

# Chiltern District Council

## Emissions Report 2016/17

### 1. Introduction

Throughout 2016/17 Chiltern District Council continued to be energy efficient across all aspects of its controlled carbon emissions against a base year of 2008. This report contributes to the aims and objectives of the Council 2015-2020 through delivering and 'promoting energy efficiency in the Council's operations'.

### 2. Energy Efficiency

The Council has consistently improved energy efficiency across its own operations through:-

- Physical and technological changes to its buildings
- The deployment of renewable energy technologies
- Taking opportunities for incremental behaviour change

In the light of the now established Carbon Emissions Reporting, increasing energy prices, the need for energy security and resilience together with funding reductions across the public sector, it is pertinent that the Council manages its energy use in detail to ensure that:-

- Continued energy reduction takes place
- The Council continues to make cost savings
- Energy efficiency becomes 'business as usual'

### 3. Energy – Key Risks and Opportunities

The key risks and opportunities that have been identified are as follows:-

Key Risks	Opportunities / Ways to address Risk
Ability to contribute to the legal requirement of reducing the UK's carbon emissions by 80% by 2050 over 1990 levels	Reduce energy use/reliance on fossil fuels, deploy energy efficiencies, and employ alternative technologies to fossil fuel use, such as renewable energies together with emerging battery energy storage/income and low carbon alternatives
Ability to meet EU energy and climate targets. By 2020: <ul style="list-style-type: none"><li>• Reduce greenhouse gases by at least 20% compared to 1990 levels</li><li>• 20% of energy from renewable sources</li><li>• 20% energy efficiency improvement</li></ul>	Delivering services differently to reduce energy use. Become more 'joined up' in approaches to reduce duplication and increase service streamlining, especially with other public bodies and / or private / third sector organisations

<p>over a 1990 baseline</p> <p>The EU 2030 Framework (2030 Energy Strategy) for climate and energy, includes EU-wide targets and policy objectives for the period between 2020 and 2030. Targets include:-</p> <ul style="list-style-type: none"> <li>• a 40% cut in greenhouse gas emissions compared to 1990 levels</li> <li>• at least a 27% share of renewable energy consumption</li> <li>• at least 27% energy savings compared with the business-as-usual scenario</li> </ul>	<p>Reducing the Council’s reliance on fossil fuels and exposure to energy price volatility</p> <p>Seeking opportunities to capitalise on grants/loans for initial funding, e.g. capitalising on and meeting any national initiatives such as the Feed in Tariff, the Renewable Heat Incentive, followed by ‘invest to save’ opportunities e.g. Salix Finance</p>
<p>The UK leaving the EU and resulting policy impacts on carbon emissions reductions, growth in the renewable energy / storage sectors and climate change</p>	<p>Keep a watching brief the UK adhering to the 2015 Paris Agreement for Climate Change</p> <p>Ensure that policy is kept up to date and any resulting opportunities taken across the organisation</p> <p>Adherence to and implementation of the 2016 Housing and Planning Act Section 210, monitoring / anticipating change</p>
<p>Energy security (domestic and international), and the overall rising cost and pricing volatility of energy prices. Being locked into high carbon technology, through no change to the use of energy across the organisation, or how energy is deployed.</p>	<p>Ensuring that the organisations building fabric is energy efficient reducing the need for energy</p> <p>Seek alternative renewable fuel sources</p>
<p>Guaranteed increasing costs of energy, especially if energy efficiency is not considered a priority.</p>	<p>Ensure that energy, efficiency, energy saving /carbon management become higher priorities within the Council, and become established as part of the Councils ‘business as usual’ across all service policy and delivery</p> <p>Move the arguments from ‘costs’ to ‘benefits’, and from carbon saving, to:-</p> <ul style="list-style-type: none"> <li>• Energy reduction</li> <li>• Resource efficiency</li> <li>• Service synergy</li> <li>• Real cost reductions accruable to the Council</li> <li>• Realising it as an opportunity for income generation</li> </ul>

<p>Costly to meet changes in order to reduce energy use and make savings.</p>	<p>There are proven cost efficiencies to the local authority as a result of managing energy resources well. Build cost benefit analyses into each business case, and target actions to maximise benefits, savings and generate income for the Council</p>
	<p>Longer-term budget planning for energy reductions e.g. consider energy returns over the <b>medium-term</b> (5 years) rather than on a short term basis, as some financial payback times can be considered relatively lengthy; consider using the Salix Finance loan facility, as well as grants to deliver cost reductions / change</p>
	<p>Prepare a robust business case for energy changes across the authority that will help reduce energy, costs and emissions. Create opportunity to create income</p>
	<p>Consider energy saving/efficiency opportunities through the 'invest to save' approach</p>
<p>Reputational risk if the authority does not act well on energy reduction, climate change or carbon management.</p>	<p>Manage energy efficiently, reducing Council spend on unnecessary energy use</p>
	<p>Raise awareness to Council staff, Members, its contractors, local communities and businesses on the need to become more energy efficient</p>
	<p>Provide local leadership for local communities and businesses in getting to grips with energy efficiency, through for example, the promotion of cost savings and income generation</p>
	<p>Encourage, support and facilitate community scale heat / electricity generation</p>
	<p>Use the opportunity to create local economic development opportunities through</p> <ul style="list-style-type: none"> <li>• The encouragement and growth in local green businesses</li> <li>• Making homes more energy efficient putting money in people's pockets</li> </ul>
<p>No funding to deliver change</p>	<p>Utilise any other forms of grants and funding that will facilitate local energy use change</p>
	<p>Deliver change via 'invest to save' approach</p>

	Seek alternative forms of income generation for example battery storage
Service Resilience - Climate Risks	Address service resilience through Risk Management/Emergency Planning, planning for climate adaptations. Engage all services in the process to identify and mitigate likely risks and challenges posed by climate change effects
	Help services identify where they might need to change in order to meet climate challenges, enabling them to become resilient to future risk(s)
	Deliver services differently, e.g. joined up approaches, especially with other public bodies and / or private / third sector organisations
	Raise awareness to the public through the Councils website

It was a requirement by the former Department of Energy Emissions Data and Climate Change (DECC), now Department for Business, Energy, Industrial Strategy (BEIS), and the Department for Environment, Food and Rural Affairs (DEFRA) that local authorities publish an annual report by 31<sup>st</sup> July which details emissions from the Council’s operations. It is now a requirement under the Housing and Planning Act 2016, Section 210 to provide an annual report on carbon emissions reductions and other sustainability operations by 1<sup>st</sup> June in each year<sup>1</sup>. Central government 2016 conversion factors have been used in compiling this report<sup>2</sup>

#### 4. Organisational Boundary

Scopes 1 and 2 relate to operations over which the reporting entity, Chiltern District Council, has Financial Control. This is classed as an ‘operational boundary’ as defined and recommended within the (DEFRA 2013) guidance. In addition the Council continues to measure its significant Scope 3 emissions, please see below for a definition of each scope.

#### 5. Location of Operation

All operations are in the UK:-

- Council Offices in Amersham, Buckinghamshire
- Leisure Centres in Amersham, Chesham and Chalfont St Peter, Buckinghamshire
- Amenities Depot in Amersham, Buckinghamshire

<sup>1</sup> <http://www.legislation.gov.uk/ukpga/2016/22/section/210/enacted>

<sup>2</sup> <https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2016>

## 6. Operational Scopes

The DEFRA 2013 guidance sets out what is within Operational Scope as follows:-

### **Scope 1 - Emissions from activities owned or controlled by the Council that release emissions into the atmosphere**

**Combustible fuels** - used in stationary technologies such as boilers, furnaces or turbines, engines, heaters or incinerators etc.. In the Council's case, this is natural gas used in King George V House, the Depot and Sports Centres where the Council is responsible for the boiler;

**Mobile Combustible Fuels** - such as owned transport. For Chiltern this would be mainly Facilities vans, service provider vehicles

**Process Emissions** - not applicable for the Council;

**Fugitive emissions** - such as leaks from refrigeration and air conditioning units that are maintained by the Council.

### **Scope 2 - Consumption of Purchased Electricity (Heat, Steam or Cooling) released into the atmosphere**

Council emissions comprise electricity consumed by for example, the Car Parks and Public Conveniences, King George V House, the Depot, Sports Centres and the Council owned Cemeteries.

### **Scope 3 - Emissions that are a consequence of Council activity but which occur at sources which the Council neither owns nor controls and which are not classed as Scope 2 emissions**

This might include transport for staff and Members where they are using their own vehicles for business; supply chain emissions; procurement related emissions, outsourced activities, or consequential emissions from Scopes 1 and 2.

For the purposes of this report, therefore, the Council has included emissions under Scopes 1 and 2 above, together with service related emissions from these activities which fall under Scope 3.

## 7. Greenhouse Gas Emissions

The following table sets out the Councils Greenhouse Gas emissions data for 2016/17

<b>GHG Emission data for period 1 April 2008 to 31 March 2017</b>									
	<b>Global Tonnes of CO<sub>2</sub>e</b>								
	<b>Base Year</b>								
	<b>2008/09</b>	<b>2009/10</b>	<b>2010/11</b>	<b>2011/12</b>	<b>2012/13</b>	<b>2013/14</b>	<b>2014/15</b>	<b>2015/16</b>	<b>2016/17</b>
<b>Scope 1</b>	105	96	134	85	108	119	116	116	108
<b>Scope 2</b>	1,516	1,277	1,182	1,101	1,018	995	1,107	1,046	895
<b>Scope 3</b>	1,812	1,844	1,891	1,847	1,780	1,712	1,606	1756	1651
<b>Electricity Generated from Solar Panels (Since Feb 2012)</b>				-3	-42	-42	-46	-34	-30
<b>Total Gross Emissions</b>	<b>3,433</b>	<b>3,217</b>	<b>3,207</b>	<b>3,030</b>	<b>2,864</b>	<b>2,783</b>	<b>2,783</b>	<b>2,883</b>	<b>2,624</b>
<b>Percentage Reduction/Increase</b>	-	-7%	-	-6%	-6%	-3%	-	3.5%	-9%
<b>Outside of Scopes</b>						<1	<1	<1	
<b>Total Gross Emissions</b>	<b>3,433</b>	<b>3,217</b>	<b>3,207</b>	<b>3,030</b>	<b>2,864</b>	<b>2,783</b>	<b>2,783</b>	<b>2,883</b>	<b>2,624</b>

**Table 1 Chiltern District Council Greenhouse Gas Emissions Totals 2016/17**

## 8. Electricity Generation

Chiltern generates electricity at the Council Offices, Chesham Leisure Centre and Amersham Multi-Storey Car Park. 74,689 kWh of electricity generated by solar panels at these sites for this period and this equates to a reduction in emissions of 30,775 kg of CO<sub>2</sub>e or 30 Tonnes of CO<sub>2</sub>e

## 9. Company Information

Chiltern District Council, King George V House, King George V House, King George V Road, Amersham, Buckinghamshire, HP6 5AW.

## 10. Reporting Period

Reporting period is 1<sup>st</sup> April 2016 through to 31<sup>st</sup> March 2017, inclusive.

## 11. Change in Emissions

There has been overall *decrease* in emissions throughout the reporting year by 9% giving an overall reduction from base year of 27.5% (809 tonnes). The decrease has resulted from:-

- **Scope 1 emissions**
  - The parking officer’s mileage (petrol/diesel/LPG) has decreased on last year by 3 tonnes CO2e (16.8%)
  - Gas use in the buildings has reduced on last year by 5 tonnes CO2e (5.31%)
  
- **Scope 2 emissions**
  - Electricity consumption has gone down across the sites on last year by 150 tonnes CO2e (14.3%)
  
- **Significant scope 3 emissions**
  - Serco car mileage (diesel only) has gone down on last year by 8.7 tonnes CO2e (41.3%)
  - Serco HGV mileage (diesel only) has gone down on last year by 35 tonnes CO2e (7.9%)

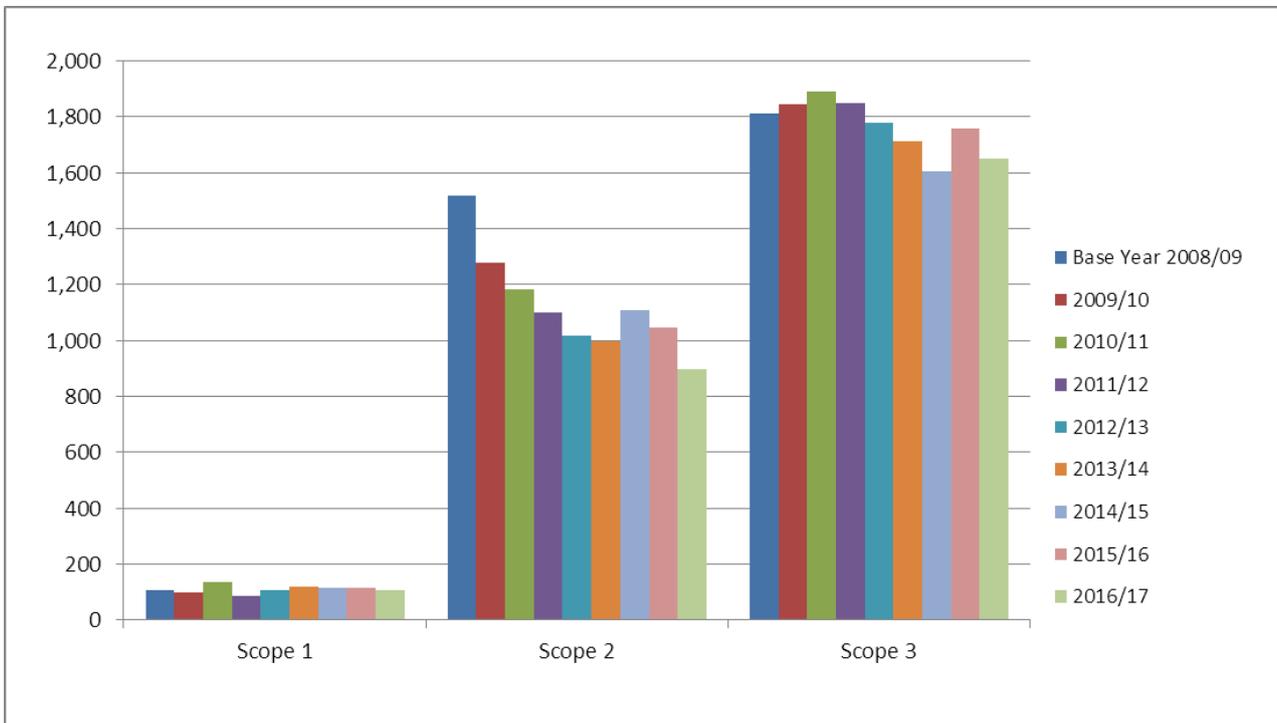


Table 2 Chiltern Service Delivery Change in Emissions 2016/17

## 12. Base Year

The base year was 2008/09. This was the earliest year accurate energy use data was available. A 10% significance check has not been carried out this year.

## 14. Energy Reduction Targets

The Council has set two targets for carbon reduction over the next three years. As follows:-

- a) Scope 1 - 4% reduction over the next three years with a view to being carbon neutral by 2050

- b) Scope 2 - 4% reduction over the next three years with a view to being carbon neutral by 2050

Both targets have been met.

## **15. Intensity Measurement**

The Council has chosen the absolute reduction target which best reflects the business model for the Council.

## **16. Responsible Persons**

Bob Smith, Chief Executive [bsmith@chiltern.gov.uk](mailto:bsmith@chiltern.gov.uk) 01494432178, is the responsible person for achieving carbon reductions targets.