# NORTH YORKSHIRE COUNTY COUNCIL

## Transport, Economy & Environmental Overview & Scrutiny Report

## 7th November 2012

## CLIMATE CHANGE UPDATE

**1.0 Purpose of Report**

**1.1**. The purpose of this report is to provide an update on the NYCC Climate Change Strategy and underpinning action plan, how the County Council is tackling climate change, provide the context in which these actions are being taken and focus particularly on the carbon reduction activities of the County Council. This will include the Carbon Reduction Commitment (CRC), the draft Carbon Management Plan, the energy efficiency property improvement programmes, Small Steps BIG Difference Campaign, transport issues and other proposed schemes. It will seek agreement on:

- The contents of the report and support the presentation of the report to the Executive meeting on 18th December
- The Heating & Cooling Policy
- The draft Carbon Management Plan reporting process

**2.0 Background**

**2.1**. A number of reports relating to carbon reduction and tackling climate change have been brought to Scrutiny committees over the last four years. This report will attempt to consolidate these and demonstrate the links between County Council activities by different directorates and the wider climate change agenda and One Council. The subject areas covered by the report and how they link together are represented graphically in Appendix A.

**3.0 Introduction**

**3.1.** Climate Change - Carbon dioxide is emitted from a number of different sources but this report will deal with the main emissions by the work of the County Council through the use of fuel for transport and the use of and/or generation of energy; i.e. the burning of fossil fuels such as gas, coal and oil for transport and to provide direct heat or to generate electricity releases carbon dioxide into the atmosphere.

**3.2.** This carbon originates in fossil fuel and therefore has not been part of the planet's carbon cycle for thousands of years. Its release is detrimental to the planet as increased concentrations of carbon and other gases with 'green house potential' such as methane trap heat in the atmosphere, warming the planet beyond historic norms. Carbon is measured in tonnes and for each fuel type there is a conversion factor that converts the use of that fuel into carbon emissions. Carbon has a global warming potential of 1, other gases are much higher so for clarity when these are being reported and a conversion factor is used their impact is represented as 'carbon equivalent'.

**3.3** The international community have been monitoring climate change; its progress and impact for many years. The **United Nations Intergovernmental Panel for Climate Change** (IPCC) in their 4th report (2007), stated with more than 90 percent certainty 'that human activity has very likely been the primary cause of rising temperatures worldwide since 1950'. Research since this report was produced is indicating that global temperatures are increasing above those predicted..

**3.4**. In the **UK the Climate Change Act of 2008** introduced three themes;

- National targets for carbon reduction (a target of at least an 80% cut in greenhouse gas emissions by 2050, to be achieved through action in the UK and abroad. Also a reduction in emissions of at least 34% by 2020. Both targets are against a 1990 baseline),
- a national programme of monitoring and reporting and (see 5.5 below)
- the Carbon Reduction Commitment Energy Efficiency Scheme (CRC).

**3.5**. The **Carbon Reduction Commitment Energy Efficiency Scheme (CRC)** is a programme run by central government to encourage energy efficiency amongst large energy consumers in all sectors of the economy; both private and public. The scheme relates to static carbon emissions only i.e. those from buildings it does not include emissions from transport. It relates to the emissions caused as a result of the County Council's activities to deliver its services not those of the residents in North Yorkshire.

**3.6.** Since its launch in 2008/9 it has changed greatly to simplify the scheme for participants. The scheme is aimed at large energy users so the County Council is a participant; it states that the emissions from schools, PFI schools and Academies in the North Yorkshire administrative area are considered to be those of the County Council. Financial penalties apply for both late and miss reporting of data or late purchasing of allowances.

**3.7**. The County Council has been required to report on emissions within specific reporting guidelines for the footprint year of 2010/2011 and at the same time for the first reporting year July 2011. In July this year the County Council reported on its emissions levels for 2011/2012 and purchased allowances for these emissions. The cost per tonne of carbon is set at £12 for purchases in 2012 and 2013 (the cost per tonne after this date has not yet been clarified) therefore the cost for 2011/2012 carbon emissions purchased in July 2012 was £583,104.

**3.8.** The County Council are fully compliant with the CRC scheme. Full details of the emissions data submitted under the scheme are provided in Appendix B. From this data it can be seem that there has been a reduction in reportable emissions by about 10%. On analysis this is thought to be attributable to the loss of buildings (responsible for approximately 3%) the remaining 7% being due to energy efficiency activities in the County Council and a warmer winter.

**3.9**. In addition to the requirements on reporting and purchasing allowances the County Council will appear in a national league table of participants based on a number of factors including absolute emissions. This will be released in October/November 2012. The league table has no financial risk only reputational risk associated with it.

**3.10**. As mentioned above the details of the CRC continue to be confirmed by the government in numerous sets of guidance. Currently:

- the scheme is set to continue in its current form for at least the next 2 years (12/13 and 13/14) to the end of the first phase;
- phase 2 (starting 14/15 will include some form of trading);
- schools, academies and PFI school emissions are still considered as those of NYCC but it has been stated by DfE that this cost can be delegated to schools. Therefore, the July 2012 payments for allowances will be paid centrally and from then onwards (13/14) they will be delegated (assuming the Schools Financial Regulations are agreed). The delegation of the costs to schools may result in a complex financial system of payments and repayments, and this is currently being worked on;
- the cost for each payment will be announced the April of that year in the Budget;

- the April 2012 Budget announced that there would be a review of the current CRC scheme and the reporting and payment regime. This follows complaints from all sectors relating to the associated bureaucracy, this is likely to be announced in the mid year Budget in December.

**3.11**. Tackling climate change is approached in two different ways; activities relating to adaptation and those relating to mitigation. Both sets of activities have an impact on the way the County Council delivers its services both in terms of business continuity i.e. emergency planning and also by reducing costs i.e. reducing carbon emissions by reducing energy use thus saving money on energy bills and Carbon Reduction Commitment payments. Adaptation and mitigation are explained briefly below and the report then provides more details of the actions the County Council is taking to address both areas of tackling climate change.

- **Adaptation** is the plans and actions taken to deal with the impact of climate change we are and will be experiencing. This climate change has and will be occurring as a result of carbon emissions from the industrial revolution onwards that are already built into the climate.
- **Mitigation** is the plans and actions we take to reduce the carbon emissions from our current and future activities to reduce the impacts of climate change on the next generations.

**4.0. Adaptation**

**4.1.** A number of actions are being undertaken throughout the County Council to adapt to the current and future impacts of climate change and outlined in Appendix C. Such areas of work are:

**4.2**. **The North Yorkshire County Council Local Flood Risk Management Strategy.** This is being developed and it is intended that the local strategy will cover all forms of flooding, including main rivers and coastal flood risk. It is anticipated that following a process of consultation this strategy will be finalised and adopted by autumn 2013.

**4.3. Infrastructures and Planning.** Mechanisms have been approved by the NYCC Management Board (Dec 2011) and are being put into place to ensure the more effective coordination of input across Directorates, and then engagement with the relevant District Council, in relation to the largest strategic development sites across the County.

**4.4**. The County Council have also been successful in getting transitional funding from DEFRA to work up a proposal to establish a **Local Nature Partnership (LNP)** for the Sub-region in accordance with recommendations in the Natural Environment White Paper. This will be developed with partners over the next few months.

**5.0 Mitigation**

**5.1.** To reduce the emissions of the County Council two main areas of activities need to be addressed these are:

**5.2. Transport emissions - background**. The carbon emissions released as a result of the use of vehicles both those owned/leased by the County Council (fleet) and staff personal cars which are used for work purposes for which staff receive mileage (grey fleet). Therefore costs are direct to the County Council through the purchase of fuel for use in depots and fuel cards as well as indirect through the payment of mileage claims. Some of these costs are administered by BES, others by the directorate concerned and the mileage via payroll. The fuels being used are predominantly petrol and diesel.

**5.3** In order to target activities to the areas with the highest potential financial and carbon savings the Carbon Management Plan has identified the types of energy uses where the highest carbon emissions and costs are located. These are provided in the table below.

| Type of energy uses | Carbon emissions as % of the total | Energy cost as % of total |
|---|---|---|
| Buildings | 75 | 52 |
| Street Lighting | 16 | 6 |
| Transport (fleet & mileage) | 8 | 41 |

It is clear from this that buildings have a high carbon (therefore CRC) and cost impact of energy used in buildings but rather surprisingly transport shows a low carbon but high cost impact therefore the potential financial savings from efficiencies in this are substantial.

**5.4** **Current activities** - In 2011 the Energy Saving Trust undertook a Green Fleet Review and the following actions have been taken forward:

- Ensuring vehicle specifications stipulate that all quotations obtained must be for the most fuel efficient and lowest CO2 variant of model.
- The implementation of a new vehicle tracker system 'Masternaut' which allows us to capture certain aspects of vehicle operating inefficiencies, such as idling times etc.
- A CO2/fuel savings evaluation (Appendix D) which was carried out in line with the replacement of both the Highways and Corporate Properties Management departments fleet vehicles. All vehicle procurements carried out, have a 'must be the lowest CO2/highest Miles Per Gallon (MPG) variant' stipulation within their specification. Unfortunately it is not always easy to establish the CO2's for our older commercial vehicles, making it hard to capture potential savings.

**5.5.** **Static emissions - background**. The carbon emissions released as a result of the energy used in County Council buildings. This is gas, electricity, oil and a little coal. It is these emissions that are subject to the Carbon Reduction Commitment costs (see paragraphs 3.5 to 3.10). The costs of the energy are a direct one on the County Council as it is purchased via a bulk fuel contracts by YPO and is either paid by the directorate occupying the building or centrally and recharged to building users. Schools are billed directly for their energy and they pay direct to the supplier. In addition to the electricity used in buildings is that used for street lighting which is currently not part of the CRC.

**5.6.** The County Council is required to report publically on its carbon emissions by the government. This is a scheme that replaces the National Indicator set. This report is produced every year in the Autumn and posted on the County Council website http://www.northyorks.gov.uk/CHttpHandler.ashx?id=14437&p=0 (see 3.4 above).

**5.7.** **Current activity** - The coordination of the CRC, energy data and energy efficiency activity for the County Council is undertaken by, the energy team which is in the Corporate Property Management. Whilst bills may be paid and buildings occupied by different directorates the energy team coordinate the energy supply contracts via YPO, check bills and work with suppliers to correct errors, undertake Display Energy Certificates where required provide 1.4 (FTE) Schools Carbon Reduction officers to provide curriculum and teacher support for schools on energy and water efficiency and use the information gained on site requirements from the DECs and SCROs to coordinate programmes to reduce County Council energy use and costs (see appendix E for details of the programmes currently provided).

**5.8.** Approximately 80% of the County Council's carbon emissions and energy costs are from schools. Therefore it has always been evident that specific work would need to be

undertaken in schools working in partnership with the school, the energy team and CYPS. Many of the programmes listed in Appendix E are predominantly or only in schools.

**5.9.** In addition to the above core work of the energy team there are two key areas of activity;

- The energy team has developed with; JUK, officers in CYPS and HAS a Sustainability in Design, Construction and Management of Property (SiDCaMP) policy. The aim of the policy is to improve the County Council's performance when a client for improvement works to buildings. It has three core objectives; to reduce running costs, reduce carbon emissions and ensure compliance. The policy was agreed by Executive in February 2010 and work continues on its roll out through pilots and training for JUK and County Council officers. The policy is also being fully integrated with the One Council single approach for property.
- An outcome of the Carbon Reduction Plan (see 5.11 below) and the work of the energy team has been to produce a heating and cooling policy thus providing a council policy on which to base the coordination and enforcement of the use of heating and cooling in all buildings. This policy has already been supported by the Assistant Directors Environmental Group, and if approved this will then be sent to all building supervisors (or identified officers in smaller buildings) highlighting the steps they need to take to ensure the aims of the policy are met. In addition it will be the focus of activity around the Small Steps BIG Difference campaign in the autumn/winter to raise staffs awareness of the new approach. The full policy can be found in Appendix F.

**5.10.** In July 2011, North Yorkshire County Council's Executive approved a Transport, Economy and Environment Overview and Scrutiny Report which recommended that up to 60% of the County Council's street lighting columns be switched off in the early hours of the morning whilst road use is at its minimum. It is intended that the proposed changes will make energy savings of approximately £400,000 per annum, at current energy rates, and contribute significantly to the Council's stated aim of reducing carbon emissions by 20% by 2016. This proposal forms part of a larger savings plan by North Yorkshire County Council as a result of the Government's austerity measures.

**5.11** There are in excess of 50,000 lighting columns within the control of the County Council and the switch off project is expected to take 4 years to complete. An update report was provided for the Transport, Environment and Economy Scrutiny and Overview Committee on the 5th September 2012 which showed the project is on target.

**5.12.** **Small Steps BIG Difference:** Since 2010 the County Council has been running a corporate Small Steps BIG Difference internal campaign aimed at raising staff awareness on the issues outlined above in order to encourage behavioural change.

**5.13.** This campaign consists of four themed areas of focus, water, transport, waste and travel. A number of energy savings and business mileage reduction campaigns have been run over number the past two years to tackle these areas in conjunction with national campaigns such as Climate Week. Such campaigns include wear a Woolly day, Earth Hour, targeted Red/Green cards, continuous promotion of the car sharing and cycle to work schemes whilst also supporting the usage of pool cars where appropriate and most cost effective.

**5.14 Mileage data:** In 2010 a target for a 10% reduction of business mileage was set as part of the Small Steps BIG Difference campaign. Following year on year reductions an overall 13% reduction has been achieved to date (see appendix G). However there is still a great need to continue raising staff's awareness within all directorates to help encourage behavioural change. It must also be noted that some consideration needs to be given to the mileage reductions seen may be also due to the restructuring of services over the past

18 months. *Since August 2010 a total of 2,639 posts and 2,809 people have been affected by restructuring. A reduction of 649 posts and 606 staff (9% of the non-schools headcount) has been achieved with 39% of staff being internally redeployed.*

**5.14.** The corporate 'branding' of 'Small Steps BIG Difference' campaign is now being used on literature produced for primary schools ensuring that the brand is recognised throughout North Yorkshire. The School's Carbon Reduction Officers run a number of initiatives within primary and secondary schools under the 'ECO Schools' initiative of which 65% of schools across North Yorkshire are now signed up to the principals of the ECO School. However it is to be noted that still remains difficult to engage fully with secondary schools, unlike primary schools, around the climate change agenda.

**5.15.** **Waste reduction** - The Waste Reduction Team has increased recycling and composting rates at our Household Waste Recycling Centres (HWRC). Almost 70% of materials taken to the HWRC are now recycled, reused or composted. A new HWRC is opening at West Harrogate which means that approx 40% of the population of Harrogate now have to drive less distance to use a HWRC to recycle or compost their materials.

**5.16.** May Gurney (our Household Waste Recycling Centre contractor) has been undertaking trials using balers to compact low density materials such as cardboard and plastic bottles so that onward transport from the HWRC to a reprocess or can be carried out more efficiently. This will have improved transport efficiencies by reducing the number of vehicle journeys to recycle these materials.

**5.17.** There is continuing working with the district and borough councils as part of the York and North Yorkshire Waste Partnership on a range of projects covering:

- Improved recycling and composting services to collect more materials from people's homes
- Increasing home composting and delivering a Love Food Hate Waste campaign across the County. Home composting reduces the need to collect garden waste from people's homes and creates a valuable product. Reducing food waste has proven carbon benefits – in the UK, we throw away 7.2 million tonnes of food and drink from our homes every year, costing us £12bn. If we stopped throwing this good food away it would save the equivalent of at least 17 million tonnes of carbon dioxide, the same as taking 1 in every 5 cars off our roads.
- NYCC has provided project management support to the waste partnership in an exercise to jointly procure refuse collection vehicles. This has led to vehicles with increased fuel efficiency being purchased as well as a cost saving across the partnership area.
- NYCC led a route optimisation project working with all of the district and borough councils to optimise fleet usage within each of the council areas. In many cases this led to a change in collection rounds resulting in reduced mileage and reduced fuel costs, and therefore lower carbon emissions.

**5.18.** The main challenge for the waste management service in reducing carbon is that the County Council does not control much of the work as it contracts out reuse, recycling, composting and disposal activities and so the key is to negotiate and influence carbon reduction rather than being able to directly control it.

**5.19.** A number of procurement exercises are underway or planned over the next year covering materials such as green waste, asbestos, inert waste and plasterboard, and it is anticipated that these will identify delivery points that result in reduced mileage for transportation of the wastes and therefore a reduced the carbon impact. There is also the

potential for 5 solar power stations and 1 wind farm on Council owned closed landfill sites. Investigations are in the early phases but this will provide a carbon offset.

**5.20.** **Carbon Management Plan -** The County Council identified the need to reduce its carbon emission in 2006 when it took part in the Carbon Trust's 'Local Authority Carbon Management' programme. This plan has been active since then and there has been some success in reducing carbon emissions in that period. However it was considered that the plan needed to be refreshed to ensure the County Council's approach towards energy and carbon management met the changing requirements of legislation and regulation. Therefore the plan has been refreshed.

**5.21.** This Carbon Management Plan defines the County Council's carbon management programme of activity for the next 5 years in the two main areas of emissions from transport and static emissions from buildings. It sets the strategic context and the 'case for action', current carbon emissions, a programme of proposed projects and actions to reduce emissions, estimates of how much this will cost and save, as well as the governance arrangements to keep the programme on track.

**5.22.** The plan includes the proposed County Council's low carbon vision and target which are:

- to secure the future of North Yorkshire through our commitment to tackle the problems of climate change and become a low emissions organisation.
- North Yorkshire County Council will reduce the carbon emissions from its operation by 20%, from a 2010/11 baseline of 70,800 tonnes $CO_2$, by the end of March 2016.

**5.23.** There are two main purposes of developing this plan. As well as developing a 5-year carbon management programme to reduce carbon emission, the plan also aims to develop a cost effective Carbon Reduction Commitment Energy Efficiency Scheme (CRC) Strategy (see paragraphs 3.6 to 3.8). Accurate forecasting of carbon emissions is essential to minimise costs. Having cross directorates communication and implementing the projects identified in this plan would assist the County Council in its effective participating in the CRC. There are a number of key actions in the plan which includes the extension of existing schemes and also new programmes.

**5.24.** The plan is currently in draft and final checks are being made on the baseline data. This will be ready for Management Board to consider in November and for Executive in December.

**6.0 Consultation on Sustainable Development Indicators 2012**

**6.1** A new set of Sustainable Development Indicators are proposed for consultation, which are intended to provide an overview of the UK's progress towards a more sustainable economy, society, and environment.

**6.2** The indicators are intended to provide an overview of national progress on key issues that are important economically, socially and environmentally in the long term. They are intended to complement the National Wellbeing Measures published by the Office for National Statistics.

**6.3** The changes to provide a smaller list of headline indicators for each area social, economic and environmental issue which is then backed up with a larger group of supplementary indicators and the opportuntiy to comment on these proposed changes to the sustainable development indicators was welcomed by NYCC.

**6.4** Those relating to climate change appear appropriate as do the rest however there is a question relating to the use of experimental data suggested in the headline indicators for natural resources. It's a good idea but not sure how the data will be collected and how

robust it will be. In addition there is no clear definition of some of the terms i.e. no detail on what is included in the carbon emissions figures or what is included in the renewables, nuclear generation as well? With regards to the indicators for Waste ones, they are proposing to decrease this from 2 to 1 indicator and there are no objection to this.

## 7.0 Next Steps

- Implementation of the Carbon Management Plan.
- Continue the small steps BIG difference campaign.

## 8.0 Recommendations

- Approve the report and for this to be presented to the Executive meeting on the 18th December.
- Agree that the Carbon Management Plan be agreed by Management Board for presentation to Executive for consideration.

## 9.0 Glossary

| | |
|---|---|
| CRC | Carbon Reduction Commitment |
| PFI | Private Finance Initiative |
| DfE | Department for Education |
| DEFRA | Department for Environment Food & Rural Affairs |
| LNP | Local Nature Partnership |
| YPO | Yorkshire Purchasing Organisation |
| FTE | Full Time Equivalent |
| NYCC | North Yorkshire County Council |
| BES | Business & Environmental Services |
| CYPS | Children & Young People's Services |
| HAS | Health & Adult Services |
| JUK | Jacobs UK |
| DEC | Display Energy Certificates |
| SCRO | Schools Carbon Reduction Officer |
| HWRC | Household Waste Recycling Centre |

**Neil Irving**
Assistant Director Policy & Partnerships
County Hall
NORTHALLERTON

Report compiled by: Lesley Dale, Corporate Development Officer
Tel: 01609 533487 E-mail: lesley.dale@northyorks.gov.uk
Kristina Peat Sustainability Manager
Tel : 01609 533979 E-mail : kristina.peat@northyorks.gov.uk

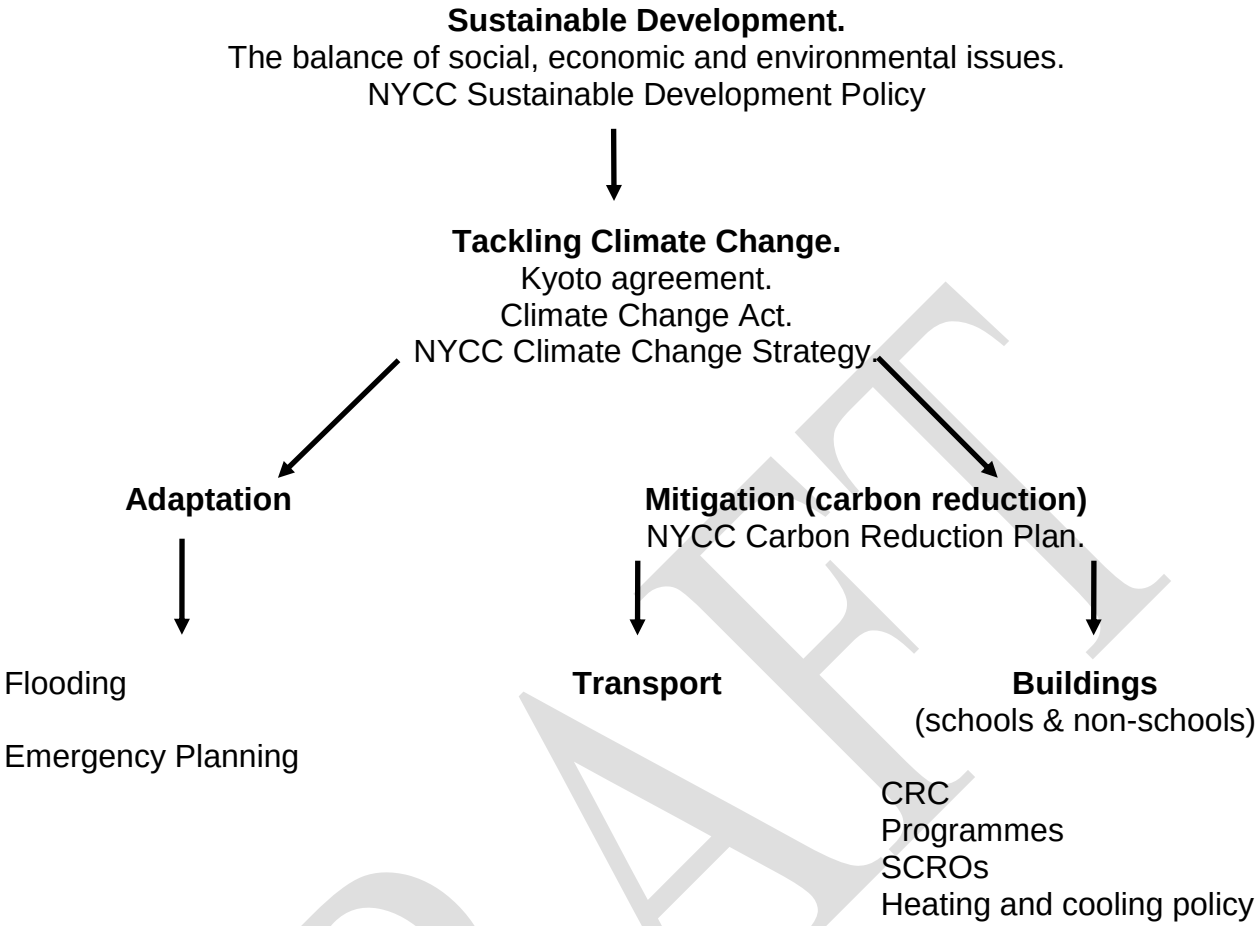
Date: Oct 2012
Report presented by: Neil Irving / Lesley Dale /Kristina Peat

Background documents: Carbon emissions report
http://www.northyorks.gov.uk/CHttpHandler.ashx?id=14437&p=0

**Appendices:**

| | |
|---|---|
| Appendix A | Report Links Graph |
| Appendix B | CRC Data |
| Appendix C | Action Plan Update |
| Appendix D | Highways CO2 costs – fuel comparison |
| Appendix E | CRC Update |
| Appendix F | Heating & Cooling Policy |
| Appendix G | Mileage 2009 – 2012 comparison |

**Appendix A – Report links**



## Appendix B – CRC data

| Reporting | Emissions year | Date reported | Emissions, tonne of CO2 | Cost per tonne | CRC allowance costs |
|---|---|---|---|---|---|
| Year 1 | 2010/2011 | 27/07/2011 | 48,504.00 | NA | |
| Year 2 | 2011/2012 | 24/07/2012 | 43,254.00 | £12 | £583,104 |
| Year 3 | 2012/2013 | | | £12 | |

| Appendix C Climate Change Action Plan 2012/13 | | | | | | |
|---|---|---|---|---|---|---|
| **Mitigation Theme** | **Objective** | **Action** | **Lead officer** | **Target 2012/13** | **Timeframe** | **Progress to date** |
| **Transport** | Traffic Growth - help to illustrate carbon reduction through reduced emissions | Monitor traffic growth and traffic levels | James Gilroy, Transport and Land BES | Indicator only.<br>Drop from 2009 to 2010 of 0.89%<br>Slight increase from 2010 to 2011 of 0.03%<br><br>Data is supplied by the Department for Transport (DfT) | Long term | Partial funding allocated by DfT for Harrogate and Knaresborough and Whitby and Esk Valley Local Sustainable Transport Fund bids. Sustainable transport measures for Harrogate include improved cycling infrastructure and pedestrian improvements.<br>In Whitby a new park and ride site and service will be delivered. |
| | Road Transport CO2 emissions | Help to encourage more sustainable modes and more sustainable use of transport, to reduce emissions | James Gilroy, Transport and Land, BES | Indicator only.<br>No targets have been set. Drop from 2008 to 2009 of 5.40%.<br>Increase in road transport CO2 emissions of 0.18% between 2009 and 2010.<br><br>Data is supplied by the Department for Energy and Climate Change. | Long Term | Analysis of traffic growth in 10 different urban and rural sites across county. Majority of sites (both rural and urban) experienced a small traffic growth between 2010 and 2011 reflecting overall trend in county. Based on these sites there appears to be no significant difference between traffic growth in urban and rural areas |
| | Encourage sustainable transport options and active travel | Produce Public Rights of Way Improvement Plan 2 (PROWIP2) with consideration given to climate change | Phillip Strand, Waste & Countryside Services. BES | ***Produce PROWIP2 (no target set in LTP, DFT monitoring this though)*** | Short Term / 2012 | Passenger Transport Team to pick data for both passenger/cyclist (Chris Jones)<br><br>Draft of revised PROWIP will be complete by the year end and consulted upon in |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | objectives. | | | | 2012/13 |
| **Waste** | Increase recycling rate to 45% by 2013 and 50% by 2020 | ***To determine specific actions*** | Kerry Green, Waste Management, BES | NI 191 – target 611kg (achieved 613kg)<br>NI 192 – target 43% (achieved 44.98%)<br>NI 193 – target 60% (achieved 55.06%) | Long term | NI 191 – predicted end of year figure = 604KG (ahead of target)<br>NI 192 – predicted end of year figure = 46.01% (ahead of target)<br><br>NI 193 – predicted end of year figure = 54.19% (ahead of target) |
| | Divert Waste away from Landfills | ***To determine specific actions*** | Kerry Green, Waste Management, BES | Divert 75% away from landfill by 2013. | | This target is dependent upon long term waste management infrastructure being in place. This is currently going through the planning and procurement process. |
| **Domestic Emissions** | Reduce carbon footprint of business practices in North Yorkshire | Work with LEPs on greener economy & carbon reduction of business practices | James Peter Farrar, AD BES | To be determined | Long term | Emailed James Peter Farrar for an update |
| | | School Carbon Reduction Officers – Pupil Behaviour change education | Bob Chicken, Energy Team, FCS | Ongoing | Medium term | A programme of energy efficiency and Eco Schools training for teachers, bursars and governors in place for Autumn term 2012. Focussing on promoting 'Switch off Fortnight' Nov 2012.<br>65 % of NYCC schools are now working on the eco schools programme of which energy is a compulsory topic. School demand continues to outstrip supply with officer bookings 4 to 6 weeks in advance. Training for school staff and governors has proved popular |
| **NYCC emissions** | An overall reduction in CO2 emissions of 20% | Collaborative Low Carbon School Service – Pilot within 3 area and | Bob chicken, Energy Team, FCS | 185 consistency Participate in the CLCSS and complete trial with | Short | Programme completed. Reported to Schools Forum Jan 2012. Incorporated ideas, feedback and resources into |

| | | | | | | |
|---|---|---|---|---|---|---|
| | by March 2016 based on 2010/11 emissions | potential roll out | | the 13 pilot schools by March 2012 | | Schools Carbon Reduction Officers ongoing work programme. |
| | | Participate in the Carbon Trust's carbon management programme | Bob Chicken, Energy Team | Carbon Management Plan develop by March 2012 | 5 years | Draft Carbon Management Plan due to be re drafted and distributed in next few weeks. |
| | | Continue to increase awareness through the promotion of 'small steps big difference' Campaign | Lesley Dale, CEG | Yearly survey | Short/ medium term | Survey undertaken in July 2011.<br>Wear a woollie Campaign in October.<br>Report to management board 2011<br>Campaign for Xmas Closure.<br>Climate week campaign March 2012<br><br>Future campaigns for November for wear a woollie to work and promote the heating/cooling policy<br>Campaign for Xmas Closure<br>Stronger links for the brand with schools via the energy team. |
| | Ensure all new build and refurbishment achieve low carbon standard | Develop and implement the Sustainability in Design, Construction and Management of Property (SidCaMP) | K Peat, Energy Team, FCS | Policy adopt by Dec 2011 | Long term | SPG to provide workshop training in new year |
| | Reduce emissions from NYCC fleet vehicles | Prepare feasibility study for electric vehicles on NYCC fleet and charge point infrastructure at NYCC sites. | Gary White, Integrated Passenger Transport (BES) | | | 'The Energy Savings Trust', on the 26th of October to carry out a 'Green Fleet Review'. To assist in carrying out a feasibility study on how best NYCC can reduce our emissions, increase our fuel usage and how we could implement electric vehicles in to the fleet.<br><br>GW attended a Fleet Forum yesterday at York City Council, and spoke to their |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | | | | | Fleet Manger on the subject of their recent 'Green Fleet Review'. The results/conclusions were positive and would assist as a useful guide for future vehicle replacement strategies.<br><br>Also as part of any new vehicle procurement, it is written in to the specification that the vehicle being quoted for MUST have the lowest emissions and highest M.P.G. figures for it's type, the figures are then used as part of an analysis tool to assess future savings etc.<br><br>GW is also involved with the 'Carbon Reduction Team' as fleet representative.<br><br>GW to speak with my Managers as soon as possible, and get back to you with all further information and review results.<br><br>Electric Vehicle Bids (Harrogate/Whitby) Consideration of 1 electric pool car for NYCC<br><br>Electric minibus shuffle |
| **Renewable energy** | Establish a toolkit to help facilitate renewable energy development as generally | Develop a renewable energy appraisal toolkit to help facilitate the development of appropriate RE | Carl Bunnage, Strategic Policy (BES) | Completion of appraisal tool kit | Short term | Complete.<br><br>Toolkit prepared and completed in partnership with NY districts, National Parks and the City Of York. Managed as a |

| | | | | | | |
|---|---|---|---|---|---|---|
| | supported by national policy in areas of landscape sensitivity but in locally acceptable ways. | developments in areas of landscape and biodiversity whilst still mitigating against unacceptable impacts. | | | | RIEP funded commission of AECOM. Launched with training provided to enable all local planning authorities to make use of the toolkit as a technical aid in the planning policy formulation, and development management process |
| | To develop a County Council policy framework on renewable energy to inform its own policies and actions, and also seek to influence those of others. | Establish a NYCC policy framework in relation to renewable energy - will articulate NYCC's position and provide a context for its own action but also influencing the policies and actions of partners | Carl Bunnage, Strategic Policy (BES) | Preparation of draft policy framework. | medium term | Report setting out the technical issues relating to the establishment of a minimum separation distance between commercial scale wind turbines and dwellings with recommendations for an NYCC policy position presented to both TEE O+S Committee and the NYCC Executive. Executive has requested that the Portfolio Holder (Transport and Planning) and the Corporate Director BES undertake further partnership working and submit a report with a revised recommendation in due course. |
| **Adaptation Theme** | **Objective** | **Action** | **Lead officer** | **Target 2012/13** | **Timeframe** | **Progress to date** |
| **Transport** | ***To Confirm objective*** | New maintenance contact for highways – ***further information required*** | James Gilroy, Transport and Land, (BES) | New targets for consideration as part of new maintenance contract. | 2012 | To chase this action up. New contractor in April 2012 |
| **Strategic Planning** | Reduce North Yorkshire's vulnerability to flooding | Strengthen planning guidance for climate change impact by preparing a strategic flood risk assessment (SFRA) for county | Phillip Strand. Waste and Country side Management<br><br>Mark Wilkinson, BES | Collate and prepare necessary background information for SFRA<br><br>NI 190 Flooding and Coastal erosion | 2012 | The first two volumes of the SFRA have now been drafted and are being reviewed internally |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | Prepare a flood management plan for the county as part of our duties under the flood water management Act 2010 | Mark Young & Phillip Strand Waste & Countryside Services. (BES) | Prepared scoping document for consultation | Medium Term (2013) | The North Yorkshire County Council Local Flood Risk Management Strategy is being developed with the following features, both in accordance with the requirements of the Act, and tailored to the specific flood risks faced by communities in North Yorkshire |
| **Planning & Infrastructure** | Seek to influence planning policy and achieve sustainable patterns of development across the county | Seek to influence the planning policies of partners across the county so as to seek to ensure that the scale and pattern of development is both sustainable and both strives to mitigate and adapt to climate change | Carl Bunnage, Regional & Strategic (BES) | Note: an influencing role. Not easy to measure except in number of consultations submitted. | On-going | ongoing |
| | Encourage land management practices that assist with Climate Change Adaptation | Carry out feasibility study on the potential of County Council owned land for the development of wood fuel and biodiversity benefits | BES/ Bob Chicken, Energy Team FCS Phillip Strand/ Waste & Countryside Services. | Feasibility study complete | Mid Term | Our application to Defra was successful and the North Yorkshire & York LNP has been awarded official status by the Government. A shadow Board is now in place and we are developing a Strategy which includes Climate Change as a key theme. Matt Millington our Biodiversity Officer is working with the estates team to identify NYCC owned farms that might be interested in taking on environmental stewardship which could lead to management options that could assist in climate change adaptation. This is not a target at present. |
| | To ensure that through the more | ***Develop a unified NYCC approach to the*** | Carl Bunnage, Regional & | NI 157 | Short – medium term | The NYCC cross-directorate Infrastructure Delivery Steering Group |

| | | | | | | |
|---|---|---|---|---|---|---|
| | effective coordination, planning and delivery of infrastructure climate change proofing is taken into account | ***planning, funding and delivery of strategic infrastructure. As part of this to ensure that infrastructure is climate change proofed- to reword*** | Strategic Policy (BES) | | | has been established by the NYCC Management Board and new coordinating mechanisms are in place both internally and with NY districts and National Parks. Planned development and related infrastructure needs across the County have been mapped in partnership with the NY local planning authorities. Consideration is now being given to further enhancing the clarity and effectiveness of 2-tier working on infrastructure planning and delivery.. Through these mechanisms greater opportunities are now available to enable climate change proofing to be considered and taken into account in the planning and prioritisation of infrastructure funding and delivery |
| | Encourage land management practices that assist with Climate Change Adaptation | Establish a Local Nature Partnership (LNP) for the Sub-region in accordance with recommendations in the Natural Environment White Paper | Phillip Strand Waste & Countryside Services. BES | Submit application to DEFRA for transitional funding to establish the new partnership | 2011/12 | We have been successful in getting transitional funding from DEFRA to work up a proposal. This will be developed with partners over the next few months. |
| | Encourage land management practices that assist with Climate Change Adaptation | Manage local Sites of Importance for Nature Conservation (SINC) to reduce the impacts of climate change on biodiversity | Phillip Strand, Waste & Countryside Services. BES | Single Data List 160-01 – Target 36.4% Local Nature Conservation / Biodiversity proportion of local sites where positive management being achieved (+ NYCC specific target related to publicly | Ongoing | Achieved 2011/12 target of 274 SINC sites out of the 730 total in favourable condition. Target for 2012/13 is 300 sites and at the end of the last quarter we had achieved 284 sites in favourable condition..<br><br>An NYCC specific target is currently being worked up and will start next year. |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | | | accessible SINCs TBC) | | |
| | Identify priority areas within the County for landscape scale enhancement of Green Infrastructure (Natural, Historic and PROW assets/ corridors) in accordance with the recommendations in the Natural Environment White Paper | | Phillip Strand, Waste & Countryside Services. BES | Target: Submit application to DEFRA for funding to create a Nature Improvement Area (NIA) in the Vale of Pickering | | An application was submitted but unfortunately we were unsuccessful in getting funds to create an NIA for the Vale of Pickering. The Vale of Pickering and a number of other landscapes have been identified as priority areas in the draft LNP Strategy and will be the focus of attention for the Partnership over the coming years. It is possible that we will re-apply for NIA status in the future but it is uncertain if there will be a direct fund available as there has been for the 12 pilot areas around the country. |
| **Future Considerations** | | | | | | |
| **Transport** | New targets for consideration as part of new maintenance contract.<br>1. The amount of recycled materials being used in highway operations<br>2. Carbon footprint of highway maintenance and improvement works by NYCC | | | | | |
| **Waste** | Carbon metrics – detail of this to be provided by DEFRA in 2012 – to develop NY measures at this point | | | | | |

# CO2, FUEL USAGE AND HIRE COST COMPARISONS FOR HIGHWAYS FLEET

| OLD VEHICLE TYPE | CO2 g/km | ANNUAL CO2 | THREE YEAR CO2 | COMBINED CO2 EMISSIONS | KM'S P/LITRE (COMBINED CYCLE) | PREVIOUS YEARS ANNUAL KM's TRAVELLED ( km ) | ANNUAL LITRES OF FUEL USED | THREE YEAR - LITRES OF FUEL USED | THREE YEAR FUEL COSTINGS - £'s (based on current costs of 95.31p/p/lt) | THREE YEAR FUEL COSTINGS FOR ALL 34 INSP + 8 STREETWORKS VEHICLES, 1 AUTO CAR & 7 4x4's | WEEKLY HIRE RATE | THREE YEAR HIRE COSTS (FIVE YEARS ON 4X4 VEHICLES) | COMBINED THREE YEAR HIRE COSTS (FIVE YEARS ON 4X4 VEHICLES) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FORD CONNECT | 181 | 5,943,497.00 | 17,830,491.00 | 75,057,630.00 | 12.4 | 32837 | 2648 | 7944 | £7,572 | £257,443 | £69.00 | £365,976 | £694,174 |
| PEUGEOT PARTNER | 153 | 5,024,061.00 | 15,072,183.00 | | 17.4 | 32837 | 1887 | 5662 | £5,396 | £43,168 | £63.00 | £78,624 | |
| VAUXHALL VECTRA - AUTO. | 186 | 6,107,682.00 | 18,323,046.00 | | 15.4 | 32837 | 2132 | 6397 | £6,097 | £6,097 | £110.00 | £17,160 | |
| MITSUBISHI L200 4x4 | 230 | 7,943,970.00 | 23,831,910.00 | | 11.2 | 34539 | 3084 | 9252 | £8,818 | £61,723 | £127.70 | £232,414 | |
| **NEW VEHICLES** | **CO2 g/km** | **ANNUAL CO2** | **THREE YEAR CO2** | **COMBINED CO2 EMISSIONS** | **KM'S P/LITRE (COMBINED CYCLE)** | **PREVIOUS YEARS ANNUAL KM's TRAVELLED ( km )** | **ANNUAL LITRES OF FUEL USED** | **THREE YEAR - LITRES OF FUEL USED** | **THREE YEAR FUEL COSTINGS - £'s (based on current costs of 95.31p/p/lt)** | **THREE YEAR FUEL COSTING SAVINGS BASED ON 35 BIPPERS (1 AUTO), 8 FIESTAS & 7 TRANSPORTERS** | **WEEKLY HIRE RATE** | **THREE YEAR HIRE COSTS (FIVE YEARS ON 4X4 VEHICLES)** | **COMBINED THREE YEAR HIRE COSTS (FIVE YEARS ON 4X4 VEHICLES)** |
| PEUGEOT BIPPER | 119 | 3,907,603.00 | 11,722,809.00 | 55,076,712.00 | 22.2 | 32837 | 1479 | 4437 | £4,229 | £143,797 | £73.08 | £387,616 | £699,825 |
| PEUGEOT BIPPER - AUTO. | 116 | 3,809,092.00 | 11,427,276.00 | | 22.7 | 32837 | 1447 | 4340 | £4,136 | £4,136 | £76.32 | £11,906 | |
| FORD FIESTA-ECONECTIC | 99 | 3,250,863.00 | 9,752,589.00 | | 27.6 | 32837 | 1190 | 3569 | £3,402 | £27,215 | £77.60 | £96,845 | |
| VOLKSWAGON TRANSPORTER 4MOTION | 214 | 7,391,346.00 | 22,174,038.00 | | 12.3 | 34539 | 2808 | 14040 | £13,382 | £93,672 | £111.79 | £203,458 | |
| **NEW VEHICLE SAVINGS** | **CO2 g/km** | **ANNUAL CO2 SAVING** | **THREE YEAR CO2 SAVING** | **COMBINED CO2 EMISSIONS SAVINGS** | **KM'S P/LITRE GAINED / PER VEHICLE** | **OVERALL CONTRACT KM'S SAVING PER VEHICLE** | **ANNUAL SAVING - LITRES** | **THREE YEAR SAVING - LITRES** | **OVERALL YEAR FUEL SAVINGS - £'s (based on current costs of 95.31p/p/lt)** | **THREE YEAR FUEL COSTING SAVINGS BASED ON 35 BIPPERS (1 AUTO), 8 FIESTAS & 7 TRANSPORTERS** | **COMPLETE FLEET OVERALL FUEL COST SAVING** | **OVERALL THREE YEAR HIRE COST DIFFERENTIAL** | **OVERALL FLEET CONTRACT SAVINGS-HIRE COSTS AGAINST FUEL SAVINGS** |
| PEUGEOT BIPPER | 119 | 2,035,894.00 | 6,107,682.00 | 19,980,918.00 | 9.8 | 3351 | 1169 | 3507 | £3,343 | £113,646 | £140,059.12 | £5,651 | £134,408.28 |
| PEUGEOT BIPPER - AUTO. | 116 | 1,214,969.00 | 3,644,907.00 | | 5.3 | 6196 | 441 | 1322 | £1,260 | £1,260 | | | |
| FORD FIESTA-ECONECTIC | 99 | 1,773,198.00 | 5,319,594.00 | | 10.2 | 3219 | 697 | 2092 | £1,994 | £15,953 | | | |
| VOLKSWAGON TRANSPORTER 4MOTION | 214 | 552,624.00 | 1,657,872.00 | | 1.1 | 31399 | 276 | 1379 | £1,314 | £9,200 | | | |

| | |
|---|---|
| | 119238.1 |
| | 1321.86 |
| | 16738.5 |
| | 9652.668 |
| **Total:** | 146951.1 |

**Appendix E – Current energy and water efficiency programmes in County Council builidings.**

## 1. Introduction

The energy and water efficiency programmes in the County Council buildings are coordinated by the Energy Team in Corporate Landlord Services. The team is made of officers with a range of specialist roles. Some examples of their areas of responsibility are;

- the liaison with brokers for the purchase of energy supplies,
- direct liaison with energy suppliers to ensure correct billing,
- data collection, analysis and cleansing for 2530 energy and water supply meters,
- coordination of the Energy Management System that supports the heating and hot water controls in a large number of county council buildings,
- undertaking Display Energy Certificates (energy audits) for all relevant county council buildings,
- development of the county councils own set of standards to ensure efficient buildings following refurbishment or when built, (Sidcamp)
- development and implementation of the county council's Carbon Management Plan,
- implementation of the county council's response to the Carbon reduction Commitment and ensuring full compliance,
- development and coordination of the implementation of energy efficiency improvement programmes in county council buildings (see below 2.1),
- development and guidance on the county council's response to procurements and sustainable procurement,
- 1.4 FTE Schools Carbon Reduction Officers who provide direct ciriculam, teaching, governor and site specific advice and support to schools on carbon and energy and water cost reduction (see below)

## 2. Energy efficiency property improvement programmes.

Five are currently in progress;

- **Insulation** – roof void, cavity wall and services. The programme is managed by the energy team and project managed by Yorkshire Energy Partnership (YEP) (YEP are a not for profit company jointly owned by the local authorities in North Yorkshire that provides help and advice for householders on energy efficiency and has recently extended the service to non-domestic properties, they manage the whole process from survey, installation and monitoring quality). Earlier this year the Schools Forum agreed to fund the provision of asbestos surveys for all schools who wish to investigate having insulation installed. The survey in the roof space is required before contractors can undertake the insulation survey and was identified by the energy team as a barrier to installation.

  Completed work as of 14th June 2012:
  - 19 Schools
  - Total cost to date £83,216 (average £4,379 per site)
  - Total estimated savings £19,743 (average £1,039 per site) 101 tonnes of carbon (average 5.3 per site) per annum.

  Work booked as of 14th June 2012:
  - 5 schools
  - Total cost to date £21,541 (average £4,308 per site)

- Total estimated savings £5,598 (average £1,119 per site) 30 tonnes of carbon (average 5.6 per site) per annum.

Schools with quotes awaiting decision as of 14th June 2012:

- 23 Schools
- Total cost to date £101,562 (average £4,415 per site)
- Total estimated savings £27,192 (average £1,182 per site) 139 tonnes of carbon (average 6 per site) per annum.

- **Energy Management System upgrade** – The current electronic systems that control the heating and hot water systems in some schools and other county council buildings is fragmented, out of date and unsupported. The energy team has coordinated a central upgrade of the system and a contractor has been appointed to undertake the upgrade of hardware on sites. The project manager, seconded from Jacobs UK, is running pilots and coordinating the first round of installations. Priority for installation has been clearly identified and the Schools Forum has provided funds to support installation in Priority 1 schools by 50%.
- **Automatic Meter Reading** – this is a system where gas and electricity meters are read automatically and remotely. It negates the need for staff to read manually with all the potential for health and safety issues and opportunities for error that comes with this. The installation will be carried out by the energy suppliers and will be a revenue cost added to the fuel bills for the site (£151 for gas and £75 for electricity per meter per year). The installation will help greatly with accurate and timely reporting on the Carbon Reduction Commitment, the production of Display Energy Certificates as well as the swifter identification of billing errors and over consumption. All non-school properties will receive AMR where it is viable (that is cost per annum is greater than or equal to the projected savings estimated at 5% per annum). It will be offered to schools with no compulsion. Full liaison with the directorates involved is being undertaken throughout implementation.
- **Fuel conversions** – this programme targets sites (all schools) using heating oil (high costs and carbon). Conversion feasibility studies examine a change to gas and/or biomass. Biomass shows a greater capital investment but generally shows a payback of 5 to 7 years and an income for up to 25 years via the Renewable Heat Incentive (RHI). This is programme coordinated by the energy team and project managed by Jacobs UK. The RHI is a government incentive scheme designed to reward those who use renewable energy to heat their buildings. It guarantees regular 'tariff' payments for 20 years based on the amount of renewable energy generated (paid as pence per kWh of heat generated). Eligible technologies include solar hot water (thermal), ground source heat pump and biomass or wood burning boilers. Owners of all eligible renewable heating systems installed on or after 15 July 2009 will be able to apply for the RHI.

NYCC Fuel Conversion Programme – completed work or ordered as of June 2012:

| **Type of conversion** | **Est. cost £** | **Est. saving £** | **CRC saving, tonnes & £s @ £12 per tonne** | **Payback period, years.** |
|---|---|---|---|---|
| Oil to gas & Biomass | 349,157 | 29,186 | 106<br>1,273 | 11.5 * |
| Oil to gas | 19,920. | 7,309 | 29.40<br>353 | 2.6 |
| Oil to gas | 38,000 | 3,572 | 404<br>4,848 | 4.5 |
| Expected works in the next 12 months | | | | |
| 4 Schools – oil to gas | 282,000 | 99,000 | 357<br>4,285 | 2.8 |

* Payback 11.5 years however this does not include the RHI payments that reduce payback to 5 years.

- **Awareness raising, Small Steps Big Difference Campaign** – this is the County Council's staff awareness raising and behavioural change programme. It is ongoing and the energy team has been involved in such things as Red/Green card days, Wear a Woollie Day, Earth Hour switch offs and providing data evidence for improvement.
- **SiDCaMP** – this is the County Council's standard for efficiency in buildings when works are being carried out to them or a new build. It is an alternative to BREEAM which is expensive to administer and does not concentrate on elements of the building that provide revenue and carbon savings. It policy is currently being developed for roll out and used in all appropriate projects. Pilot projects have be identified to test the technical aspects of the policy.
- These programmes (apart from AMR and Small Steps as no capital cost) can be funded for schools and directorates by using the **Resources Fund**, an interest free loan. The money available to it has currently been increased to allow for the growing levels of property improvements taking place and the reduced funds available to schools. The one off fee associated with the Fund (10% capped at £5,000) has been used to fund feasibilities for the Fuel Conversions Programme and pilots for oil AMR, amongst other things.

## 3. Activities of the Schools Carbon Reduction Officers

- Approximately 80% of the County Council's carbon emissions and energy costs are from schools. Therefore it has always been evident that specific work would need to be undertaken in schools working in partnership with the school, the energy team and CYPS. Many of the programmes listed above are predominantly or only in schools.
- Since 2007 a Schools Carbon Reduction Officer has been in post within the County Council's Energy Team with an additional half post added in 2009. The two officers offer a wide range of services to schools including assemblies, help with themed eco days, lessons, supporting Eco Schools work and providing information on energy efficiency schemes and funding. Support can include a visit from 'Power Down Pete', to inspire pupils to take action to reduce their energy use in school.
- In 2011 the county council took part in the Carbon Trust's pilot schools programme with free consultancy and guidance on how to enhance our current provision. The revised approach, aims to maximise resources within the Energy Team and minimise travel across the County. As part of this service we have recently developed a 'North Yorkshire Sustainable Schools Forum', a group of both the County Council and external colleagues working with schools across the North Yorkshire, to ensure a joined up approach to sustainability work and a driver for action. The officers have also helped establish a regional Sustainable Schools network to be kept up to date on national initiatives.
- In the Autumn term 2012 the officers are also running training sessions and meetings for teachers, business managers/ bursars and governors alongside slots at Head teacher School Improvement Network meetings.
- To date, 64% of NYCC schools are currently enrolled with the Eco Schools award scheme we encourage new schools to join the scheme and help schools achieve Bronze, Silver and Green Flag awards through training and networking sessions.

**Eco Schools data summary**

| ECO SCHOOLS PARTICIPATION BREAKDOWN | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Improvements since April 2009** | | | | **NYCC schools in scheme as at September 2012** | | | |
| New registrations | Moved from registered to Bronze | Moved from Bronze to Silver | Moved to Green flag or 2nd Green Flag | Total Eco schools | Total Bronze | Total Silver | Total Green Flag |
| 121 | 64 | 36 | 14 | 248 | 87 | 58 | 16 |

**Notes:**
In April 2009 two new Schools Carbon Reduction Officers came into post and heavily promoted the Eco Schools award scheme. At this time there were only 2 Green Flag schools in North Yorkshire.

The scheme which is recognised by OFSTED consists of 4 stages:

- Registered
- Bronze
- Silver
- Green flag

Energy conservation is now a compulsory topic for working on the Green Flag award.

**Appendix F – North Yorkshire County Council Heating and Cooling Policy 2012**.

1. QUALIFICATION CONDITIONS
    a. This policy provides a framework to all County Council personnel and its application has been assessed, by the author, as being appropriate in most circumstances.
    b. In exceptional circumstances, it may be necessary to override the procedure(s). Staff MUST discuss their intended actions with a supervisor. Where this occurs details MUST be recorded and submitted to the author of this procedure document.

2. INTRODUCTION
    a. The County Council spends approximately £5.5 million a year (2011) on heating and cooling of buildings. This policy deals with costs of heating and cooling requests for the provision of conditioned environments, thermal comfort and Health & Safety issues. It has been developed in support of the County Council's Carbon Management Plan.
    b. Many of the County Council's facilities were constructed in an era when internal environmental space conditioning was limited to heating and ventilation systems. Some of NYCC office space has heating which is old and difficult to control. Many of our facilities do not have internal, built-in air conditioning capabilities.
    c. Pressure is steadily increasing for the County Council to accommodate the installation of retrofit air conditioning systems to meet the demands of current building users. However, important factors such as energy use, maintenance costs, visual appearance/aesthetics, noise, ease of installation and life cycle costs conflict with the desire for installation of full air conditioning systems.
    d. The main objective of this Policy is to achieve a balance between the environmental and financial cost of heating and cooling County Council buildings with the need to provide comfortable working conditions.
    e. Please note that this policy cannot cater for every individual's requirements as people in the same environment may experience different perceptions of hot and cold. The installation of air cooling may exacerbate this issue.

3. THE POLICY
    a. Health & Safety Regulations:
        i. Every organisation has a duty of care towards its staff under the Health and Safety at Work Regulations 1974.
        ii. The Workplace (Health & Safety) Regulations 1992 state that:
            1. The temperature for sedentary (office) work should normally be at least 16ºC and 13ºC for physically active areas.
            2. Temperature during working hours must be reasonable*.
            3. The workplace must be adequately ventilated.
            4. Any method of cooling used should not produce dangerous or offensive fumes, gas or vapour. (Note: this would include Legionella or the build up of other bacteria within the Air Conditioning System causing illness or Sick Building Syndrome.)

        *In the context of this document, the word 'reasonable' indicates a minimum temperature of 16ºC; no maximum temperature is prescribed.

b. NYCC County Council Guidelines
    i. Heating and air cooling equipment in offices should be set to heat to no more than 20ºC or cool to no less than 24ºC air temperature.
    ii. Air conditioning systems will only be installed or replaced if they meet the criteria set out in section 3(d) below.
    iii. Requests to install, expand or upgrade air conditioning systems in existing buildings shall be submitted to the Corporate Landlord Services team if the request is not incorporated as part of wider work to the building. If it is part of wider work to the building, then Sustainability in Design, Construction and Management Policy (SiDCaMP) will apply.
    iv. All new buildings, unless there are overriding factors, will be designed such that there is little or no need for air conditioning of the working area in line with NYCC's SiDCaMP.

c. Heating of Buildings
    i. The boilers are enabled when the average external daytime temperatures remain below 16ºC. Until these conditions arise the boilers will be kept off.
    ii. Boiler settings should be set or changed by Site Superintendant or responsible buildings officer only. Other members of staff are not permitted to alter boiler controls unless directed by a member of Corporate Landlord Services team.
    iii. Boilers should be set to heat office air space to a maximum of 20ºC only.
    iv. In rare circumstances where the minimum recommended temperature (16ºC) cannot be achieved by central heating, temporary portable heaters may be used subject to approval from the Corporate Landlord Services team. For safety reasons, the County Council does not allow staff to use portable electric heaters other than those provided by the County Council as they must be regularly Portable Appliance Tested.

d. Cooling of Buildings
    i. Air conditioned buildings use twice as much energy as naturally ventilated buildings. This is because extra energy is required for the refrigeration of air and to power the pumps and fans which circulate the cooled air through the building.
    ii. The County Council aims to:
        1. Ensure that all practical measures are taken to reduce the need for active cooling.
        2. Reduce the environmental and fiscal impact of cooling installations that are unavoidable.
        3. Ensure that requests for cooling are addressed in a reasonable, timely and consistent manner.

iii. Methods of cooling without installing air cooling: There are various cheaper alternatives available to remove and/or prevent the build-up of heat within offices.
    1. Solar Film
    2. Natural Ventilation (e.g. open windows)
    3. Local Forced Air Movement (e.g. portable fans)
    4. Forced Air Ventilation
iv. Before requesting the installation of comfort cooling, the above methods should be evaluated and assessed.

e. Methods of Air Cooling
    i. Comfort Cooling - This form of cooling is basic and only offers temperature control without controlling other parameters (e.g. humidity). There is no fresh air that would have to be introduced separately, as opening the windows could overload the cooling unit. Comfort cooling can be from either a fixed or portable system.
    ii. Air Conditioning - Full air conditioning is designed to control all parameters to within specified limits including air filtration, air entering and leaving the controlled space and humidity. Note: It is possible to install partial air conditioning by omitting the control of humidity.
    iii. Processes or conditions where it is acceptable to introduce cooling:
        1. IT equipment rooms where the operating temperature tolerance range is likely to be exceeded, and computer suites.
        2. Formal meeting rooms used by staff, Councillors and members of the public.
        3. Temporary air cooling may be installed if there is an expectant mother who is being affected by the heat of the office, and where a suitable Risk Assessment calls for such a measure to be taken for the duration of the pregnancy or summer, which ever is shorter.
        4. Where a specific Risk Assessment calls for air cooling or conditioning for medical or other operational reasons.
        5. Where conditions of work do not match the above scenarios, the Corporate Landlord Services team will make a decision on whether to install cooling on a case by case basis taking into consideration the relatively high financial and environmental costs.
        6. The provision of cooling will be re-evaluated using the above criteria when there is any material change of use in an area.
    iv. Costs - Departments requesting cooling should be aware of the costs involved including both installation and the increased electricity bills. The installation costs will be discussed between the local and central budget holders.
    v. Maintenance - Maintenance of all air conditioning units (including the costs incurred) will fall to the responsible building officer of each building. All responsible officers must ensure that their air conditioning units meet the European Fluorinated Gases Regulation requirement. When any unit becomes unserviceable, the unit to replace it will be subject to the same criteria used to assess requests for new installations.
    vi. Installations must be reasonably and safely accessible for repair and routine maintenance. Installations must also be located in a manner to minimize the risk of damage from weather, snow removal operations, icefall, etc.

4. MANAGEMENT OF POLICY
    a. If any building system modifications or installations are found to be in breach of this policy, after the effective date, the Corporate Landlord Services team will work with the responsible Division to develop a solution that responds to the requirements of this policy. The department involved may incur any rectification costs that arise.

# Comparison of Actual Mileage 2009 to 2012

| Directorate | Service Area | 2009/2010 Tota | 2010/2011 Tota | 2011/2012 Tot | % Change |
|---|---|---|---|---|---|
| Business & Environmer | Corporate Director - Busi | 4,516 | 2,355 | 2,314 | -49% |
| | Economic Partnership Ur | 83,764 | 34,062 | 14,861 | -82% |
| | Highways & Transportatic | 500,233 | 455,064 | 411,990 | -18% |
| | Passenger Transport | 45,610 | 52,523 | 55,600 | 22% |
| | Resources, Performance | 1,565 | 798 | 2,300 | 47% |
| | Trading Standards & Plar | 160,610 | 135,118 | 106,037 | -34% |
| | Waste Management & Cc | 10,852 | 49,434 | 37,335 | 244% |
| | BES - Disestablished | | 6,968 | | |
| **Business & Environmental Services Mileage** | | **807,150** | **736,322** | **630,437** | **-22%** |
| | Business & Environmenta | 59,036 | 66,387 | 80,521 | 36% |
| Business & Environmental Services Total | | 866,186 | 802,709 | 710,958 | -18% |
| Chief Executives Direct | Assist CE (Legal & Demo | 66,228 | 59,013 | 47,841 | -28% |
| | Chief Executives Busines | 16,039 | 7,932 | 7,026 | -56% |
| | Human Resources / Org | 206,352 | 189,836 | 186,793 | -9% |
| | Policy, Performance & Pa | 295,967 | 291,658 | 267,194 | -10% |
| | Chief Executive Disestablished | | 1,173 | | |
| **Chief Executives Directorate Mileage** | | **584,586** | **549,612** | **508,854** | **-13%** |
| | Chief Executives Director | 47,904 | 50,799 | 49,532 | 3% |
| Chief Executives Directorate Total | | 632,490 | 600,411 | 558,386 | -12% |
| Children & Young Peop | Access and Inclusion | 1,011,587 | 990,035 | 856,191 | -15% |
| | Business Support | | 42,182 | 195,978 | |
| | Childrens Social Care | 2,250,672 | 2,272,058 | 2,161,892 | -4% |
| | Corporate Director - Educ | 3,413 | 2,906 | 2,271 | -33% |
| | Education Schools | 522,126 | 521,337 | 388,177 | -26% |
| | Finance and Managemer | 306,946 | 288,676 | 281,222 | -8% |
| | Learning Youth & Skills | 756,260 | 479,762 | 192,093 | -75% |
| | Policy & Development | 2,774 | 1,248 | | -100% |
| | Prevention + Commissior | 451,429 | 528,068 | 688,198 | 52% |
| | Quality & Improvement | 1,275,415 | 1,218,290 | 1,066,149 | -16% |
| **Children & Young People's Service Mileage** | | **6,580,622** | **6,344,562** | **5,832,171** | **-11%** |
| | Children & Young People | 12,442 | 9,033 | 20,554 | 65% |
| Children & Young People's Service Total | | 6,593,064 | 6,353,595 | 5,852,725 | -11% |
| Finance & Central Serv | Business & Environmenta | 3,063 | 1,275 | 681 | -78% |
| | Central Finance Service U | 5,885 | 7,054 | 5,642 | -4% |
| | Children & Young People | 213,790 | 213,174 | 197,485 | -8% |
| | Corporate Accountancy S | 868 | 3,232 | 1,954 | 125% |
| | Corporate Director - Fina | 1,431 | 2,351 | 1,213 | -15% |
| | Corporate Property Mana | 249,946 | 221,685 | 195,913 | -22% |
| | Health and Adult Services | 4,665 | 3,725 | 3,187 | -32% |
| | ICT Services | 406,624 | 344,764 | 336,954 | -17% |
| | FSBU Disestablished | 2,248 | 374 | | -100% |
| **Finance & Central Services Mileage** | | **888,520** | **797,634** | **743,029** | **-16%** |
| | Finance & Central Servic | 30893 | 18,125 | 18,858 | -39% |
| Finance & Central Services Total | | 919,413 | 815,759 | 761,887 | -17% |
| Health and Adult Servic | Adult Social Care | 4,188,350 | 3,816,572 | 3,325,992 | -21% |
| | Commissioning & Partner | 104,691 | 82,709 | | |
| | Contracting Procurement | 15,101 | 37,138 | | |
| | Corporate Director - Soci | 5,697 | 5,718 | 4,170 | -27% |
| | Health, Reform and Development | | | 12,690 | |
| | Partnership, Procurement and Qlty Assura | | | 45,042 | |

| | | | | | |
|---|---|---|---|---|---|
| | Performance and Change | 254,513 | 236,864 | 214,810 | -16% |
| | Resources | 215,153 | 208,755 | 188,686 | -12% |
| | Disestablished Posts | 113,691 | | 352,303 | 210% |
| **Health and Adult Services Mileage** | | **4,897,196** | **4,387,756** | **4,143,693** | **-15%** |
| | Health & Adult Services F | 15,989 | 15,301 | 19,232 | 20% |
| Health and Adult Services Total | | 4,913,185 | 4,403,057 | 4,162,925 | -15% |
| **Grand Total** | | **13,924,338** | **12,975,531** | **12,046,881** | **-13%** |