

Aberdeenshire
COUNCIL



Climate Change Action Plan

2010-11



**Covenant
of Mayors**

Committed to local
sustainable energy



**Sustainable Energy
Action Plan**

November 2010

Climate Change Action Plan

2010-11

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Summary

1. Aberdeenshire Council acknowledges that climate change is happening. We recognise that we must take steps to adapt to likely changes and move to a low carbon future. We are committed to becoming a carbon neutral organisation in the short to medium term.
2. The Climate Change Acts now set legislative requirements which give additional impetus and focus to the work. These will need to be integrated into the Council's operations as details become available. The Climate Change (Scotland) Act 2009 imposes duties on public bodies which come into effect on 1 January 2011. The Scottish Government plans to publish guidance on these duties in January 2011, following consultation on a draft document published in September 2010.
3. The Council has been working to reduce carbon emissions for the past few years through actions across all Services. Progress has been made in some areas but has been slower in others and emissions have risen in some. Over the past two years energy consumption for buildings and streetlighting have risen, as has fuel use in fleet vehicles, and business mileage remains static, with a small decrease over the past year.
4. Work with the Carbon Trust concluded that the Council needs to improve in a number of areas in order to raise the status of its carbon management process and improve the likelihood of achieving target reductions. These areas include: commitment at senior level in accountability, financing and resourcing; embedding emission reductions at the heart of policies; improving the accuracy of the carbon footprint; monitoring and reviewing the project list and reducing uncertainties in projects and savings. The Carbon Trust work identified a number of projects which could reduce emissions. These have been included as actions in this Plan but further work is required to clarify the financial and carbon implications for projects beyond 2011.
5. Specific actions have been identified for 2010-11. These are estimated to result in a carbon emission reduction of 3% for the period of 2010 -11 for the emissions from the Council operations. If this rate of reduction is to be maintained beyond 2011, additional projects will need to be brought forward. Work is underway on this and will enable a new Climate Change Action Plan to be drawn up in 2011.
6. Aberdeenshire Council will continue to work within its own operations and with partnership organisations to address climate change mitigation and adaptation within the wider community. Particular progress has been made on improving energy efficiency in the Council housing, and supporting such measures in other tenures.
7. The work to reduce carbon emissions will have to become an integral part of the Council's internal operations and its role in the wider community. Implementing behaviour change to reduce energy use, travel and waste will enable carbon reductions at minimal cost. However, if reductions are to be made in greenhouse gas emissions to meet longer term Council and national targets, major reduction projects will need to be identified and implemented. Any new project to bring about a significant reduction of emissions is likely to require proportional additional funding and a lead time for feasibility studies. The rewards of moving to a low-carbon organisation and area will benefit not only the environment but the local economy and community.

Introduction

- 1.1 Climate change is happening. It is widely acknowledged that the actions of mankind are a major contributor, largely through the emissions of greenhouse gases, predominantly carbon dioxide (CO₂). Aberdeenshire Council recognises that climate change will have far reaching global and local effects, impacting on the economy, society and the environment.
- 1.2 Signing Scotland's Climate Change Declaration in 2007 was one consequence of this recognition, along with the full acceptance of the Council's responsibilities. The Council's Strategic Priorities and its Single Outcome Agreement include the need to reduce greenhouse gas emissions (www.aberdeenshire.gov.uk).
- 1.3 Aberdeenshire Council is addressing the issue, dealing with its own operations and working to fulfil its role in the wider area. The Council recognises the economic opportunities available to the area through businesses embracing the climate change challenge.
- 1.4 In June 2008 the Council's Policy and Resources Committee approved the first Climate Change Action Plan (CCAP), which brought together the carbon management plan and work from the Council's Scrutiny and Audit Committee 2007 report on climate change, 'The Bigger Issue', to facilitate management of, and reporting on climate change for the Council. Further details on the context and related documents are available via the Council web site (www.aberdeenshire.gov.uk/green).
- 1.5 This is a revised version of the CCAP for 2010-11. A new CCAP will be drawn up in 2011. The CCAP is intended as a document for Aberdeenshire Council

as an organisation, so it concentrates on how emissions reductions will be achieved through the Council's day-to-day operations. It also includes actions which are primarily taken by the Council but which have direct influence on the wider community, in terms of individuals, businesses and other organisations.

Covenant of Mayors

- 1.6 A number of initiatives and funding opportunities have come from the EU. Aberdeenshire Council signed the 'Covenant of Mayors' in 2009. The Covenant adheres to a "20:20:20" target – 20% emissions reduction and 20% renewable energy by 2020. This initiative confirms the Council's commitment to reduce carbon emissions, show leadership and share best practice amongst European cities and regions. As part of this, the Council will submit this Climate Change Action Plan 2010-11 as its required 'sustainable energy action plan' (SEAP), under the Covenant of Mayors

Carbon Reduction Commitment (CRC) Energy Efficiency Scheme

- 1.7 The enabling powers in the UK Climate Change Act 2008 are being used to implement the Carbon Reduction Commitment (CRC) Energy Efficiency Scheme, which is a mandatory 'cap and trade' scheme covering CO₂ emissions from approximately 5,000 large organisations, including local authorities, throughout the UK. Organisations will be required to pay an amount at the start of a period. The UK Government and Devolved Administrations started this scheme in April 2010, with a one year 'shadow' phase. Aberdeenshire Council will be included in the CRC energy efficiency scheme.

Climate Change (Scotland) Act 2009

1.8 The Climate Change (Scotland) Act 2009 received Royal Assent in August 2009 (for more details and Scottish Government reports, see www.scotland.gov.uk/topics/environment/climatechange/). The Act set targets of at least 42% reduction in CO₂ emissions by 2020 and at least 80% reduction by 2050 (on 1990 baseline levels). Under the Act there will be interim national carbon budget periods and targets, set ten or more years in advance, and mandatory annual reporting by the Government. The first set of annual carbon reduction targets, for 2010-2022, has just been agreed by the Scottish Parliament. The Scottish Government is expected to publish in 2010 a Report on Proposals and Policies, demonstrating how it intends to meet the Act's emission targets.

1.9 The Climate Change (Scotland) Act 2009 imposes duties on public bodies which will come into force on 1 January 2011. These duties require that a public body must, in exercising its functions, act:

- in the way best calculated to contribute to delivery of the Act's emissions reduction targets;
- in the way best calculated to deliver any statutory adaptation programme; and
- in a way that it considers most sustainable.

1.10 The Scottish Government published draft guidance on these public duties in September 2010 for a period of consultation. The final guidance is planned to be ready in January 2011. The Council's new CCAP in 2011 will take into account any additional measures put forward in the guidance.

1.11 The Act also requires other action by local authorities, including incorporating climate change into development planning, and introducing a Council tax discount for installing energy efficiency measures.

Renewable Energy

1.12 There are targets on the amount of electrical energy to be produced from renewable sources. The UK commitment is for 15% to be generated from renewables by 2020. In September 2010 the Scottish Government raised its target for Scotland to generate 80% of its electricity from renewables by 2050 (from a previous target of 50%), with an interim target of 31% by 2011; and 20% of its total energy use to come from renewables by 2020.

1.13 The UK Government, through the Department for Energy and Climate Change, is changing the financial incentives for renewable energy schemes. Feed in tariffs (FITs), for schemes generating electricity, came into force in April 2010 and the Renewable Heat Incentive, for schemes providing heat, is due to come into force in 2011, subject to Parliamentary approval. These arrangements replace capital grants with longer term annual payments and are aimed primarily at the smaller scale installations. The legislation was changed in 2010 to allow local authorities to sell energy generated to the national grid.

Carbon Management Revisited Programme

1.14 In October 2009 Aberdeenshire Council accepted an invitation to participate in the Carbon Trust's Carbon Management Revisited Programme (CMRP). This was designed to assist in the review of an existing carbon management programme by analysing the status, providing guidance and helping to identify additional projects

for the carbon management work within the Council's operations. Work within the wider community was recognised as a strength of our approach, but was not part of the programme. The CMRP work was completed in May 2010.

1.15 The first part of the programme used a Carbon Trust 'Carbon Management Assessment Tool' which is a matrix covering the principal elements of the carbon management process, with scores identifying the current status. The matrix also gives guidance on future actions for improvement. From this analysis Aberdeenshire Council was weakest in the 'governance and accountability' and 'vision and strategic direction' elements, and strongest in the 'use of resources' category.

1.16 The second part of the programme reviewed the projects leading to carbon reductions so that the Council could have a list of projects which should deliver the target carbon emission reductions. The Carbon Trust consultants supported the officers' work in identifying additional projects and analysing the appropriate data. The projects are summarised in Table 1.1 below. They are also on a detailed spreadsheet which will enable officers to monitor and update regularly. These projects have been included in the actions listed in Section 4, either for 2010-11 or

CMRP as longer term projects. Further work is required to clarify the financial details and carbon savings for these projects.

1.17 The main type of actions identified in the CMRP were: technology (45% projects), behavioural change (18%), and policy (14%). This illustrates the role that these latter actions could play in carbon reduction. Funding requirements are likely to be lower for these type of actions, which is particularly relevant in the current financial situation.

1.18 The CMRP identified a number of areas where the Council could improve both the effectiveness of its carbon management and the likelihood of achieving its targets. These included:

1. achieving commitment at senior levels on accountability, financing and resourcing of carbon management;
2. ensuring the accuracy and resolution of the carbon footprint is a priority;
3. regular updating, reporting and reviewing of the projects
4. identifying and committing funding.

Table 1.1 Summary of projected CO₂ savings from

	No of projects	Estimated CO₂ savings (t)
Energy	13	8,866
Waste	5	6,038
Policy	2	2,232
Street Lighting	4	11
Transport (fleet)	6	393
Business Travel	3	15
TOTAL		17,555

Climate Change Adaptation and Mitigation

- 1.19 Climate change is already taking place. Climate data on the North East of Scotland, from the Macaulay Institute, show that all seasons have, on average, become warmer, and precipitation patterns have changed, with summers drier and autumn and winter wetter, along with more days of heavy rain. Predictions are for these trends to continue. Even in Aberdeenshire, therefore, it will be necessary for individuals and businesses, including farmers, foresters and builders, to adapt to deal with these changes. The changes have implications for society, the economy and the environment of the North East of Scotland. Examples include: flooding, water shortage, altered growing conditions, increased size of rain water gutters on buildings and capacity of soakaways (all of which affect biodiversity).
- 1.20 Work carried out by Aberdeenshire Council is incorporating **adaptation** for possible climate change effects, both internally and through its statutory duties. This is particularly relevant through the development plan and development management processes, and flood prevention work and will remain a key issue in addressing sustainable resource use.
- 1.21 The Council will continue to take into account the work on climate change adaptation measures carried out by various organisations, such as the Scottish Climate Change Impacts Partnership (www.sccip.org.uk), and within the context of the Scottish Government's Climate Change Adaptation Strategy. The Council has taken part in phase 2 of the Scottish Climate Change Impacts Partnership 'Local Climate Impact Profile' project, and is completing its report on the project.
- 1.22 **Mitigation** measures are required in order to slow the rate of climate change. The 2006 Stern Review estimated that, in order to stabilise the greenhouse gas concentrations in the atmosphere in the range 450-550 parts per million, global emissions would need to peak in the next 10 years and then fall at over 5% per annum to reach 70% below current levels by 2050. Clearly, the sooner action is taken to reduce CO₂ emissions, the greater the chance of attaining this target. In addition, the rate of increase in developing countries may mean that the UK has to reduce its emissions at a higher rate.
- 1.23 Mitigation measures will include reducing the overall need for energy, increasing the energy efficiency of both buildings and equipment, and generating energy using renewable sources.

Partnership Working

- 1.24 This Action Plan is designed to address the operations of Aberdeenshire Council and the influence of the Council on the wider community, including business and industry. In undertaking this work, the Council will continue to welcome the benefits from working with other organisations, both local and national. The Council already works in partnership with numerous organisations, including the North East Scotland Climate Change Partnership, Aberdeen City and Shire Economic Future (ACSEF), North East Scotland Regional Transport Partnership (NESTRANS), Grampian Biomass Group, and the Community Planning partners.

Climate Change and Sustainability

1.25 Climate change is part of the wider sustainability agenda. Aberdeenshire Council has been working for some time to integrate sustainability into its operations and is taking steps to raise the profile of this aspect of the role it plays in the wider community. In its Sustainability Charter, the Council seeks to ensure that resource use to provide for social, economic and environmental well-being in the short term does not preclude future generations from meeting their needs. Climate change has added extra impetus to this agenda. Appropriate actions will bring wide benefits to Aberdeenshire and the Council, not just in demonstrating leadership but also in financial terms.



Aberdeenshire Carbon Emissions Data

Aberdeenshire wide data

2.1 The latest emissions data from Department of Energy and Climate Change (DECC) are given in Table 2.1. Further details are awaited as to why the emissions for land use, land use change and forestry have risen so much from 2007-8. As a comparison with the final column, the average per capita emissions for Scotland were 8.1, 8.2, 8.1 and 7.9 tCO₂ respectively for the four years, so Aberdeenshire has consistently higher than average emissions levels.

Table 2.1 CO₂ emission estimates for Aberdeenshire

Year	Industry & Commerce (ktCO ₂)	Domestic (ktCO ₂)	Road Transport (ktCO ₂)	Land use & forestry (ktCO ₂)	Total (ktCO ₂)	Population (000)	Per capita emissions (tCO ₂)
2005	818	705	672	220	2,415	233.4	10.3
2006	907	719	687	238	2,551	236.3	10.8
2007	909	711	693	272	2,584	239.2	10.8
2008	897	716	661	549	2,822	241.5	11.7

Source: DECC, September 2010

2.2 DECC also publishes a sub-set of the above emissions data to give figures for the National Indicator 186, used for reporting primarily by English Local Authorities. This sub-set comprises the emissions which DECC consider the local authorities have most influence over; it excludes part of the 'industry & commerce' results and all of the 'land use, land use change and forestry' results. The NI186 emissions data for Aberdeenshire are given in Table 2.2.

Table 2.2 National Indicator 186 CO₂ emission estimates for Aberdeenshire

Year	Industry & Commerce (ktCO ₂)	Domestic (ktCO ₂)	Road Transport (ktCO ₂)	Total (ktCO ₂)	Population (000)	Aberdeenshire Per capita (tCO ₂)	Scotland Per capita (tCO ₂)
2005	804	705	672	2,181	233.4	9.3	7.8
2006	749	719	687	2,155	236.3	9.1	7.8
2007	753	711	693	2,156	239.2	9.0	7.7
2008	756	716	661	2,133	241.5	8.8	7.6

Source: DECC, September 2010

- 2.3 Footprint data on carbon emissions is available for local authority areas from work done by the Stockholm Environment Institute in York. This is a measure of **consumption** (ie includes carbon emissions resulting from what is consumed, wherever in the world it is produced). The latest available data are given below:

Carbon footprint in tonnes per capita (2007):		
	Aberdeenshire	Scotland
Total	12.41	12.16
Of which:		
Housing	3.86	3.90
Transport	3.15	2.98
Food	1.23	1.20
Consumables	1.43	1.37

Source: SEI, www.resource-accounting.com, 2009

- 2.4 The carbon footprint is calculated separately from the ecological footprint used in the North East Scotland Global Footprint Reduction Report (available at www.aberdeenshire.gov.uk/greenliving). The ecological footprint is a measure of the required productive land and sea to maintain current consumption levels. It is measured in global hectares (gha). The latest available data from SEI show that Aberdeenshire has an ecological footprint of 5.45gha per capita. If this was applied worldwide, almost three planets would be required to maintain this consumption level.

- 2.5 Data on energy consumption within the Council boundary are shown in Tables 2.3 and 2.4:

Table 2.3 Energy consumption (GWh) in Aberdeenshire

	coal	Manufactured fuels	Petroleum products	Natural gas	electricity	renewables	Total
2005	88	7	3,445	1,833	1,362	38	6,773
2006	80	6	3,507	1,574	1,344	43	6,554
2007	86	5	3,457	1,548	1,380	64	6,541
2008	n/a	n/a	n/a	1,502	1,370	n/a	n/a

Data from DECC 2010

Table 2.4 Energy consumption by sector (GWh) in Aberdeenshire

	Industry & commerce	Domestic	Transport
2005	2,177	2,184	2,412
2006	1,830	2,206	2,519
2007	1,834	2,189	2,517

Data from DECC 2010

Renewable energy in Aberdeenshire

2.6 Wind farms and biomass account for the majority of renewable energy installations in Aberdeenshire at present. The capacity of these is as follows:

Wind Farms: consented capacity as at April 2010: 198MW (4% of Scotland's consented capacity)

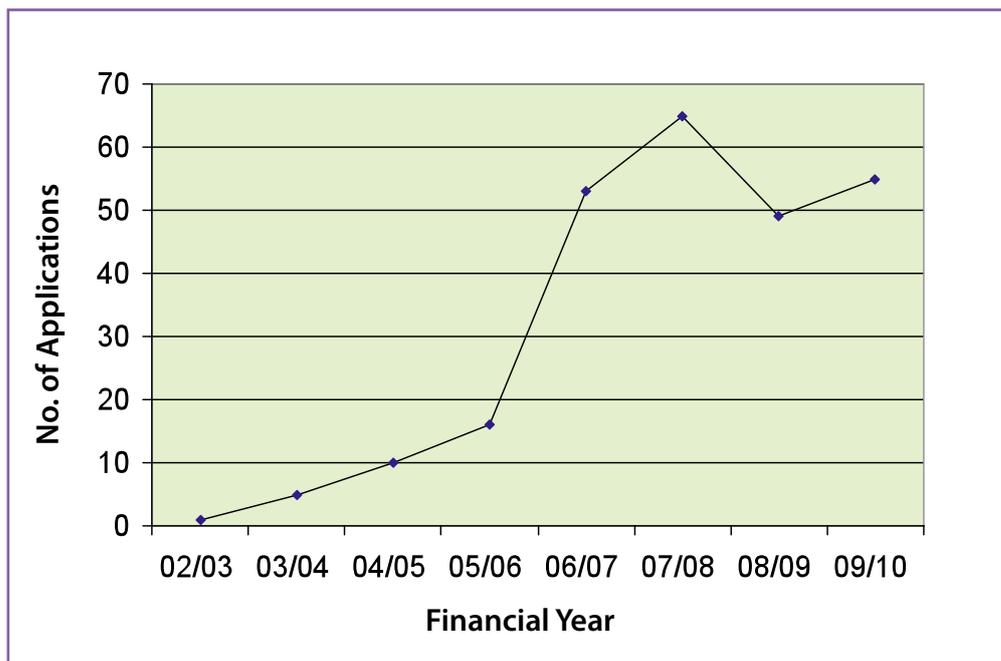
Operational capacity: 84MW

(NB generation is usually about 30% of capacity)

Biomass: installed capacity as at April 2010: 10MW

In the past few years there has been an increase in planning applications for renewable energy installations in Aberdeenshire (see Diagram 2.1). Most of these applications are for wind turbines. In terms of generating capacity, the vast majority is provided by the large wind turbine applications. The impending extension of permitted development rights for micro-renewable energy should result in a reduction in applications but an increase in installation. Monitoring capacity may become more difficult.

Diagram 2.1 Number of planning applications for renewable energy projects



Aberdeenshire Council data

2.7 In any carbon management programme a key step is setting out the 'boundaries' to be used in the calculation and monitoring of the carbon emissions. Aberdeenshire Council's 2007 Local Authority Carbon Management Programme Strategy and Implementation (SIP) document delineated the boundaries as: carbon emissions from buildings, municipal waste, fleet transport, street lighting, and business mileage. The waste data was based on the volume of municipal waste going to landfill, with the transport of the waste included in the figure for Council transport. The municipal waste data includes trade waste from Council premises. The programme excluded emissions from Council housing, other staff business travel, school bus travel and staff commuting. Emissions from closed landfill sites were also excluded; these are reported separately to the Scottish Environment Protection Agency.

2.8 As work for the SIP demonstrated, there are difficulties with data accuracy and inevitably the data contain some uncertainties and estimates. These are being addressed but make comparisons difficult. Annual reporting on emissions from the baseline of 2005/06 showed reductions in some areas, particularly the municipal waste to landfill, while others, including emissions from council buildings, street lighting and business mileage changed very little, or increased.

2.9 Improved data gathering and changes to conversion factors (from units of consumption to carbon emissions), mean that comparison with the original 2005/06 baseline is difficult. For this reason, the data for this revised CCAP is taken from a baseline year of 2007/08. The comparable emissions for the past three years for Aberdeenshire Council are given in Table 2.5.

Table 2.5 Summary of Council emissions CO₂ tonnes

	2007-08 t CO ₂	2008-09 tCO ₂	Pa % change	2009-10 tCO ₂	Pa % change
Energy from buildings	59,294	59,000	-0.5	60,026	+1.7
Street lighting	8,218	8,651	+5.3	8,761	+1.3
Fleet transport	7,677	7,068	-7.9	8,778*	+24.2*
Business Mileage	3,546	3,569	+0.6	3,508	-1.7
Council premises waste disposal	1,862	1,880	+1.0	1,780	-5.3
TOTAL	80,597	80,168	-0.5	82,853	+3.3

* new data system in place so not directly comparable with previous years

2.10 A detailed breakdown of the data for consumption, cost and carbon emissions for the last three years is shown in Table 2.6, with further analysis in the Tables 2.7 – 2.9. The overall result is a rise in emissions of 3.3% in the last financial year, following on

from a nominal decrease in the previous year. If the emissions from fleet transport are excluded, as they are not directly comparable with the previous years, there is still a rise of 1.3%. This is despite a number of initiatives across the Council aimed at reducing emissions directly or indirectly.

- 2.11 The energy for buildings data do not take into account circumstances such as weather conditions and estimated readings. The cold weather over last winter will account for a rise in consumption but the absolute levels remain high. Although more efficient standards are applied to new street lighting and replacement lanterns, the total energy consumption continues to rise.
- 2.12 At present Aberdeenshire Council does not specifically monitor its renewable energy installations, although the supplies for the biomass boilers are a separate item for fuel type data (Table 2.7). The Council has the following: 2 biomass boilers, 4 ground source heat pumps, 5 solar thermal water panels, and 2 solar photovoltaic panels. It has also installed air source heat pumps in some Council houses.
- 2.13 In the past year the new fleet management system has been implemented. The data from this is not directly comparable with the previous years. However, the cold weather over last winter is likely to have resulted in increased fuel use from gritting vehicles. The new system is producing more reliable data so annual change will be more accurate in future.
- 2.14 Overall business mileage showed a small decrease, after several years of little change or slight increase. Business mileage now includes councillor mileage but it excludes staff commuting. This mileage figure is likely to be an underestimate as some do not make a claim. At present the carbon emissions are calculated from the mileage claimed, using an average conversion factor. More detailed data on vehicles could alter the carbon emissions by up to 30% either way (ie if low-emission vehicles are used, the total could be much lower, and vice versa). The Worksmart project and some Council teams are monitoring more detailed data in seeking emissions and mileage reductions.
- In the past year the Education, Learning and Leisure Service achieved a 4% reduction. Council business mileage will depend on work patterns and staff levels but reducing mileage has been a target for some years.
- 2.15 Booked travel financial data shown in Table 2.6 are for travel booked through the travel co-ordinator team, which was established during 2007/08. At present, no additional information on carbon emissions is available.
- 2.16 Data for the municipal waste are reported to SEPA and available on their web site. The previous carbon management reporting used the total municipal waste figures, so these are given in the tables. However, the Council now has more accurate data on the trade waste from its own premises, so this has been used for the overall reporting in order to reflect the emissions from the Council operations rather than including domestic waste. The Council trade waste data are for premises, such as offices, schools and community centres, but they exclude other types of waste, such as aggregate and landscaping.
- 2.17 Table 2.9 shows the difference in percentage of overall emissions with the total municipal waste or just the Council premises element being used. With the latter, energy for buildings accounts for 72% of the Council's emissions. As a comparison, Table 2.6 gives the cost of the different sources. If the cost is considered, there is less discrepancy between the sources: energy accounts for £10million, street lighting for £2million, fleet fuel £3million, business mileage £4million, and Council premises waste £0.5million annually.

Table 2.6 Consumption, cost and emissions data for Aberdeenshire Council for 3 year period to March 2010.

	2007-08	2008-09	% change	2009-10	% change
Energy for buildings					
Consumption (kWh) ¹	180,617,786	180,646,224	0	183,317,802	+1.5 X
Cost (£)	9,732,327	10,494,865	+7.8 X	9,993,390	-4.8 ✓
CO ₂ emissions (t) ²	59,294	59,000	-0.5 ✓	60,026	+1.7 X
Street lighting etc					
Consumption (kWh)	15,303,896	16,109,356	+5.3 X	16,314,376	+1.3 X
Cost (£)	1,256,524	1,672,342	+33.1 X	1,960,862	+17.3 X
CO ₂ emissions (t) ²	8,218	8,651	+5.3 X	8,761	+1.3 X
Council Fleet vehicles³					
Consumption (litres)	2,885,105	2,654,641	-8.0 ✓	3,295,686 ³	(+24.1 ³) X
Cost (£)	2,844,536	3,215,315	+13.0 X	3,103,610	-3.5 ✓
CO ₂ emissions (t)	7,677	7,068	-7.9 ✓	8,778 ³	(+24.2 ³) X
Business mileage					
Miles	10,744,167	10,814,810	+0.6 X	10,630,024	-1.7 ✓
Claims paid (£)	4,509,076	4,292,283	-4.8 ✓	4,197,850	-2.2 ✓
CO ₂ emissions (t) ⁴	3,546	3,569	+0.6 X	3,508	-1.7 ✓
Booked travel					
Miles	574,692	n/a	-	n/a	-
Cost (£)	192,265	266,372	+38.5 X	282,348	+6.0 X
CO ₂ emissions (t)	95	n/a	-	n/a	-
Waste					
Municipal solid landfilled(t)	105,750	101,746	-3.8 ✓	98,800	-2.9 ✓
MSW recycled (t) (% of total)	45,881 (30%)	46,960 (31.2%)	+1.2 ✓	50,236 (33.3%)	+2.1 ✓
MSW landfill CO ₂ emissions (t)	47,270	45,480	-3.8 ✓	44,160	-2.9 ✓

Council premises: Collected for disposal a) amount (t)	4,166	4,207	+1.0	√	3,982	-5.3	√
b) cost (£)	n/a	506,317	n/a		536,979	+6.0	X
c) CO ₂ emissions	1,862	1,880	+1.0	X	1,780	-5.3	√
Council premises: collected for recycling (t) (% of total)	2,587 (38%)	2,851 (40%)	+10.2	√	3,209 (45%)	+12.6	√

Notes:

1. Absolute consumption: excludes weather factor
2. Conversion factor used for electricity to CO₂ : 0.537
3. Excludes gas oil data, which cost £696,749 in 2009/10. New data system fully implemented 2009-10 so data not directly comparable with previous two years.
4. Conversion factor used, 0.33 (Carbon Trust); more detailed vehicle data not available.
5. This is from Council premises only; most of this is included in MSW data

% change symbols √ = right direction X = wrong direction



Turriff swimming pool cover

Table 2.7 Breakdown by fuel type for energy in buildings in 2009 -10:

Fuel	Consumption (kWh)	%	Cost (£)	%	CO ₂ emissions (tCO ₂)	%
Electricity	69,060,972	37	6,534,158	65	37,086	62
Gas	73,147,850	40	1,868,728	19	13,532	23
Kerosene	14,406,592	8	516,877	5	3,530	6
Oil	21,796,662	12	933,935	9	5,493	9
LPG	1,699,734	1	70,113	1	364	1
Biomass	3,205,992	2	69,579	1	22	-
TOTAL	183,317,802	100	9,993,390	100	60,026	100

Table 2.8 Breakdown of business mileage claims paid in 2009 -10 by Service

Service	09/10	09/10	% of total miles	% change 08/09-09/10
	£	miles	%	%
Chief Executive & Corporate Services	288,394	727,832	6.8	-9.2
Housing & Social Work	2,177,687	5,491,467	51.7	+0.7
EL&L	837,254	2,163,977	20.4	-4.1
P&ES	360,759	907,468	8.5	-5.8
T&I	408,796	1,027,548	9.7	-0.3
Total staff	4,072,890	10,318,292	97.1	-1.8
Councillors	124,960	311,732	2.9	+0.7
TOTAL	4,197,850	10,630,024	100	-1.7

Table 2.9 Proportion of emissions with and without municipal solid waste landfill data

Emissions source	% of emissions using total MSW data	% of emissions using Council premises waste
Energy for buildings	47	72
Street lighting	7	11
Fleet transport	6	11
Business mileage	3	4
Waste for landfill	37	2
Total	100	100

Aberdeenshire Council

Strategy and Targets

- 3.1 Following the report of the Scrutiny and Audit Committee in 2007, **Aberdeenshire Council committed to become a carbon neutral organisation in the short-medium term.** Given the nature of the Council's operations, it can be acknowledged that it will not eliminate all carbon emissions, and indeed, this is not a necessary requisite to becoming a carbon neutral organisation. The remaining carbon emissions would need to be matched by carbon offsetting.
- 3.2 In working towards carbon neutrality the Council carbon reduction strategy is:

1. **reduce the demand for energy;**
2. **reduce actions which result in greenhouse gas emissions;**
3. **increase the use of renewable energy; and**
4. **use 'offsetting' as a last resort to match the net carbon emissions**

- 3.3 The first step in reducing carbon dioxide emissions is to reduce the demand for energy, in buildings, equipment, operations and travel. Reducing the demand for energy can be achieved through both reducing the overall need and by improving the energy efficiency of equipment, processes and buildings. Secondly, it means reducing levels of waste sent to landfill, where the breakdown of material produces greenhouse gases, including methane, which is 20 times more potent as a greenhouse gas than CO₂. The third step is to replace fossil fuels with low carbon alternatives, preferably renewable energy,

such as biomass, hydro, wind, solar or heat pumps. Finally, carbon offsetting will be needed to counter the residual emissions.

- 3.4 The target for the 2007 Carbon Management Strategy and Implementation Plan (SIP) was to achieve **20% reduction by the year 2012 from 2005/06 levels.** However, the projects identified at this stage did not meet the necessary reductions. Progress reports on emissions have shown that most reduction has taken place in the municipal waste category, with relatively stable levels from energy in buildings, and slight rises from street lighting and business mileage.
- 3.5 Progress towards carbon neutrality depends on the actions taken by the Council and also by measures taken nationally, by the Scottish and UK Governments. There are a number of issues which militate against progress. These include: the difficulty in financing carbon reduction actions; the projected growth of the population and housing numbers in Aberdeenshire, with the associated demand on services; and the uncertainty or margin of error in the data collected. Thus the Aberdeen City and Shire Structure Plan anticipates approximately 35,000 new houses within Aberdeenshire in the period to 2025. In addition, replacing old buildings with new may result in an increase demand for energy as, for example in a school, a larger premises with more equipment and facilities is required, with a resultant increase in energy consumption even if building and equipment are highly energy efficient. Expansion of employment land will also result in an increased demand for energy and water, as well as travel.
- 3.6 The Climate Change (Scotland) Act 2009 sets the national emission reduction targets of at least 42% reduction by 2020 and at least 80% reduction by 2050 (against 1990

levels). National annual reduction targets for the next 10 years were agreed by the Scottish Parliament in September 2010. Against this background, it is appropriate for **Aberdeenshire Council to aim for a 3% annual reduction in overall carbon emissions from its operations.**

3.7 The recent work with the Carbon Trust analysed the estimated carbon savings from projects identified during the carbon management programme and concluded that the Council should be able to reach its target of 20% reduction on emissions by 2012 from the estimated 2005/06 baseline. This included emissions from total municipal waste going to landfill. The estimated reduction was dependent on all the identified projects being funded and completed to bring the full carbon savings within this timescale. Given the financial situation this

is unlikely. This CCAP 2010-11 is focussing on the projects for the next year, and the associated carbon reductions, with the target of achieving at least a 3% reduction from current levels from the Council's operations. Further work is required to clarify projects and realistic levels of carbon emission reduction beyond that. This will be incorporated into the new CCAP in 2011.

3.8 The following section includes specific targets for energy use, renewable energy, transport and waste.



Aboyne Biomass

Aberdeenshire Council

Carbon Reduction Actions

- 4.1 This section sets out the specific actions which have been identified to achieve progress towards carbon neutrality. The projects contained in the Climate Change Action Plan 2008 have been reviewed and updated, as appropriate, and it incorporates the work of the Carbon Management Revisited Programme.
- 4.2 As the Climate Change Action Plan is designed to be a document with regular updates, the actions detailed are those which are underway or can be started in the short term, 2010-11. However, there are a number of actions which could play a significant role in reducing emissions but which, for a variety of reasons, are regarded as longer term actions. Finally, this section summarises the estimated levels of carbon reductions from the 2010-11 actions.

ACTIONS FOR 2010-11

- 4.3 **Actions which are underway or could be started within the period 2010-11** are divided into categories:

1. Enabling actions (corporate policy and other work influencing carbon reduction)
2. Energy use
3. Renewable energy generation
4. Transport
5. Waste

- 4.4 For each category, the Plan gives examples of work by the Council, sets specific targets to be achieved, and lists actions which will affect, firstly, Council operations and, secondly, predominantly the wider community. This reflects the commitments to work with the local

community on climate change issues. In some cases the differentiation between actions changing the internal operation of the Council and those influencing changes in the wider community is not clear cut. However, the division has been made on the basis of the main relevance and serves to illustrate the potentially wide ranging influence of the Council's actions.

- 4.5 Further details of each action are set out in **Appendix 1** of the Plan, giving timescale, responsible officers, estimated savings in carbon emissions, and funding status. This Appendix will form the basis for monitoring progress of the actions. With regard to financing of actions, the Council will continue to seek funding from all appropriate sources, including UK and Scottish Government schemes and from the European Union.

1. Enabling Actions

- 4.6 The Council has made progress bringing in changes which should enable and facilitate direct actions to reduce carbon emissions. Carbon management is a key action in the Council's Strategic Priorities. Reducing greenhouse gases is the overarching objective of the Council's Sustainability Charter. Examples of recent 'enabling' actions include:

- Capital Plan approved in September 2010 includes a budget for carbon reduction
- Inclusion of greenhouse gas emissions reduction in Single Outcome Agreement
- Temporary secondment post to promote sustainability actions within EL&L
- Launch of North East Scotland Climate Change Partnership

Enabling Actions for 2010-11

4.7 Council:

1. Participate in the Carbon Reduction Commitment (CRC) Energy Efficiency Scheme
2. Seek to attain the Carbon Trust Standard
3. Implement 'Worksmart' flexible working programme, including disposal of surplus buildings
4. Continue awareness raising actions to promote behavioural change
5. Continue work on carbon accounting and introducing a mechanism for carbon accountability by Services, to inform decision-making.

4.8 Wider community:

1. Continue to promote carbon reduction actions through Community Planning, North East Scotland Climate Change Partnership and Grampian Biomass Group.

2. Energy use

4.9 The Council continues to work to reduce its energy consumption and carbon emissions from its operations. This covers Transportation and Infrastructure work on buildings and street lighting and Housing and Social Work projects on the Council housing stock. Examples include:

- Approval of Fuel Choice Strategy for Council buildings
- Completion of projects implementing energy efficiency measures funded through the Government's Central Energy Efficiency Fund (CEEF)
- Pilot project replacing street lights with more efficient lumens

- Projects to improve energy efficiency in Council housing
- Renovation of 20 flats in Macduff (project was finalist in Energy Efficiency Design Awards)
- Continued support for posts at SCARF promoting energy efficiency and renewable energy in Aberdeenshire

Targets:

1. Reduce the energy use by Council properties by 2% per annum
2. Eliminate the annual increase in energy demand for street lighting by 2012
3. Complete insulation projects in Council housing by end 2010

Energy Use Actions for 2010-11:

4.10 Council:

1. Implement fuel choice strategy
2. Review asset management plan
3. Implement energy efficiency measures
4. Energy audits
5. Electrical upgrades (electrical, boiler, roof and window)
6. Monitoring & Targeting programme
7. Energy awareness programme
8. PC powerdown roll-out
9. Review Council premises temperature policy
10. Continue projects for replacement of streetlight lanterns with more efficient lumens
11. Continue replacement of traffic light lamps with LED
12. Audit of illuminated traffic signs in Stonehaven
13. Trial of street light dimming

4.11 Wider community:

1. Complete project installing insulation in Council housing.
2. Implement Council Tax Discount Scheme for residents installing insulation.
3. Assist in Home Insulation Scheme in Marr.
4. Initiate project with energy monitors for lending via libraries.
5. Participate in household energy monitoring project with Macaulay Institute.

3. Renewable energy

4.12 The Council has installed renewable energy devices in some of its premises. Renewable energy work has extended to the Council's housing stock, and community projects. Examples of recent projects include:

- Installation of a biomass boiler at Banff Academy
- Installation of ground source heat pumps in four Primary Schools
- Installation of solar water heating in three caravan parks
- Continued support for regional biomass development officer
- Launch of Community Halls initiative to improve energy efficiency and investigate renewable energy options
- Local community wind turbine event

Targets:

1. Install at least one renewable energy source in a council building each year
2. Facilitate at least one community project each year

Renewable Energy Actions for 2010-11:**4.13 Council:**

1. Install renewable energy plant, including a biomass boiler in Drumblade Primary School.

4.14.14 Wider community:

1. Continue Sustainable Community Halls Initiative.
2. Facilitate renewable energy event(s).
3. Update Planning Guidance on micro-renewable energy.

4. Transport

4.15 The Council has prepared a Local Transport Strategy (LTS) and an Aberdeenshire Council Travel Plan. The LTS has a number of targets, including: reducing the rate of traffic growth on Aberdeenshire roads, increasing the share of sustainable travel modes and reducing business mileage. The travel planning officer is promoting more sustainable modes of travel for business travel and staff commuting. The school travel planning officer works with schools to encourage sustainable travel. Recent examples of projects include:

- In March 2009 Aberdeenshire Council published a Walking and Cycling Action Plan.

- Links with businesses have been developed through the delivery of business breakfasts promoting travel planning and the launch of a free, online Travel Plan Builder.
- Over 90 sustainable travel events have been delivered as a partner in the GetAbout Partnership.
- Achieved target of reducing the number of “single child” school trips made by car by 2.5% by 2010 (from base level of 24% in 2006)
- 93% of all schools are involved in the School Travel Planning process.
- ‘No Excuse Zone’ cycle maps have been launched in Westhill and Peterhead.
- The need to “Make Every Mile Count” has been highlighted through a series of briefings to Heads of Service and via internal communications.

Targets:

1. Reduce business mileage by Aberdeenshire Council employees by 4% by 2011 and 6% by 2012 (from 2005/06 level)
2. Further reduce the number of “single child” school trips made by car by 2.5% by 2012 (from base level of 24% in 2006)

Transport Actions for 2010-11

4.16 Council:

1. Introduction of a Transport Emissions Monitoring System/SMART process of accountability for the business mileage of each Service.
2. Pilot a pool car scheme.
3. Complete WebEx conferencing trial

4. Continue promotion of sustainable travel and the improvement of related infrastructure.
5. Install speed limiters on Council vehicles.

4.17 Wider Community:

1. Continue to promote local and national travel awareness campaigns as a partner in the GetAbout Partnership.
2. Continue investment in cycling, walking and public transport infrastructure.
3. Continue to promote, support and monitor both School Travel Plans and those from developers and the wider business community.

5. Waste:

4.18 The Council continues to work to fulfil its Waste Plan, including raising the proportion of recycling within Aberdeenshire. It is also addressing the issue of waste from Council premises and operations, seeking to both reduce waste and increase recycling rates. Examples of recent actions include:

- Award of residual waste treatment contract, which will reduce waste to landfill
- Continue to promote on-line tool (Requip) throughout the Council, to facilitate re-use of resources
- Purchase and distribute containers for recycling in Council premises
- Replace paper towels with energy efficient hand driers in Woodhill House
- Trial kerbside collection of food waste from households for composting
- Replacement of household paper recycling bags with blue boxes

Targets:

1. Reduce the amount of Council waste being collected for disposal from Council premises annually.
2. Reduce the amount of municipal waste going to landfill to 5% by 2025, to meet Scottish Government 'Zero Waste Plan' target.

Waste Actions for 2010-11:**Council:**

1. Trial of composting options in schools (in partnership with Aberdeen Forward – a waste and recycling charity)
2. Complete and extend the provision of recycling containers and recycling services in Council premises
3. Complete initial site visits and continue to raise staff awareness of waste and resource management

Wider community:

1. Complete roll-out of blue boxes for paper recycling
2. Introduce fortnightly food waste collections in rural areas
3. Establishment of furniture re-use projects at Household Waste & Recycling Centres
4. Trial reverse vending technology to assess the impact of incentivising recycling



Longer term actions

4.21 The following are actions which could potentially make a significant contribution to reducing emissions of CO₂ but for which details and implementation are not available or possible at present. No commitment or financial allocation has been made for these longer term actions. These projects could be progressed within the next 5 years, as circumstances change:

(NB. not in priority order)

1. Introduce carbon accounting to decision-making
2. Rationalisation of school lets to reduce energy consumption
3. Review corporate office opening hours to reduce energy consumption
4. Investigate cross-service use of vehicles
5. Encourage/promote purchase of 'best in class' vehicles
6. Eco driver training
7. Improve data to review water consumption in Council premises
8. Renewable energy generation on Council property
9. Review opportunities for heat-based energy-from-waste plant(s)
10. Promote a Combined Heat & Power plant (CHP) where a suitable heat load exists
11. Investigate feasibility of water storage/hydro schemes on rivers as part of flood alleviation measures
12. Introduce weekly kerbside recycling in urban areas, including collection of food waste for composting
13. Re-examine potential for methane capture from landfill sites
14. Investigate carbon offsetting
15. Investigate hydrogen fuel cell usage/renewable hydrogen generation
16. Set up fund specifically for carbon reduction projects
17. Review contract specification for emission levels for engines in school buses

CARBON REDUCTION ESTIMATES

4.22 The actions identified for 2010-11 will result in reduced carbon emissions. Using the estimated carbon savings from the actions from Appendix 1, Table 4.1 gives a breakdown of the potential emissions reduction by source for the Council operations.

Table 4.1 Carbon reduction estimates for 2010 -11

Source	2009 -10 Actual tonnes	savings 2010/11 Est tonnes	savings as % of 2009 -10
Energy from property	60,026	1,215	2
Street lighting	8,761	11	0.1
Fleet	8,778	393	4.5
Business Mileage	3,508	7	0.2
Council waste (from premises)	1,780	47	2.6
Worksmart	_____	446	
Total	82,853t	2,119t	2.6%

NB.

1. Excludes the CRC project savings of 1,483t as this is likely to be double counting. CRC saving is based on an assumption of 2.5% reduction in energy consumption.
2. Savings have been allocated on a pro rata basis if projects are for more than one year
3. Energy from property includes the carbon reduction from renewable energy projects

4.23 Some of the short term actions listed in the CCAP do not have an estimate of the carbon savings resulting from implementation. These are mainly the actions which are 'behaviour change' or policy change:

- EA04 Sustainability awareness
- EA05 Carbon accounting
- DE07 Energy awareness
- DT01 Transport emissions monitoring system
- DT04 Promotion of sustainable travel
- DW03 Waste management and awareness

4.24 Implementing these actions should result in carbon savings in all the topics, although with a greater effect in some than others, depending on the level of control. If an estimate of savings from these actions is made at 1%, this would give a carbon reduction of 829tonnes from the 2009/10 level. This would give a total of $2,119+829= 2,948$ tonnes or **3.6%** annual reduction to 2010/11.

- 4.25 Clearly these reductions are dependent on the successful implementation of the identified actions. The greatest uncertainty lies in the 'behaviour change' actions. However, this has consistently been highlighted as a key area, with carbon reduction to be embedded in decision-making throughout the Council operation. It also fits with the Council's objective to be the best Council, and within the "doing things differently" initiative.
- 4.26 This CCAP is designed to be reviewed annually. At present the actions identified to deliver reductions beyond 2011 do not deliver the necessary levels of carbon reduction to achieve a 3% annual reduction. Work will be required

to identify appropriate projects and to give information on the implementation, cost and likely carbon savings. Some of the actions for the short term are pilot projects which could be rolled out if they prove successful. Some of the actions in the longer term project list could result in significant carbon reductions but funding needs to be found, or feasibility studies are required as a first step. A new CCAP in 2011 will include additional actions to deliver carbon emission reductions for the period after 2011.





Governance, monitoring and review

5.1 Officer input for work on the Climate Change Action Plan will be co-ordinated through the Sustainability Officers' Group, which has representatives from all Services and meets quarterly. The main responsibilities for the Plan reflect the cross-service nature of the principal climate change work:

Reports will be made via the Sustainability Sub-Committee to the Policy and Resources Committee

Political sponsor: Chair of Sustainability Sub-Committee

Director: Director of Transportation and Infrastructure, with Director of Planning & Environmental Services as support

Operational: Sustainability Officer

5.2 Updates on the Climate Change Action Plan will be presented to each meeting of the Sustainability Sub-Committee. These will monitor progress on the individual actions. There will be an annual full review of progress and reassessment of projects, at which point the action list will change as some actions are completed and others come forward. This annual review will be reported to the Sustainability Sub Committee and to Policy and Resources Committee

5.3 The Climate Change Action Plan, together with the monitoring of the carbon management performance and the Sustainability Charter, will enable the Council to prepare an annual report on progress under its commitments to Scotland's Climate Change Declaration. Progress can also be monitored for the Covenant of Mayors initiative.





Conclusion

- 6.1 Climate change is one of the greatest global challenges. Aberdeenshire Council acknowledges that it has a leading role to play in addressing this challenge both locally and globally. It has made a commitment to become a carbon neutral organisation in the short- to medium-term and is working with other organisations to move towards a similar status in North East Scotland.
- 6.2 The commitment to become a carbon neutral organisation is important, both internally and externally. The Council is determined to deliver this but if it is to make significant progress towards its commitment, a substantial amount of work has to be carried out. This will require a rapid and consistent change in approach and working methods of all staff. More importantly, it will require strong leadership and commitment from elected members, senior management and staff.
- 6.3 Successful implementation of some actions will require significant financial provision. Most of the actions to-date resulting in a significant reduction in carbon dioxide emissions have received grant funding. Until clear guidance on the inclusion of 'carbon accounting' is available and implemented, and the issue of reducing greenhouse gas emissions becomes a higher priority, the level and availability of grants will determine to a significant extent the progress which the Council can continue to make. Further work will be carried out to give more details on individual actions, in terms of finance and potential carbon savings.
- 6.4 If the actions set out in this Plan are implemented, Aberdeenshire Council should be able to reduce its carbon emissions by 3% over the next year but if this rate of reduction is to be maintained, additional projects will have to be brought forward for the following years. Co-ordination and co-operation between Council Services will enable a number of projects to take place within current budget proposals. Implementing behaviour change to reduce energy use, travel and waste will enable carbon reductions at minimal cost. However, any new project to bring about a significant reduction of emissions is likely to require proportional additional funding.
- 6.5 Aberdeenshire Council will not achieve carbon neutrality by eliminating all the carbon emissions from its operations. If we are to achieve carbon neutrality, we will need to include carbon offsetting as a final means of reaching this goal.
- 6.6 The work to reduce carbon emissions will have to become an integral part of the Council's internal operations and its role in the wider community. The rewards of moving to a low-carbon and then a carbon neutral organisation and area will be clear for all to see and will benefit not only the environment but the local economy and community. They will enable the Council to fulfil its climate change commitments and be an exemplar and inspiration to other organisations and the wider community.



APPENDIX 1 Aberdeenshire Council actions underway or to be implemented in 2010-11

1. Enabling actions (EA)

Project Number	Action	Lead Service(s) and responsible officer(s)	Estimated annual CO ₂ savings on completion (tonnes CO ₂)	Finance agreed/ funding status
	Council			
EA01	Participate in Carbon Reduction Commitment (CRC) Energy Efficiency Scheme	T&I, Corporate Services Emma Donaldson	1,483	Provisional
EA02	Work to achieve Carbon Trust Standard	T&I Emma Donaldson	(Included in above figure)	Provisional
EA03	Implement 'Worksmart' flexible working programme	Chief Executive Mark Baker	2,232 Over 5 years	Worksmart budget
EA04	Continue sustainability awareness raising actions	P&ES Kelly Fairweather Fiona Graham	n/a	Within existing budget
EA05	Continue work on carbon accounting	Corporate Services Julie Anderson	n/a	No additional funding agreed
	Wider Community			
EA5	Continue to promote carbon reduction actions through Community Planning, North East Scotland Climate Change Partnership and Grampian Biomass Group	P&ES, T&I Kelly Fairweather Fiona Graham Roddy Matheson	n/a	Within existing budgets

2. Energy Use (DE)

Project Number	Action	Lead Service and responsible officer(s)	Estimated annual CO ₂ savings on completion (tonnes CO ₂)	Finance agreed
	Council			
DE01	Implement Fuel Choice Strategy	T&I Brian Smith	n/a	None required
DE02	Review asset management plan	T&I Allan Whyte	n/a	None required
DE03	Implement energy efficiency measures	T&I Emma Donaldson	353	CEEF/Education Energy Efficiency Fund (EEEF)

DE04	Energy audits (some with Carbon Trust support)	T&I Emma Donaldson	428 Over 5 years	Existing budget
DE05	Property upgrades (electrical, boiler, roof and window)	T&I Alastair Stewart, Graham Flett, John Burkinshaw	148	Capitalised maintenance/ EEEF
DE06	Implement Monitoring & Targeting programme	T&I Emma Donaldson	1,273 Over 5 years	provisional
DE07	Energy awareness campaign	T&I Emma Donaldson	n/a	Provisional: Existing budget
DE08	PC powerdown	Corporate Services Neil Foster	37	None required
DE09	Review Council premises temperature policy to reduce energy use	T&I Emma Donaldson	n/a	None required
DE10	Continue projects for replacing street light lanterns with lower wattage	T&I David Armitage	2	2010-11 Capital budget: Street lighting
DE11	Trial to replace lanterns with LED	T&I David Armitage	3	2010-11 Lighting improvement budget
DE12	Audit of traffic signs in Stonehaven	T&I David Armitage	n/a	no
DE13	Trial of street light dimming in an industrial estate	T&I David Armitage	6	no
Wider community				
DE12	Complete project installing insulation in Council housing	H&SW Dave Thomson	n/a	Within existing budget
DE13	Energy monitors for lending via Council libraries	P&ES, T&I Kelly Fairweather	n/a	c£400: no finance agreed
DE14	Energy monitoring project with Macaulay Institute---	P&ES, T&I Kelly Fairweather	n/a	Within existing budgets

3. Renewable Energy (DR)

Project Number	Action	Lead Service and responsible officer(s)	Estimated annual CO ₂ savings on completion (tonnes CO ₂)	Finance agreed
	Council			
DR01	Install renewable energy plant, including biomass boiler in Drumblade Primary School	T&I Brian Smith	400	Renewables budget
DR02	Investigate potential for renewable energy generation on Council property	T&I Brian Smith	n/a	Within existing budgets
	Wider Community			
DR03	Continue Sustainable Community Halls Initiative	T&I Eric Wells	n/a	Within existing budget
DR04	Facilitate renewable energy event(s)	T&I Eric Wells	n/a	Within existing budget
DR05	Update Planning Advice on renewable microgeneration	P&ES Alison Hogge	n/a	Within existing budget

4. Transport (DT)

Project Number	Action	Lead Service(s) and responsible officer(s)	Estimated annual CO ₂ savings on completion (tonnes CO ₂)	Finance agreed
	Council			
DT01	Introduce Transport emissions monitoring system, with accountability for business travel within each Service	Corporate Services, T&I	n/a	No
DT02	Pilot a pool car scheme	T&I Ian Paisley Andrew Stewart	14	Provisional: Transportation & participating Services
DT03	Complete WebEx conferencing trial	T&I Andrew Stewart	1	Provisional: transportation
DT04	Continue promotion of sustainable travel and the improvement of related infrastructure	T&I Andrew Stewart	n/a	Within existing budget
DT05	Install speed limiters in council vehicles	T&I Ian Paisley	393	Internal transport budget of part of initial cost of vehicle

	Wider community			
DT06	Continue to promote local and national travel awareness campaigns as a partner in the GetAbout Partnership	T&I Andrew Stewart	n/a	Within existing budget
DT07	Continue investment in cycling, walking and public transport infrastructure	T&I Andrew Stewart	n/a	Within existing budget
DT08	Continue to promote, support and monitor both School Travel Plans and those from developers and the wider business community	T&I Peter McCallum Joanna Stewart	n/a	Within existing budget

5. Waste (DW)

Project Number	Action	Lead Service and responsible officer(s)	Estimated annual CO2 savings on completion (tonnes CO2)	Finance agreed
	Council			
DW01	Trial of composting options in schools (with Aberdeen Forward)	P&ES Amanda Ingram	2	Provisional
DW02	Complete and extend distribution of recycling containers and recycling services to Council premises	P&ES Amanda Ingram	45	Zero Waste Fund
DW03	Complete initial site visits to advise on waste management and continue staff awareness initiative	P&ES Amanda Ingram	n/a	Within existing budget
	Wider community			
DW04	Complete roll-out of blue boxes for paper recycling	P&ES Matt Davis	1,073	Zero Waste Fund
DW06	Introduce fortnightly food waste collections in rural areas	P&ES Matt Davis	1,118	Part: Zero Waste Fund
DW07	Establishment of furniture re-use projects at Household Waste & Recycling Centres	P&ES Pam Walker	n/a	Within existing budget
DW08	Trial reverse vending technology to assess the impact of incentivising recycling.	P&ES Amanda Ingram	n/a	Within existing budget

