



**Scotland's Climate Change
Declaration Report**
Year 5 (2012)

Aberdeen City Council

About the Scottish Climate Change Declaration

Each of Scotland's 32 local authorities signed Scotland's Climate Change Declaration in early 2007. The Declaration is a public statement wherein local authorities acknowledge the reality and implications of climate change and their responsibility to respond effectively. The Declaration also welcomes the actions of the UK and Scottish governments and the opportunities for local authorities to work in partnership with others in responding to climate change.

As signatories to Scotland's Climate Change Declaration, each Scottish local authority is committed to taking action across a range of key areas. These can be summarised as:

1. Providing effective **leadership, governance and management** on climate change.
2. Reducing the local authority's **own 'corporate' greenhouse gas emissions** from their estate, services and functions.
3. Taking action to reduce **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 and climate change communications**, including producing an annual statement of plans, activities and achievements.

This Reporting Template focuses on these five key areas.

The principles of effective Declaration reporting include:

- Providing clear, consistent and comparable information.
- Linking climate change reporting with existing reporting requirements and the council's own performance improvement agenda.
- Showing clearly how climate change is being integrated into council and Community Planning agendas, especially through Single Outcome Agreements.
- Highlighting key achievements and initiatives
- Communicating with the community, making the report easy to understand and available to the public.

Local authorities are encouraged to provide information in a transparent and easy to understand format:

- In relation to 'corporate' and 'area-wide' emissions, quantifiable data will be vital, and this is best communicated graphically.
- On adaptation, examples of adaptation action or process initiatives would help illustrate what is being done.

- On governance, leadership and management, and on partnership working, communications and capacity building, diagrams, process maps and examples of materials and events would be extremely useful.

In order to make reporting on the Declaration as effective and efficient as possible, local authorities are encouraged to use this reporting template to report top-level information and to use web-link references to more detailed information.

Local authorities are also encouraged to make reference to their previous Declaration reports, especially making reference to the year-ahead priorities listed in those reports. This will help in showing continuity and year-on-year progress.

In reporting on the Declaration, local authorities are encouraged to recognise the importance of the UK Climate Change Act, Climate Change (Scotland) Act, national targets for emissions reduction, the Climate Change Public Bodies Duties Guidance (published 2011), The Low Carbon Scotland: Meeting the Emissions Reduction Targets 2010-2022 Report on Proposals and Policies, the Low Carbon Scotland Public Engagement Strategy, the evolving Scottish Climate Change Adaptation Framework and the Adaptation Scotland Scotland Climate Change Adaptation Workbook . Also of use is the internationally recognised ‘Greenhouse Gas Protocol’ for consistent reporting of ‘corporate emissions’ and the evolving suite of Local Authority climate change datasets and indicators published by DECC.

Section 1

Governance, Leadership and Management

Leadership

- At Aberdeen City Council, climate change is addressed as part of the sustainability agenda and reported through the Enterprise, Planning & Infrastructure Committee.
- The new council administration produced the “Aberdeen – A Smarter City” policy statement in 2012. This sets out a vision which includes as priorities:
 - We will design and construct all new infrastructure to be energy efficient by maximising the use of low carbon technology and materials. We will use recycled materials where appropriate.
 - We will increase energy efficiency and introduce carbon reduction measures in our processes and our housing and non housing assets to reduce our carbon footprint, save money and to bring people out of fuel.
 - We will manage waste effectively and in line with UK and European legislative requirements by maximising recycling and reducing waste to landfill, thereby reducing our costs and carbon footprint.
 - We will provide and promote a sustainable transport system, including cycling, which reduces our carbon emissions.

- High level support from senior management, ensures there is ongoing commitment to the delivery of the Aberdeen City Council Carbon Management Plan. Regular briefings on the Carbon Management Plan progress and actions are made to council senior management teams as well as being reported to Committee on an annual basis.
- A review of the Community Planning Partnership in 2010 led to the establishment of a new Community Planning Partnership, Community Planning Aberdeen and Community Planning Aberdeen Board in 2011. A Community Planning in Aberdeen audit was carried out in 2012 and the themes and priorities for the new partnership are under development.

Incorporating Climate Change into Key Policy

- The Council's Environmental Policy Team, in Planning & Sustainable Development, plays a role in coordinating mitigation measures and embedding climate change into council policies and strategies. However, responsibility for actions related to climate change is spread across relevant council services.
- All Council plans, policies and strategies undergo Strategic Environmental Assessment to assess their environmental impact, this includes addressing climate change.
- Aberdeen was the first city in Scotland to produce a Climate Change Action Plan in 2002. Since then climate change has become increasingly embedded in council plans, and strategies. These include:
 - The [Aberdeen Local Development Plan 2012](#) has a vision of Aberdeen as a sustainable city in 2030. The plan sets out policies for ensuring that new development contributes to a sustainable city vision. Further information is outlined in Section 5 of this report.
 - [Aberdeen City and Shire Structure Plan 2009](#), which sets targets for the city region's electricity needs to be met from renewable sources by 2020. The new Strategic Development Plan aims to set out a framework to develop Aberdeen City and Shire up to 2035. A consultation on the Main Issues report for this plan closed in January 2012.
 - The [Aberdeen City Waste Strategy \(2010 – 2025\)](#) which aims for no more than 5% of municipal waste to be landfilled by 2025.
 - The Council's [Carbon Management Plan \(2010-2015\)](#) which sets a carbon reduction target of 23% by 2015. The plan details the baseline of carbon emissions and projects aimed at achieving this target. Further information is outlined in Section 2 of this report.
 - Encouraging sustainable travel, through the [Local Transport Strategy \(2008-2012\)](#) and Cycling Strategy for Aberdeen City.
 - Recognising the need to build a more resilient natural environment, the Council's [Nature Conservation Strategy 2010-2015](#), has been designed to help halt the decline in biodiversity through nature conservation and assist with tackling

greenhouse gas emissions which are contributing to climate change.

- The Council's [Open Space Strategy 2011-2016](#) sets out a vision for new and improved open spaces in the city. The strategy contains a key objective and series of actions to, "Maximise opportunities to mitigate and adapt to climate change and further biodiversity". The strategy is based on the results of the city wide open space audit and was prepared involving communities, businesses, residents and partner organisations.
- An [Alternative Energy Strategy for Council Owned Public Buildings](#) was approved in May 2011. This aims to ensure the Council continues to undertake energy efficiency measures and install low/ zero carbon technologies in and on Council owned assets, to reduce overall energy consumption and carbon emissions.
- The final draft [Aberdeen City Local Housing Strategy \(LHS\) 2012 – 2017](#), was approved by the Housing & Environment Committee in August 2012. The strategy document is with Scottish Government for assessment and the final document is expected to be published by April 2013.
- The Property Asset Management Plan 2012 aims to provide property, working with partners, where appropriate, which supports the Council in the delivery of quality services by being fit for purpose, accessible, efficient, suitable and sustainable. The plan states that all Council assets must be environmentally sustainable and that asset decisions take into account both the local and global environment and make a positive contribution to a sustainable community.
- The Council began scoping out a Climate Change Strategy in 2012 and work to develop this strategy will take place in 2013. This document will supercede the Climate Change Action Plan. In support of this document, initial work has also commenced on a Local Climate Impact Profile (LCLIP), to assess Aberdeen's vulnerability to severe weather events and how these events affect local communities, local authority assets, infrastructure and capacity to deliver services.

Section 1 Priorities for the year ahead

Council priorities for the year ahead include:

- Reducing carbon emissions in line with the Climate Change Scotland Act 2009 and work to meet the responsibilities of the Public Bodies Climate Change Duties.
- Ensuring climate change continues to be embedded into council plans, policies and strategies. In addition, Strategic Environmental Assessment will continue to be carried out on new plans, policies and strategies.
- The development of a Climate Change Strategy and completion of an Aberdeen LCLIP are key priorities for 2013.
- Development of a Smart City Strategy in 2013, mapping out a sustainable strategy for the city and its stakeholders.
- Development of a Corporate Asset Management Plan 2013 which incorporates carbon dioxide emissions as one of the performance measures.

Section 2

Reducing the local authority's own 'corporate' greenhouse gas emissions from its estate, services and functions.

Actions to Achieve Reduction Targets

Carbon Management Plan

The Aberdeen City Council Carbon Management Plan (2010-2015) sets targets to reduce CO₂ emissions by:

- 23% by 2015 (based on 2008/09 emission levels); and
- 42% by 2020 (based on 2008/09 emission levels)

This includes emissions from business travel, fleet, some Council housing, public buildings, street lighting, water and waste disposal.

Progress in 2012

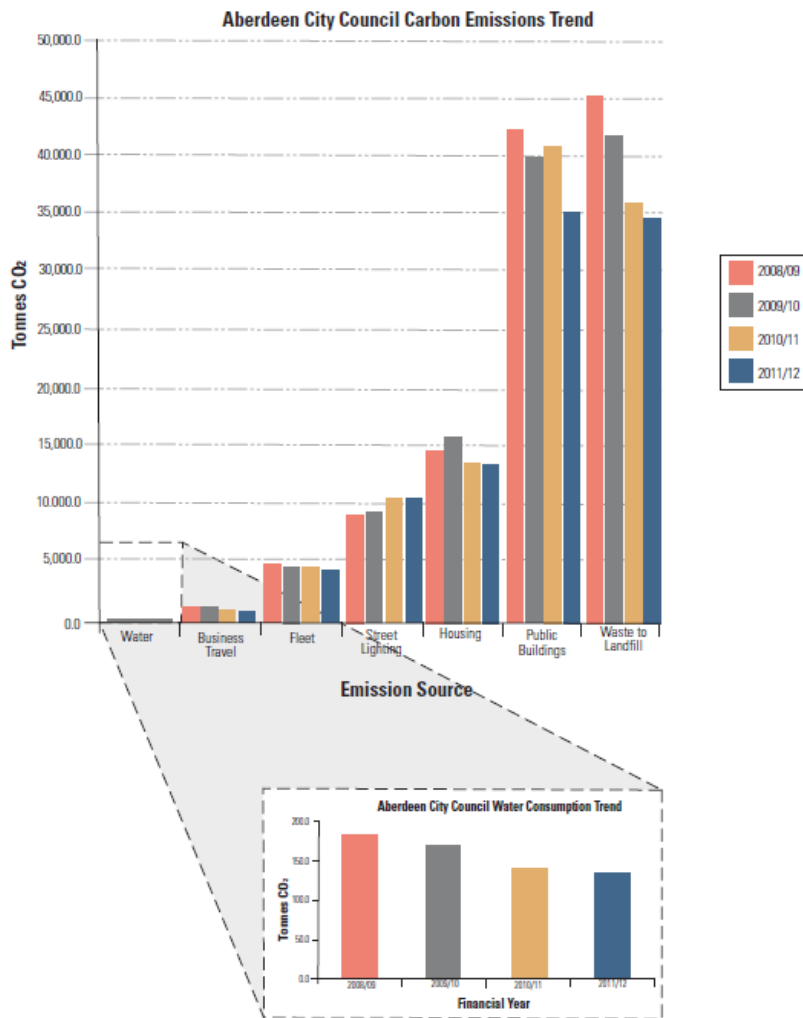
Emissions are monitored annually and data in Figure 2 shows overall carbon emissions for Aberdeen City Council of 100,134 tonnes CO₂ in 2011/12. This indicates a 15.5% reduction in carbon emissions since 2008/09, a total reduction of 17,001 tonnes and shows the Council is still on track to achieving a 23% reduction in emissions by 2015.

Figure 2: Aberdeen City Council Carbon Footprint 2011/2012

Emission Source	CO ₂ Emissions (tonnes) 2011/12	CO ₂ Reduction since baseline year (2008/09) (tonnes)
Business Travel	839	140
Fleet	4332	411
Housing	13,793	856
Public Buildings	35,283	6,957
Street Lighting	10,666	increase of 1,386
Waste	35,086	10,121
Water	131	48
Total	100,134	17,001

Data shows that emissions from business travel, fleet, water and waste have reduced in 2011/12. The increase in emissions from street lighting can be attributed to an improvement in the way that data is calculated.

Figure 3: Aberdeen City Council Carbon Emissions Trend



Carbon Management Plan Actions to Achieve the Targets

A Carbon Management Plan Progress Review for 2011/12 has been published, this highlighted progress in meeting carbon targets. Actions and activity to achieve this, included:

Business Travel

- Bike and bus salary sacrifice schemes were introduced, with 40 staff enlisted for the bike to work scheme and 161 staff using the bus scheme.
- Ongoing provision of bus fare cards to encourage public transport travel to meetings and business activity.
- Bike maintenance training at Council main office building Marischal College took place in March 2012
- An increase in the number of cycle lockers in council premises, to encourage cycling to work.
- Relaunch of the Council's car share scheme with around 75 members now

registered on the liftshare database.

- A decrease in the number of Council essential car users from 423 in 2009/10 to 328 in 2011/12.
- Installation of 10 electric vehicle charging points in car parks at Council sites.

Fleet

- Implementation of a mobile working system, for the Council Building Services Team, has reduced travel and increased performance by around 30%.
- A grey fleet review was carried out in 2012 which recommended actions to tackle the Council's grey fleet.
- Data gathering in 2011/12 will feed into a new routing software system to increase the efficiency of the waste collection service.

Public Buildings

- The Council's Energy Management Team work to reduce the Council's energy consumption, meet UK and Scottish legislative and statutory requirements and support work to deliver the Council's Climate Change obligations. Work carried out by this team has included:
 - A programme of installation of photo voltaic panels on 82 public buildings across the city, to bring cheaper, cleaner energy. These buildings represent a cross-section of uses by the council, i.e. offices, schools, arts leisure and recreation centres, warehouse facilities, depots, sheltered housing and group homes. The completed project should see about 3MW capacity of PV installed. At the end of September, there had been 48 installations, with installed capacity of 1.3 MW.
 - A biomass boiler installed at Duthie Park Winter Gardens is now operational.
 - Replacement of an inefficient oil heating system with renewables at Aberdeen Grammar School.
 - A survey of loft, tank, pipe and cavity wall insulation was completed and a recommended programme of works produced for each building surveyed. 12 schools; 6 libraries/ community centres; 6 sports facilities; 4 shelters and 2 offices had insulation work carried out in this period.
 - Energy Performance Certificates for council buildings are publicly displayed in buildings and published on the council website.
 - Halogen lamps in school canteen servery displays were replaced with low energy bulbs.

ICT

- Computer power management for schools was investigated in August 2012 and work has taken place to try to ensure PC powerdown is implemented, as standard, in any new schools.

- A corporate move to Virtual Desktop Environment has commenced and this will be rolled out during 2013. The move will see applications stored remotely reducing the carbon foot print from Council ICT.

Street Lighting

- Several street lighting schemes were completed during 2011/12, replacing lanterns with lower watt versions. This included the replacement of 300 x 125w lanterns to 55w and 82 x 250w bulbs to 150w.
- 8 traffic light sites were refurbished during 2011/12, replacing old halogen lamps with LED lamps.

Waste

- Recycling facilities for paper and card, plastic, cans and glass were introduced in the new council headquarter building, Marischal College.
- Planning commenced for the expansion of corporate recycling facilities to meet the requirements of the Waste (Scotland) Regulations 2012.

Section 2 Priorities for the year ahead

- To continue progress with the programme of actions outlined in the Council's Carbon Management Plan (2010 – 2015), to reduce CO₂ emissions from waste, fleet, business travel, water and public buildings and housing. Carry out a review on how targets are being met in 2013.
- Completion of the programme of photo voltaic panels installation on public buildings across the city.
- Installation of a wood fuel boiler for Duthie Park Depot and an air source heat pump at Ashley Gardens Nursery.
- Funding has been received for a trial of new insulation in a granite building to see how this works on a hard to heat property.
- A Council Internal Waste Minimisation Policy for internal waste is due for completion early 2013.
- A stationery reuse station is to be launched as a pilot scheme in a council office in March 2013.
- The roll out of Virtual Desktop Environment on corporate ICT is to continue in 2013.
- Funding has been received for an LED street lighting trial in an area of the city centre.

Section 3

Taking action to reduce the emissions from the local authority area

Local Authority Area-Wide Emissions

There are two commonly used methods of looking at area-wide emissions.

- The first, **Production-based emissions** - looks at the emissions from industry, transport and domestic energy use.
- The second, **consumption-based emissions**, is calculated on travel and the goods and services we use.

Production Based CO₂ Emissions

The Department of Energy and Climate Change (DECC) has released data for CO₂ emissions for each local authority area in the UK up to 2010. This data examines the following broad source categories:

- Industry, commercial and public sector
- Domestic
- Road transport

Emissions within the scope of local authority influence in Aberdeen are examined in Figure 4. Data indicates per capita production emissions for CO₂ in Aberdeen in 2010 were comparable with Scottish per capita totals, showing emissions of 7.2 tonnes of CO₂ per person. The table highlights a reduction in total emissions in Aberdeen since 2005. However, the data does show a slight increase in emissions from industry and commercial and domestic sectors between 2009 and 2010.

Figure 4: CO₂ emission estimates (within the scope of local authority influence), for industry, domestic and transport sectors in Aberdeen 2005 - 2010

CO ₂ emissions in the scope of Local Authority influence - Aberdeen					
Year	Industry and commercial (kt CO ₂)	Domestic (Kt CO ₂)	Transport (Kt CO ₂)	Total (Kt CO ₂)	Per capita emissions (t)
2005	845.5	595.0	322.5	1,762.9	8.6
2006	778.5	593.7	334.0	1,706.3	8.2
2007	761.3	581.0	327.9	1,670.2	8.0
2008	771.1	582.2	317.8	1,671.1	7.9
2009	682.8	519.9	298.8	1,501.4	7.0
2010	719.6	552.4	298.9	1,570.9	7.2

Source: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/69808/Emissions_within_the_scope_of_influence_of_Local_Authorities_for_2005-10.xls

Local and regional CO₂ emission estimates for 2005 – 2010 in Aberdeen are examined in Figure 5. The data indicates an overall 161.86 reduction in emissions (Kt CO₂) since 2005, although totals do show a slight increase from 2009 data, reversing the downwards trend in emissions from 2005 – 2008. Emissions from the commercial and industrial sector and the domestic sector have shown a slight increase, although figures are still considerably lower than 2005 – 2009 data, which showed a steady downward trend.

In Aberdeen, the highest emission sector is industry and commerce. This is broken down into electricity, gas, large industrial installations, other fuels, agricultural combustion and railways. In this sector 55% of emissions are from electricity.

The domestic sector is broken down into electricity, gas and other fuels. In this sector gas contributes to around 54% of emissions and electricity 44%.

Emissions from transport in Aberdeen is split into three main areas: main roads, minor roads and other. Minor roads produce the highest emissions in this sector at 54% closely followed by main roads. Emissions from minor roads continued a downward trend in 2010 a marginal increase on 2009 data emissions was seen in main roads although this figure is still below data for 2008. Net emissions from land use and forestry has continued a downward trend.

All emissions included in the DECC data are covered, with the exception of aviation, shipping and military transport, which are hard to allocate to local areas.

Figure 5: Local and regional CO₂ emissions estimates in Aberdeen 2005 - 2010

Local and regional CO ₂ emissions estimates - Aberdeen						
Year	Industry & Commercial (kt CO ₂)	Domestic (kt CO ₂)	Road Transport (kt CO ₂)	LULUCF* (kt CO ₂)	Total	Per capita emissions (t)
2005	880.37	594.98	322.47	24.39	1,822.21	8.8
2006	871.91	593.72	334.00	23.38	1,823.02	8.8
2007	841.39	580.98	327.85	22.49	1772.72	8.5
2008	840.24	582.17	317.79	21.18	1,761.38	8.4
2009	745.63	519.86	298.78	19.67	1,583.95	7.4
2010	791.33	552.38	298.88	17.76	1,660.35	7.6

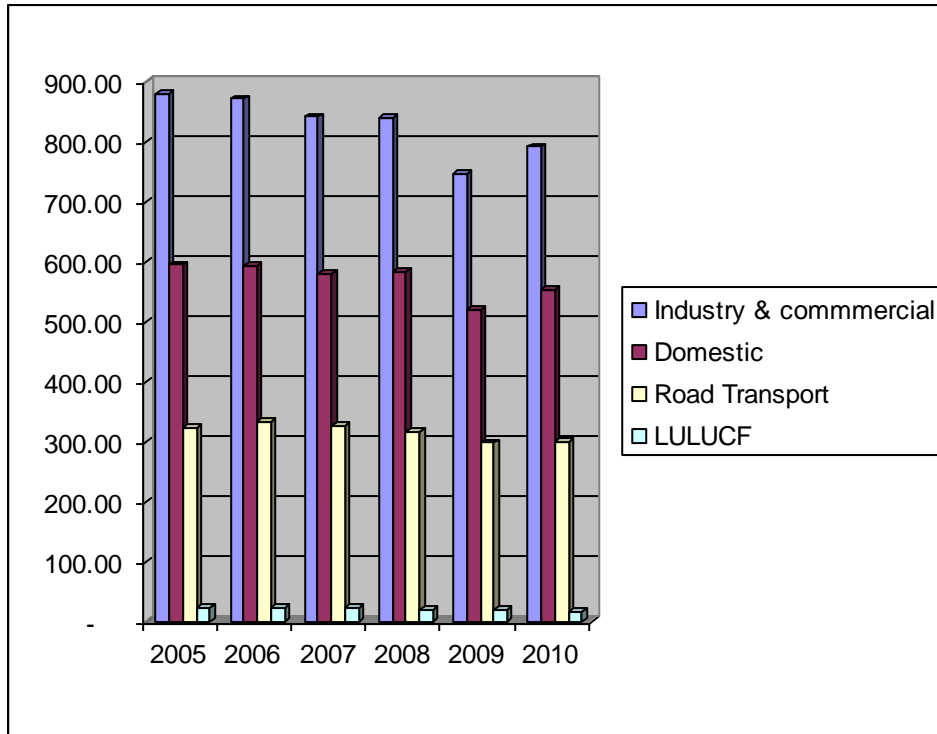
*LULUCF - Land use, land use change & forestry

Source:

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/69807/Local_and_regional_CO2_emissions_estimates_for_2005-2010_Full_dataset.xls

Figure 6 shows a break down of local and regional emissions by sector:

Figure 6: Break down of local and regional CO₂ emissions in Aberdeen by sector 2005 - 2010



Consumption Based Emissions

Consumption based emissions are available from the Stockholm Environmental Institute – REAP data. This data is calculated on goods and services used and is not allocated to the place where the impacts (e.g. factory emissions) are produced.

Figure 7 below shows the ecological footprint, carbon footprint and greenhouse gas (GHG) footprint for Scotland as a comparison with the consumption based emissions for Aberdeen set out in Figure 8.

Figure 7: Consumption based total per capita emissions - Scotland

Scotland	Ecological Footprint (gha/ per capita)	Carbon Footprint (tonnes CO ₂ / per capita)	GHG Footprint (tonnes CO ₂ eq/ capita)
	5.34	12.16	16.46

Figure 8 : Consumption based total per capita and area-wide emissions - Aberdeen

Aberdeen	Ecological Footprint gha/capita	Carbon Footprint tonnes CO ₂ /capita	GHG Footprint tonnes CO ₂ eq/capita	Total Ecological Footprint (gha)	Total Carbon Footprint Tonnes CO ₂	Total GHG Footprint Tonnes CO ₂ eq
TOTAL	5.64	12.81	17.35	1,104,475	2,509,742	3,398,444
Housing	1.40	3.98	4.43	274,699	778,746	867,856
Transport	0.99	3.27	3.78	193,699	639,955	740,127
Food	1.47	1.31	3.21	288,245	256,095	627,927
Consumer Items	0.75	1.48	2.16	146,096	290,478	422,407
Private Services	0.31	0.78	1.13	59,752	153,088	220,929
Public Services	0.59	1.58	2.13	116,183	308,913	417,763
Capital Investment	0.12	0.36	0.46	24,349	69,560	90,361
Other	0.01	0.07	0.06	1,453	12,908	11,075

Figures 9 – 11 show the percentage breakdown by sector of the ecological footprint, carbon footprint and greenhouse gas footprint (GHG) for Aberdeen.

Figure 9

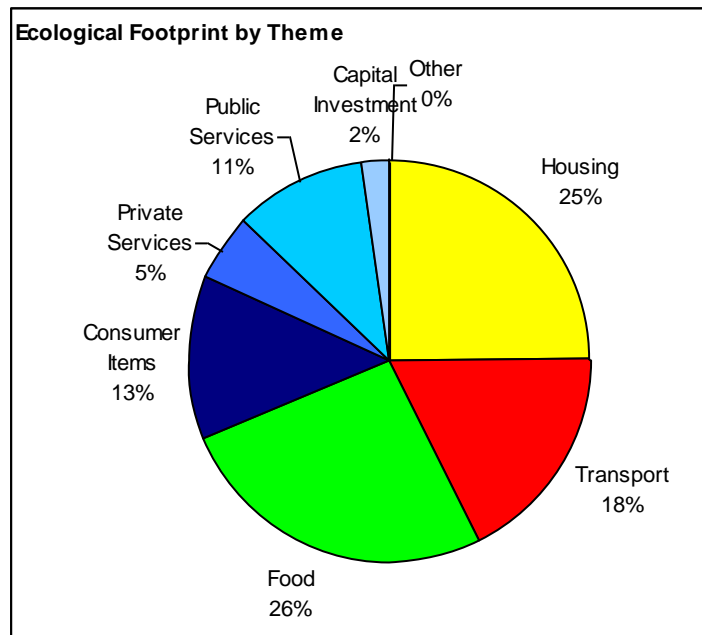


Figure 10

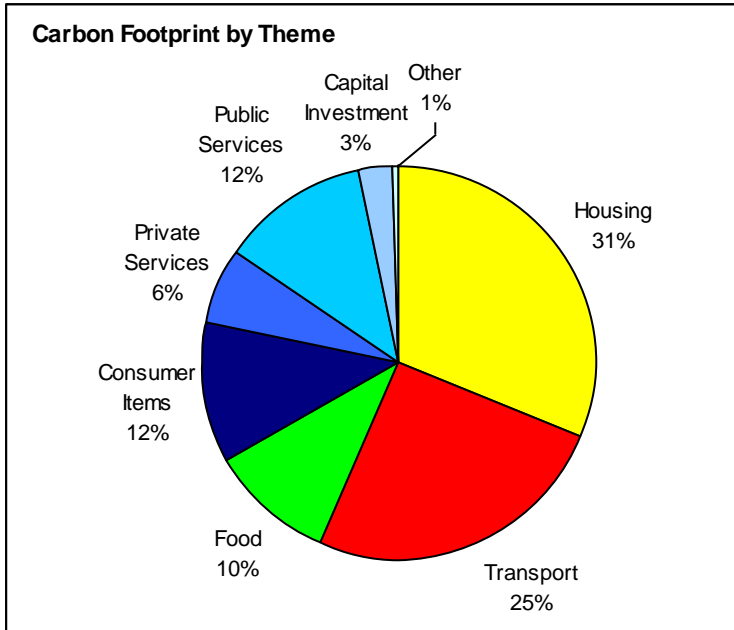
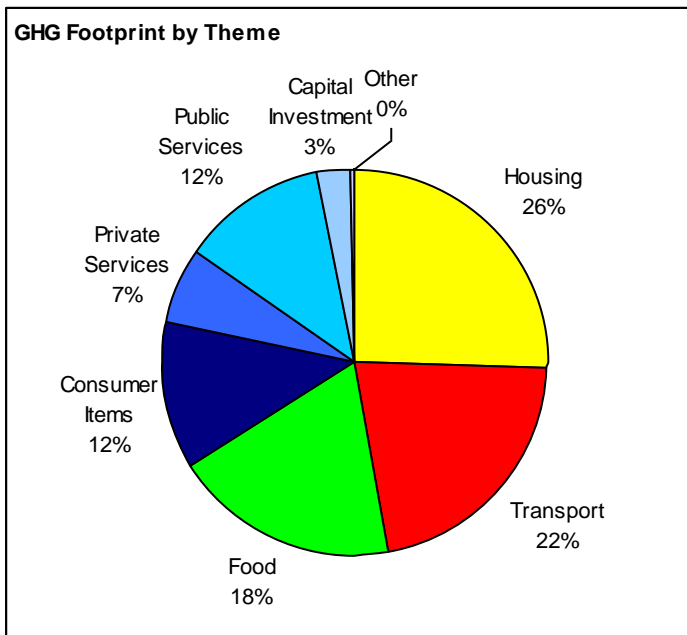


Figure 11



Source: <http://www.resource-accounting.org.uk/downloads/scotland/aberdeen-city.xls>

Actions to reduce emissions

Energy & Housing

- GIS mapping of renewable installations in Aberdeen is under development. The first phase is mapping existing renewables in the city and a further stage of mapping

renewable potentials is being investigated. A city wide heat mapping exercise was carried out in 2011 to map the heat demand & supply of strategic users. Work continues to update and develop this GIS tool in line with the Scottish Government methodology.

- The [Combined Heat and Power \(CHP\) network](#) was extended to 4 more 18 floor multi – storey buildings in Aberdeen and pipe work installed to expand the CHP network to the city centre. A feasibility study is in progress for the extension of the Combined Heat and Power network in Stockethill as well as other areas of the City.
- The Aberdeen Home Insulation Scheme offered free loft, cavity and underfloor insulation to all householders in the city area.
- Insulated cladding and new windows were installed in 3 multi storey premises.
- [Aberdeen Affordable Warmth](#) - helps source and apply for funding toward energy efficiency projects for householders in fuel poverty and manages the Affordable Warmth Loan Scheme, which offers free or low cost loans for energy efficiency works.
- [Aberdeen Victorian Tenement Project](#) - focuses on improving the energy efficiency of flats in Victorian tenements. There are around 13,000 flats in Victorian tenements within the City.
- [Aberdeen City Impartial Energy Advice Service](#) - provides free and impartial energy efficiency advice to all householders in Aberdeen. This service is provided in partnership with local organisation Save Cash and Reduce Fuel (SCARF).

Transport

- Industry and public sector organisations are working together to deliver an integrated [renewable hydrogen project](#) in Aberdeen. The project will both allow the development of renewable energy and the fuelling of Europe's largest fleet of hydrogen fuel cell buses, in Aberdeen. The first phase of the project aims for the hydrogen infrastructure to be established in Aberdeen by 2014, including:
 - Hydrogen production from a 1MW electrolyser powered by a wind turbine;
 - Means of transporting the hydrogen to the refuelling station;
 - A hydrogen refuelling station; and
 - A fleet of 10 hydrogen buses, to be operated by FirstGroup and Stagecoach.The project will provide its partners with invaluable experience of using hydrogen as an energy storage medium, addressing a number of inter-related policy objectives.
- The [Co- Wheels Car Club](#) was launched in Aberdeen in April 2012. This is a pay by the hour car club with vehicles parked at convenient locations around the city. Membership helps to cut congestion and encourages people to think about their car journeys. 10 of the 11 vehicles have CO₂ emissions of less than 100g per km. Over 300 drivers signed up to the scheme in the first 6 months of operation.
- Bus operator Stagecoach launched 10 electric hybrid buses on a cross city route. The low emission vehicles have a smaller engine than conventional buses, use

regenerative braking and consume 30% less fuel on average.

- Aberdeen City Council participated in European Mobility Week in September 2012. Including an “In Town Without my Car Day” event which closed part of the Beach Esplanade for a day to hold activities promoting sustainable travel and improved air quality.
- The Greenbrae Cycle Project is a programme of improvements which are underway to create a cycle friendly community in the city. The initiative includes new pedestrian and cycle paths through school grounds, bike maintenance classes, route signage and publication of area cycle maps.
- Aberdeen participated in Bike Week 2012 with a series of events to celebrate cycling. The Getabout Bike Roadshow visited two primary schools and a business park during the week to generate enthusiasm for cycling.
- A Sustainable Urban Mobility Plan is being developed for Aberdeen city centre. Work contributing to the plan has included; pedestrian footfall surveys, on street interviews, online survey and stakeholder workshops.
- Work is underway implementing the first phase of the Aberdeen to Blackburn cycle route.
- The results of the 2012 Hands Up Survey, conducted annually to look at the travel habits of school pupils throughout Scotland, reveal that the number of pupils cycling to primary schools in the city is at its highest level since the survey began in 2005.

Section 3 - Priorities for the year ahead

- A [food waste collection service](#) will be rolled out to city flats in 2013. This will ensure a further 58,000 premises receive food waste collections and will add to the 54,000 households in the city already receiving food waste collections. It is the intention of the Council to roll out to approximately 40% of flatted properties by March 2014, a further 40% by March 2015 and for all 58,000 households included in this project to have access to the service by end 2015.
A communication plan will be delivered alongside the introduction of the new service. This will comprise of introductory letters sent to all households, distribution of information leaflets, posters, social media, as well as food waste campaigns, road shows and unmanned stands.
- In 2013 the Council's [Waste Aware Team](#) will help to run a pilot communication project for tenements, in partnership with Zero Waste Scotland. The pilot project will focus on in the region of 800 tenement properties in an area of the city and aims to improve participation rates using a targeted communications campaign.
- Work is set to commence in 2013 on an update of the Local Transport Strategy 2008 – 2012 with an anticipated publication date of 2014.
- In 2001, thermal data collection was gathered from a flyover of Aberdeen at night. The resultant thermal image identified the least thermally efficient areas, or house types in the city allowing energy efficiency initiatives to be targeted to those areas. This process is to be repeated by the end of February 2013 to give up to date and

comparable data. The thermal image gives the indicative mean heat loss from each building in the city on a colour range from dark red (high heat loss) to dark blue (minimal heat loss).

- Gas district heating, external wall insulated cladding, and new windows are set to be installed in 3 multi – storey buildings in Balnagask in the south of Aberdeen. External wall insulation and new windows will also be installed in 15 tenements in the Torry area of Aberdeen, covering 90 flats.
- Combined Heat and Power network is to be extended in Stockethill and district heating will be extended to 48 flats at Fountain Grange. This complex of flats is currently off the gas network.
- Council tenants are to be offered free insulation to bring building up to current standards in the Torry area of Aberdeen. This will cover loft, cavity, and underfloor insulation. Opportunities will be examined to develop this into area-wide scheme where other housing sectors can be offered free or discounted insulation in this area.
- Continue a programme of city energy efficiency initiatives and work with local partner organisations to reduce carbon emissions in Aberdeen.
- Electric vehicle charging points are to be installed in publicly accessible places as part of the UK wide initiative, “Plugged in Places”
- Almost 900 solar panels are to be installed on council-owned buildings across Aberdeen.

Section 4

Assessing the risks of climate change impacts and working with others to adapt to the impacts of climate change.

Adapting to climate change

- The [Aberdeen Local Development Plan 2012](#) sets out the planning policies to be applied in promoting the growth of a sustainable city. The document includes specific supplementary guidance which takes into account climatic changes, supporting mitigation and adaptation include and national guidance on flooding. Approved supplementary guidance includes:
 - Drainage Impacts Assessment - produced on behalf of the North East Scotland Flooding Advisory Group and intended to assist developers and agents, development control officers and others involved in approving waste and surface water drainage facilities for new developments.
 - Buffer strips adjacent to water bodies – recognising the value of these areas to reduce run off into water bodies and subsequently reduce the potential for flooding.
 - Low and Zero Carbon Buildings - sets a requirement for all new buildings to incorporate low and zero carbon generating technologies to reduce the predicted

carbon dioxide emissions by at least 15%.

- Trees and woodlands – recognises the impacts of trees in mitigating the effects of climate change. This document advises developers on how existing trees and woodlands and new tree planting can best be incorporated within new developments.
- Waste management – sets out the space required in developments for bins and collections for recyclates as well as residual waste.
- Transport and accessibility – considers sustainable transport requirements within new developments
- Open space – sets out the importance of open spaces including for mitigating and adapting to climate change
- Energetica - a plan to create a 30 mile renewable energy corridor across the north Aberdeen City and Aberdeenshire. The plan supports sustainable communities and buildings in the corridor will be expected to demonstrate that energy performance has been carefully considered in the design process.
- [Sustainable Building Standards for Council Buildings](#), put in place in 2006, ensure that new council developments are appropriately adapted to the potential future impacts of climate change and minimise the impact of flooding, heat gain and reduced water resources.
- Aberdeen City Council's Tree for Every Citizen scheme has reached the target of planting 210,000 trees across the city between 2007 and 2012. Almost 100 hectares of new mixed woodland has been created between nine main sites with smaller scale tree planting at other sites contributed to the overall total. The project was delivered at no net cost to the council, with all the funding for the tree planting covered by grants and business contributions.
 - One of the sites at Tullos Hill is also a pilot site for the UK Forestry Commission [Woodland Carbon Code](#) project. This project aims to develop a fully accountable carbon sequestration model to accurately model the amount of carbon that woodland can sequester through its lifetime.
 - The project was recognised at the COSLA Excellence Awards 2012 with a Bronze Award.
- The Aberdeen Open Space Strategy 2011 – 2016, includes an objective to "Maximise opportunities to mitigate and adapt to climate change and further biodiversity " and has a specific actions to deal with the climate change.
 - Hazlehead Climate Change Park is one the projects currently going on which will meet the strategy's objective. The [Climate Change Park](#) is a pilot project between Aberdeen City Council and Greenspace Scotland. The park scheme aims to explore opportunities available to adjust the design and management of Hazlehead Park to maximise climate change benefits. In 2012, the Council engaged with park users and wider communities to gain their input in the development of the park.

- Developing and promoting the Green Space Network is another major action in the Strategy linked to climate change. The Aberdeen Green Space Network provides opportunities for the developers and the Council to tackle climate change issues within a city by creating a network of places linking various habitats and species across the city reducing human impacts on the environment and protecting citizens from the potential effects of climate change.
- The [Dee Catchment Management Plan](#) has various actions that deals with the climate change issues through a range of project works. The Dee Catchment Partnership promotes, supports and undertakes fully integrated management and planning in the River Dee catchment and the plan includes actions to reduce risks and severity of flooding.
- The main objective of the River Basin Management Plan (RBMP) is to achieve good ecological status of all the waters bodies by 2015. The Council is one of the partners and a main action taken forward in the RBMP is to deal with the morphological alterations of the Den Burn to ensure that culverting and unnecessary engineering activities in the water environment are avoided.
- Actions that have been completed from the Council's Nature Conservation Strategy Implementation Plan include:
 - A set of actions for the Urban and Communities Biodiversity Plan have now been written. Projects to implement the plan include: the production of a Top Ten Tips leaflet for encouraging wildlife into people's gardens; wildflower meadow at the James Hutton Institute; and environmental improvements at the East Tullos Burn. The leaflet makes suggestions such as planting insect loving plants, growing your own fruit and vegetables and making your own compost. All of which helps to tackle climate change.
 - A scoping study to provide the best design for making environmental improvements to the [East Tullos Burn](#), in the south of the city, has just been completed. The aim of the project will be to change the burn which is currently a hard linear deepened structure, with water quality issues and bankside vegetation that has little biodiversity. The burn will be changed to a more natural meandering feature with an upstream pond, mid-reach wetlands and lots of planting. This change will help to improve the water quality before it reaches the sea and increase biodiversity.

Section 4 Priorities for the year ahead

- Preparation of Flood Risk Management Plans to tackle the issues of climate change particularly addressing the issues of flooding and adaptation to climate change. Aberdeen City council is one of the partners involved in preparing the Local Flood Risk Management Plan and the Flood Risk Management Strategy.
- Continued development of the Hazlehead Climate Change Park project.
- Preparing the main issues report for the next Aberdeen Local Development Plan.

- Development of the East Tullos Burn project.

Section 5

Developing effective partnership working and climate change communications, including producing an annual statement of plans, activities and achievements.

Local Authority Partnership Working on Climate Change

North East Scotland Climate Change Partnership

Aberdeen City Council is a member of the [North East Scotland Climate Change Partnership \(NESCCP\)](#). The NESCCP was formed in 2008 and brings together local public and private sector partners who are working to reduce the impact of climate change and propose options for adapt to climate change in the north east of Scotland. The network of organisations allows knowledge of best practice to be shared by partners. An officer and an elected member from the city council attend the quarterly partnership meetings. A Communication Plan for the NESCCP was developed in 2012 and worked commenced on the development of a Business Strategy for the partnership. A presentation on the Aberdeen Hydrogen Project was made at the NESCCP annual general meeting in 2012.

AREG (Aberdeen Renewable Energy Group)

[AREG \(Aberdeen Renewable Energy Group\)](#) aims to ensure that Aberdeen City and Shire and its businesses play a major role in the energy revolution. AREG are currently championing the proposed Aberdeen Offshore Wind Deployment Centre to help the industry capitalise on existing offshore engineering expertise in the City to address the major challenges of implementing large scale offshore wind power developments. The group also plays an important role in the positioning the region as a centre of renewables excellence.

Energetica

[Energetica](#) is a public-private project, designed to position Aberdeen City and Shire as a global energy hub. It aims to create a concentration of energy technology companies, housing and leisure facilities along a 30-mile corridor from Aberdeen to Peterhead. Transport and connectivity will be key to the success of this corridor.

Hydrogen Project

A wide range of organisations are working together to deliver the [hydrogen infrastructure project](#) in Aberdeen including: SSE; BOC; Van Hool; FirstGroup; Stagecoach; Scotland Gas Networks (SGN); and Element Energy. The public sector partners include: the Scottish Government; Scottish Enterprise; the UK's Technology Strategy Board; Aberdeen City Council; and the Aberdeen Renewable Energy Group (AREG).

Funding was gained from European Union projects; the Scottish Government; Scottish

Enterprise; the UK Technology Strategy Board (TSB); SSE Low Carbon Networks Fund; SGN Innovation funds; Aberdeen City Council; and bus companies.

In addition the HyTrEc project brings together European partners to develop strategy and initiatives, at regional and transnational level that will inform and shape the development of infrastructure, technology, skills and financial instruments that support the application of hydrogen based technologies.

European Partnership Working

Aberdeen is a partner in several European projects which benefit from the shared knowledge and experience of European partners, bring funding to the city and help to deliver far reaching change.

This exchange of information with project partners has benefited project development in our own city with measures that will assist with mitigating and adapting to climate change. These projects are shown in Figure 12 –

Figure 12

Build with CaRe (Carbon Reduction)	This project, which was working to mainstream energy efficient building design and construction was completed in 2012. www.buildwithcare.eu
Care North	This project examined the potential effects of a range of sustainable transport options for the city and the impact these would have on CO ₂ emissions, is the final phase. Work including the Co-Wheels Car Club and Low Emission Zone study were delivered through this project. www.care-north.eu
North Sea (SEP) - Sustainable Energy Planning	This project looking at renewable energy and integrated energy planning, is nearing completion. The project has worked to deliver: <ul style="list-style-type: none"> – A robust GIS heat mapping tool; – 2013 thermal flyover of Aberdeen; and – A study into the potential for wind energy in the City; – A biomass feasibility study and – City renewables mapping, set out in Section 3 of this report. www.northseasep.eu
LOWCAP (Low Carbon Regions in the North Sea)	Aberdeen City Council is leading the LOWCAP cluster project. This project pulls together the learning and key results from European projects including; Build with CaRe, North Sea SEP, Care North and Carbon Capture, Transport & Storage. It has an objective to create a North Sea Region Programme perspective on carbon reductions & energy efficiency. www.lowcap.eu
MUSIC (Mitigation in Urban Areas:	The Music project aims to reduce CO ₂ emissions by 50% in each of the project partner cities by 2030. In Aberdeen the project is: <ul style="list-style-type: none"> – Developing a sustainable city vision and actions for

Solutions for Urban Areas)	<p>Aberdeen through a transition management process which brings together key city stakeholders.</p> <ul style="list-style-type: none"> - Installing Photo Voltaic panels at a city primary school alongside interpretation panel to enhance pupils learning and understanding of renewable energy solutions. <p>www.themusicproject.eu</p>
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The Council is also involved in two projects which are helping to build a more resilient environment which can adapt to the changes climate change may bring. These are –

Sustainable Urban Fringes (SURF)	<p>Aberdeen is leading this project which produced it's findings in 2012 with:</p> <ul style="list-style-type: none"> • A report including European and regional and local policy recommendations that recognise the value of the urban fringe for sustainable urban development. • A toolkit for urban fringe management in Europe. <p>In Aberdeen, a framework for the River Don Corridor; covering access, landscape, and the environment in the area, was approved as supplementary guidance for the Aberdeen Local Development Plan. www.sustainablefringes.eu</p>
Periurban Parks	<p>The final conference for the Periurban Parks project brought together spatial planners, specialists in environmental and sustainable development, public officials and academics to share ideas on how to ensure sustainable and competitive development of our urban and periurban areas.</p> <p>www.periurbanparks.eu</p>

Awareness of Climate Change

Aberdeen City Council works to raise awareness of climate change through a range of communication tools.

Internal Communications

- The Council participated in the Carbon Trust, Carbon Awareness Programme with initiatives including:
 - Launch of a “Cut Your Carbon” campaign and Council Carbon Reduction Champions Network in January 2012. Over 20 Carbon Reduction Champions, including 2 Councillors, are now promoting green working practices in their workplace. The champions act as a first point of contact for colleagues questions and promote more efficient use of resources.
- Participation in national campaigns such as Climate Week and Green Office Week 2012, with video conference training, staff energy saving presentations, displays and information. Climate Week 2012 initiatives included:
 - encouraging staff to switch off computers and monitors at the end of each day.

- hosting information stands from local environmental organisations.
- holding drop in sessions to allow staff to learn about video conferencing.

External Communications

- Information on climate change is available on the [City Council website](#).
- Articles including energy efficiency and climate change are produced in [Our Green Times](#) - a 4 page environmental news supplement, distributed quarterly through a local free newspaper to all homes in Aberdeen.
- The Council's Home Energy officers, offer energy efficiency advice to householders of all tenure types in Aberdeen.
- The Council participated in [Earth Hour](#), in March 2012 when floodlights on Wallace Monument, St Mark's Church and the St Nicholas Kirkyard façade and the new Council headquarters Marischal College, were switched off for the weekend, surpassing the 1 hour requirement of this global initiative. Participation and promotion of the event earned the Council a Super Local Authority badge from campaign organisers WWF.
- Over 8,000 attended Aberdeen's annual [All-Energy](#) exhibition and conference in May 2012. The event promotes low carbon energy solutions and showcases renewable and sustainable technologies. Aberdeen City Council in partnership with Aberdeen Renewable Energy Group (AREG) and Aberdeenshire Council were represented on the 'Aberdeen City and Shire Pavilion' alongside a wide range of local businesses and organisations.
- Publication of the 2011/12 Council's [Carbon Management Plan Review](#).

Section 5 Priorities for the year ahead

- Develop a Council Sustainability Communication Plan. This will incorporate current communication measures examine target audiences and the best communication methods to reach them.
- Continued partnership working to develop a hydrogen infrastructure in Aberdeen and work to strategically examine the development of hydrogen initiatives in Europe.
- Preparations for Climate Change awareness initiatives including – Earth Hour, Climate Week and Green Office Week 2013.
- Ongoing development of the Council Carbon Reduction Champions Network and carbon awareness activities including introducing the Carbon Trust's EMPOWER online interactive learning module.
- Completion of European Partnership projects; Care North, North Sea SEP and SURF, as well as actions to meet the commitments of ongoing European projects.

Climate Change Progress Highlights of the Past Year

- Funding was realised and partnership working commenced on planning the first phase of the hydrogen bus project in Aberdeen.
- Completion of the Tree for Every Citizen project. Tullos Hill, one of the city woodland areas gained Diamond Woods status. This initiative aims to safeguard landscapes for future generations while leaving a lasting legacy for Her Majesty the Queen during her Diamond Jubilee year.
- Launch of the Council Cut Your Carbon campaign and Carbon Champions Network.
- Development of the Hazlehead Climate Change Park pilot project.
- Expansion of the city Combined Heat and Power Network, with pipe work extended into the city centre to allow a future connectivity of a larger number of buildings
- Scottish Government approval of the Aberdeen Local Development Plan 2012, the first of its type in Scotland taking into account reforms to the planning system.
Council committee approval of the Aberdeen Local Housing Strategy 2012 - 2017.
- Successful launch of the Co-Wheels Car Club in Aberdeen.
- A programme of installation of photovoltaic panels on roofs of public buildings.