

Chiltern District Council

Greenhouse Gas Emissions Report 2015/16

1. Introduction

Throughout 2015/16 Chiltern District Council continued to be energy efficient across most aspects of its controlled carbon emissions but this has not been possible in them all, against a base year of 2008. This report contributes to the goals and priorities of the Council 2014 – 2019 through delivering and ‘promoting energy efficiency in the Council’s operations’.

2. Energy Efficiency

The Council has 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 considers its energy use in detail across the whole of its estate, to ensure that:-

- Existing reductions are maintained
- Continued energy reduction takes place
- the Council continues to make cost savings
- energy efficiency remains ‘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 or low carbon alternatives
Ability to meet Article 4 of the European Renewable Energy Directive (2009/28/EC), which sets a target for the	Delivering services differently to reduce energy use. Become more ‘joined up’ in approaches to reduce duplication and increase service streamlining, especially

<p>UK to meet 15% of total energy consumption from renewable sources by 2020 (compared to a current level of 3%)</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>with other public bodies and / or private / third sector organisations</p> <hr/> <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 .</p> <hr/> <p>Ensuring that the organisations building fabric is energy efficient where possible– conserving energy</p> <p>Seek alternative renewable fuel sources</p>
<p>Guaranteed increasing costs of energy, especially if energy efficiency is not considered a priority. Even though energy prices have reduced during 2015/16, the cost trend overall will be upwards.</p>	<p>Ensure that energy, efficiency, energy saving /carbon management remain a high priority within the Council, and are established as part of the Councils 'business as usual' across all service policy and delivery</p> <hr/> <p>Move the arguments from 'costs' to 'benefits', and from carbon saving, to:-</p> <ul style="list-style-type: none"> • Energy reduction • Resource efficiency • Service synergy • Real cost reductions accruable to the Council
<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 and savings for the Council</p> <hr/> <p>Longer-term budget planning for energy reductions e.g. consider energy returns over the medium-term (5 years) rather than on a short term basis, as some financial payback times can be considered relatively lengthy; consider grants to deliver cost reductions / change</p> <hr/> <p>Prepare a robust business case for further energy changes across the authority that will help reduce energy, costs and emissions</p>

	Consider energy saving/efficiency opportunities through the 'invest to save' approach
Reputational risk if the authority does not act well on energy reduction, climate change or carbon management.	Manage energy efficiently, reducing Council spend on unnecessary energy use
	Raise awareness to Council staff, Members, its contractors, local communities and businesses on the need to become more energy efficient
	Provide local leadership for local communities and businesses in getting to grips with energy efficiency, through for example, the promotion of cost savings
	Encourage, support and facilitate community scale heat / electricity generation
	Use the opportunity to create local economic development opportunities through the encouragement and growth in local green businesses
	Utilise any other forms of grants and funding that will facilitate local energy use change
Service Resilience - Climate Risks identified	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 likely climate change effects
	Identify where activities of the Council need to change to meet likely climate challenges, to enable 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 is a requirement by the Department of Energy Emissions Data and Climate Change (DECC) and the Department for Environment, Food and Rural Affairs (DEFRA) that local authorities publish an annual report by 31st July which details emissions from the Council's operations. This is in

accordance with guidance from DEFRA's Environmental Reporting Guidance (2013)¹ with updated figures from the Greenhouse Gas Conversion Factor Repository (Department of Environment and Rural, Affairs/Ricardo AEA, Carbon Smart)².

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 Centre in Amersham, Buckinghamshire
- Leisure Centre in Chesham, Buckinghamshire
- Leisure Centre in Chalfont St Peter, Buckinghamshire
- Amenities Depot in Amersham, Buckinghamshire

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 Leisure 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.

¹ https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/206392/pb13944-env-reporting-guidance.pdf

² <http://www.ukconversionfactorscarbonsmart.co.uk/LandingPage.aspx>

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, Leisure Centres.

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 coming to work and on business where they are using their own vehicles; 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 2015/16.

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

Table 1 Chiltern District Council Greenhouse Gas Emissions Totals 2015/16

8. Electricity Generation

The Council generates electricity at the Council Offices, Chesham Leisure Centre and Amersham Multi-Storey Car Park. 92,862 kWh of electricity has been generated by solar panels at these sites during 2015/16. This equates to a reduction in emissions of 34,135 kg of CO₂e or 3.4 Tonnes of CO₂e.

9. Emissions Calculations Changes

There has been no 'official' notice of major changes to national emissions data used for the GHG calculations. There have been notable shifts however on certain factors which will have had a likely positive influence on the outcomes of the 2015/16 GHG report. The changes to the emissions factors on the 2014/15 figures are listed below. The:-

- fugitive emission factor has increased by 15%
- purchased electricity factor has reduced by 6%
- well to tank factor has reduced by 9%
- indirect CO₂e from Scopes 1 & 2 has reduced by 12%³

The Council's 2015/16 emissions calculations, have been developed using figures from the 2013 – 14 Greenhouse Gas Conversion Factor Repository (Department of Environment and Rural Affairs/Ricardo AEA, Carbon Smart), including notable changes.⁴

10. Company Information

The information above relates to Chiltern District Council, King George V House, King George V House, King George V Road, Amersham, Buckinghamshire, HP6 5A.

11. Reporting Period

Reporting period is 1st April 2015 through to 31st March 2016, inclusive.

12. Change in Emissions

There has been *an increase* of emissions throughout the reporting year by 100 tonnes CO₂e (3.5%) when compared against 2014/15. This reduces the ongoing reduction from the base year 2008/9 to 18.5%. This was highlighted as a possibility in last year's report as many functions were planning to migrate from Capswood to King George V House.

The increases have resulted from:-

- **Scope 1 emissions** – The parking officer's vehicle use (petrol/diesel) have increased mileage producing an additional 3.93 tonnes CO₂e. This is due to two key factors, relinquishing the electric vehicle and new shared service arrangements covering both the Chiltern and South Bucks District.
- **Scope 2 emissions** - electricity use has gone up at King George V House which is due to increased tenure throughout the building; together with increasing staff numbers and use of IT equipment in King George V House.
- **Scope 3 emissions** - increased gas use at Chiltern Pools, Amersham. Also, CDC/WDC refuse vehicles now have to transport the residual waste to the waste transfer station at

³ Where negative movements are positive

⁴<http://www.ukconversionfactorscarbonsmart.co.uk/LandingPage.aspx>

High Heavens, Booker, rather than to the landfill site at Gerrards Cross. This does represent additional mileage for those vehicles and an additional vehicle also had to be introduced - this commenced at the beginning of December 2015.

In spite of the overall rise in emissions, they have dropped in the following areas:-

- Scope 2 - electricity use at the Leisure Centres has gone down which has mitigated the overall electricity use. There has also been a reduction in energy use at the multi-storey car parks and public conveniences

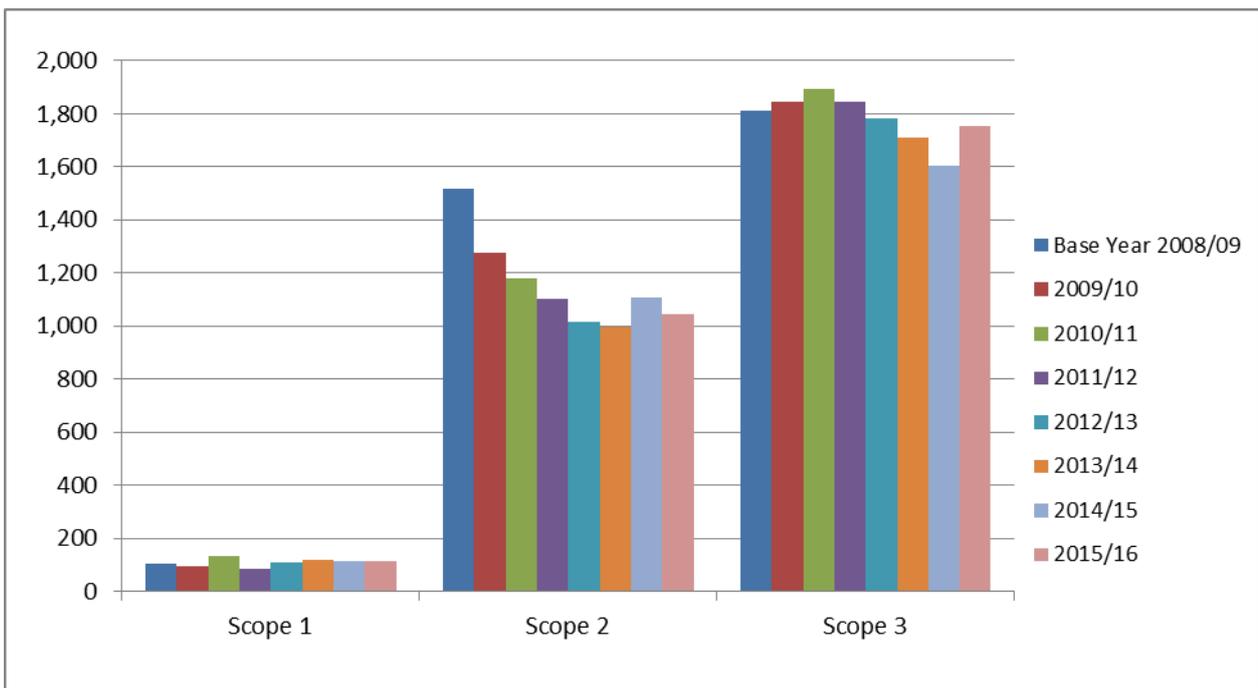


Table 2 Chiltern Service Delivery Change in Emissions 2015/16

- Significant Scope 3 – The new itrent system payroll system does not differentiate the fuel type and therefore as diesel vehicles are low in number, petrol has been used as the default factor.

In addition,

- The Council generates electricity at the Council Offices, Chesham Leisure Centre and Amersham Multi-Storey Car Park. 92,862 kWh of electricity has been generated by solar panels at these sites during 2015/16. This equates to a reduction in emissions of 34,135 kg of CO2e or 3.4 Tonnes of CO2e

13. Base Year

The base year was 2008/09. This was the earliest year accurate energy use data was available.

14. Energy Reduction Targets

The Council set a target for carbon reduction against baseline. As follows:-

- 4% reduction over each three year period with a view to being carbon neutral by 2050

Whilst there has been an increase in emissions against last year, reductions previous to this were above target and ahead of schedule. These earlier savings therefore should not be forgotten when reporting against the indicator. The ongoing reductions being achieved have therefore reduced to 18.5% against base year.

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, Acting Chief Executive and Jo Faul Corporate Sustainability Officer are the responsible persons for achieving carbon reductions targets.

J Faul
June 2016