

# Energy Resilience Plan

**October 2015**

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## Foreword

UK greenhouse gas emissions have fallen over the past seven years. This in part is due to the economic downturn experienced during this period, but also reflects investments in low carbon technologies and improvements in energy efficiency. In 2014, emissions fell by an estimated 6% on the previous year, while the economy grew.

This progress is set against a back drop of high energy imports, rising energy demand and an ageing energy infrastructure. These factors pose a substantial challenge to our energy resilience and the pathway to a low carbon economy.

In Wiltshire, we have seen progress at a local level. Between 2010 and 2014, through our domestic energy efficiency scheme, 1400 households benefited from measures such as insulation and new boilers. In 2014/15, the council completed the installation of biomass boilers in nine schools previously heated by oil and Government funding has been used to extend the network of electric vehicle charging points in the county. Examples of successes from across Wiltshire are provided throughout this document.

The Wiltshire Energy Resilience Plan aims to continue this progress. In setting out this action plan we are seeking opportunities to work with stakeholders to improve energy resilience in the county. Working together with partners in the private, public and community sectors we can tackle fuel poverty, address barriers to low carbon technologies, support growth, drive innovation and develop effective and resilient energy infrastructure.

We need to continue our progress to ensure communities and businesses in Wiltshire can benefit from a more resilient, affordable and sustainable energy future. The low carbon transition will offer economic, social and environmental benefits and I hope this plan will enable Wiltshire to deliver a strong and coordinated response to this opportunity.

**Cllr Toby Sturgis**  
**Cabinet Member for Strategic Planning, Property, Waste and Strategic Housing**

# 1. Introduction

## 1.1 What is energy resilience?

Energy resilience is our ability to respond to challenges such as rising energy costs, security of supply and the need to reduce carbon emissions. This can be achieved by reducing our energy demand, managing use and developing local, efficient and clean energy sources.

Through developing this plan we have built a picture of energy resilience and identified the opportunities for a low carbon transition in Wiltshire.

### How can we be resilient?

By reducing our energy demand, developing low carbon energy sources and lowering energy costs.

In addition, the transition to a low carbon economy will create opportunities for innovation, jobs, skills and sustainable economic growth.

## 1.2 Why do we need a plan?

The Energy, Change and Opportunity ([ECO Strategy 2011-2020](#)) provides a framework that sets out the council's commitment to address energy resilience and the effects of climate change.

The ECO Strategy is supplemented by the [Carbon Management Plan](#) for the council's emissions, [Climate Change Adaptation Plan](#) and this Energy Resilience Plan. These action plans set out more specifically how we are going to deliver our energy resilience and climate change ambitions.

In September 2014 Wiltshire Council became a signatory to Climate Local, and made a commitment to progressively address the risks and pursue the opportunities presented by a changing climate. The Energy Resilience Plan supports this commitment and satisfies the requirement for a Climate Local action plan to be in place which reflects local actions and priorities to reduce carbon emissions.

This plan identifies the actions that we and other stakeholders will take to address the challenges of energy efficiency, affordable warmth, sustainable transport and developing low carbon energy sources. A number of the actions will require external funding to be identified and applications to be made. This plan enables activities and actions to be communicated to potential delivery and funding partners and to demonstrate progress over time.

The transition to a low carbon economy is recognised as a driver within the [Swindon and Wiltshire Strategic Economic Plan](#) that will create opportunities for innovation, jobs, skills and sustainable economic growth. The funding programmes being developed by the Swindon and Wiltshire Local Economic Partnership are key enablers to the delivery of this action plan.

## 2. Wiltshire's energy resilience

### 2.1 Carbon emissions

Our reliance on fossil fuel based energy sources<sup>1</sup> make us dependent on energy imports and subject to global price fluctuations.

The carbon dioxide emissions resulting from our energy use is one indicator of energy resilience. Carbon dioxide emissions can be broadly attributed to three sectors which fall within the scope of local authority influence; these are domestic (34%), industrial and commercial (37%), and road transport (29%).

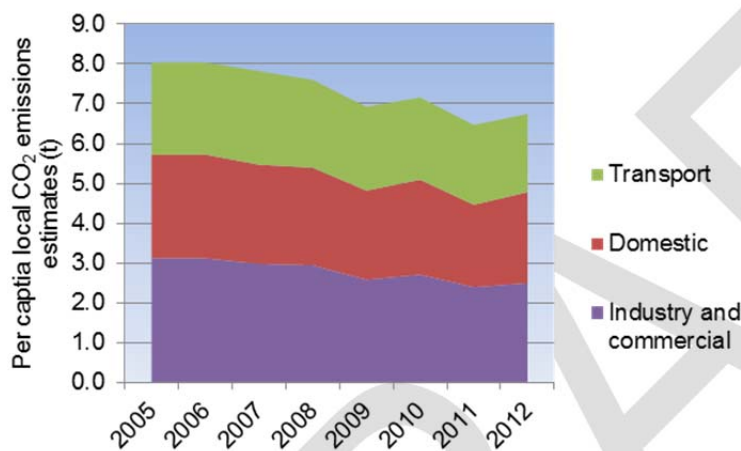


Figure 1: Trends in Year 2005-2012 emissions within the scope of local authority influence (Wiltshire) ([DECC](#)).

Wiltshire's per capita carbon emissions fell from 8 tonnes of carbon dioxide (tCO<sub>2</sub>) in 2005 to 6.7 tCO<sub>2</sub> in 2012 (figure 1). This reflects a reduction in emissions nationally, but remains higher than the 2012 south west regional average of 6.1 tCO<sub>2</sub> and national average of 6.2 tCO<sub>2</sub> (figure 2). This difference is a result of higher emissions from local road transport. Wiltshire has high car ownership levels and 46% of workers commute by car, compared to 41% in the south west. Private transport is also important for those living in rural areas in order to access services.

#### Wiltshire's carbon emission sources

Domestic 30%

Industrial and commercial 31%

Road transport 33%

Wiltshire's per capita carbon emissions fell from 8 tonnes of carbon dioxide in 2005 to 6.7 in 2012.

<sup>1</sup> Fossil fuels account for 86.2% of UK energy supply ([Digest of UK Energy Statistics, 2014](#))

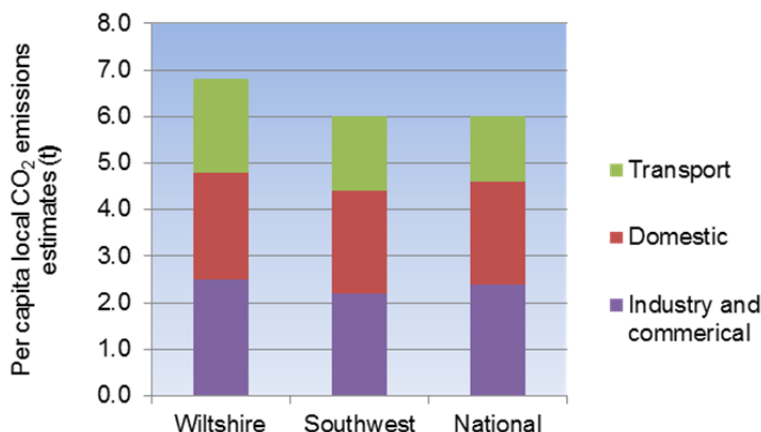


Figure 2: How Wiltshire's 2012 emissions within the scope of local authority influence compare ([DECC](#)).

## 2.2 Energy demand

**The challenge will be to continue to reduce energy demand and enable new development in a way which contributes to energy resilience.**

Nationally, population growth and rising prosperity are expected to drive an increase in energy demand, particularly in the domestic sector, where this trend will begin to outweigh the gains made by energy efficiency beyond 2020 ([DECC](#)).

Wiltshire's population is expected to grow by 37,520 over the 11 years from 2015 to 2026, a projected increase of just over 8%<sup>2</sup>. The local plan has set a target for 42,000 new homes in the county for the period 2006-26 (housing completions in 2006-13 totalled 13,867<sup>3</sup>). Development will also be seen in the regeneration and creation of new employment sites and through implementation of the army basing plans, bringing an estimated extra 4000 personnel plus their families to the county.

### Rising demand

Population growth, rising prosperity, new homes and development has the potential to add significantly to our current energy demands.

The national picture shows that pressure on the energy network is growing, as the closure of power stations causes the margin between demand and generation to tighten. To ensure energy security in times of peak demand over the winter, the National Grid has taken steps to purchase additional generation capacity to protect against power cuts.

## 2.3 Local energy generation

**A small but growing proportion of energy consumed in Wiltshire is generated from local renewable sources.**

<sup>2</sup> [www.intelligencenetwork.org.uk/population-and-census/](http://www.intelligencenetwork.org.uk/population-and-census/)

<sup>3</sup> [www.wiltshire.gov.uk/planninganddevelopment/planningpolicy/annualmonitoringreport.htm](http://www.wiltshire.gov.uk/planninganddevelopment/planningpolicy/annualmonitoringreport.htm)

In the south west, renewable energy capacity grew by 80% in 2014/15 and it is estimated that 14% of electricity is now generated from renewables ([Regen SW](#)). Due to rapid growth in solar photovoltaics (PV), Wiltshire is now placed third in the region for installed capacity, behind only Devon and Cornwall (figure 3). A further acceleration in deployment of renewable electricity and renewable heat in particular will be required to meet the 2020 target<sup>4</sup>.

Solar PV remains the leading technology in terms of renewable electricity capacity and biomass contributes the largest amount to the south west's renewable heat capacity.

There remains significant potential for building integrated renewables at a commercial and domestic scale. Standalone renewable energy installations, such as ground-mounted solar PV, make a significant contribution to local energy generation in the county. Their siting involves careful consideration through the planning process, due to potential visual and landscape impacts, especially in designated or sensitive landscapes. Approximately 44% of Wiltshire's area is designated as 'Area of Outstanding Natural Beauty' (AONB).

The Government has recently taken steps (DECC, July 2015) to control spending on renewable energy subsidies, including proposals to end support under the renewable obligation for solar projects of 5MW and below and a decision to remove pre-accreditation under the feed-in tariff scheme. A consultation on a review of the feed-in tariff scheme for small scale renewables will end in October 2015 and has proposed a range of cost-control measures, including a significant decrease in tariffs across all scales of solar PV from January 2016.

As more and more distributed generators e.g. solar PV, are connected to the distribution grid, the capacity of the grid to accommodate more generation technologies decreases. The electricity distribution network will need to adapt and innovate to support the trend towards decentralised sources of energy. In some parts of Wiltshire a lack of spare capacity in the distribution network has begun to impact on the ability of businesses to expand or to install renewable energy generation because of the high costs and time delays their projects face. Advances in energy storage, coupled with local generation have the potential to mitigate limitations on grid capacity.

As well as supporting energy security, generating renewable energy locally prevents energy spend leaving the county. It is estimated that spending on household fuel bills in Wiltshire exceeded £230 million a year in 2011 and non-domestic fuel costs (excluding transport) were in excess of £150 million a year ([DECC](#), 2012), the majority of which leaves the local economy.

### Renewable energy

In the south west, renewables now meet 5.9% of total energy demand.

Solar PV remains the leading technology in terms of installed capacity and biomass is the largest source of renewable heat.

Source: [RegenSW renewable energy progress report 2015](#)

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<sup>4</sup> The 2009 EU Renewable Energy Directive sets a target for the UK to achieve 15% of its energy consumption from renewable sources by 2020.

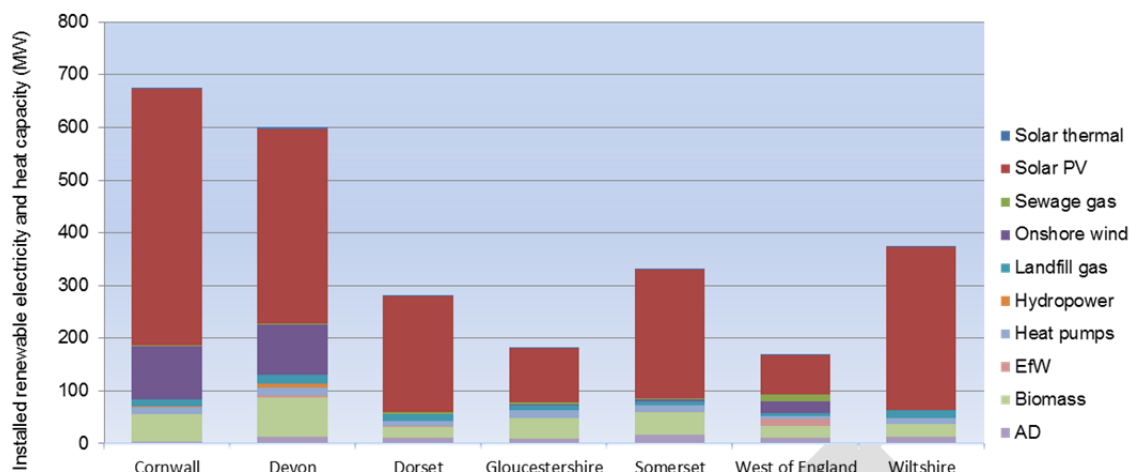


Figure 3: Installed renewable electricity and heat capacity (MW) 2014/15 ([Regen SW](#))

## 2.4 Energy spend

In Wiltshire an estimated 18% of households do not have a mains gas connection, creating a dependence on high cost heating fuels ([DECC](#)).

### Rising energy spend

UK household expenditure on all fuels rose by 74% between 2000 and 2013.

The UK average household expenditure on all fuels (including motor fuel) rose by 74% between 2000 and 2013.

The biggest rise over this period was expenditure on heating oils and other fuels, which increased by 160% ([DECC](#)). The proportion of domestic consumption of LPG and oil in Wiltshire is significantly higher than in the region as a whole (figure 4).

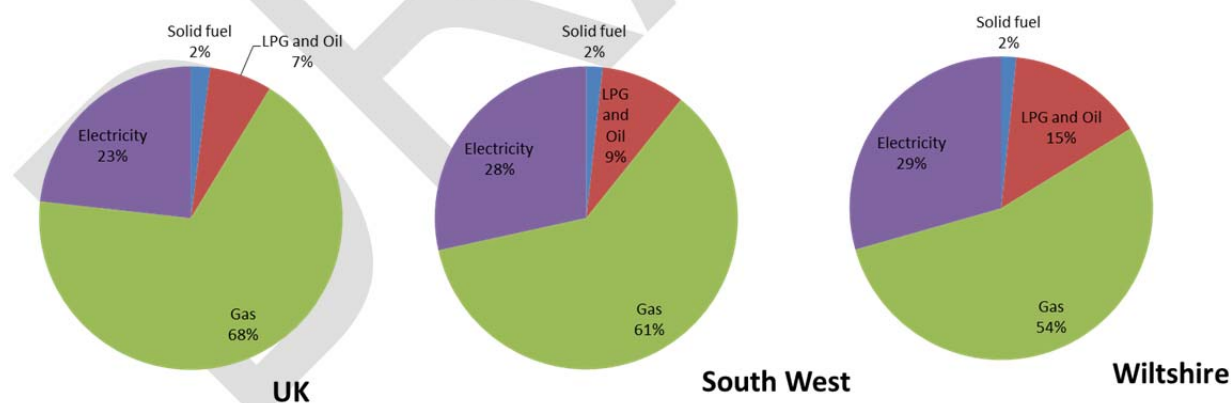


Figure 4: Breakdown of domestic fuel consumption in the UK, South West and Wiltshire (2012) ([DECC](#)).

Increases in energy prices risk more households being unable to adequately heat their home. Energy efficiency measures are a key opportunity to address this risk in the short term. In the longer term, low carbon and decentralised energy solutions can offer more efficient and affordable ways to heat our homes and buildings that can match demand and provide resilience to rising costs.



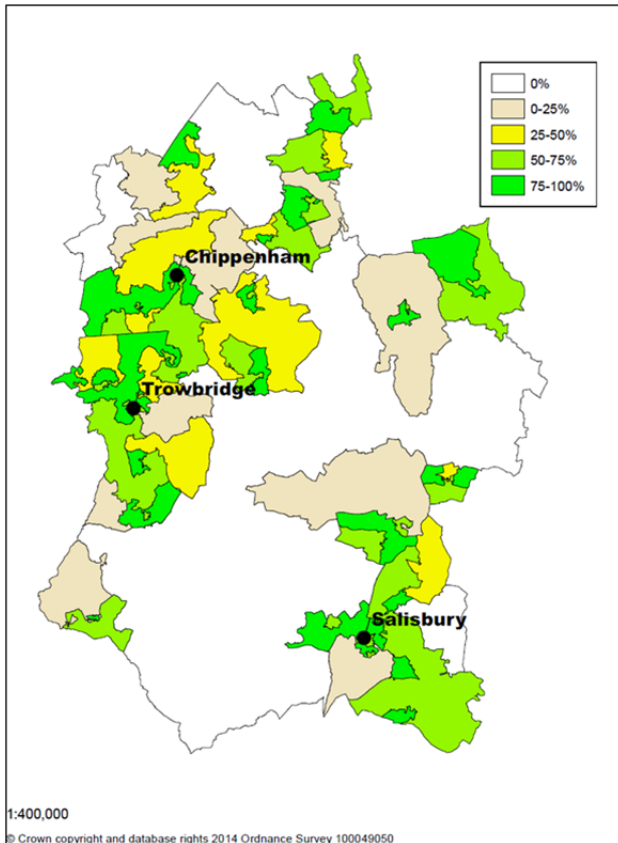


Figure 5: Map showing the proportion of households with a main gas connection.

(Source: LLPG 2015, [DECC](#) 2015. Boundaries are indicative and relate to output areas.)

## 2.5 The opportunities

**The low carbon transition has wider benefits for the economy; promoting productivity, investment, job creation and innovation.**

Low carbon and environmental goods and services (LCEGS) cover a wide range of sectors from waste management to low carbon solutions, energy management and renewable energy. In the Swindon and Wiltshire Local Economic Partnership area, sales for the sector as a whole totalled £1.48 billion in 2011/12, with 623 companies supporting 11,372 jobs ([BIS](#)).

There has been a tendency for growth in this sector to outperform the rest of the economy, with growth forecasts at over 5% a year. The largest sectors in the south west in terms of sales and employment are alternative fuels, alternative fuel vehicles and low carbon building technologies. In 2013, business investment by the UK low carbon sector totalled £3.58 billion ([BIS](#)), making the transition to a low carbon economy an opportunity for further investment and growth.

The community energy sector has the potential to make a significant contribution to energy resilience whilst bringing financial and social benefits for the communities involved. By 2020, the government estimates that community groups could account for up to 14% of the total installed electricity capacity in the UK ([DECC](#)).

**What is the 'low carbon economy' worth to the Swindon and Wiltshire area?**

£1.48 billion in sales

623 companies

11,372 jobs

Alongside locally-owned generation there are opportunities to develop new models of energy supply. The roll out of smart meters, developments in electricity storage and intelligent energy infrastructure are enabling the evolution of local supply models. If supported through changes in regulation, these have potential to promote competition and innovation in the energy market, as well as lowering cost through extending grid capacity and reducing transmission losses.

### 3. Overview

#### 3.1 Vision

The activities delivered under this plan will be guided by the following strategic vision for an energy resilient Wiltshire.

##### Vision 2026

Wiltshire has secured a low carbon future and sustainable economic growth.

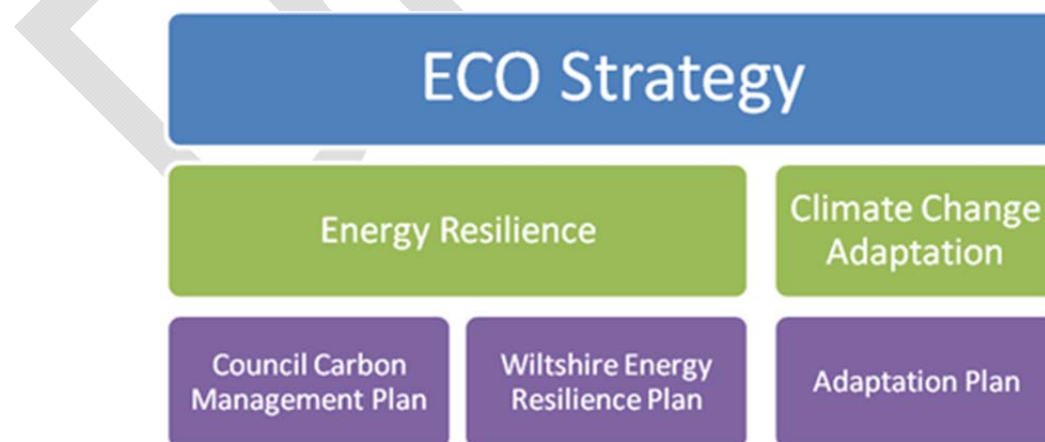
Homes, buildings and industry are energy efficient and our reduced energy demand is met by a diverse mix of renewable and low carbon technologies.

New developments have been planned to reduce the need to travel and promote walking, cycling and public transport. The transport infrastructure supports a new generation of low emission vehicles and provides accessible, affordable and efficient alternatives to the car.

Communities and businesses generate their own energy, are resilient to rising costs and retain money within the local economy.

A network of local businesses has created new jobs and skills and contributions from all sectors have made Wiltshire a place of low carbon excellence.

#### 3.2 Local policy context



The [ECO strategy 2011-2020](#) provides the framework strategy for the Energy Resilience Plan. This plan makes a direct contribution to the council's core vision to create stronger and

more resilient communities. The Energy Resilience Plan will also provide opportunities to deliver the Council Business Plan priorities to:

- protect those who are most vulnerable,
- boost the local economy; and,
- bring communities together to enable and support them to do more for themselves.

A number of existing plans and supporting strategies have been used to inform the development of the Energy Resilience Plan.

- [Wiltshire Core Strategy](#) (January 2015)
- [Third Wiltshire Local Transport Plan](#) (2011-2026)
- [Air Quality Action Plan for Wiltshire](#) (October 2014)

### **3.3 How was the plan developed?**

The Energy Resilience Plan covers a broad range of activities and diverse stakeholders.

As this is the first time an energy resilience plan has been prepared, early stakeholder engagement has been used to shape its scope and content. This process was led by the council's green economy team. The ECO Board has overseen the development of the plan and is responsible for its adoption.

A number of the council's service areas will be involved in delivery including sustainable transport, public health, economic development, planning, fleet, housing and asset management. Partners in the public, private and community sectors will have a key role to play in ensuring delivery of this plan's objectives.

### **3.4 Stakeholder engagement**

A wide range of stakeholders were engaged in the development of the Energy Resilience Plan (a list of those organisations consulted and a summary of findings is provided in [appendix 1](#)). This included high energy users in the public and private sectors, energy sector companies and community energy groups. The combined experience of these organisations has provided insight into where the main challenges and opportunities are for addressing energy resilience across the county.

### **3.5 Scope and structure of the plan**

The Energy Resilience Plan is an outward-facing action plan for Wiltshire that sits alongside the commitments for our own estate and operations. It covers four action areas:

- Energy efficiency
- Affordable warmth
- Sustainable transport
- Low carbon energy

For each action area a series of objectives are defined in line with the strategic aims and vision of this plan (figure 6). The current opportunities and challenges are summarised and the key activities to be delivered are set out. A detailed action plan which identifies delivery partners and indicative timescales is provided in [appendix 2](#) and will provide the basis for monitoring.

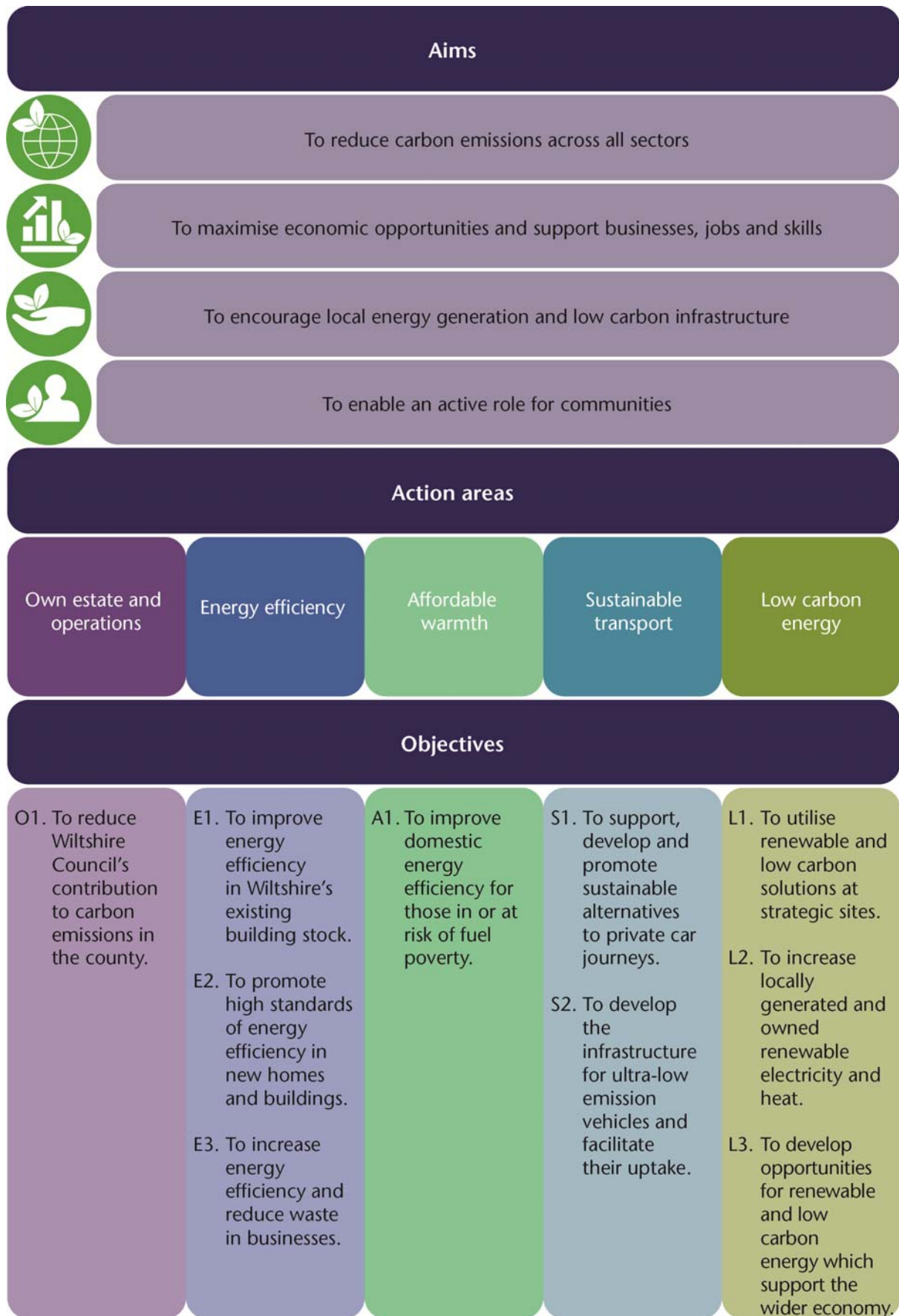


Figure 6: Strategic aims and objectives

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## 4. Energy Resilience Plan

### 4.1 Energy efficiency

Energy use on commercial and domestic premises is the source of 61% of the county's emissions (figure 7). This highlights the opportunity to improve the energy performance of existing buildings to promote energy resilience. Due to low take up, the Green Deal will no longer receive government funding and a new national approach to replace the scheme and enable domestic energy efficiency retrofit is to be developed.

For new build developments the ambition is to encourage schemes that incorporate high standards of sustainable construction, thereby adding minimally to the existing energy demands of the county. The Wiltshire Core Strategy sets out these standards for new homes, conversions and non-residential development and directs new housing development to be built to Code for Sustainable Homes Level 4.

In July 2015 it was announced that the introduction of zero carbon homes would not go ahead as planned through the proposed 2016 increase in on-site energy efficiency standards and the Allowable Solutions carbon offsetting scheme. Instead national standards for energy efficiency will remain under review.

#### Objectives

- To improve energy efficiency in Wiltshire's existing building stock
- To promote high standards of energy efficiency in new homes and buildings
- To increase energy efficiency and reduce waste in businesses

Alongside this, improved energy and resource efficiency in business operations can deliver significant cost savings and a competitive advantage. Businesses, however, experience a challenge to find opportunities for retrofitting new technologies, finding suitably experienced

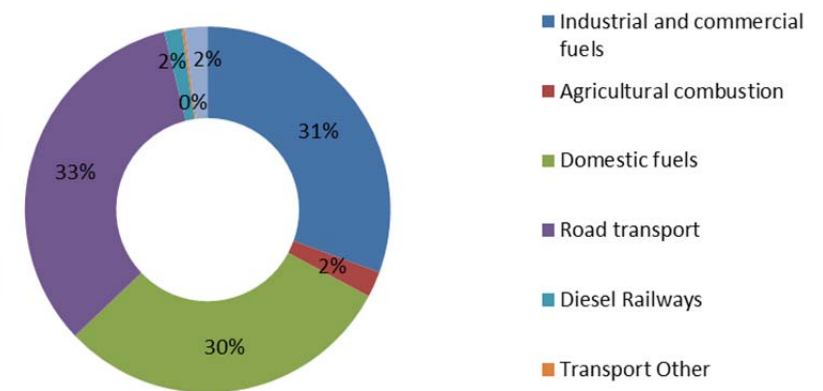
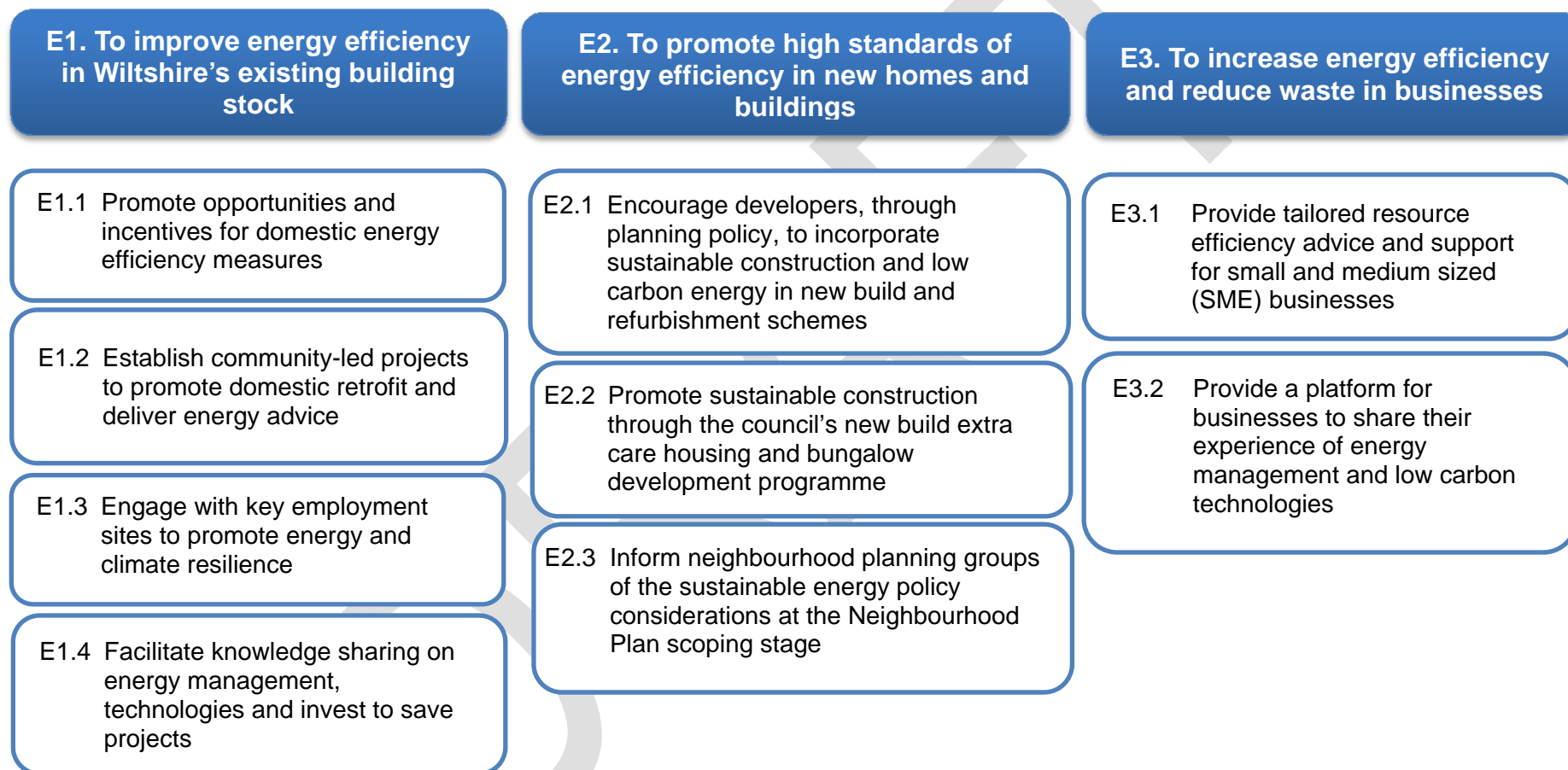


Figure 7: Carbon dioxide emissions by source in Wiltshire (2012) ([DECC](#)).

Some companies and public sector bodies in Wiltshire have successfully implemented energy management and invest to save projects to improve energy performance (see boxes 1 and 2). Larger businesses are required to participate in the Energy Saving Opportunities Scheme. These are valuable experiences that could be shared to promote best practice and demonstrate the performance of low carbon solutions.

consultants and proven applications. Where time and expertise are limited, organisations will require specialist support in order to implement these improvements.

## Actions



### **Box 1: Energy management at Salisbury District Hospital**

Salisbury NHS Foundation Trust has achieved its target to reduce carbon emissions by 10% from a 2007 baseline one year ahead of schedule. It is continuing to work towards a more challenging target to reduce carbon emissions by 34% by 2020, from a 1990 baseline.

The Trust has invested in a range of energy projects and initiatives. The major schemes included the replacement in 2012 of an older Combined Heat and Power unit (CHP), with a modern unit capable of generating half of the power for the site. Making use of dedicated internal funding and government-backed loans the Trust has introduced energy efficient equipment including LED lighting, voltage optimisation and high efficiency condensing boilers and chillers. Investment has also been made in renewable technology with the installation of solar thermal and solar PV arrays on building roofs.

As well as carbon reduction these measures have been effective in managing the Trust's energy consumption and providing protection from rising energy costs.

### **Box 2: Energy efficiency builds resilience for IXYS UK**

IXYS UK Westcode Ltd designs and manufactures semi-conductors for a global market and has been manufacturing at its Chippenham site since the 1960s.

The company's approach to energy is based on eliminating waste and investing in energy efficient equipment according to an assessment of cost and payback.

Simply switching unnecessary equipment off, and making operational adjustments, has achieved a 23% reduction in electricity consumption at the Chippenham site over the past 18 months.

IXYS UK is undertaking a data logging exercise, to gain a better understanding of the largest energy consuming areas on the site. This will monitor specific pieces of equipment such as lighting and manufacturing processes, to identify opportunities for savings.

Whilst the electrical supply to the site is not currently at capacity, the recent reduction in electricity consumption has been effective in reducing the risk of this occurring in the future and becoming a barrier to growth.



## 4.2 Affordable warmth

In common with other rural areas, Wiltshire has a high proportion of properties that are not connected to the mains gas network. It is estimated that 18% of Wiltshire households do not have access to mains gas and therefore use alternative fuels such as oil and electricity for heating. There are also some homes which have no central heating. The national fuel poverty indicator shows 10% of households in Wiltshire are classified as Low Income, High Cost (LIHC) fuel poor ([DECC](#)). Across the housing stock those households in rural communities without mains gas have lower energy efficiency and therefore higher fuel costs than the rest of the county.

The energy performance of residential properties is one of the key determinants of fuel poor households. Wiltshire Council and other housing providers in the county have programmes in place to ensure that the most energy inefficient properties are improved to achieve a minimum standard. Insulation, fuel switching and heating upgrades will be employed to improve the energy performance of housing stock. Renewable energy will also be used to bring down fuel costs for tenants.

Another key factor in fuel poverty is the cost of energy. A recent investigation into competition in the energy market ([CMA](#), July 2015) concluded that millions of consumers could benefit from switching to a cheaper energy tariff. Of the 90% of customers using the six large energy firms, 70% are on standard variable rates, typically some of the most expensive tariffs. Measures to promote better engagement e.g. quicker switching and smart meters, will be important to encourage more consumers to switch their custom to cheaper suppliers and encourage competition.

An ongoing challenge for organisations working to address fuel poverty is to reach the most vulnerable groups, for whom affordable warmth can have the greatest impacts in terms of health and wellbeing. As well as raising awareness of the assistance available, this emphasises the need for partners to work together to identify those at risk and integrate services to enable effective support to be offered.

### Objective

- To improve domestic energy efficiency for those in or at risk of fuel poverty

## Actions

### A1. To improve domestic energy efficiency for those in or at risk of fuel poverty

- A1.1 Deliver the Warm & Safe programme for Wiltshire residents to access energy advice and support
- A1.2 Promote the Ready to Switch collective switching scheme
- A1.3 Develop a strategic approach for delivering fuel poverty interventions
- A1.4 Deliver an investment programme for energy efficiency improvements in social housing stock

### Box 3: Warm & Safe Wiltshire

Warm and Safe Wiltshire is delivered jointly by Wiltshire Council and Wiltshire Fire & Rescue Service. The initiative aims to give residents access to advice and support to improve energy efficiency and fire safety in the home.

Since its launch in November 2014 the partnership has proved to be effective in coordinating this assistance. This has been demonstrated in the help received by one resident who was referred for a Warm & Safe assessment following a home fire safety check. A number of areas for attention were identified, including draughts and mobility issues.

As a result, referrals were made to various agencies who could offer support. The fire service community safety technician installed draught-proofing measures, adult social care were consulted on measures to prevent slips, trips and falls, a referral was made for free insulation and energy advice and a request was made to Bobby Van Trust to provide a home security assessment.

For more information about the support available through Warm & Safe Wiltshire call 0300 003 4575.

### 4.3 Sustainable transport

In Wiltshire, the main road transport fuels (petrol and diesel) represent 39% of total energy consumption in the county, compared with 36% for the south west ([DECC](#)). This reflects the rural nature of the county, with high levels of car ownership and a car based commute. Targeting road transport emissions is a key area for achieving both carbon reduction and energy resilience.

This action area aims to reduce our reliance on fossil fuels for road transport and to develop and promote initiatives that will encourage the use of sustainable alternatives to the car. This includes opportunities to reduce the need to travel.

The Local Transport Plan for the county sets a strategic priority to develop a transport system which helps to support economic growth, provide choice and reduce carbon emissions. To help achieve this, employers, communities and transport providers can work together to deliver and promote sustainable transport options.

There are opportunities in the longer term to adopt alternative fuels. The government has provided support to encourage development of the market in ultra-low emission vehicles (ULEV) as part of its ambitious vision for almost every car and van to be a zero emission vehicle by 2050. ULEV sales in Wiltshire had risen to 42 between January and March 2015, compared to just nine in the same period in 2014, predominantly through uptake of grant eligible cars ([DfT/OLEV](#)). Greater use of ULEVs will contribute to economic growth for the UK automotive sector and supply chain, and will help reduce greenhouse gas emissions and air pollution on our roads.

#### Objectives

- To support, develop and promote sustainable alternatives to private car journeys
- To develop the infrastructure for ultra-low emissions vehicles (ULEV) and facilitate their uptake

#### Supporting strategies and plans

##### Local Transport Plan 3

Wiltshire Council's [Local Transport Plan 3](#) (LTP 3) covers the period 2011 to 2026. The LTP, along with its supporting strategies, sets out a long term strategy for the planning and development of transport and its associated infrastructure in Wiltshire. Shorter-term implementation plans are based on a realistic assessment of available funding.

The overarching goals of the LTP include the priorities to support economic growth and reduce carbon emissions. A review of the [LTP Public Transport Strategy](#) will be undertaken during 2015/16 to determine how its objectives can best be met in the context of the reduced availability of public funding.

Among the preferred options, the strategy promotes:

- Improving opportunities for **walking** and **cycling** by providing well designed and maintained routes and links.
- Retaining overall levels of service in **public transport** to meet identified demand, accessibility needs for those without private transport and contributing to sustainable transport options.
- Increasing rail **connectivity** through bus-rail links and supporting the function of rail stations as transport hubs.
- Encouraging **smarter travel choices** by using the planning system to develop, monitor and enforce mandatory residential and business travel plans, and promote the use of voluntary travel plans by organisations generally.
- At a strategic planning level, ensuring that development is allocated in **sustainable locations**, with access to key services by means other than the private car.

There are a number of supporting strategies that make up LTP3. Among them, the [LTP Smarter Choices Strategy](#) promotes a range of measures to support the uptake of sustainable transport modes and alternatives to travel. These include the use of travel plans, advice and information, car sharing and car clubs, low carbon vehicle use, and the adoption of smarter working practices by employers such as home working, flexi-time and tele-working.

### **Air Quality Action Plan**

The primary source of pollutants within Wiltshire's air quality management areas (AQMAs) is vehicle emissions. There are currently eight AQMAs in the county.

[Wiltshire's air quality action plan](#) aims to set out the strategic and locally generated actions that will be implemented to improve air quality and work towards meeting the air quality objectives.

Community action plan working groups have been established via the local area boards with AQMAs. Projects such as tree planting, business and school travel planning, and active travel programmes have been initiated as a result of their work. These activities are captured in their individual action plans.

## Actions

### S1. To support, develop and promote sustainable alternatives to private car journeys

- S1.1 Develop the Connecting Wiltshire website as a one-stop shop for sustainable travel advice
- S1.2 Promote and support the use of travel plans within businesses, schools and new developments
- S1.3 Promote active travel, including walking, cycling and use of public transport, through information and initiatives
- S1.4 Develop sustainable transport infrastructure for cycling, walking and public transport
- S1.5 Work with partners to secure funding to promote bus travel and service quality improvements
- S1.6 Support the development of community-led sustainable transport initiatives

### S2. To develop the infrastructure for ultra-low emissions vehicles and facilitate their uptake

- S2.1 Enable the installation of a comprehensive network of publically available electric vehicle charge points within Wiltshire
- S2.2 Seek the provision of charge points through the planning system in new residential developments, retail and key employment sites
- S2.3 Promote funding sources and facilitate opportunities for commercial uptake of ULEVs
- S2.4 Deliver Clean Bus Technology Fund project to implement flywheel hybrid technology on 19 existing buses

#### **Box 4: Improving rail services in west Wiltshire**

In July 2012 Wiltshire Council secured £4.5 million through the government's Local Sustainable Transport Fund to improve transport services and transport information in Wiltshire.

Among the projects funded, Wiltshire Council has worked with First Great Western to launch an enhanced TransWilts rail service between Swindon and Westbury. Since December 2013 the investment has increased services from two to eight trains each way per day during the week and up to six on a Sunday.

#### **Key facts**

- 183,400 passengers used the service in 2014, well ahead of forecasted numbers.
- An estimated 683,500 car miles have been diverted from the road network during the year.
- Passenger trends show a 27% annualised increase.
- 75,000 journeys for new rail passengers have been recorded.

This success has enabled the service to be secured until at least December 2016.

#### **Box 6: Travel planning at Porton Down**

The Defence Science and Technology Laboratory (Dstl) and Public Health England (PHE) based at Porton Down near Salisbury have put in place a number of travel plan measures to improve accessibility to the site. The remote location has encouraged a high level of car usage, however working together they have shown continuous progress in reducing single car occupancy levels by more than 10% during a six year period 2007- 2013.

This was largely achieved through encouraging car sharing, but they have also successfully promoted cycle and bus usage despite their rural location.

#### **Box 5: hOURCARS community car share club**

Salisbury community car share club hOURCARS has secured funding to provide a second pay-by-the-hour vehicle, giving residents the opportunity to use a car without the cost of ownership. The club has been operating in Salisbury for ten years with 14 members and one vehicle parked in the city centre.

The new low-emissions car, to be launched in October 2015, will enable the club to expand its membership and will have a designated on-street parking space on York Road, in the St Pauls area of the city.

The club attracts members who don't use a car very often or households that occasionally need a second car, and can also be used by businesses. It has been successful in enabling some households avoid the need to own a car altogether and therefore has benefits for areas that experience parking congestion.

The car club is run on a not-for-profit basis by volunteers. Its operation is self-funding, but the launch of a second vehicle has been made possible by grants from the Department for Transport and Wiltshire Council Salisbury Area Board.

For more information see [www.hourcars.co.uk](http://www.hourcars.co.uk)

#### **Box 7: Connecting Wiltshire**

The [Connecting Wiltshire](http://www.connectingwiltshire.co.uk) website is now celebrating its second anniversary. The site brings together transport information across the county, encouraging public transport usage and active travel as well as providing useful information for car drivers with Car Share Wiltshire. Usage of the site has been steadily increasing and reached 10,000 users in July 2015.

## 4.4 Low carbon energy

The expansion of renewable and low carbon energy sources in Wiltshire contributes to energy resilience, economic growth and carbon reduction objectives. It also has the potential to protect communities and businesses from rising energy costs, to retain energy spend in the local economy and to generate a source of income.

### Renewable electricity

The largest source of renewable energy in Wiltshire are large scale solar projects, which in 2015 account for approximately 94% of installed electrical capacity ([Regen SW](#)). To date a total of 409 Megawatts (MW) has been approved across 40 major projects<sup>5</sup>. We have also seen a growth in community-led renewable energy projects, predominantly solar PV installations, which can deliver benefits for the local economy and surrounding communities.

### Renewable heat

In Wiltshire and across the south west there is potential for growth in renewable heat projects for homes, businesses and communities. There are 674 accredited domestic and 142 non domestic renewable heat installations ([DECC](#)) in the county compared to over 6825 solar photovoltaic installations ([DECC](#)). The Renewable Heat Incentive (RHI), introduced in April 2014 for domestic systems, has potential to stimulate further uptake. Wiltshire Council's oil to biomass programme has installed nine biomass boilers in schools throughout the county, adding 2MW of installed capacity. The budget to support the continuation of RHI beyond 2016 is yet to be announced.

A substantial increase in renewable generation capacity across a mix of scales and technologies will be required to meet the UK target of 15% of energy supplied by renewable sources by 2020 (in 2014, 7% of UK energy consumption came from renewable sources ([DUKES](#), 2015)). A key challenge will be to ensure that new generation is supported by innovation in the distribution network to enable new grid connections to be made.

### Heat networks

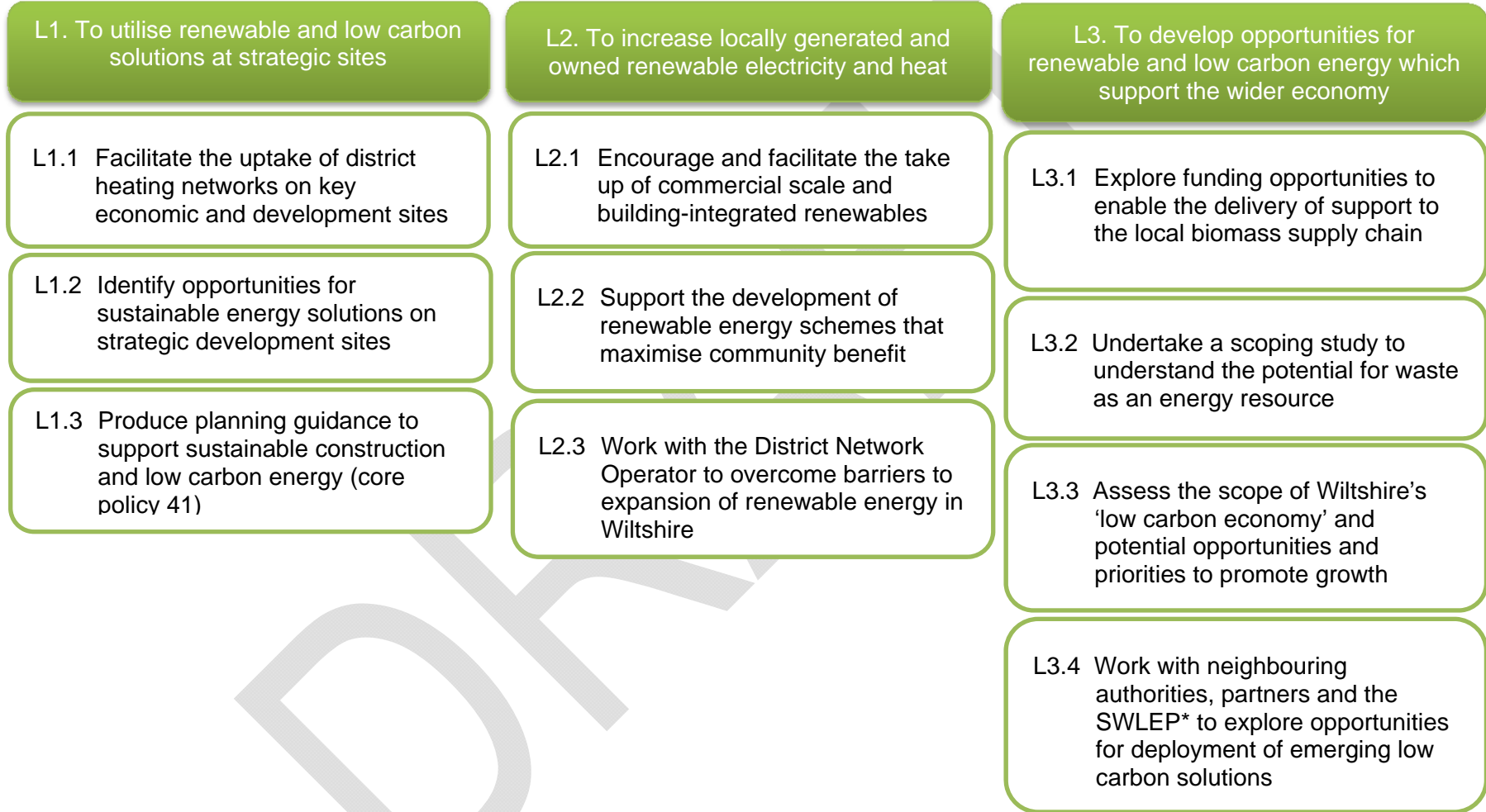
The Government has sought to support the development of district heating networks by establishing the Heat Network Delivery Unit and providing funding to local authorities' to support early stage heat network development. Within Wiltshire projects have been funded to establish the feasibility and viability of schemes at strategic sites. These studies aim to facilitate uptake, inform future policy development and understand further potential for deployment.

#### Objectives

- To utilise renewable and low carbon solutions at strategic sites
- To increase locally generated and owned renewable electricity and heat
- To develop opportunities for renewable and low carbon energy which support the wider economy

<sup>5</sup> Renewable energy projects of 1 Megawatt or greater receiving planning approval (up to October 2015).

## Actions



\*Swindon and Wiltshire Local Economic Partnership



### Box 8: Commercial scale solar PV

Apetito Ltd is a long-established provider of frozen meals for care homes, local authorities and hospitals. In 2013, the company decided to install solar PV on two factory units at their Trowbridge site.

The project was delivered over a six month period:

- 666 panels installed over three weeks.
- 150 kilowatt peak of solar panels across two south-facing roofs.
- Both systems eligible to claim the feed-in tariff.
- 163,500 kilowatt hours of electricity generated a year, equivalent to the electricity consumption of 50 average homes.
- 90 tonnes of carbon dioxide saved per year.

The systems have performed better than expectations and the company are looking for opportunities to use solar PV on other sites.

### Box 9: Community Energy

Kennet Community Energy Limited (KCEL) is a community benefit social enterprise formed in January 2013. KCEL's growing portfolio of projects aims to create opportunities for local people in north and east Wiltshire to invest in renewable energy. The projects also support the development of local energy infrastructure that will make communities more resilient to rising energy costs. Schools, community buildings and local businesses are among the partners who KCEL have worked with to deliver new projects, each enabled by fund-raising from its members.

Since May 2013 the following installations have been completed:

- A 44 kWp, 200 panel solar PV array at Wadworth Brewery Visitors Centre, Devizes.
- A 50 kWp, 200 panel solar PV array at Devizes School.
- A 49 kWp, 188 panel solar PV array at Trowbridge Civic Centre.

In total the systems have the potential to generate electricity equivalent to the annual demand of 40 average homes. The long term ambition is to use surplus income to establish a community fund which will support community-led sustainable energy projects.

For more information visit: [www.kennetenergy.org.uk](http://www.kennetenergy.org.uk).

### Box 10: Wiltshire Wildlife Community Energy

Wiltshire Wildlife Community Energy (WWCE) is an independent community-owned enterprise set up to develop, finance and operate community owned renewable energy projects. Wiltshire Wildlife Trust has worked with Bath and West Community Energy and Mongoose Energy to set up the enterprise and deliver their projects.

Their first installation, completed in June 2014, is a 1.2 Megawatt Solar Farm at Chelworth near Cricklade. The site will now be developed to enhance biodiversity by creating new wildflower meadows underneath the solar arrays.

A further ground-mounted solar array is due for completion at the end of 2015. The 5MW array at Braydon Manor near Purton shares access and grid connection with a commercial 4.1MW array, making it the first split site development in the country and setting a precedent for maximising community benefit from this form of development. Just over £2.9 million was raised from a public share offer to help fund the scheme, the majority of investors coming from Wiltshire and surrounding counties.

As well as generating renewable electricity sufficient for several thousand homes WWCE has raised £25,000 this year for a local community fund to be managed by Wiltshire Wildlife Trust. It aims to raise £2,000,000 for community projects over the 25 years of the scheme.

For more information visit: <http://wwce.org/>.

## 5. Monitoring

The action plan in [appendix 2](#) identifies ‘measures of completeness’ for each action to show how progress will be tracked. Indicative timescales have also been provided. The majority of actions are short term and delivery is ongoing or will be progressed within the next 1 to 2 years. This leaves scope for the plan to be flexible and updated to reflect changing delivery priorities and opportunities. The Council’s ECO Board will have responsibility for overseeing progress with delivery and for any subsequent reviews of the plan. Progress will be reported and published annually.

In order to show progress against the strategic aims over the course of this plan, we have set out against each objective how this can be measured over time. These are summarised in the table below.

Objective	Measures	Frequency
O1. To reduce Wiltshire Council’s contribution to carbon emissions in the county	<ul style="list-style-type: none"> <li>Greenhouse gas emissions report</li> <li>Energy consumption in corporate buildings</li> <li>Corporate business mileage</li> </ul>	Annual
E1. To improve energy efficiency in Wiltshire’s existing building stock	<ul style="list-style-type: none"> <li>Local area carbon dioxide emissions per capita (DECC)</li> <li>ECO statistics (DECC)</li> </ul>	Annual
E2. To promote high standards of energy efficiency in new homes and buildings	<ul style="list-style-type: none"> <li>Number of major development schemes supported by sustainable energy strategies</li> <li>Number of commercial developments supported by sustainable energy strategies and delivering BREEAM ‘Very Good’ status</li> </ul>	Annual
E3. To increase energy efficiency and reduce waste in businesses	<ul style="list-style-type: none"> <li>Number of businesses assisted</li> <li>Quantified cost and carbon savings</li> </ul>	Annual As surveyed
A1. To improve domestic energy efficiency for those in or at risk of fuel poverty	<ul style="list-style-type: none"> <li>Number of referrals and measures installed</li> <li>Local area fuel poverty statistics (DECC)</li> <li>SAP ratings of Wiltshire housing stock</li> </ul>	Annual Annual As surveyed
S1. To support, develop and promote sustainable alternatives to private car journeys	<ul style="list-style-type: none"> <li>Number of businesses, schools and new developments assisted with travel plans and measures</li> <li>Modal shift</li> </ul>	Annual As surveyed
S2. To develop the infrastructure for ultra-low emissions vehicles (ULEV) and facilitate their uptake	<ul style="list-style-type: none"> <li>Number of electric vehicle charging points installed</li> <li>Charge-point utilisation</li> <li>ULEV new registrations (DfT)</li> </ul>	Annual
L1. To utilise renewable and low carbon solutions at strategic sites	<ul style="list-style-type: none"> <li>Approved and installed renewable capacity</li> <li>Number of district heating projects progressing beyond initial feasibility stage</li> </ul>	Annual
L2. To increase locally generated and owned renewable electricity and heat	<ul style="list-style-type: none"> <li>Approved and installed renewable capacity</li> <li>Number of community-led energy projects</li> </ul>	Annual

Objective	Measures	Frequency
L3. To develop opportunities for renewable and low carbon energy which support the wider economy	<ul style="list-style-type: none"><li>• Number of businesses supported</li><li>• Number of jobs created (ONS)</li></ul>	Annual As surveyed

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## Appendix 1

## Initial Stakeholder Feedback

A range of stakeholders were invited to provide input into the development of the Energy Resilience Plan. This engagement took the form of a series of meetings to discuss the plans already underway in the county and where there were opportunities to progress energy resilience objectives. Wider engagement was also undertaken through presentations to the Area Boards across Wiltshire.

The key themes discussed are summarised below by sector.

### **i. Energy intensive businesses**

In Wiltshire's varied manufacturing sector, energy represents a significant cost and potential constraint on business growth. Driven by the need to reduce costs and balance risk, for these businesses, energy resilience has focused on implementing energy management practices, improving operational efficiency and making cost effective investments in efficiency measures.

Within some businesses there are opportunities to explore the use of combined heat and power (CHP), solar PV and energy from waste solutions to relieve energy constraints and make sites more self-sufficient in their energy supply. Recovering waste heat from existing onsite processes can also be explored to reduce energy demand.

Businesses experience a challenge to find economic opportunities for retrofitting new technologies. Finding suitably experienced consultants and proven applications of new technologies are also barriers to investment in energy projects. Facilitating business to business knowledge exchange, particularly technology and sector specific solutions could help to address this.

### **ii. Public sector**

Carbon and energy management plans are in place in a number of Wiltshire's public sector organisations. These investment plans target carbon reduction, energy and cost savings and are driven by the need to protect budgets from rising energy costs and consider long term security of supply as well as environmental sustainability.

Early challenges for these programmes have been the measuring and monitoring of energy data on what are often large and dispersed estates. Invest to save funds have enabled a broad range of cost effective energy projects to be progressed such as CHP, low energy and LED lighting and occupancy controls, voltage optimisation, high efficiency boilers and heat recovery. Renewable energy installations are increasingly part of the portfolio of projects on the public sector estate, in particular solar PV, but there are also examples of biomass and solar thermal. The public sector has also been an early adopter of low emission vehicles, building confidence in how new technologies can support carbon and cost reduction objectives.

### **iii. Community sector**

The community energy sector has an active and growing presence in Wiltshire. Community energy organisations enable investment in local renewable energy projects, have specialist skills and expertise and support the use of local installers. They can provide a driving force for community groups to develop their own projects and often promote a wider commitment to deliver benefits to the surrounding communities through funding projects that support their objectives for energy reduction and alleviating fuel poverty.

Technical expertise and leadership are important ingredients for the success of community energy organisations, along with promoting a better understanding of what community energy can offer for investors, partners and communities.

**iv. These discussions revealed broad support for the following actions:**

- Facilitate the sharing of good practice and experience in delivering energy efficiency programmes.
- Explore opportunities for energy from waste.
- Promote the benefits of community energy.
- Target support for vulnerable residents.
- Promote active travel and reducing the need to travel.
- Address network constraints and support innovative solutions.
- Explore opportunities for innovation projects and partnerships.

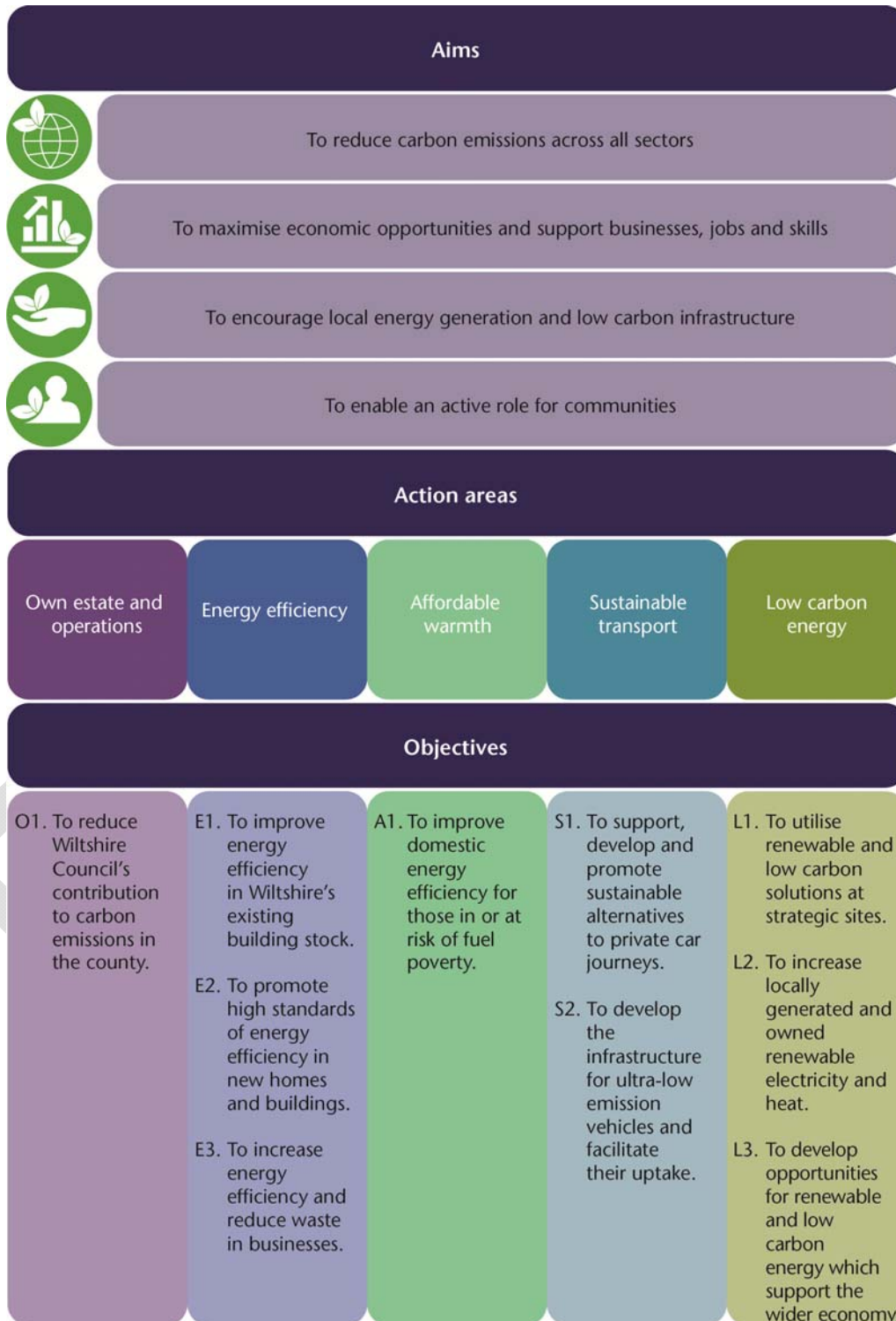
**v. List of stakeholders**

<b>Public Sector</b>	<b>Private sector</b>	<b>Community sector</b>
Defence Science Technology Laboratory, Public Health England, Salisbury NHS Foundation Trust, Wiltshire Police	Apetito Ltd, Chemring Countermeasures Ltd, Dyson Ltd, IXYS Ltd, Wavin Ltd	Climate Friendly Bradford on Avon, Kennet Community Energy, Salisbury Transition City, Salisbury hOURCARS, Wiltshire Wildlife Community Energy, Wiltshire Community Land Trust
<b>Housing specialists</b>	<b>Energy specialists</b>	
Aster Housing, Green Square Housing	Good Energy Ltd, Mongoose Energy, Scottish and Southern Electricity Power Distribution	

## Appendix 2

## Climate Local Action Plan

This action plan brings together Wiltshire Council's commitments to reduce its carbon emissions alongside the energy resilience plan to form a Climate Local Action Plan.



## O1. To reduce Wiltshire Council's contribution to carbon emissions in the county



This action area focuses on reducing emissions from the council's buildings and operations. The [carbon management plan](#) (2013-2017) and its service-led action plans set out in detail how we aim to achieve our carbon reduction target. We will also take actions to reduce carbon emissions by targeting improvements in key service delivery such as waste collection and recycling.

We will measure and report on our progress through:

- Greenhouse gas emissions reporting
- Monitoring energy consumption in corporate buildings
- Monitoring corporate business mileage

		Action	Measure	Delivery	Timescale
Buildings	O1.1	Publish and implement Carbon Management Plan (CMP).  Develop and implement Carbon Action Plans	11,823 tonne reduction per annum of CO <sub>2</sub> emissions by 2016/17 on 2010/11 figure.	<b>Wiltshire Council</b>	2016/17 CMP target
Buildings	O1.2	Continue energy efficiency projects on Corporate Estate through ISO 50001 standard  Developing 'invest to save' projects for insulation, combined heat and power, biomass and low energy lighting	Project completed  CO <sub>2</sub> saved	<b>Wiltshire Council</b>  Facilities Management	Q4 2016/17

		Action	Measure	Delivery	Timescale
Housing	O1.3	Complete the retrofit of council housing stock with high efficiency condensing gas boilers	Replacement of 1,100 standard efficiency gas boilers	<b>Wiltshire Council</b> Asset management	Q4 2016/17
Housing	O1.4	Complete retrofit of 25 bungalows with air source heat pumps and solar PV systems	Retrofit project completed In use performance captured	<b>Wiltshire Council</b> Asset management	Q3 2015/16
Street lighting	O1.5	Continue introduction of new energy efficient units, including LED lighting where business case allows	Number of units introduced CO <sub>2</sub> saved	<b>Wiltshire Council</b> Highways and Transport	Q4 2016/17
Transport and Travel	O1.6	Continued replacement of diesel pool car vehicles with a combination of Ultra Low Emission Vehicles (ULEVs), electric vehicles (EVs) and hybrid vehicles where business case allows	Review pool car utilisation, miles travelled, fuel consumed and CO <sub>2</sub> produced	<b>Wiltshire Council</b> Environmental Services	2015/16
Transport and Travel	O1.7	Identify which teams and departments are travelling the most grey fleet miles and operational miles and work towards a solution to reduce this	Review reports for mileage travelled  This along with the CO <sub>2</sub> figure is reported as a key performance indicator	<b>Wiltshire Council</b> Environmental Services	Ongoing
Transport and Travel	O1.8	To implement the Wiltshire Council Travel Strategy for the three main council hubs	Annual staff travel survey  2% reduction per year in single occupancy car trips	<b>Wiltshire Council</b> Sustainable Transport	Ongoing



		Action	Measure	Delivery	Timescale
Waste and Recycling	O1.9	The council will pursue a target of reducing waste after recycling and composting from 606 kilos per household achieved in 2011-12 to 545 kilos per household by 2015-16	Kg/household/year	<b>Wiltshire Council</b> Waste and Environment	2015/16
Waste and Recycling	O1.10	Achieve a recycling rate of 50% by 2020	% of waste recycled	<b>Wiltshire Council</b> Waste and Environment	2020
Waste and Recycling	O1.11	The council will seek to increase the range of recyclates collected at HRCs, where it is feasible and economic to do so, with a focus upon biodegradable and hazardous wastes and service to residents	Range of material collected	<b>Wiltshire Council</b> Waste and Environment	Ongoing
Waste and Recycling	O1.12	The council will recover energy or otherwise divert from landfill sufficient tonnage of Municipal Solid Waste (MSW), in addition to that diverted by recycling and composting, to achieve a landfill rate equivalent to less than 35% of the biodegradable municipal waste tonnage landfilled at 1995 by 2019-20	% of biodegradable municipal waste tonnage landfilled compared to the 1995 tonnage	<b>Wiltshire Council</b> Waste and Environment	2019/20
Adaptation	O1.13	Promote the delivery of Sustainable Urban Drainage Schemes to support new development across Wiltshire  To actively promote the installation of appropriately designed sustainable urban	Number of new developments incorporating appropriate Sustainable Urban Drainage Schemes  Number of sustainable	<b>Wiltshire Council</b> Economic Development and Planning, Transformation	Ongoing

		<p>drainage schemes in Wiltshire's new developments</p> <p>To ensure that appropriate funding mechanisms are in place to support the long-term maintenance of sustainable urban drainage schemes</p>	<p>urban drainage schemes supported by long-term maintenance bonds</p>		
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## E1. To improve energy efficiency in Wiltshire's existing building stock



Improving energy performance in existing residential and commercial buildings will contribute to a reduction in carbon emissions and will increase energy resilience for businesses, organisations and communities.

In public and commercial buildings, there are good examples of organisations that have successfully implemented energy management and invest to save projects to improve energy performance. These experiences should be shared to demonstrate the benefits of this approach. Community energy groups also provide an important source of expertise and local activity to promote domestic energy efficiency, both through behavioural change and fabric improvements.

We will measure and report on progress through:

- Local area carbon dioxide emissions per capita (DECC)
- Monitoring ECO statistics (DECC)

		Action	Measure of completeness	Delivery / Stakeholders	Timescale
Domestic	E1.1	Promote opportunities and incentives for domestic energy efficiency measures	<p>Referrals onto funding sources</p> <p>Uptake of current government incentives</p>	<p><b>Wiltshire Council</b> Public Health</p> <p>Housing providers</p>	Ongoing

		Action	Measure of completeness	Delivery / Stakeholders	Timescale
Domestic	E1.2	Establish community-led projects to promote domestic retrofit and deliver energy advice	Increased number of community-led energy projects: e.g. Thermal imaging Energy advice surgeries Green Open Homes events	<b>Community</b> Community groups and organisations  <b>Supported by:</b> Public Health	Ongoing
Business	E1.3	Engage with key employment sites to promote energy and climate resilience	Key site definition Prioritisation Targeted engagement	<b>Wiltshire Council</b>  Green Economy, Economic Development	Q4 2015/16
Domestic / Business / Public sector	E1.4	Facilitate knowledge sharing on energy management, technologies and invest to save projects	Communications materials produced and shared Knowledge sharing event Information sharing platform	<b>Wiltshire Council</b>  Energy Services, Green Economy, Economic Development  <b>Supported by:</b> Businesses, Housing Associations, Public sector	Q4 2015/16

## E2. To promote high standards of energy efficiency in new homes and buildings



To contribute to energy resilience and carbon reduction objectives, new buildings should add only minimally to the existing energy demands of the county. This will require new development to incorporate sustainable building practices, high levels of energy efficiency and utilise renewable energy sources. This will help to protect building occupants from future energy price rises.

We will measure and report on progress through:

- Number of major development schemes supported by sustainable energy strategies.
- Number of commercial developments supported by sustainable energy strategies and delivering BREEAM 'Very Good' status, rising to 'Excellent' status in 2019.

		Action	Measure of completeness	Delivery / Stakeholders	Timescale
	E2.1	Encourage developers, using levers such as planning policy and building control, to move new build and refurbishment schemes closer towards meeting high energy efficiency standards	<p>Sustainable energy strategies reviewed</p> <p>Partial review of core strategy (Core Policy 41)</p> <p>Sustainable construction guidance produced</p>	<p><b>Wiltshire Council</b> Spatial Planning, Energy &amp; Environment, Development Management</p> <p><b>Supported by:</b> Housing Developers, Developers, Businesses</p>	<p>Q4 2015/16</p>
	E2.2	Promote sustainable construction through the council's new build extra care housing and bungalow development programme	<p>Finalise the updated extra care design guide</p> <p>Achieve BREEAM very good on the first new scheme in Devizes</p> <p>Energy efficiency standards set out in the Design Brief for the bungalow</p>	<p><b>Wiltshire Council</b> Asset Management</p> <p><b>Supported by:</b> New Housing Team, Energy &amp; Environment</p>	<p>2015/16</p> <p>Q4 2017</p> <p>Ongoing</p>

			development programme.		
		Action	Measure of completeness	Delivery / Stakeholders	Timescale
	E2.3	Inform Neighbourhood Planning groups of the sustainable energy policy considerations at the Neighbourhood Plan scoping stage	<p>Liaison with emerging Neighbourhood Planning groups (qualifying bodies) regarding sustainable construction and sustainable energy solutions</p> <p>Emergence of Neighbourhood Plans focusing on the delivery of energy efficiency, community owned/operated renewable energy generation and sustainable construction</p>	<p><b>Neighbourhood plan working groups</b></p> <p><b>Supported by:</b> Spatial Planning, Green Economy</p>	Ongoing

### E3. To increase energy efficiency and reduce waste in businesses



Improved energy and resource efficiency can deliver significant cost savings and a competitive advantage for business. Through this programme of work, businesses will be supported to identify commercial opportunities for improving resource efficiency, share knowledge on low carbon projects and access advice and funding to help implement projects that will develop energy resilience and reduce carbon emissions.

We will measure and report on progress through:

- Number of businesses assisted
- Quantified cost, carbon, energy, waste and water savings (as surveyed)

		Action	Measure of completeness	Delivery / Stakeholders	Timescale
Business	E3.1	Provide tailored resource efficiency advice and support for SME businesses	<p>External funding in place to deliver project</p> <p>Appointment of delivery partner</p> <p>Service launched</p>	<p><b>Wiltshire Council</b> Green Economy, Economic Development</p> <p><b>Supported by:</b> SWLEP, SME businesses, Business support providers, Low carbon businesses</p>	Q4 2015/16
Business	E3.2	Provide a forum for businesses to share their experience of energy management and low carbon technologies	<p>Case studies produced and shared</p> <p>Knowledge exchange event, workshops and networking</p>	<p><b>Wiltshire Council</b> Green Economy, Economic Development</p> <p><b>Supported by:</b> Businesses, Business support and representative organisations</p>	Q4 2016/17

## A1. To improve domestic energy efficiency for those in or at risk of fuel poverty



To target support where it is most needed, we will integrate our approach to fuel poverty into public health service delivery and the work of the Health and Wellbeing Board. Through our Warm & Safe Wiltshire programme we will work with partners to provide advice, secure funding and enable insulation and heating measures to be installed in homes.

Housing providers in the county have long term investment programmes in place to ensure the most energy inefficient properties are improved to achieve a minimum standard of efficiency. Insulation, fuel switching and heating upgrades will be employed to improve the energy performance of housing stock. Renewable energy will also be used to bring down fuel costs for tenants.

We will measure and report on progress through:

- Number of referrals and measures installed
- Local area fuel poverty statistics (DECC)

- SAP ratings of Wiltshire housing stock (Private Sector Stock Condition Survey)

		Action	Measure of completeness	Delivery / Stakeholders	Timescale
Domestic	A1.1	Deliver the Warm & Safe programme for Wiltshire residents to access energy advice and support	Advice line operational Referral mechanism(s) in place External funding secured for measures Energy efficiency measures installed in homes	<b>Wiltshire Council</b> Public Health, Warm & Safe Wiltshire Delivery Group <b>Wiltshire Fire &amp; Rescue Service</b> <b>Supported by:</b> Community groups / partners	Ongoing
Domestic / Business	A1.2	Promote the Ready to Switch collective switching scheme	Communications and promotions Three auctions run per year	<b>Wiltshire Council</b> Public Health, Green Economy <b>Supported by:</b> Community groups Housing Associations	Ongoing
Domestic	A1.3	Develop a strategic approach for delivering fuel poverty interventions	Develop an evidence base for targeting fuel poverty projects Engage delivery partners Working group established to support programme	<b>Wiltshire Council</b> Public Health, Housing, Warm & Safe Wiltshire Delivery Group <b>Supported by:</b> Health and Wellbeing Board Housing Associations	2016/17

			delivery		
		Action	Measure of completeness	Delivery / Stakeholders	Timescale
Domestic	A1.4	Deliver an investment programme for energy efficiency improvements in social housing stock	Energy efficiency / fuel poverty strategy in place  Measures implemented  Number of homes with energy rating under SAP 69	<b>Wiltshire Housing Associations</b>  <b>Wiltshire Council</b> Asset Management	2015-2020

## S1. To support, develop and promote sustainable alternatives to private car journeys



We will work with employers, community groups and transport providers to support the development and promotion of sustainable transport options.

This work will build on the resources developed through the [Connecting Wiltshire](#) programme and provide a route to information and advice. Community led activities will support the promotion of active travel and bring forward initiatives that meet local needs, such as those identified by community area transport groups and air quality working groups. Alongside this, we will continue to work with partners and through the planning system to enable the development of sustainable transport infrastructure and initiatives.

We will measure and report on progress through:

- Monitoring the number of businesses, schools and new developments assisted with travel plans and measures
- Modal shift data provided by walking and cycling counters, rail surveys and travel surveys (where available)



		Action	Measure of completeness	Delivery / Stakeholders	Timescale
	S1.1	Develop the Connecting Wiltshire website as a one-stop shop for sustainable travel advice	Improve website content New tools / applications* Travel promotions*	<b>Wiltshire Council</b> Sustainable transport  *Funding dependent (e.g. external bids and grants)	Ongoing
	S1.2	Promote and support the use of travel plans within businesses, schools and new developments	Businesses supported with travel plans and implementing measures Development-related travel plans Funded school travel plan measures	<b>Wiltshire Council</b> Sustainable Transport, School Travel Plan Advisor (Traffic Management Team)  <b>Supported by:</b> Businesses, Employers Schools	Ongoing
	S1.3	Promote active travel, including walking, cycling and use of public transport, through information and initiatives	Delivery of active travel programmes: e.g. Bike It Plus programme, Beat the Street Project, Get Wiltshire Walking.  External funding applications	<b>Wiltshire Council</b> Public Health, Sustainable Transport  <b>Supported by:</b> Community Area Transport / Air Quality Groups Schools	Ongoing
	S1.4	Develop sustainable transport infrastructure for cycling, walking and public transport	Implement town cycle networks and key cross-country routes.*  Implement wayfinding strategies for all towns.*	<b>Wiltshire Council</b> Sustainable Transport, Highways  <b>Supported by:</b> Community Area Transport Groups (CATG)	Ongoing

			Continue delivery of CATG walking and cycling scheme	*Funding to be sought through grants and planning contributions.	
		<b>Action</b>	<b>Measure of completeness</b>	<b>Delivery / Stakeholders</b>	<b>Timescale</b>
	S1.5	Work with partners to secure funding to promote bus travel and service quality improvements	Regular meetings of QBP  Prepare bids as funding sources become available e.g. Better Bus Area funding (delivered 2014)	<b>Wiltshire Council</b> Passenger Transport Unit  <b>Supported by:</b> Salisbury Quality Bus Partnership (QBP), Passenger Transport Providers	Ongoing
	S1.6	Support the development of community-led sustainable transport initiatives	Officer support for proposals and initiatives  Community-led initiatives in delivery e.g. sustainable travel promotions, car club, community transport schemes	<b>Community Area Transport Groups</b>  <b>Supported by:</b> Sustainable Transport, Active Travel Groups, Community First	Ongoing

## S2. To develop the infrastructure for ultra-low emissions vehicles (ULEV) and facilitate their uptake



This action area aims to expand the number of electric vehicle charging points by developing a publically accessible network that can facilitate the early adoption of ULEVs in Wiltshire. The council will continue to seek opportunities and funding to develop this infrastructure.

Wiltshire Council has a fleet of electric and hybrid electric pool cars, funded through the 'invest to save' programme. Based on this experience

Wiltshire businesses can be supported to engage with low carbon vehicles, build confidence in emerging technologies and overcome some of the barriers to uptake.

There are a number of emerging technologies in this area and the development of hydrogen fuel technologies in Swindon will be supported and opportunities for deployment within Wiltshire will be explored.

We will measure and report on progress through:

- Monitoring the number of electric vehicle charging points installed
- Charge-point utilisation data
- ULEV new registrations (DfT)

		Action	Measure of completeness	Delivery / Stakeholders	Timescale
Infrastructure	S2.1	Enable the installation of a comprehensive network of publically available electric vehicle charge points within Wiltshire	<p>Sites identified (e.g. public sector estate, car parks, park &amp; rides, business parks, key destinations)</p> <p>Funding sourced and allocated</p> <p>Installation*</p>	<p><b>Wiltshire Council</b> Fleet, Green Economy</p> <p><b>Supported by:</b> Office for Low Emission Vehicles Public sector</p> <p>* Funding dependent (e.g. OLEV grants)</p>	Ongoing
Infrastructure	S2.2	Seek the provision of charge points through the planning system in new residential developments, retail and key employment sites	<p>Review the scale of provision based on likely demand</p> <p>Guidance on requirements for charging points</p> <p>Deliver charge-points in new</p>	<p><b>Wiltshire Council</b> Green Economy, Sustainable Transport, Development Management</p> <p><b>Supported by:</b> Office for Low Emission Vehicles</p>	Ongoing

			developments and strategic sites (Smarter Choices Strategy, Policy 9)*	* Funding dependent (e.g. grants or developer contributions)	
		Action	Measure of completeness	Delivery / Stakeholders	Timescale
Vehicles	S2.3	Promote funding sources and facilitate opportunities for commercial uptake of ULEVs	Provide information through website and communications Sharing experience of ULEV fleet vehicles Explore alternative ownership models e.g. car clubs Make funding applications	<b>Wiltshire Council</b> Green Economy, Fleet <b>Supported by:</b> Office for Low Emission Vehicles	Ongoing
Vehicles	S2.4	Deliver Clean Bus Technology Fund project to implement flywheel hybrid technology on 19 existing buses	External funding secured Retrofit undertaken (September-December) Monitoring (3 years)	<b>Go South Coast</b> <b>Supported by:</b> Passenger Transport Unit	2015/16

### L1. To utilise renewable and low carbon solutions at strategic sites



District heating networks will be explored to support the low carbon development of employment and residential sites. We will work with partners to establish the feasibility and viability of schemes at strategic sites; to facilitate uptake, inform future policy development and understand further potential for deployment.

The use of renewable energy and sustainable construction on major developments will be guided by the Local Plan Core Policy 41 and the

development of guidance to promote sustainable energy strategies.

We will measure and report on progress through:

- Monitoring approved and installed renewable capacity (MW)
- Number of district heating networks progressing beyond initial feasibility stage

		Action	Measure of completeness	Delivery / Stakeholders	Timescale
	L1.1	<p>Facilitate the uptake of district heating networks at strategic economic and development sites</p> <ul style="list-style-type: none"> <li>• Porton Down</li> <li>• Langley Park (Chippenham)</li> <li>• Ashton Park (Trowbridge)</li> <li>• Trowbridge Energy Hub (Core Policy 30)</li> </ul>	<p>External funding for mapping, master-planning and feasibility studies secured</p> <p>Business cases developed</p> <p>Routes to financing explored</p> <p>Feasibility and viability established</p>	<p><b>Wiltshire Council</b> Green Economy, Heat Network Steering Group</p> <p><b>Supported by:</b> DECC Heat Network Delivery Unit, Technical consultants, Developers, Businesses</p>	Q4 2015/16
	L1.2	<p>Identify further opportunities for sustainable energy solutions on strategic development sites</p>	<p>Review of Sustainable Energy Strategies for key sites</p> <p>Heat networks knowledge transfer</p> <p>Undertake data gathering and mapping for potential sites</p> <p>Inclusion of heat networks in any revision to Core Strategy</p>	<p><b>Wiltshire Council</b> Energy &amp; Environment, Spatial Planning, Economic Development</p> <p><b>Supported by:</b> DECC Heat Network Delivery Unit, Technical consultants, Developers</p>	<p>Ongoing</p> <p>Q4 2015/16</p>

			Inclusion within the infrastructure planning process		
		<b>Action</b>	<b>Measure of completeness</b>	<b>Delivery / Stakeholders</b>	<b>Timescale</b>
	L1.3	Produce planning guidance to support sustainable construction and low carbon energy (core policy 41)	Partial review of core strategy Design guidance produced Adopted	<b>Wiltshire Council</b> Energy & Environment, Spatial Planning	2016

## L2. To increase locally generated and owned renewable electricity and heat



At a building scale there is significant potential for developing energy resilience through the adoption of renewable heat and building integrated technologies. This can be facilitated by supporting businesses to share their experience and foster a better understanding of their application and in use performance.

Community ownership is a developing model for investing in renewable energy schemes. To support community energy a range of partnership and investment opportunities will be explored to understand how the benefits of renewable energy schemes can be maximised for community resilience, fuel poverty and local economic development.

We will measure and report on progress through:

- Approved renewable energy capacity (MW)
- Installed capacity (kW) (central feed-in tariff register / renewable heat incentive accreditations)
- Renewable energy planning applications (technology breakdown)
- Number of community-led energy projects

		Action	Measure of completeness	Delivery / Stakeholders	Timescale
Business	L2.1	To encourage and facilitate the uptake of commercial scale and building integrated renewables	<p>Business to business case studies</p> <p>Early stage project support</p> <p>Brokering suppliers</p> <p>Knowledge exchange event, workshops and networking</p>	<p><b>Wiltshire Council</b> Green Economy, Economic Development, Wiltshire 100 businesses</p>	Q4 2015/16
Communities	L2.2	Support the development of renewable energy schemes that maximise community benefit	<p>Partnership and investment opportunities have been explored to encourage delivery of local renewable energy schemes</p> <p>Identify routes for implementation and propose measures for approval</p> <p>Implement support / develop any necessary policy levers</p>	<p><b>Wiltshire Council</b> Green Economy, Spatial Planning, Asset Management</p> <p><b>Supported by:</b> Community energy groups, Community Benefit Societies, Community Land Trusts, Renewable energy developers</p>	Q4 2015/16  2016/17
Business	L2.3	Work with the Distribution Network Operator to overcome barriers to expansion of renewable energy in Wiltshire	<p>Evidence gathering</p> <p>Meeting of stakeholders</p> <p>Identification of actions</p>	<p><b>Wiltshire Council</b> Green Economy, Spatial Planning, Economic Development</p> <p><b>SSE</b></p>	Q4 2015/16

### L3. To develop opportunities for renewable and low carbon energy which support the wider economy



Renewable energy technologies offer the opportunity to use local resources for the generation of energy. Strengthening local supply chains for renewable fuels such as wood fuel has the potential to deliver wider economic benefits through investment and jobs.

There are also opportunities to harness the county's waste as an energy resource and deploy innovative solutions for the management, storage and supply of energy which will help to develop a sustainable local and low carbon economy.

We will measure and report on progress through:

- Number of businesses supported
- Number of jobs created through council support and in the Low Carbon Environmental Goods and Services sector (National Statistics)

		Action	Measure of completeness	Delivery / Stakeholders	Timescale
	L3.1	Explore funding opportunities to enable the delivery of support to the local biomass supply chain	<p>Review evidence based interventions from the timber study</p> <p>Identify funding sources and develop opportunities to implement recommended actions</p>	<p><b>Wiltshire Council</b> Green Economy</p> <p><b>Supported by:</b> Local Nature Partnership, Forestry, timber and biomass businesses Woodland owners, Wiltshire Wildlife Trust, Forestry Commission</p>	2016/17
	L3.2	Undertake a scoping study to understand the potential for waste to be used as an energy resource within the county	Review of council waste arrangements	<p><b>Wiltshire Council</b> Green Economy, Waste Services</p>	2015/16



			<p>Mapping commercial waste streams</p> <p>Identify local and strategic energy from waste opportunities</p>	<p><b>Supported by:</b> Waste management and processing businesses</p>	
		<b>Action</b>	<b>Measure of completeness</b>	<b>Delivery / Stakeholders</b>	<b>Timescale</b>
	L3.3	Assess the scope of Wiltshire's 'low carbon economy' and potential opportunities and priorities to promote future growth	<p>Establish scope of study</p> <p>Baseline and growth potential</p> <p>Recommendations</p>	<p><b>Wiltshire Council</b> Green Economy Team Economic Development, Skills &amp; Employment</p>	2016/17
	L3.4	Work with neighbouring authorities, partners and the SWLEP to explore opportunities for deployment of emerging clean energy and low carbon solutions e.g. energy storage, SMART grid and local power networks.	<p>Explore innovation funding streams</p> <p>Develop partnerships and proposals</p>	<p><b>Wiltshire Council</b> Green Economy, SWLEP</p> <p><b>Supported by:</b> Businesses, research facilities, consultants, neighbouring authorities.</p>	Ongoing

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