<b>Priority 3</b>	Tackling Fuel Poverty	<ul style="list-style-type: none"> <li>• Promote home energy efficiency and tackle fuel poverty</li> </ul>
<b>Priority 4</b>	Supporting Community Energy	<ul style="list-style-type: none"> <li>• Supporting communities</li> <li>• Supporting renewable energy opportunities</li> <li>• Increasing community resilience to flooding and other emergencies</li> </ul>
<b>Priority 5</b>	Creating a strong Energy Sector and supporting a Low Carbon Economy	<ul style="list-style-type: none"> <li>• Supporting the Low Carbon and Environmental Services sector</li> <li>• Retain existing and attract new businesses</li> </ul>
<b>Priority 6</b>	Supporting policy development and project delivery across the Council	<ul style="list-style-type: none"> <li>• Supporting the delivery of plans and strategies within CWAC and from Partners</li> </ul>



## Priority 1: Efficient use of energy by the Council

The Climate Change Act 2008 was introduced to ensure the UK cuts its greenhouse gas emissions by 80% by 2050 against a 1990 baseline. The Act sets in place a legally binding framework allowing the Government to introduce measures which will achieve carbon reduction and mitigation and adaption to climate change.

Meeting these targets will prove a challenge for both the public and private sector and will also require local residents and communities to change their behaviour by adopting a more sustainable lifestyle. There is now a pressing need to reduce energy demand, move away from carbon-intensive fossil fuels and ensure future energy security for all.

The Council has a responsibility to reduce greenhouse gases as part of our response to that agenda. A continuing focus on our efficiency and developing more renewable generation sources of energy will be key drivers. Asset challenges are in progress to reduce our property holdings alongside an investment programme to re-furbish and re-fit remaining property appropriately for modern service delivery. Utilisation of the right technologies is also paramount to this agenda. The Council is committed to both street lighting and schools in terms of carbon reduction and savings in budgets but also as part of the cultural change required in society. Engaging with pupils is fundamental to delivering sustainable and successful change.

We plan to reduce our energy by focussing on 5 key strategic themes:

### Renewable generation

Working with partners to deliver renewable energy generation on our estates

### Street lighting

Conversion of residential street lighting to more efficient LED lighting

### Smarter assets

Using innovative and smart technology to ensure our assets are energy efficient

### Waste and recycling

Aiming for a 60% recycling rate within the borough

### Schools

Enabling schools to invest in energy efficiency projects

The Council is committed to setting an ambitious target and publishing its annual performance. A separate Carbon Management Plan 2016-20 (Annexe I) is available which sets out the full detail of emissions in the Borough, our reduction target and our mitigating actions.

### 2020 Targets:

In the 2014 -2015 fiscal year Cheshire West and Chester Borough Council were responsible for emitting 45,543 equivalent tonnes of carbon dioxide (CO<sub>2</sub>e).

- Reduce these emissions in absolute terms by 30% by April 2020 emitting no more than 31,880 tonnes of CO<sub>2</sub>e.

\*CO<sub>2</sub>e – 'Carbon dioxide equivalent' or 'CO<sub>2</sub>e' is a term for describing different greenhouse gases in a common unit. For any quantity and type of greenhouse gas, CO<sub>2</sub>e signifies the amount of CO<sub>2</sub> which would have the equivalent global warming impact.

## Priority 2: Increasing energy security in the Borough

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The UK currently has a reliable energy system and its gas and electricity supplies come from a range of increasingly diverse sources with the majority based on fossil fuel. However, no energy system is immune to problems; growing consumption and managing peak demand supplies increases the need and dependency on energy imports. In addition, increasing reliance on imported oil and gas opens up energy security risks linked to global supply constraints.

To address these issues, the UK has developed policies to become more self-sufficient in production of energy. **The key elements of achieving more self-sufficiency are:**

- Generating more renewable in the UK so that less fuel and energy needs to be imported and less investment in national energy infrastructure is required
- Increasing the level of decentralised energy generation assets so that:
  - There is more independence and resilience in energy supplies locally.
  - Local demand can be matched with local supply, reducing capacity pressure on the national distribution network infrastructure.
  - Reducing the overall level of energy demand by driving long-term energy efficiency measures in all sectors and short-term demand.

West Cheshire is home to a number of energy intensive industries based around oil, gas and chemicals and therefore fluctuations in energy prices and security of supply are key drivers to exploring local energy generation opportunities.

As part of the Council's Local Plan evidence, the Council commissioned a technical assessment of the baseline energy demand and potential renewable energy resource for Cheshire West and Chester, and options for addressing carbon emissions associated with buildings within the Borough, both existing and new development. The study was prepared in line with national guidance which requires planning authorities to have evidence based understanding of the local feasibility and potential for renewable and low carbon technologies.

**The Local Plan (Part One)** was adopted in 2015 and sets out the vision for sustainable development of the borough to 2030;

Policy STRAT 1 Sustainable Development - the Local Plan seeks to enable development that improves and meets the economic, social and environmental objectives of the Borough in line with the presumption in favour of sustainable development.

Policy ENV 7 Alternative Energy Supplies - the Local Plan will support renewable and low carbon energy proposals where there are no unacceptable impacts on:

- Landscape, visual or residential amenity
- Noise, air, water, highways or health
- Biodiversity, the natural or historic environment
- Radar, telecommunications or the safety of aircraft operations

Proposals should be accompanied by appropriate arrangements for decommissioning and reinstatement of the site when its operational lifespan has ended.

Development proposals that could feasibly supply or connect into a district heating network will be encouraged to do so.

Proposals to exploit the borough's alternative hydrocarbon resources will be considered in accordance with the above criteria and all other policies within the Local Plan.

### **2020 Targets:**

- Developing solar photovoltaic and other renewable energy schemes on Council owned assets, matching generation to demand.
- Developing investment grade business cases for heat networks in Ellesmere Port and Chester.
- Exploring the potential of geothermal energy in the borough as the source of heat for a district heat network
- Working with a range of partners to develop low carbon and local decentralised energy schemes to provide secure, low cost and smart power solutions to support local businesses and employers.





## Priority 3: Tackling Fuel Poverty

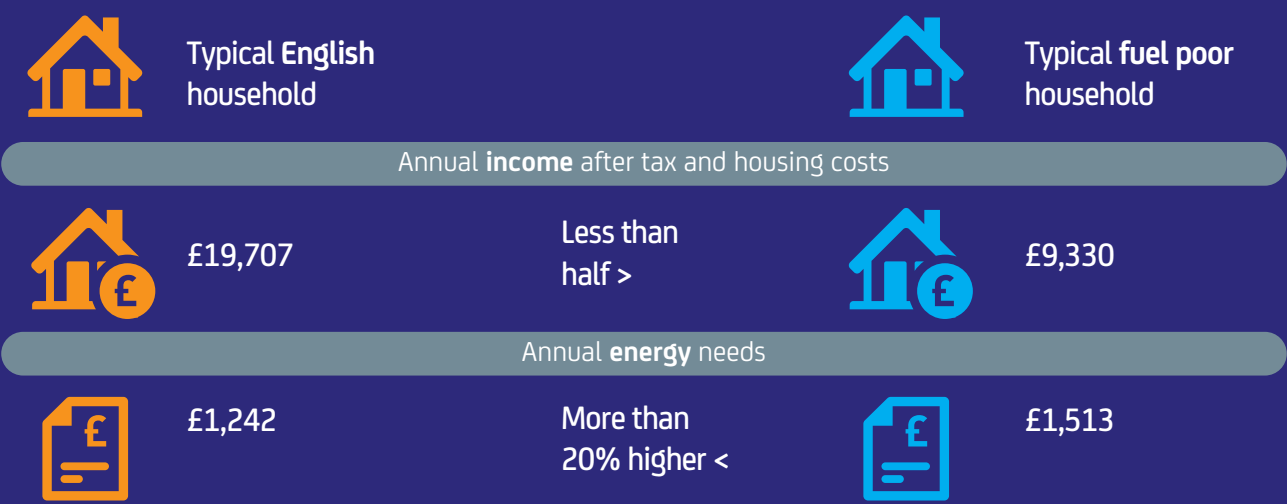
The Home Energy Conservation Act 1995 (HECA) requires all English Councils to publish a report in relation to improving domestic energy efficiency in their area. Cheshire West and Chester Council's HECA Report (Annexe II), sets out the Council's priorities, ambitions and related targets in relation to domestic energy efficiency and tackling fuel poverty based on our local needs and circumstances. The HECA Report is updated at two yearly intervals with progress against activity.

Fuel poverty is a distinct and national problem that can cause negative health impacts and considerable hardship to households. The evidence is clear, investing in actions that mitigate the risks of fuel poverty will not only reduce the rate of fuel poverty, it can reduce carbon emissions that helps meet the UK legally binding carbon reduction targets; improve health and wellbeing; reduce cold related ill health and the risk of excess winter deaths; and lower NHS and social care costs.

The Government estimates that between £2-3billion worth of energy is wasted by households every year in the UK because homes are poorly insulated. This, together with the threat of rising energy prices for the domestic housing sector has the potential to increase further the number of households vulnerable to, and suffering from fuel poverty.

### What is fuel poverty and how is it measured?

The official definition of fuel poverty was reviewed in 2012 and a new 'Low Income High Costs' indicator created. The new way of estimating fuel poverty reflects both the extent (how many households are in fuel poverty) and depth of the problem (also known as the 'fuel poverty gap') which is defined as the difference between modelled fuel bills and a reasonable cost threshold for each



Source: Department for Business, Energy & Industrial Strategy



The latest figures (2014), available from the Department for Business, Environment and Industrial Strategy, indicates that 10% of households in Cheshire West are in fuel poverty, equating to 14,461 households. This is slightly below the national average of 10.7% and the North West average of 11.2%, but is an increase on the previous two years.

The legal framework for tackling the issue of fuel poverty is laid out in the Fuel Poverty (England) Regulations 2014. In March 2015, the government published a national Fuel Poverty Strategy 'Cutting the cost of keeping warm- a fuel poverty strategy for England' and set a legally binding target that ensures that as many fuel poor homes as is reasonably practicable achieve a minimum energy efficiency standard of Band C by 2030. It includes non-legally binding interim targets to achieve Band E by 2020, and Band D by 2025.

Whilst local authorities have a social and legal obligation to lead and enable action on fuel poverty, tackling fuel poverty cannot be achieved by local authorities alone. The Council set up the Cheshire West Affordable Warmth Steering Group in 2010; a partnership of public, private and third sector agencies established to ensure a strategic approach was adopted when tackling the complex issues surrounding fuel poverty within the Borough.

Using the National Fuel Poverty Strategy as its strategic framework, Cheshire West Affordable Warmth Steering Group has developed a comprehensive Action Plan to deal with local issues as well as accounting for national priorities. **The Action Plan sets out the following objectives for activity to ensure that there is a comprehensive and consistent approach to tackling fuel poverty in the Borough:**

- Encourage behavioural change to reduce energy use
- Improve the energy efficiency of homes
- Reduce temperature related illnesses
- Maximise household income
- Increase the amount of energy generated from renewable and low carbon sources
- Support sustainable community energy initiatives

### 2020 Targets:

The target set out in the National Fuel Poverty Strategy 2015 is 'As many fuel poor homes as is reasonably practicable achieve a minimum energy efficiency standard of Band E by 2020'.

- CWAC will reduce the percentage of fuel poor households by 10% by 2020, based on 2014 statistics. (Assuming that increasing the energy efficiency standard of homes to Band C reduces fuel poverty levels.)





## Priority 4: Supporting Community Energy

Community Energy is locally generated electricity or heat, using low carbon and renewable technologies. The Community may be geographic, living in the same street or village, or they may be a group of people with a common interest in environmental issues.

The **National Community Energy Strategy** was published in 2014 outlining the significance of community energy projects in generating local income, building community capacity and skills, reducing energy bills and maximising the benefit of renewable technologies. Local Authorities were described as the 'trusted intermediaries' in this Strategy, referring to their ideal placement to support community energy generation schemes.

Using the National Community Energy Strategy as the strategic framework, the Council has been supporting low carbon community groups through the Low Carbon Communities Network by developing a support package for groups wishing to embark on Community Energy projects, in order to reap the environmental, economic and social benefits.

The assistance includes;

- **Self-Service Online Toolkit** of local resources - this breaks the community energy journey down in to manageable stages and signposts to key local information, both internally and externally. The toolkit also serves to facilitate a network of local community energy practitioners, assisting new interested groups in finding peers who have been there before and are keen to share their experiences.
- **Neighbourhood Planning** - a Community Energy Advice Note is available in Step Two of the Neighbourhood Planning Toolkit, to advise Neighbourhood Planning Groups of the potential for a Community Energy policy. This document aims to help groups start a discussion about the energy needs of their community, and begin to recognise the opportunities for community energy to meet some of those challenges.
- **Community Energy Conference** - an annual sub-regional conference providing an opportunity for new and existing community energy groups to network, learn and find out about the support on offer across West Cheshire.

### 2020 Targets:

- Supporting the development of community led renewable energy schemes across the Borough
- Delivery of annual Community Energy conference
- Facilitate Community Energy Schemes on Council owned assets
- Creating a template for Community Resilience Plans





## Priority 5: Creating a strong Energy Sector and supporting a low carbon economy

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The Cheshire and Warrington sub-region has a number of key assets and opportunities in relation to energy given the concentration of companies operating in the energy and low carbon sector. Over 43,000 people in Cheshire and Warrington are employed in the energy and environment sector, with a recent study (2013) identifying over 2,000 businesses operating within the Low Carbon Environmental Goods and Services Sector within the sub-region.

The Energy Sector in Cheshire West and Chester forms a strategically important part of the economy and is identified as a key sector for growth with a unique set of opportunities for the area to build upon. There is an existing base of businesses and assets to grow the energy sector and for it to make an increasingly important contribution to the local and national economy. These include;

- **High energy users across the borough** engaged in the business of production, refining, distribution transmission and storage of gas, electricity and oil.
- **Specialist providers;** Energy Innovation companies providing specialist services to the energy sector in relation to new product development, reliability and performance, testing and cost efficiency.
- A **centre of excellence** contributing to the national skills and employment agenda. The University of Chester's Thornton Science Park offers significant opportunities to support innovation and catalyse growth in the energy sector.
- Our legacy of chemical, processing and other specialist industries have created **sites, premises and land** to develop high quality office, laboratory, production units and specialist space for the energy sector.
- Existing networks are actively engaged in the promotion of the energy sector. The Cheshire Energy Hub is **an industry led partnership** between international Cheshire-based organisations in the power and energy sector, which provides a number of business growth support services to its members, to allow them to maximise economic development opportunities in Cheshire and Warrington.

There are a unique set of opportunities for the area to build upon the existing base of businesses and assets to grow the energy sector and for it to make an increasingly important contribution to the local and national economy. These include;

- Development of a nationally significant energy cluster that would seek to drive GVA, employment and productivity growth in the area.
- Developing the low carbon economy and renewable energy sector and demand for new technologies and products such as micro-generation, transport and infrastructure and energy networks.
- Increasing energy security to safeguard local large energy suppliers and users.
- Investment in feasibility and energy infrastructure for the development of a multi-nodule heat and power network.
- Positioning our strategic location as one of the leading UK locations for energy-related supply chain investment.

### 2020 Targets:

- Support the Cheshire & Warrington Local Enterprise Partnership to deliver its plans to maximise growth opportunities in the Energy Sector.
- Connectivity to sub-regional and cross border major energy initiatives and opportunities.
- Support the development of the Low Carbon Environmental Goods and Services sector to move towards a low carbon economy in Cheshire West.

## Priority 6: Supporting policy development and project delivery across the Council

The Energy and Carbon Reduction Team supports many team across the Council as well as local and regional partners. Internally, this support ranges from providing advice on policies and commissioning; supporting the delivery of major projects; and challenging the cost of utility bills and water charges to the Council. The Team has worked with a range of services across the Council, including:

Transport	Property	Public health
Highways	Economic Growth	Leisure
Planning	Localities	Housing

In terms of operational support to other services, the Energy and Carbon Reduction Team has created significant ongoing financial savings for this Council. Examples include;

- Installed £1.35M worth of Solar PV role out across 43 sites with the income to Council and cost avoidance to schools totalling £4.75m across 20 years
- Demonstrated £1.8M year on year savings for Claimed Business mileage
- Secured £2.67M interest free loan for Street Lighting along with a further £875,000 in capital funding which will generate ongoing savings to the Council
- Secured £400,000 in interest free loans for schools to undertake energy saving projects with a further £300,000 to be committed over the next 3 years
- Recovered £100,000 per year to other services through repayments from energy and water bills.





## Transport

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In terms of policy support the following have been identified as major areas that can influence future development decisions that affect energy efficiency, carbon reduction and sustainability;

**Transport** - we will support the delivery of the Local Transport Plan 2011-30 by:

- Promoting lower carbon travel choices, travel planning, cycling and walking
- Investing in new transport technologies, including Electric Vehicles
- Supporting initiatives that reduce the need to travel
- Using the planning system to ensure new developments and transport infrastructure enable sustainable travel
- Assess the transport infrastructure for climate risks
- Support the Low Emissions Strategy

**Planning** - we will;

- Support and advise colleagues in developing the detail policies in Local Plan Part 2 regarding Sustainable Development, Energy and Resilience
- Support and advise planning colleagues in the assessment of planning applications
- Support the Local Plan Annual Monitoring Report on renewable energy and other policies.
- Advise on policies for specific areas (e.g. Heat Networks)

## Zero Carbon Homes

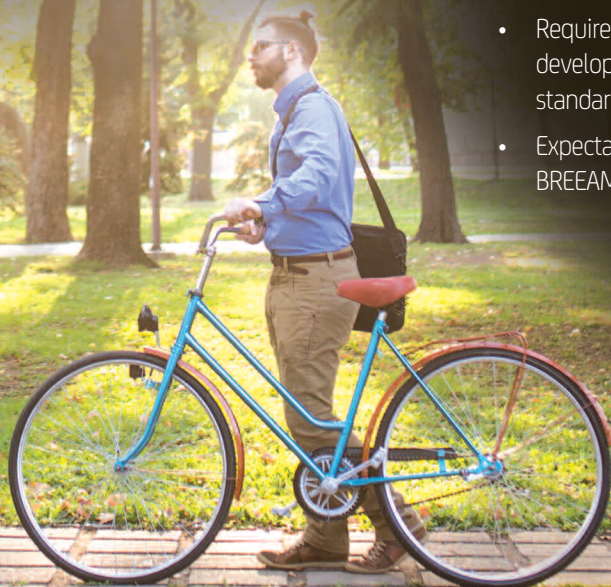
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In December 2006, the government committed that from 2016 all new homes would be 'zero carbon' by achieving Level 6 of the Code for Sustainable Homes. However, in 2014, the government proposed re-setting the zero-carbon home standard at Level 5 of the Code for Sustainable Homes, but permitting developers to build to Level 4 by using allowable solutions to achieve Level 5.

The government also proposed exempting small sites (less than 10 homes) from allowable solutions requirements. In 2015, the government announced that it would keep energy efficiency standards under review, recognising that existing measures to increase energy efficiency of new buildings should be allowed time to become established, effectively removing the need for all new homes to be zero carbon from 2016.

Included in the draft Cheshire West and Chester Council's Local Plan Part 2 – Preferred Approach are proposals that cover:

- Requirements for new developments to achieve the highest level of energy and water efficiency that is practical and viable;
- Requirements for development proposals over a certain size to submit a sustainability statement demonstrating how a number of objectives have been taken into account:
  - Reduction in energy requirements
  - Use of one site renewable and low carbon technologies to produce required energy on-site
  - Opportunities to make sustainability improvements to existing buildings when adding extensions or making alterations
  - Minimising carbon emissions through the implementation and construction process and ensuring any existing embedded carbon on site is retained
  - Opportunities to connect to existing combined heat and power and district heating/cooling networks, or contribute to their future development
- Requirements for proposals for new residential development to meet the tighter national water efficiency standard of 110litres/person/day
- Expectation for new non-domestic buildings to achieve BREEAM Excellent where technically and financially viable





## Performance Framework

Measure / Requirement	Where Reported	Frequency
Reduction of equivalent tonnes of equivalent carbon dioxide (CO <sub>2</sub> e) from scoped Council services	<p>Department of Business Energy and Industrial Strategy.</p> <p>CWAC website</p> <p>Better Outcomes Plan; Thriving Communities; Cleanest, safest and most sustainable neighbourhoods in the country</p>	<p>Annually</p> <p>Annually</p> <p>Annually</p>
Monitoring of equivalent carbon dioxide (CO <sub>2</sub> e) emissions from Cheshire West based sources under the influence of the Local Authority as determined by Central Government.	<p>CWAC website</p> <p>Better Outcomes Plan; Thriving Communities; Cleanest, safest and most sustainable neighbourhoods in the country</p>	<p>Annually</p> <p>Annually</p>
Carbon Reduction Commitment – tonnes of CO <sub>2</sub> e emissions from electricity and gas consumption from Council and subsidiary company buildings	Environment Agency	Annually
Home Energy Conservation Act 1995 (HECA) Report	CWAC Website	<p>Initial Report (March 2013)</p> <p>Further Reports – at two yearly intervals</p>
Percentage of CWAC households in Fuel Poverty	<p>HECA Report</p> <p>CWAC Annual Monitoring Report</p> <p>Better Outcomes Plan; Thriving Communities; Good Quality and Affordable Housing that meets the needs of our diverse communities.</p>	<p>Two yearly</p> <p>Annually</p> <p>Annually</p>

### Accessing Cheshire West and Chester Council information and services

Council information is also available in audio, braille, large print or other formats. If you would like a copy in a different format, in another language or require a BSL interpreter, please email us at **[equalities@cheshirewestandchester.gov.uk](mailto:equalities@cheshirewestandchester.gov.uk)**

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