

# Buckinghamshire County Council Greenhouse Gas Emissions Report

## Strategic context

1. 'Local authorities have a pivotal role in tackling climate change by reducing emissions from their own estate and operations, encouraging and enabling their residents, businesses and visitors to reduce their carbon emissions and by achieving national priorities such as the Green Deal and renewable energy deployment in a locally appropriate way' MOU between LG Group and DECC, 9 March 2011.
2. This report summarises progress made by Buckinghamshire County Council (BCC) in monitoring, reporting and reducing our corporate CO<sub>2</sub> emissions.
3. The County Council is committed to ensuring that the impacts associated with delivering our services are managed to maximise our positive contribution to sustainable development and minimise any negative effects.
4. We recognise that all of our activities create an impact on both the natural and built environment and that we have a responsibility to improve the way we manage these impacts and in doing so seek to provide internal leadership across our own organisation and external leadership across the county.

## Leadership role

5. The Sustainable Community strategy is the overarching countywide plan which identifies climate change as a priority issue for strategic partners under the broad theme, 'Sustainable Environment', focussing on mitigation and adaptation to climate change.

### "We aim to:

Tackle climate change

Enhance and protect the local environment

Reduce waste, re-use resources and recycle

Efficiently manage and maintain the transport network.

### By 2026 we aim for:

Buckinghamshire to be recognised as among the top performers nationally in reducing carbon emissions and conserving energy.

Sixty percent of our waste to be recycled.

6. The Bucks Strategic Partnerships' Sustainable Community Strategy can be found at the following website:

[http://www.buckinghamshirepartnership.co.uk/assets/content/Partnerships/BSP/docs/bsp\\_scs\\_visual\\_county.pdf](http://www.buckinghamshirepartnership.co.uk/assets/content/Partnerships/BSP/docs/bsp_scs_visual_county.pdf)

7. Buckinghamshire County Council is committed to tackling climate change by reducing emissions from their own estate and operations and have identified this as a council priority identified in the BCC's Corporate Plan 2011-2013. The plan includes a target to decrease energy and water consumption from County Council buildings and CO<sub>2</sub> emissions from transport and street lighting by 6% by 31 March 2013. The Corporate Plan can be found at the following website:  
[http://www.buckscc.gov.uk/sites/bcc/corporate\\_plan/our\\_vision.page](http://www.buckscc.gov.uk/sites/bcc/corporate_plan/our_vision.page)
8. Responsibility for these priorities lie with the Cabinet Member for Environment and the Strategic Director for Communities and Built Environment with the implementation of activities being led by the Sustainability Team and actioned by all services.
9. The detail of our sustainability aims and objectives are outlined in the Sustainability Strategy along with details about how this will be achieved:
10. 'The Council is committed to acting on climate change and will:  
Establish, monitor and reduce the Council's own carbon footprint;  
Achieve a sustainable level of resource use to mitigate climatic effects; and  
Minimise the impact of climate change and adapt to these changes'.
11. The Sustainability Strategy can be found at the following website:  
[http://www.buckscc.gov.uk/assets/content/bcc/docs/sustainability\\_fund/Sustainability\\_Strategy\\_Sept\\_2009.pdf](http://www.buckscc.gov.uk/assets/content/bcc/docs/sustainability_fund/Sustainability_Strategy_Sept_2009.pdf)
12. Since 2008, as part of the Local Area Agreement, Buckinghamshire County Council has been working towards a 4% reduction in CO<sub>2</sub> emissions by April 2011, and has set a longer term target of 6% by 2013 in the Corporate Plan.
13. To help drive this agenda an internal council wide working group was established in 2008. This group meet regularly to discuss the Council's progress, working together to find solutions and identify new energy saving projects across the estate.
14. The County Council was ranked within the top ten Salix Loan Fund operators nationally for its work implementing energy efficiency measures across the estate. We have successfully implemented a £1.4 million spend to save programme to improve energy efficiency.

Bucks CC has a £1.768 million ring fenced Salix Loan Fund (Salix Finance is an independent company funded by the Carbon Trust).

Corporate buildings and nearly 200 schools have been surveyed to identify where the best energy savings can be made to help reduce energy costs.

Typical projects include loft and cavity wall insulation, lighting upgrades, pipe lagging and Building Energy Management Systems (BEMs).

As of July 2011, 113 projects have been completed or underway with a further 146 being fully quoted for approval. Projects implemented to date are estimated to save £330,143 and 2024 tonnes of CO<sub>2</sub> each year. This has avoided around £24,000 of carbon allowances under the new Carbon Reduction Commitment Energy Efficiency Scheme (CRC Energy Efficiency Scheme).

15. As the Highway Authority for Buckinghamshire, excluding the administrative area of Milton Keynes, we have entered into contracts and alliances with private sector suppliers to deliver aspects of the Highway Authority role.
16. In March 2008 Amey were appointed to procure the 'Home to school' transport service and in April 2009 Buckinghamshire County Council entered into an alliance contract with Ringway Jacobs Limited to provide all the functions of the Highway Authority.
17. Although this has been a period of rapid change for the organisations involved we are collaborating to ensure that data can be collected and reported in a consistent manner with ongoing improvements underway.
18. The private sector suppliers are working with the County Council to support our corporate objectives to reduce CO<sub>2</sub> emissions and contractual key performance indicators include CO<sub>2</sub> reduction measures.

The Salix loan fund has also been successfully exploited by the Alliance to fund the replacement of traffic signals with LED lights and to install energy efficient street lighting.

## **Schools**

19. As a local authority we are responsible for the energy efficiency of the school estate and for the provision of sustainable education.
20. We support all of our schools participating in the international Eco-School programme.

50% of our schools have gained an Eco-Schools award. Our county was the sixth nationally to have a school accredited as an Eco-Schools Ambassador Award; a new award which has a strong emphasis on carbon reduction.

21. Schools are supported and pupils are encouraged to take part in national campaigns related to climate change mitigation such as 'Earth Hour' and 'Climate Week' campaigns both in school and at home with their families.

A mock climate change UN conference was held in November 2010 for secondary schools students.

22. To help improve energy monitoring and reporting we are facilitating the installation of Automated Meter Reading (AMR) across the estate. AMR support sessions for site managers, business managers and Eco-school coordinators were held which enable unnecessary consumption to be identified and acted upon.
23. In addition to promoting energy efficiency the county council is committed to playing its part in meeting national renewable energy targets by deploying renewable energy measures across the estate and providing an interactive Renewable Energy in Schools guide.
24. Council adopted a policy to replace oil boilers with biomass where feasible and have already installed 4 biomass boiler and a number of solar PV and wind turbines.

### **External leadership**

25. As a local authority we are well placed, through local governance, to provide a community leadership role in tackling climate change by encouraging and enabling residents, businesses and visitors to reduce their carbon emissions.

Electricity monitors are loaned out to residents through Aylesbury library. Residents are encouraged to take part in Earth Hour and energy saving leaflets were available throughout Climate Week 2011.

At the annual Buckinghamshire County Show event, visitors to the Sustainability stand were encouraged to sign pledges to reduce their carbon footprints and given energy efficiency devices to enable them to reduce energy wastage at home.

26. Local communities are supported by facilitating initiatives to empower community groups to take action at a local level.

Over 200 residents, groups and schools participated in a local online carbon reduction contest which encouraged people to monitor carbon and reduce energy consumption at home, comparing their performance with other participants and teams.

27. We are working with local communities to enable them to consider the risks and opportunities of climate change to their particular areas, through Community Led Planning.

### **Risks and opportunities that climate change poses to our organisation.**

28. The council recognises the impacts that climate change will have on services and was an early adopter of the Local Climate Impacts Profile (LCLIP) approach to identify likely impacts. Subsequently AEA were commissioned to carry out a Climate Change Risk Assessment for the County Council in 2010. AEA worked alongside the Internal working group who are responsible for ensuring that the findings of the Risk Assessment are embedded across the organisation.
29. AEA assessed the risk climate changes poses to services provided by the County Council using the 2009 UK Climate Projections (UKCP09) and based on the risk management system in place at the Council. Climate risks across three time frames were considered: the 2020s, 2050s and 2080s.
30. "The assessment provided the Council with a risk-based assessment of significant vulnerabilities and opportunities to weather and climate now and in the future. The analysis found that a number of services are at risk from climate change including:

The services provided by the Resilience Team;  
Management of Property;  
Street Work;  
The highway network;  
Older Peoples Services.

There are also important risks to:

Waste Management;  
ICT.

31. However, all services and the community more generally are likely to be affected indirectly. There will also be some opportunities from a changing climate. In the short-term (2020s) many of the risks from climate change are considered manageable or low. In many cases existing contingency planning and risk management will help the Council to cope with the

consequences of extreme weather events. There will also be opportunities for the Council in the short-term, although realising these may be difficult and any cost savings indirect.

32. In the longer term (2050s and 2080s) the risks increase substantially both in terms of likelihood and magnitude. The UKCP09 projections suggest that Buckinghamshire's climate will be very different in the future and change considerably from what residents, local businesses and the Council are used to. This might include summers that are warmer and drier, winters that are milder and wetter, with more very hot days and night, more intense downpours of rain and possible increases in storms. This means that the Council will find it increasingly difficult to 'cope' with impacts of climate change. Opportunities will increasingly be outweighed by negative costs.
33. Source: 'Climate Change Risk Assessment for Buckinghamshire County Council', reference number ED56034- Issue 1, 31<sup>st</sup> March 2010, AEA group.
34. The LCLIP for the Aylesbury Vale area can be found at the following website:  
[http://www.buckscc.gov.uk/assets/content/bcc/docs/sustainability\\_fund/LCLIP\\_Report%20Final.pdf](http://www.buckscc.gov.uk/assets/content/bcc/docs/sustainability_fund/LCLIP_Report%20Final.pdf)

<b>GHG emissions data for period 01 April 2009 to 31 March 2011</b>			
	<b>Gross tonnes of Co2e</b>		
	<b>Base year 2008-09</b>	<b>2009-2010</b>	<b>2010-2011</b>
Scope 1	18,812	16,241	20,365*
Scope 2	25,896	23,095	26,535*
Scope 3	4,166	4,263	3,908*
Scope 3 indirect emissions (total for all scopes)	6,303	5,677	6,606*
<b>Total gross emissions</b>	<b>55,177</b>	<b>49,277</b>	<b>57,436*</b>
Carbon offsets	0	0	0
Green tariff	0	0	0
<b>Total annual net emissions</b>	<b>55,177</b>	<b>49,277</b>	<b>57,436*</b>

**\*Not directly comparable with Base Year due to broader data capture. 2010-11 will become our new baseline. NB This data is not weather corrected.**

## **Supporting explanations:**

### **1. Organisation information**

Buckinghamshire County Council is the local authority for the whole of Buckinghamshire, but excluding the administrative area of Milton Keynes, its main operating address is:

Buckinghamshire County Council

Walton Street  
Aylesbury  
Bucks HP20 1UA

## **2. Reporting period**

01 April 2009 to 31 March 2011

## **3. Change in emissions**

Our carbon emissions for 2010-11 show an increase of 4% from our base year of 2008-09. However this is not a like for like comparison as government requirements for 2010-11 reporting cover a much wider scope.

In addition, Bucks is growing; more houses being built mean more street lighting and traffic signals are required to accommodate this new growth, meaning more energy is needed. School extensions and new requirements in schools such as hot school-meal provision all add to the Council's emissions. To help combat the rising energy demand we work hard across our property estate to install energy efficiency measures, as detailed above with our Salix fund. We have also used our Salix fund to reduce street lighting emissions, detailed below.

Oil consumption data has increased as previously we only reported sites on the BCC energy contract; we are using the data collected under the CRC for 2010-11 which reports on all sites, those on and off contract. This means we have captured much more data than reported in previous years. In addition, for 2008-9 and 09-10 in instances where we did not have the data we used benchmarking to work out the energy use of the site

For 2010-11 all data is aligned with the new scopes and contains new data that has not been previously reported, such as fuel use of non-road going equipment, fugitive emissions, Ringway Jacobs and Amey business mileage.

This has increased the total emissions as these were not included in 2009-10 or the base year 2008-09.

For 2009-10 and 2008-09 it has not been possible to align some of the owned and controlled transport to the correct scopes, so scopes 1 and 3 transport emissions vary. Additional transport data was collected for 2010-11 for scope 1 and 3 from our owned and controlled vehicles, for example some Fleet vehicles purchasing fuel from fire stations which had not been collected previously.

The contracting out of the highway authority (Transport for Buckinghamshire Alliance) and 'Home to School' transport activities (Amey) has led to an increase in our scope 3 emissions, but also reduced our scope 1 activities as our fleet has reduced and move to the private sector.

### Waste vehicles

It has been noted that transportation to and from the High Heavens Composting Facility has reduced. The reasons are:

There is a new location for taking the overflow of green waste (waste sent to High Heavens In-Vessel Composting and then sent to a different location for final treatment). The new location is closer than those we were using in 2009/10. The actual mileage has dropped by almost half.

We have worked with our District Council colleagues to reduce the contamination in their biowaste collections. Therefore there has been less waste sent to landfill. There has been a reduction from 82 skips containing contaminated waste in 2009/10 to 5 skips in 2010/11.

It has been noted that transportation to and from the Household Waste Recycling Centres has increased:

We are diverting more tonnage from landfill. In 2010-11 we transported 308 more loads than in 2009-10. For example 502 loads of 'Man Made Wood' were transported in 2009/10; this rose to 623 loads in 2010/11. Our landfill disposal points are inside county and almost all of our recycling locations are out of county, so recycling loads are transported longer distances.

Some of the materials that we are increasingly transporting for recycling are long distances away. For example we have doubled the number of trips transporting Cooking Oil to Norfolk and tripled the number of trips for Domestic Batteries which are taken to Walsall.

#### Street lighting

Street lighting electricity consumption has increased by 2.5% since 2008/09. Since 2008/09 the asset; street lighting, traffic signals and illuminated signs/bollards has grown by 12%. To reduce emissions we have used our Salix energy efficiency loan to fund replacement of halogen lamps to LED lamps at 136 traffic signal sites. This is calculated to achieve carbon savings of 342 CO<sub>2</sub> tonnes with total cost savings of £60,000 each year. The lifetime savings equates to approximately 10,269 tonnes of CO<sub>2</sub> and a total of £1,808,513 from reduced energy consumption (based on a 30 year site life). As the works were completed in September 2010 it will not be until 2011/12 when we will begin benefiting from this initiative in full. In addition we have used the Salix fund to improve street lighting High Frequency gear and lamp replacements. This is due to achieve carbon savings of 331 tonnes with total cost savings of £58,000 each year. The lifetime savings equates to approximately 4,383 tonnes of CO<sub>2</sub> and a total of £771,853 from reduced energy consumption (based on a 13.2 year site life). This scheme is will not be fully completed until the end of September 2011; it will not be until 2012/13 when we will start to benefit from this initiative in full. Compared to the first 3 months of 2008/09, consumption and emissions for the first 3 months of 2011/12 have reduced by 4.7%.

#### **4. Approach**

We have followed the Government's Guidance on how to measure and report greenhouse gas emissions.

#### **5. Organisational boundary**

We have used the financial control approach, as recommended for local authorities by DECC. We have included energy use from Academy schools as we collect their meter readings as part of the CRC. For the Ringway Jacobs (RJ) and Amey (home to school transport) element of the Transport for Buckinghamshire (TfB) alliance we have applied Financial control and the Subsidiary accounting classification. RJ and Amey fall under Scope 3 as they are private companies providing a contracted out service.

## **6. Operational scopes**

We have measured our scope 1, 2 and all reportable scope 3 emissions. Details for all scopes and the data collected are in the following table:

	GHG emissions 2009-10 in tonnes of CO2e	GHG emissions 2010-11 in tonnes of CO2e	Specific exclusions and % this represents for relevant scope. Brief explanation for any exclusions from scopes 1 and 2	Details of the calculation approach used and % of any estimated data	Additional notes regarding the data
<b>Scope 1</b>					
Fuels combustion including the following:					
Burning oil	2,781.25	723.04		Calculated from dates of invoice and delivery notes that fall in the reporting period.	Not weather corrected. Prior to 2010-11 Gas oil was recorded under burning oil
Gas oil	N/A	3,481.07		Where no actual data has been available we have applied Technique Two from the CRC guidance (the pro-rata method). <a href="http://publications.environment-agency.gov.uk/PDF/GEHO0310BRYZ-E-E.pdf">http://publications.environment-agency.gov.uk/PDF/GEHO0310BRYZ-E-E.pdf</a>	Not weather corrected. Prior to 2010-11 Gas oil was recorded under burning oil and sites not on our energy contract were excluded. For 2010-11 all sites, on and off contract, are included.
Natural Gas	13,460.20	15,719.30		Where no actual data has been available we have applied 'Technique Two' from the CRC	Not weather corrected. Decrease from base year of 160.45 tonnes CO2e.

				guidance (the pro-rata method).	
Liquid Petroleum Gas (LPG)	N/A	39.76		Calculated from dates of invoice and delivery notes that fall in the reporting period.	Not weather corrected. We have excluded the site using LPG as (this was one site and benchmarked data) as we now have more accurate data.
Biomass	N/A	N/A			Direct emissions of CO2 are set to 0 for biomass and biogas, as the same amount of CO2 is absorbed in the growth of the biomass from which they are produced. 76.34 Tonnes of wood pellets and 110.5 tonnes of wood chip were used 2010-11; their Scope 3 indirect emissions are 14.04 and 6.79 tonnes CO2e respectively.
Non road-going equipment (Lawn mowers, country parks equipment, verge cutters) - Diesel	N/A	1.07			2010-11 is the first year this has been recorded.

Non road-going equipment (Lawn mowers, country parks equipment, verge cutters) - Petrol	N/A	5.64		Calculated from total fuel purchased on Country Parks fuel card or from receipts. 30% of the petrol data is estimated (annual petrol consumption for TfB mowers based on 147.5 litres of petrol x 6 mowing months)	2010-11 is the first year this has been recorded.
Non road-going equipment (tractor) – Gas oil	N/A	3.11		Calculated from purchase orders.	2010-11 is the first year this has been recorded.
Diesel from the County Hall generators	N/A	N/A			This not been included as the generators have not been used in the reporting period.
Owned transport including the following:					
Council owned/controlled fleet vehicles – Small diesel car		15.36	Some schools have own Arval contract or with another fuel card; we have used mileage from MOT/ service records. Not currently	Mileage from MOT certificates, data from Arval fuel card purchases	MOT mileage for 1 year but not necessarily aligned with financial years. This needs to be addressed in future years. In previous years data was not separated so is recorded under Scope 3

			possible to know percentage this represents.		
Council owned/controlled fleet vehicles – Medium diesel car		36.47			MOT mileage for 1 year but not necessarily aligned with financial years. This needs to be addressed in future years. In previous years data was not separated so is recorded under Scope 3
Council owned/controlled fleet vehicles – MPV diesel		162.82			MOT mileage for 1 year but not necessarily aligned with financial years. This needs to be addressed in future years. In previous years data was not separated so is recorded under Scope 3
Council owned/controlled fleet vehicles – Diesel van up to 3.5 tonne		129.64			MOT mileage for 1 year but not necessarily aligned with financial years. This needs to be addressed in future years. In previous years data was not separated so is

					recorded under Scope 3
Council owned/controlled fleet vehicles – Diesel 4x4		11.70			MOT mileage for 1 year but not necessarily aligned with financial years. This needs to be addressed in future years. In previous years data was not separated so is recorded under Scope 3
Council owned/controlled fleet vehicles – Diesel retail		20.44		Mileage was not available for 7 vehicles (5 were estimated for diesel using data from the other 2)	
Process emissions:					
Fugitive emissions (Emissions from air conditioning and refrigeration units)	N/A	15.41	Data is only currently available for 23 out of 56 air conditioning units and other equipment using refrigerant (excluding fridges) in the Aylesbury main	No estimated data. We have assumed that air conditioning is in use 3 months of the year. Air conditioning for IT and Archive Conservation are generally operated 24/7.	2010-11 is the first year this has been recorded. There were no disposals or replacements during 2010-11. There is no register of fridges or units containing refrigerant across the all Council sites and schools. An asset register of all units needs to be kept and maintained centrally with all the details needed for

			complex buildings. It is not currently possible to work out the percentage this represents without knowing the total fugitive emissions for all County Council properties.		greenhouse gas reporting. To enable the collection of data for future years, schools have been requested to inform us of all on air conditioning and refrigeration units they own. All other Council owned buildings will also be sent a form to complete.
<b>Total scope 1</b>	<b>16,241</b>	<b>20,365</b>			
<b>Scope 3 emissions associated with Scope 1</b>	<b>1,830.29</b>	<b>2,370</b>			
<b>Scope 2</b>					
Purchased electricity					
Street lighting, street furniture and traffic signals	7,104.07	7,127.08			See change in emission section.
Electricity use from BCC buildings	15,990.94	19,408.01		Where no actual data has been available we have applied Technique Two from the CRC	Not weather corrected. For 2010-11 we have used the CRC list of sites and will

				<p>guidance (the pro-rata method).  <a href="http://publications.environment-agency.gov.uk/PDF/GEHO0310BRYZ-E-E.pdf">http://publications.environment-agency.gov.uk/PDF/GEHO0310BRYZ-E-E.pdf</a></p>	<p>continue to use this in future years. The property list used for 2008-9 and 09-10 NI185 reporting differs from the 2010-11 property list used for CRC purposes. In 2008-9 and 09-10 all sites performing a function for the County Council were included, as the building was owned by the County Council and had a County Council function in it. For CRC the focus is on ownership of the meter, not the property, therefore where we own the building but the third party holds the energy contract and pays the bill this is not included. In addition data is much more accurate for 2010-11 as it has been through robust checking under CRC. For 2008-9 and 09-10 in instances where we did not have the data we used benchmarking to work out the energy use of the site. In future years need to</p>
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					capture information on new classrooms and school extensions being built.
<b>Total scope 2</b>	<b>23,095.01</b>	<b>26,535.01</b>			
<b>Scope 3 indirect emissions associated with Scope 2</b>	<b>3,040.18</b>	<b>3,493.03</b>			
<b>Reportable scope 3</b>					
Buckinghamshire County Council staff business travel (mileage claims) - Small and medium petrol motorbikes up to 500cc	N/A	0.62		Calculated from business mileage claims under the small – medium petrol motorbikes category.	2010-11 is the first year this has been recorded.
Buckinghamshire County Council staff business travel (mileage claims) - Cars	1,927.82	1,664.12		Calculated from business mileage claims. 'Average medium car, unknown fuel used'.	Fuel type is not currently recorded. For 2008-9 and 2009-10 the diesel/petrol split had been based on sample of vehicles in the staff car park. For 2010-11 we have used 'unknown fuel'. Vehicle engine size is not accurately recorded. For 2008-9 and 2009-10 engine size was not

					recorded accurately; for 2010-11 we have used average engine size.
Waste transfer vehicles – High Heavens Composting Facility	148.68	52.18		Calculated from mileage driven. 'HGV Rigid >17t (average load)' used.	See change in emissions section
Waste transfer vehicles - Household Waste Recycling Centres	646.43	794.98		Calculated from mileage driven. 'HGV Rigid >17t (average load)' used.	See change in emissions section
Property Service Contractors	234.12	158.36	In accordance with Audit Commission guidance 2009, mileage of contractors carrying out major refurbishment works or capital repairs to existing buildings have been excluded. Only rolling repairs have	100% estimated. Emissions are based on a random selection of daywork invoices interrogated to produce the number of miles travelled against the net invoice total, therefore this is not based on actual recorded litres of fuel used or mileage data. 'Medium diesel ca' used.	Need to clarify whether Audit Commission guidance 2009 is still valid. If not, need to ensure that contracts for major refurbishments and capital repairs specify the need for mileage, fuel type and vehicle engine size.  To collect accurate data from daywork contractors we need to ensure that contracts specify the need for mileage, fuel type and vehicle engine size.

			<p>been included.</p> <p>We can not work out the percentage this represents without knowing the major refurbishment and capital repairs mileage.</p>		
Home to school transport provided by Amey (contractors) - SEN 8 Seater Minibus	515.85	517.47		<p>Amey calculates mileage based on GIS route mapping, not actual miles driven.</p> <p>There is no 'minibus' classification on the conversion factors spreadsheet. For the 8 and 9-16 seater minibus we have chosen a 'Diesel MPV' (as advised by Defra 26/07/2011).</p>	<p>There is a need to establish a methodology for collecting more accurate data in future. Fuel use would be more accurate than mileage.</p> <p>We have recalculated school bus emissions for 2008-09 and 2009-10 as it was found that data had been provided in 'Passenger kilometres' due to the Defra submission spreadsheet containing options only suitable for bus travel on public transport</p>

					buses. This was based on the assumption that the average bus contains 9.2 passengers. Using this calculation for 'service buses' (e.g. school buses) over-estimates the emissions for these services. We have been unable to find DECC/DEFRA/DFT guidance relating to how many miles per litre of fuel there are for a school bus so are using 5-6 miles per litre based on internet research.
Home to school transport provided by Amey (contractors) - SEN 9-16 Seater Minibus	83.98	91.32		As above	As above.
Home to school transport provided by Amey (contractors) -	131.39	181.24		Amey calculates mileage based on GIS route mapping, not actual miles driven. 'Diesel bus' used.	As above.

Mainstream North coaches					
Home to school transport provided by Amey (contractors) - Mainstream South coaches	169.08	120.18		Amey calculates mileage based on GIS route mapping, not actual miles driven. 'Diesel bus' used	As above.
Ringway Jacobs (RJ) vehicles using Arval Fuel cards - Petrol	3.03	11.41		Arval fuel card purchases.	It has been agreed that Local Area Technician (LAT) vans are leased to RJ from the Council and fuelled by RJ, therefore scope 3.
Ringway Jacobs (RJ) vehicles using Arval Fuel cards - Diesel	402.90	234.65		Arval fuel card purchases.	Diesel is estimated for Jan-Mar 2011 as there was a period of transition to a new system. Removed 39 vehicles (12,852 litres) that were matching with Council fleet for period Oct 10 to March 11. For April to Oct 10 this was not possible as the registrations were not provided.
Ringway Jacobs (RJ) business	N/A	24.69		'Average car unknown fuel' used.	2010-11 is the first year this has been recorded.

travel (mileage claims)					
AMEY business mileage	N/A	5.39		'Average petrol car' used.	2010-11 is the first year this has been recorded.
Council vehicles using Arval Fuel Cards (excluding RJ Arval and BCC fleet) - Petrol	N/A	5.45			Not separated for previous years.
Council vehicles using Arval Fuel Cards (excluding RJ Arval and BCC fleet) - Diesel	N/A	24.85			Not separated for previous years.
Council owned vehicles but leased out (i.e. to Red Cross)	N/A	20.78		'MPV diesel' used.	Not separated for previous years.
<b>Total reportable scope 3</b>	<b>4,263.27</b>	<b>3,907.69</b>			
<b>Scope 3 indirect emissions associated with Scope 3</b>	<b>806.44</b>	<b>738.55</b>			

**Scope 3 emissions for which there is currently no data available**

Buckinghamshire County Council staff business travel by public transport	Mileage for public transport is not currently recorded in our expenses claims system, SAP, only cost. There is a need to include in SAP the facility to enter type of public transport used and mileage in order to collect data for public transport staff use in future.
RJ (TfB) transport of highways waste and recycling	Methodology for data collection is being developed by RJ with the aim of being available for 2012-2013.
Supply chain emissions from goods and services	We may commission third party to analyse the County Council's Tier 1 supply chain. This would not include schools but it may be able to include schools at an additional cost. This would also not include procurement by RJ.
Water supply and treatment (Corporate and schools)	Water data is not currently recorded across the organisation, only for the Aylesbury County Hall complex. Smart metering is not installed. A business case for obtaining water consumption data needs to be written to determine way forward.
Commuting	Data is not available. A business case for collecting commuting data needs to be written to determine way forward in conjunction with Transport for Buckinghamshire.
Waste produced from BCC buildings	Data is only collected for the Aylesbury main complex buildings for weight of plastic, card, paper general waste and our café's coffee cups. This could be extended to include cans collected for recycling by ARRC (Aylesbury Recycling and Reuse Centre). A business case for collecting waste data from all Council sites, including schools, needs to be written to determine way forward.
Waste processing	We aim to report Buckinghamshire's proportion of methane from our landfill sites in 2012.

## **7. Geographic breakdown**

We have not applied a geographic breakdown.

## **8. Base year**

Our base year is 2008-2009. We have recalculated our home to school transport data (Scope 3) for the base year, see comments under Scope 3. We have excluded the site using LPG as (this was one site and benchmarked data) as we now have more accurate data. Gas oil was previously recorded under burning oil. For 2008-09 transport data we have not separated scope 1 from scope 3. The base year excludes the additional data required to be collected for 2010-11. We have recalculated SAP business expenses, as a sample for diesel / petrol split had been applied previously. Motorbike emissions were not separated out in the past in SAP business mileage claims.

## **9. Targets**

Our Corporate Plan 2011-13 includes the target to decrease our energy and water consumption from County Council buildings and our CO2 emissions from our transport and street lighting by 6% by 31 March 2013.

We are revising our Sustainability policy and targets in light of the accurate data for 2010-11 that we have captured under the CRC data collection.

The Corporate Plan can be found at the following website:

[http://www.bucksc.gov.uk/sites/bcc/corporate\\_plan/our\\_vision.page](http://www.bucksc.gov.uk/sites/bcc/corporate_plan/our_vision.page)

Zoe Dixon, Sustainability Team Leader is responsible for achievement of the target.

## **10. Intensity measurement**

We have not chosen an intensity measurement but may choose to apply one in future years.

## **11. External assurance statement**

Due to the short timescale in reporting for 2010-11 and the new reporting format we have not received an independent external assurance statement. This is something we will consider in future.

## **12. Carbon offsets**

We do not have any carbon offsets.

## **13. Green tariffs**

We do not have any green tariffs.

## **14. Electricity generation**

We have 5 solar PV sites claiming ROC / FIT not backed by REGO, which generated 18.7MWh in total in 2010-11.

## **15. Heat generation**

76.34 tonnes of wood pellets and 110.5 tonnes of wood chip were used 2010-11, their Scope 3 indirect emissions are 14.04 and 6.79 tonnes CO<sub>2</sub>e respectively.