The Highland Council

Resources Committee – 26th November 2014

Agenda Item	25
Report	RES/80
No	/14

Annual Progress Report on the Carbon Management Plan, 2013/14

Report by Head of Policy and Reform

Summary

This report reviews the Council's performance in meeting the targets outlined in the Carbon Management Plan (CMP) for 2013/14. This is the first report based on the new scope identified in the CMP 2013-2020. In order to ensure consistency, data for 2011/12, and 2012/13 were refreshed in line with the revised scope of the CMP, to allow comparisons to be made with 2013/14 data. This will provide a consistent baseline and reporting standard for comparing the Council's carbon emissions.

In 2013/14, carbon emissions have reduced by 6% or 4,269 tonnes CO_2 equivalent (tCO₂e) compared to 2012/13, against our 3% annual target. Carbon emissions from all sectors have decreased since 2012/13, with the exception of water, waste, and street lighting where emissions show an increase. However, as emissions increased in 2012/13 our progress over two years from the baseline year of 2011/12, shows a reduction in carbon emissions of 5% or 3,151 tCO₂e, against a target of 6%.

While carbon emissions have reduced, total costs have increased from £20,202,896 (2011/12) to £20,504,950 (2013/14), primarily due to rising energy and fuel prices. By taking action to become more efficient the Highland Council avoided costs of around £1 m in 2013/14 (costs the Council would have incurred had consumption not decreased). Total costs through the Carbon Reduction Commitment Energy Efficiency scheme (CRC tax) additionally amounted to £424,560 in 2013/14, compared to £479,441 in 2011/12.

1. Background

1.1 Highland Council is a signatory of Scotland's Climate Change Declaration and has committed to tackling climate change. In 2009, the Climate Change (Scotland) Act set national targets for the reduction of carbon emissions, and Highland Council has been identified as a "Major Player" in ensuring these targets are met. The Highland Council Programme 2012-17 states that:

"The Council will continue to reduce carbon emissions from its operations and work to meet the new target in the Carbon Management Plan (CMP) of a 21% reduction between 2011/12 and 2020. We will realign the CMP to Carbon CLEVER Initiative".

1.2 The Council's progress to reduce its carbon emissions is monitored through its Carbon Management Plan (CMP). This sets out a strategy for reducing carbon emissions and associated cost savings from those activities the Council can monitor and influence. The Council has made good progress at reducing carbon emissions. Under the previous CMP, the Council reduced its carbon emissions by 12% between 2007/8 and 2011/12, meeting its target of 3% p.a.

- 1.3 In a meeting of the Finance, Housing, and Resources Committee on April 10th 2013, the revised CMP 2013-2020 was agreed. This expanded the scope of the CMP and includes emissions arising from energy use in council properties and Public Private Partnership properties, staff travel (including public transport), fleet, internal waste including recycling, street lighting, and water across all sites (previously only top 100 users). This paper reports the Council's carbon emissions for 2013/14, and summarises progress since 2011/12.
- 1.4 In August 2013, the Council achieved re-accreditation for the Carbon Trust Standard which it has held since 2009. This award publically recognises the Council's continued progress in reducing carbon emissions as well its commitment to making future reductions. The Council will hold the Carbon Trust Standard until April 2015. The accreditation process entailed:
 - Scrutiny of the Council's carbon emissions data;
 - Calculation of the carbon emissions reductions over a four year period;
 - Site visits; and
 - A written report covering Governance, Accounting, and Carbon Management.

1.5 <u>Scotland's Climate Change Declaration</u>

In January 2007, the Council signed <u>Scotland's Climate Change Declaration</u>. As a signatory, the Council is committed to producing an annual report on regional progress towards mitigating against, and adapting to, climate change. These reports are hosted on the <u>Sustainable Scotland Network (SSN) website</u>, and analysed by SSN alongside those produced by other local authorities to produce a <u>summary document of Scotland's progress</u>.

The report is divided into five sections:

- 1. Governance, Leadership and Management
- 2. Reducing the local authorities own 'corporate' greenhouse gas emissions from its estate, services and functions.
- 3. Taking action to reduce the emissions from the local authority area
- 4. Assessing the risks of climate change impacts and working with others to adapt to the impacts of climate change
- 5. Developing effective partnership working, capacity building and climate change communications

The report summarises Highland Council's progress over 2013/14 in each section, and priorities for the year ahead are outlined.

1.6 The Council's seventh year report (2013/14) is available for Elected Members on the Members Bulletin on the Council intranet. This report highlights the range of activity conducted across Council services to reduce carbon emissions and adapt to climate change impacts, both internally, and across the Highlands.

2. Summary of overarching trends

2.1 The scope of the 2013-2020 CMP has changed from the previous 2009-2012 reporting requirements, and now captures a wider range of emissions. In order to ensure consistency between datasets, data for 2011/12 and 2012/13 has

been refreshed in line with the revised scope of the CMP (Appendix 1 and Appendix 2). This opportunity has also enabled the Climate Change Team to ensure that there is a thorough data trail, with full access to the underlying source data for figures reported here, which have been carefully checked for quality and accuracy. This will provide a consistent baseline and reporting standard for the Council's carbon emissions throughout the CMP 2013-2020 reporting process.

- 2.2 Carbon emissions decreased 6% from 2012/13 to 2013/14 (4,269 tonnes CO₂e). However, it should be noted that carbon emissions increased in 2012/13 relative to the baseline year. As previously reported this was primarily due to an increase in energy consumption and winter maintenance due to the colder winter conditions that persisted longer than usual in 2012/13.
- 2.3 Council performance at reducing carbon emissions for 2013/14 was reported indicatively as 9% in the "Corporate Performance Report, 2013-14" at a meeting of the Highland Council, 4th September 2014. These figures were awaiting verification, as some data were reported to the 2009-12 CMP scope. During the verification process, all data were collected against the revised scope, which resulted in the differences between the figures reported in the Corporate Performance Report and those included in this report.
- 2.4 Table 1 summarises the carbon emissions targets and reductions achieved from the baseline year (2011/12) to 2013/14, broken down by the six sectors identified in the CMP. The Council have reduced its carbon emissions by 5% over the past two years, against a target of 3% per annum. This 5% reduction is important progress towards the Carbon CLEVER vision of a carbon neutral Inverness in a low carbon Highlands by 2025.

Sector	Target	Baseline emissions (2011/12)	Emissions Saving Target	Actual Emissions Savings achieved	Change in Emissions 2011/12 – 2013/14
Energy use in Buildings	3% p.a.	42,894	-2,574	-2564	-6%
Staff Travel		3,200	-192	-424	-13%
Fleet		9,435	-566	-676	-7%
Internal Waste (including recycling)		1,039	-62	+208	+20%
Street Lighting		9,591	-576	+201	+2%
Water		412	-24	+85	+20%
Total	- 6%	66,552	-3,994	-3,151	-5%

Table 1: Carbon emissions (CO₂e) reduction targets by Sector, 2011/12-2013/14.

2.5 There are six sectors scoped into the CMP: Energy use in buildings; Staff travel; Fleet; Waste; Street lighting; and Water. Energy use in buildings accounts for the largest proportion of council emissions, 64%, followed by street lighting and fleet emissions, 15% and 14% respectively, Figure 1.



Figure 1: Carbon emissions by sector (2013/14).

Further information by sector is provided below from paragraph 3.

- 2.6 Total costs associated with the carbon emissions scoped into the CMP are outlined in Appendix 2. Despite a decrease in consumption in almost all sectors between 2011/12 and 2013/14, costs have risen in all sectors with the exception of Water and Staff Travel. These cost increases are largely due a rise in the price of fuel and electricity. Staff travel costs have reduced because of significant reductions in the amount of business mileage claimed by staff travelling in their own car. Changes in water costs are explained in section 6.2.
- 2.7 Costs avoided refers to the sum the Council would have to had paid in 2013/14 if consumption had stayed at the 2011/12 level based on current prices. It can be calculated where consumption has fallen but prices have increased. In 2013/14, total costs across all six sectors of emissions were £20,504,950. Without the efforts to decrease energy and fuel use, costs would have been over £1 million higher, £21,524,006, in 2013/14.
- 2.8 This cost avoidance should be viewed with the caveat that in some areas consumption has been reduced by using alternate services. For example, in 2013/14 £859,237 was spent on installing biomass boilers and £185,789 on recycling facilities on Council properties. These investments are made by considering the payback period and will have long-term cost savings, extending beyond the lifetime of the CMP, as well as reducing payments required under the CRC tax.

3. Energy use in buildings

3.1 Carbon emissions due to Energy use in buildings are the largest sector reported under the CMP, 64% of emissions in 2013/14. Progress in this sector is therefore fundamental to ensure the overall targets of the CMP are

achieved. In 2013/14, Energy use in buildings has decreased 8.5% (3,785 tCO₂e), relative to 2012/13. Over the baseline year of 2011/12, emissions from Energy use in buildings have decreased by 6% (2,564 tCO₂e), Figure 2.



Figure 2: Energy use in buildings, by fuel type, 2013/14.

- 3.2 In 2013/14, gas consumption increased by 13% whilst oil consumption decreased by 28% against the baseline year. Oil heating is carbon intensive, and the price of oil is known to fluctuate. There has therefore been targeted replacement of oil heating systems with biomass boilers. These systems are almost carbon neutral and have a much lower cost (per unit of energy). Installed biomass capacity has almost tripled since 2011/12. The Council's Energy and Sustainability Team recently won the best innovation prize at the Energy North awards for their exemplary work in this area.
- 3.3 Energy use in Public Private Partnership (PPP) properties is now within the revised CMP scope. Although PPP energy usage is only approximately 10% of the Council's total energy use, it has increased 5% since 2011/12. If energy use in PPP properties had decreased in line with the average for all council properties over the same period, total energy use would have decreased 7%. This would mean that the Council had an overall 6% decrease in carbon emissions, meeting the targets set in the CMP.
- 3.4 The impacts of energy price increases can be noted in the CMP data. Electricity usage has increased by 2% from 2011/12 to 2013/14, but costs have increased 25%. Continuing to increase the Council's capacity to generate its own energy through renewables will reduce the effect of rising energy costs on the Council.
- 3.5 The Council has been investing in renewable energy on its own estate for over a decade. The major focus of this has been the replacement of carbon intensive oil and electric based heating systems with biomass boilers. These are considered to be a near carbon neutral as the trees that are cut down for fuel use are re-planted, maintaining a continuous carbon cycle. In 2013/14, just under 10% of the energy used in the Highland Council's buildings came from biomass heating. This investment in biomass has helped to support the

region's emerging biomass economy and supply chain. As of July 2014, the Highland Council had over 15 MW installed capacity of renewable energy technologies on its estate, Table 2.

Renewable Energy Technology	Installed Capacity (kW)
Biomass	13,991
Ground Source Heat Pump	706
Solar Photo Voltaics	582
Wind	141
Air Source Heat Pump	84
Solar Thermal	25.3
Total	15,539.3

 Table 2: Highland Council Installed Renewables, 31st July, 2014.

3.6 Work to improve the energy efficiency of the Council's ICT infrastructure through the Green ICT partnership with Fujitsu has reduced carbon emissions relating to ICT provision and use by 56% from 5,950 tCO₂e in 2010 to 2,615 tCO₂e in 2013. This reduction has been achieved despite an 11.6% increase in the number of managed devices installed, and will have had a positive impact on reducing the amount of energy used in Council buildings.

4. Staff Travel

4.1 Overall, staff travel mileage has decreased by 11% (1,198,047 miles) from 10,473,109 miles (2011/12) to 9,275,062 miles (2013/14), Figure 3. Total mileage increased by 1.5% from 2012/13 to 2013/14, an increase of 137,874 miles, primarily as a result of an increase in staff travel by public transport.



Figure 3: Staff travel mileage (2011/12 - 2013/14).

4.2 Business travel by staff in their own car

There has been a significant reduction in business travel by staff in their own car ('grey fleet' mileage), which has decreased from 8,747,910 miles (2011/12) to 6,885,410 (2013/14). This reduction in grey fleet mileage has reduced the Council's travel spending by £328,441, and caused the overall reduction in staff travel mileage reported here.

4.3 Car Hire

Car hire is the second highest source of staff travel carbon emissions after grey fleet mileage. Car hire mileage has increased from 1,222,680 miles (2011/12) to 1,566,131 miles (2013/14). This represents a 28% increase in mileage, an increase of £139,202 spent on car hire, and an increase of 108 tCO₂e. There was a decrease in car hire mileage in 2012/13, compared to 2011/12, which makes comparisons between 2013/14 and 2012/13 even greater. Compared to 2012/13, car hire mileage has increased 35%, with an increased cost of £267,167, and an increase of 128 tCO₂e.

4.2 <u>Staff travel by public transport</u>

Staff travel by public transport is being reported for the first time under the CMP. Staff travel by public transport represents approximately 1% of the Council's carbon emissions for 2013/14 and has increased from 1,726,604 miles (2011/12) to 2,390,917 miles (2013/14), Figure 3. This represents a 38% increase in mileage, with public transport travel claims increasing from £665,934 (2011/12) to £951,670 (2013/14), and carbon emissions increasing from 460 tCO₂e to 619 tCO₂e. Increases in public transport mileage indicate that the travel habits of council employees are starting to change to include lower carbon options. Overall, this change has helped to lower both the costs and carbon emissions associated with staff travel.

5. Fleet

5.1 Fleet emissions were 7% lower in 2013/14 than 2011/12. Fleet rationalisation and route optimisation have reduced fuel consumption, and there has also been an 8% decrease fleet diesel use. The milder winter conditions of 2013/14 are also reflected in the reduction of gas oil consumed for winter maintenance.

6. Waste

- 6.1 There has been a 20% increase in carbon emissions from internal waste (landfill and recycling), and spending on internal waste and recycling has increased by approximately £195,000 (29%) since 2011/12. The majority of this increase has been since 2012/13. Compared to 2012/13, there has been a 17% increase in carbon emissions, with a cost increase of £166,787 (24%). Recycling has increased over the last 2 years, with 13% of waste being recycled in 2011/12, rising to 16% in 2013/14.
- 6.2 There has been a 29% increase in waste from schools over the last 2 years and a 24% increase in the amount of mixed recycling. Landfill waste (nonschools) has remained relatively constant over the last 2 years. Mixed recycling for the same sites has more than doubled over the same time period.
- 6.3 The increases in waste reported may not be due to an actual increase in the volume of waste produced by the Council, and instead is possibly a function of

how the waste volumes are estimated. The methodology calculates the volume of waste generated by multiplying the size of the bins by the number of collections, and then using these to estimate weight. It is assumed that each bin is full when it is emptied, which may not be the case. Additionally, as recycling capacity has been expanded across Council properties, there has been either no or very little reduction in waste collections or a reduction in bin sizes, even though the actual waste produced may be less.

7. Street lighting

- 7.1 Electricity consumption for street lighting has increased 2% from the baseline year. This is primarily due to an increase in the number of lighting columns. Electricity consumption, and consequently carbon emissions reduced slightly (1%) between 2012/13 and 2013/14. This was achieved by replacing existing lanterns with more efficient LED units, despite the number of streetlights connected actually increasing over this period (approximately 1,950 new lanterns, or a 4% increase in the size of the estate). There is a continuing programme to expand the use of energy efficient LED street lighting.
- 7.2 Street lighting energy consumption will be incorporated into the CRC tax in 2014/15. There will therefore be a charge per tonne for the carbon emissions associated with street lighting.
- 7.3 The conversion factor that will be used to calculate carbon emissions from street lighting for the CRC scheme has not yet been announced. The revised Department for Environment, Food and Rural Affairs conversion factor (2013), which is utilised in the CMP 2013-2020, is 0.52037. At an expected cost of £16 per tonne CO₂, this would equate to a cost to the Council of £150,736 p.a.

8. Water – all sites

- 8.1 Water use increased 20% in 2013/14 relative to the baseline year and by 34% from 2012/13. In spite of these increases in use, spending on water has decreased £134,341 since 2011/12 and by £88,622 since 2012/13.
- 8.2 The fluctuations in the water use reported over the last three financial years may be caused by two factors. Firstly, increases in usage can be due to increases in the size of the estate. Most notably, this has included two additional primary schools, and extensions to six others, which will have had an impact on water usage.
- 8.3 Secondly, some of the fluctuations are due to how water usage is reported. In 2012/13 an exercise to verify site details and charges with the contractor responsible for water supply and waste water provision to the Council resulted in a lowering of water use estimates for that year. Some additional variation may also be due to the timing of the meter readings carried out by the contractor. Under the procurement contract they are only required to carry out a reading once a year on a rolling yearly basis, which may not tie in with the financial year. Processes are being put in place to try and improve this for future years.

9. Community Emissions

9.1 Under the scope of the CMP, measures of Highland-wide carbon emissions

are being reported for the first time under the community emissions sector. This includes energy use in council housing, and municipal and household waste estimates. These emissions do not have reduction targets set against them, as the Council has no direct control over them.

9.2 A more rigorous approach for calculating area-wide emissions is currently being developed, in order to develop a baseline for measuring the progress of the Carbon CLEVER initiative. As part of this, the potential for developing a Sustainable Energy Action Plan (SEAP), which would cover emissions and activities across the whole of the Highlands, is being investigated.

9.3 Energy use in council housing

The Council is responsible for 13,487 dwellings, with carbon emissions estimated at $50,910 \text{ tCO}_2\text{e}$ in 2013/14. The Council are taking action to improve energy efficiency in council housing, which will also reduce carbon emissions. The Scottish Housing Quality Standard (SHQS) was introduced in February 2004 and is the Government's principal measure of housing quality in Scotland. The SHQS is a set of five broad housing criteria which must all be met for the property to pass the standard set.

9.4 The energy efficiency of Highland council houses continues to improve, and good progress is being made to achieve the SHQS by April 2015. Council housing energy efficiency is assessed as part of the SOLACE (Society of Local Authority Chief Executives) benchmarking framework. The energy efficiency of Highland council houses was 75 % in 2013/14, compared to 47.9% in 2011/12. The target is to reach 100% energy efficiency in 2015.

9.5 <u>Community renewable energy schemes</u>

Although not explicitly scoped into the CMP, it is worth noting the progress being made by communities and individuals across the Highlands to install renewable energy schemes. These schemes enable communities and individuals to generate energy, achieve cost savings, and provide a sustainable income.

9.6 At the end of June 2013, an estimated 285 MW of community or locally owned renewable energy capacity was operational in Scotland. The Highland region has been nationally and internationally recognised for the amount of community and locally owned installed renewables. In 2013, the region won the Scottish National Renewables League for Solar, Heat Pumps, Biomass, and Hydro-electric schemes (regions with a population over 100,000). Following this, the region finished third in the RES European Champions League (regions with a population over 100,000). This success continued in 2014, when the region won Scottish National Renewables League for Wind turbines, Hydro-electric, Biomass and Heat-pump schemes.

9.7 Municipal and Household Waste

Almost half of all municipal and household waste in the Highlands in 2013/14 was recycled or composted (42% of municipal waste and 45.5% of household waste), Table 3. This has remained consistent since 2011/12, with a household recycling rate of 45%, although municipal recycling has increased slightly from 39% in 2011/12. Waste going to landfill has decreased 5% (9,239)

tonnes) in 2013/14, compared to the baseline year. Currently, only 2% of waste sent to landfill is used in waste-to-energy schemes.

	Recycled/Composted (tonnes) (tCO ₂ e)		Landfill			
			(tonnes)	(tCO ₂ e)		
2013/14						
Municipal	59,796	1,256	80,155	23,245		
Household	57,393	1,205	67,394	19,544		
Total	117,189	2,461	147,549	42,789		
2012/13						
Municipal	57,631	1,210	78,711	22,826		
Household	55,566	1,166	68,651	19,908		
Total	113,197	2,377	147,362	42,735		
2011/12						
Municipal	58,379	1,225	90,056	26,116.2		
Household*	57,424	1,205	66,732	19,352.3		
Total	115,803	2,432	156,788	45,469		

Table 3: Municipal and household waste emissions, 2011/12-2013/14.

*calculated using a different methodology to subsequent years.

10. Implications

- 10.1 <u>Resource Implications:</u> The CMP helps the Highland Council to monitor its practices, become more efficient, and reduce costs. Achieving the targets of the CMP requires a series of projects and actions to be delivered, many of which will have an associated cost. These projects are part of the Council's capital budget and are reviewed on a case by case basis to ensure they are economically viable.
- 10.2 <u>Legal Implications:</u> The Council has a duty to assist Scotland achieve its national carbon emission reduction targets as set out by the Climate Change (Scotland) Act 2009.
- 10.3 <u>Climate Change/ Carbon CLEVER Implications:</u> By reducing its carbon emissions, the Highland Council is helping the region mitigate its impacts on climate change.
- 10.4 The targets set out in the CMP 2013-2020 of a 3% reduction in carbon emissions per annum was set prior to the launch of Carbon CLEVER. These targets need to be reviewed to ensure that the Highland Council is leading by example to achieve the goals of the Carbon CLEVER initiative.
- 10.5 <u>Risk Implications:</u> There is a reputational risk to the council for not achieving the goals laid out in the CMP. However, this is far outweighed by the positive steps the Council is making to reduce its impact on the environment.
- 10.6 There are no Gaelic, Rural or Equalities implications arising from this report.

Recommendations

Members are asked to:

- Note that significant progress is being made to reduce the Council's carbon emissions, with a 5% reduction over the first two years of the CMP 2013-2020 against a 3% p.a. target.
- Note that since the baseline year, carbon emissions from energy use, staff travel, and fleet have decreased, whilst, waste, water and street lighting carbon emissions have increased.
- Note the Year 7 (2013/14) report to the Scotland's Climate Change Declaration.

Designation: Head of Policy and Reform Date: 14/11/2014 Author: Gemma Cassells, Policy Officer – Climate Change Background Data: Energy use in buildings: Eddie Boyd Staff travel: Chrystal Beaton and Lucy Lallah Waste: Andy Hume Fleet: Ken MacLennan Street lighting: Andrew Matheson Water: Eddie Boyd

	CO ₂ e er	nissions (to	Change in CO ₂ emissions		
	Baseline 2011/12	2012-13	2013-14	2011/12 – 2013/14	
Energy Use in Buildings					
Electricity	27,440	28,349	28,066	+2%	
Gas	4,235	5,569	4,805	+13%	
Oil	11,219	10,197	7,460	-29%	
Total:	42,894 44,115 40,330		40,330	-6%	
Staff Business Travel					
Business Miles	1,973	1,548	1,409	-29%	
Lease Miles	294	312	328	+12%	
Training Miles	58	77	66	+14%	
Equivalent Car Hire Miles	236	176	143	-39%	
Member Miles	148	131	131	-12%	
Support Workers	10	9	10	0%	
Re-located Miles	121	91	70	-42%	
Car Hire*	383	363	493	+29%	
Bus*	3	4	10	+233%	
Ferry*	1	2	1	0%	
Plane*	40	41	67	+68%	
Taxi*	0	0	0	0%	
Train*	2	29	48	+2300%	
Total:	3,200	2,780	2,776	-13%	
Fleet					
Petrol	79	80	79	0%	
Diesel	8,469	8,117	7,721	-9%	
Gas Oil	886	1255	959	+9%	
Total:	9,435	9,452	8,759	-7%	
Internal Waste					
Landfill waste (non-schools)	395	360	416	+5%	
Mixed recycling (non-school)	2	5	5	+150%	
Landfill waste (schools)	632	691	815	+29%	
Mixed recycling (schools)	9	10	11	+22%	
Total:	Total: 1039		1247	+20%	
Street Lighting	9,591	9,885	9,792	+2%	
Water	412	370	496	+20%	
TOTAL	66,552	67,670	63,401	-5%	

Appendix 1: Highland Council carbon emissions 2011/12 to 2013/14

*In 2013/14 the Travel Desk started collecting information on multi-modal journeys. As the exact breakdown of mileage for each journey segment is not recorded, the likely longest section of the journey was used to estimate that journey's carbon emissions, and is summarised in this table with the relevant category.

Emissions increase

	Cost (£)			Change in cost (%)	
	Baseline	2012-13	2013-14	2011/12	Costs Avoided** in 2013/14
	2011-12	2012-15	2013-14	2013/14	over 2011/12
Energy Use in Buildings					
Electricity	4,805,674	5,464,789	6,027,834	+25%	
Gas	559,027	831,775	845,305	+51%	
Oil	3,045,328	2,791,681	1,817,258	-40%	
Total:	8,410,029	9,088,245	8,690,397	+3%	£494,551
Staff Business Travel					
Business Miles	2,273,554	2,258,071	2,062,180	-9%	
Lease Miles	120,367	131,245	137,449	+14%	
Training Miles	39,163	51,862	44,939	+15%	
Equivalent Car Hire Miles	228,372	72,964	136,487	-40%	
Member Miles	198,506	188,084	187,145	-6%	
Support Workers	14,692	12,310	14,466	-2%	
Re-located Miles	85,512	63,692	49,098	-43%	
Car Hire	559,570	430,920	702,920	+26%	
Bus	3,105	4,925	10,090	+225%	
Ferry	3,610	3,170	5012	+39%	
Plane	44,168	40,644	81,931	+86%	
Тахі	164	462	110	-33%	
Train	55,317	59,801	151,606	+174%	
Total:	3,626,106	3,829,745	3,583,434	-1 %	£554,645
Fleet					
Petrol	39,134	39,953	38,789	-1%	
Diesel	3,664,896	3,542,508	3,302,019	-10%	
Gas Oil	207,936	288,929	212,259	+2%	
Total:	3,911,966	3,871,390	3,553,067	-9 %	£304,155
Internal Waste					
Landfill waste (non-schools)	170,520	173,027	230,042	+35%	
Mixed recycling (non- school)	24,462	44,185	56,818	+132%	
Landfill waste (schools)	370,716	381,160	458,362	+24%	
Mixed recycling (schools)	113,824	109,036	128,972	+13%	
Total:	679,521	707,407	874,194	+29%	*
Street Lighting	1,794,867	2,316,706	2,270,227	+26%	*
Water	1,667,973	1,662,253	1,533,631	-8 %	*
TOTAL	20,087,459	20,924,151	20,504,950	+2%	£1,019,05 <mark>6</mark>

Appendix 2: Costs associated with carbon emissions 2011/12 - 2013/14

**Costs avoided can be calculated when consumption has reduced but costs have increased. *Costs increased due to both increasing costs and increasing usage so there are no costs avoided here.

Cost increase