ESSENTIAL REFERENCE PAPER"B"

East Herts Council

Annual Review of Progress East Herts Climate Change Action Plan November 2015

Introduction:

Members will recall that the Council adopted the Climate Change Strategy and Action Plan in December 2009. At the meeting of the Environmental Scrutiny Committee held in September 2014 members requested that an update report be brought to a meeting of the Committee in November 2015 detailing progress achieved in energy efficiency and carbon emission reduction measures since the adoption of the Action Plan at the end of 2009.

This report summarises the work achieved to date (December 2009- August 2015) in implementing actions within the Action Plan. Officers believe that much work has been achieved over the period and that significant savings, based on 2009 baseline data, have been achieved in carbon dioxide emissions, as detailed in the report update below.

It should be noted that all agreed initiatives within the Action Plan with financial implications were/are subject to a business case analysis before implementation to ensure value for money.

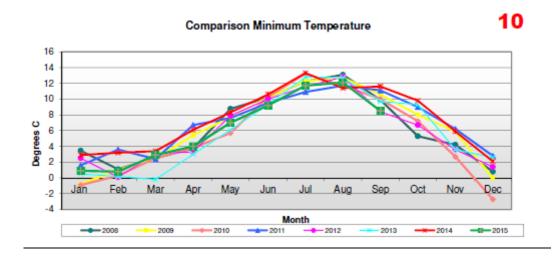
Carbon Savings:

Clearly the main purpose of the Climate Change Action Plan is to reduce the Council's overall carbon emissions relating from its operations and delivery of services. Many energy efficiency measures have been adopted by the Council, which have resulted in direct carbon dioxide reduction, as well as financial savings due to decreased energy use. Both the carbon emissions and financial savings will continue to accrue over time, particularly with the ongoing increase in fuel costs. However, bottom line carbon dioxide savings have been tempered by a number of factors in that time. Chiefly these equate to weather conditions, we have seen several longer and colder than average winter temperatures as well as cooler summers (see graphs of local weather conditions below). This last winter 2014/15 on average 2 degrees cooler than the previous year which has resulted in increased heating gas requirements.

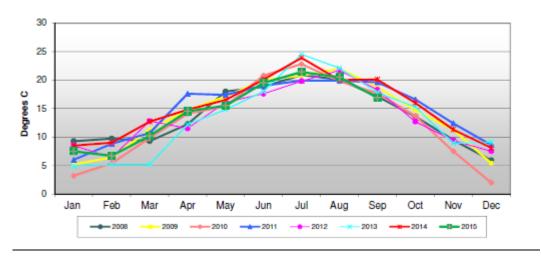
Secondly, over the past few years there has been considerable staff reorganisation, with more staff working from Wallfields leading to increased energy use in that building and additional staff joining the Council from Stevenage.

Thirdly, service activity has increased during the period of the Action Plan, requiring an increased use of energy. Thus we have seen increased use of the Hertford Theatre, significant changes to recycling/waste collections services; and, a doubling of visitor numbers using East Herts leisure facilities over the last 5 years. However, as is noted in the accompanying report the energy efficiency measures undertaken at Hertford Theatre and the Leisure centres have made a large impact in negating increased energy use. Similarly the new waste contract and recent further organisation to the waste rounds 2 years ago has meant that despite increased service provision CO_2 emissions by the recycling /waste collection service have fallen by a total of some 27% between 2008/09 and 2014/15.

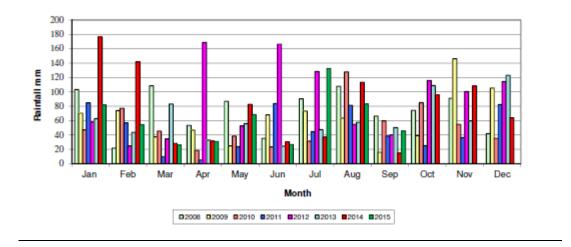
Comparison of maxima and minima temperature and precipitation 2008 to 2015 for East Herts area



Comparisons Maximum Temperature



Comparison Rainfall



Review of Action Plan Activity:

Please note that commentary on the activity undertaken for each action is provided by way of an "Update" shown in bold, in the "Action"/ "Carbon Savings "columns below.

| Action | Note on Carbon | Benefit | Cost | Time |
|--------|-------------------|---------|------|------|
|--------|-------------------|---------|------|------|

| | | Emissions | | | |
|---|--|--|---|------|-----|
| | | Saving | | | |
| <u>Energy</u> <u>Buildings</u> Metering | | | | | |
| 1.1 | Introduce smart metering to all council premises inc pools, offices, depot, car parks etc. Update: Use of smart metering investigated. Meters to certain key location installed e.g Wallfields. Further smart metering to be considered dependant on utility company roll-out and telemetry reception. | | Relatively low cost. Accurate metering of all utilities, on demand and up-to- date. Ability to set warning thresholds. | Low | Med |
| 1.2 | Metering linked to web & make available on intranet/internet/reception areas. Update: Wallfields smart meter are web enabled | | Improve awareness of staff and public on energy use. | Low | Med |
| Technical Equipment | | | | | |
| 1.3 | Investigate use of Gas flow regulator – Wallfields. Update: Agreed not to progress as officers have calculated payback as insufficient at the current time, however, project will be kept under review in he light of continuing energy price rises. | | Some LA's have seen 5-8% reduction in gas use. | High | Med |
| 1.4 | Investigate voltage regulation at depot/ Wallfields. Update: Voltage regulator installed and operating effectively at Wallfields. | Provisional approximate total 6% reduction in electricity consumption | Case studies from LA's have shown 3- 7% reduction in electricity use. | Med | Med |

| | Added advantage of voltage modulation is being achieved. Not progressing with voltage regulation at Depot as insufficient business case. | at Wallfields, equating to current annual saving of over 28,700 kg CO ₂ | | | |
|-----|--|--|---|------|-----|
| 1.5 | Introduce 'Zoned Lighting' control in all office space and enhance flexibility of existing e.g. to switch off lighting adjacent to windows. Update: Zoned lighting introduced and operational at Wallfields. | Carbon saving estimated at 2% overall saving on Wallfields carbon emissions which equates to 10 tonnes CO ₂ Improved lux levels achieved through out Wallfields. | Reduces energy uses. Popular with staff. Good example. | High | Med |

| 1.6 | Introduce PIR lighting control – Wallfields and other facilities. Update: PIR lighting control now operational at Wallfields/Charringtons. | Ongoing year on year energy saving achieved, e.g contributed to carbon emissions reduction from electricity use at Wallfields of 13 tonnes CO ₂ for 2014/15 | Reduces energy use. Can switch off if little movement in room. | High | Med |
|-----|--|--|---|------|------|
| 1.7 | Investigate auto power down of PCs. Update: Not implemented as use of virtual terminal has (thin client) and zero client negates the need for auto power down. | | Ease of control. Reduces energy consumption. | Med | Med |
| 1.8 | Investigate external shading to south elevation of Wallfields and /or replace glass conservatory roof with standard roofing. Update: Glass conservatory roof replaced with slate roof. Internal blinds fitted to all necessary windows to provide shading. | Refurbishme nt of Wallfields has contributed to reduction in natural gas used for heating and also cooling demand for summer period. Initial figure for summer 2014 showed that cooling demand is | Reduces cooling costs. Likely to be popular as overheating is a problem on top floor. | High | Long |

| | | down despite relatively warm summer. Similarly consumption due to cooling demand expected to remain low following cool summer of 2015. | | | |
|------|--|--|---|------|--------------|
| 1.9 | Ensure solar reflective blinds are in place throughout all offices where necessary. Update: Blinds fitted to all appropriate windows to provide shading/cooling. | Likely to be savings in electricity cooling costs, as the number of fans used within the building is very significantly reduced (as well as glare reduction benefit) but actual CO ₂ reduction is not quantifiable, although initial data from summer 2014 indicates above expected reduction in electricity demand. | Reduces cooling costs. Improves working environment. | Low | Quick Win |
| 1.10 | Enhance roof insulation of Wallfields to current | Likely saving to be relatively | Improved insulation will reduce energy | High | Med/ Long |

| | standards. Update: Investigated but not progressed during refurbishment programme due to budget constraint. | high, plus potential benefit from reduction in summer heating. | consumption costs. Improved working environment. | | |
|--------------------|--|---|---|------|-------|
| Renewables 1.11 | Commission detailed report on potential for renewables across Council buildings. Update: Micro Hydro scheme at Hertford Weir has good business case and is progressing (likely saving 30-40% energy demand). Other options for other buildings are being kept under review. With increasing energy costs, declining feed in tariff payments and declining capital costs of renewables the business case for micro renewables is currently in flux. Consultants to be commissioned to investigate energy management options for leisure sites including use of CHP, solar and ground source heat pumps. | N/A | Provides comprehensive evidence for best value approach for renewables. | Med | Short |
| 1.12 | Install solar thermal array to toilet block at Wallfields. Update: Consultants Employed as part of the Council's previous Changing the Way we Work strategy (C3W) investigated options, but reported that costs appeared high and hence there was an insufficient | | Reduces energy demand. Incentives available. Good exemplar. | High | Short |

| | business case at that time. However, with increasing energy costs and currently declining costs of renewables the business case for renewable heat is subject to change. | | | |
|------|---|--|------|-------|
| 1.13 | Install public exemplar solar PV array at Wallfields. Update: Solar PV array is being progressed with specific item in capital programme. Procurement options and detailed costings are being investigated this autumn. Should business case be met then installation could take place next spring. However, it is not yet clear how Government proposed significant reduction in feed in tariff will affect business case. | Reduces energy demand. Good exemplar. Incentives available. | High | Short |
| 1.14 | Install 15kW turbine at Buntingford Depot. Update: Initial discussion with landowner held who was sympathetic but at current time business case continues to appear insufficient and project not being progressed. | Reduces energy demand. Good exemplar. Incentives available. | High | Med |
| 1.15 | Investigate installation of solar thermal at second public convenience e.g. Bell Street. Update: All suitable public conveniences have been closed as part of efficiency measures and the move to Community Toilet Scheme. Project | Reduces energy demand. Good exemplar. Existing project working well. | Low | Short |

| | not to be progressed. | | | |
|------|--|--|------|-----|
| 1.16 | not to be progressed.Install mini hydro facility at Castle Hall.Update: Micro Hydro scheme at Hertford Weir has good business case and is progressing (likely saving 30-40% energy demand). Funding agreed and included in current capital programme. However, serious delays have arisen due to various requirements of Environment Agency to amend the specification of the scheme and to enable flood risk | Reduces energy demand. Good exemplar Incentives available | High | Med |
| | Environment Agency to amend the specification of the scheme and to | | | |
| | flood risk. It is necessary to complete this before further flood risk modelling can be completed on the hydro scheme. If, as is expected, this shows no increase in flood risk, the Council can | | | |

| 1.17 | proceed with a planning application for the hydro project. | | Good exemplar. | Med | Med |
|------|--|--|---------------------------------|------|-------|
| 1.17 | solar signage in car parks. | | Small energy | Med | Med |
| | Update: No progress so far. | | reduction. | | |
| 1.18 | Investigate rationalisation of server room to minimise power requirements. | Current 2014/15 carbon | Reduce energy consumption. | Low | Med |
| | Update: IT Services indicate that they are continuing to review server requirements following the migration of staff to Wallfields. Cooling of servers is energy intensive and responsible for significant CO ₂ emissions. It is expected that there will be a rationalization of servers over the coming years and this may reduce energy demand at Wallfields significantly. | carbon emissions from Servers are approx 220,000 kg CO ₂ | | | |
| 1.19 | Reduce unnecessary storage of data on servers. Update: IT Services are | | Reduce energy consumption. | Low | Short |
| | looking at opportunities for energy efficiencies wherever possible | | | | |
| 1.20 | Increase occupancy level of Wallfields to reduce per head heating demand but summer cooling demand anticipated to rise | | Reduces per head heating costs. | High | Med |

| | Update: Following the implementation of the Council's previous Changing the Way We Work strategy the occupancy level of Wallfields has increased dramatically as staff moved from the Causeway at Stortford. Heating demand per head has decreased. Extensive range of passive cooling measures were installed although proving less effective than anticipated. | | | | |
|------|--|---|--|--------------------------------|-------|
| 1.21 | Encourage home working by staff. Update: Following implementation of the Council's previous Changing the Way We Work strategy home working has been actively encouraged and a significant minority of staff have become home workers on a regular basis with a further proportion doing so on an <i>ad hoc</i> basis. "Remote working' technology for field staff rolling out. | | Reduces energy demand. Reduces desk space. Flexibility for staff. | Low | Short |
| 1.23 | During planned maintenance introduce high efficiency lighting for car parks. Update: To be considered on planned maintenance basis. | | Reduced energy demand. Good exemplar. Reduces light pollution. | High | Short |
| 1.24 | Update: EHC is continuing to work with leisure contractors SLM to incorporate | Despite programme of efficiency measures | Likely high reduction in energy demand. | High Grant Availabl e | Med |

| | ·• - | 00 | [| |
|---|--|----------------------|---|-----|
| | energy conservation and | CO ₂ | | |
| | if appropriate renewable | emissions | | |
| | energy measures at the | from leisure | | |
| | District's leisure centres | facilities have | | |
| | and pools, as these | risen | | |
| | facilities are significant | significantly | | |
| | energy users and use of | since the | | |
| | new technology can | 2009 | | |
| | achieve significant carbon | baseline. | | |
| | and financial savings. | However, at | | |
| | • | the same | | |
| | Range of energy | time there | | |
| | efficiency measures have | has been a | | |
| | been installed at the pools | very large | | |
| | and leisure centres. | increase in | | |
| | Recent measures in last 2 | | | |
| | years include: | customer | | |
| | new heat numps valve | visits such | | |
| | new heat pumps, valve wraps, heat exchanger, | that the sites | | |
| | • | are much | | |
| | extraction fans, pool | more heavily | | |
| | cover (Grange | used, and | | |
| | Paddocks); | hence there | | |
| | new energy efficient | is a higher | | |
| | changing room space | resultant | | |
| | heaters, pool cover (Ward | energy | | |
| | Freman Pool); | demand. | | |
| | | Taking | | |
| | new circulation pump, | increased | | |
| | pool cover, LED lighting | use into | | |
| | to reception area | account there | | |
| | (Hartham); | has actually | | |
| | pool cover (Fanshawe | been a | | |
| | Pool) | reduction of | | |
| | , | approx 50% | | |
| | Previous measures | in carbon | | |
| | installed include: | emissions | | |
| | motion sensors installed | per customer | | |
| | | visit between | | |
| | at Hartham/Grange | 2008/09 and | | |
| | Paddocks gym & studios | 2008/09 and 2014/15. | | |
| | induction lighting at | 2014/13. | | |
| | Hartham | | | |
| | ronlocoment high | | | |
| | replacement high | | | |
| | efficiency glazing at | | | |
| | Grange Paddocks | | | |
| | variable speed drives | | | |
| L | | | | 1 I |

| | installed at all pools to aid efficient pool water circulation new air con units at Fanshawes/ Hartham & Grange Paddocks. medium in pool filters replaced with silica glass granules which is more efficient filter reducing energy and chemical use. | | | | |
|---------|---|--|---|-----|-------|
| 1.24.1a | Utilise electrical timer devices to switch off vending machines in council buildings including leisure and office facilities, when the buildings are unoccupied. Update: Facilities Management replaced vending equipment during autumn 2014 and this is more energy efficient | | Low cost and reduces unnecessary electricity consumption | Low | Short |
| | although not timer controlled. | | | | |
| Water | | | | ` | |
| 1.25 | Fit spray taps as standard | Indirectly | Low cost. | Low | Short |
| | and on replacement. Update: Spray taps have been and continue to be fitted as part of planned maintenance wherever practicable. | reduces carbon emissions arising from water supply/ treatment | Reduces water consumption. | | |
| 1.26 | Fit dual flush toilets as standard and on | Indirectly reduces | Reduces water consumption. | Low | Short |
| | replacement. | carbon emissions | Low cost. | | |
| | Update: Dual flush toilets have been fitted as part of planned maintenance/ refurbishment. | arising from water supply/ treatment | | | |

| 1.26.1a | Install timer control devices to urinals to reduce unnecessary flushing Update: Timer control devices fitted to all appropriate units. | Indirectly reduces carbon emissions arising from water supply/ treatment | Reduces water consumption. Low cost. | Low | Short |
|---------|--|--|---|------|-------|
| 1.27 | Investigate potential for rainwater harvesting at Wallfields and other sites. Update: Officers investigated options for Wallfields and Depot, but currently installation costs remain high and water unit costs are low. Harvesting of water would allow EHC to be self sufficient in water for irrigation for crucial watering of bedding plants/trees early in the season. As well as saving water this allows watering to continue even due to drought periods such as that initially experienced at start of 2012, but recent years 2013 & 14 above average precipitation. | Indirectly reduces carbon emissions arising from water supply/ treatment | Good exemplar. Water saving. | High | Med |
| 1.28 | Introduce carbon offset budget to compensate for corporate carbon footprint. Update: Not currently progressed, as no financial benefit at this time | | Enables Council to be carbon neutral. Good exemplar project. Provides budget for other projects. | Med | Short |
| 1.29 | Introduce teleconferencing facilities to reduce need to travel. Update: Systems investigated in the past, | | Reduces need to travel. Reduces costs. Convenience. | Med | Med |

| | but no business case to progress. | | | | |
|------|---|--|---|------|-------|
| 1.30 | Promote 'Go green' on the office kettle – investigate instantaneous hot water heaters for Wallfields. Update: Instantaneous hot water heaters installed in most kitchen points in main buildings. | On balance slight carbon saving but very difficult to quantify | Potential energy saving. Convenience / reduces wasted staff time. | Low | Short |
| 1.31 | Investigate use of Pool covers at Pools. Update: See note 1.24 above. | Use of pool covers at all pools is estimated to be saving carbon emissions by 75,000 kg CO ₂ per annum | Reduce energy consumption & condensation. | High | Med |
| 1.32 | Investigate new Environmentally more friendly water cleaning /UV / ionization. Update: Medium in pool filters replaced with silica glass granules which are more efficient filter reducing energy and chemical use. | Not possible to quantify individual carbon saving – see section 1.24 above | Energy reduction. Good PR. | High | Med |
| 1.33 | Phase out use of bottled water in council premises where contracts allow Update: Bottled water has been phased out at all locations unless there is no other option for the provision of a ready supply of drinking water. Further tap water provision has been provided at Wallfields due | Carbon saving not possible to quantify | Reduces carbon emissions from production and transport | Low | Short |

| | to the increased number of kitchen facilities, thereby further minimising use of water bottles. | | | |
|------|---|--|-----|-------|
| 1.34 | Promote the use and introduction of 'Hippos' (water saving devices)to reduce flush in toilet cisterns | Water and Energy saving Raises awareness | Low | Short |
| | Update: Not progressed. Dual flush cisterns installed and better option. | | | |

| | Action | Carbon Emissions Saving | Benefit | Cost | Time |
|-----------|--|---|-----------------------------------|------|-------|
| Transport | | Caving | | | |
| 2.1 | Implement Car share Data base linked to HCC. Provide Car share spaces Investigate benefits of | Estimated 4,180 kg CO ₂ saved for Liftshare | | Low | Short |
| | providing Pool cars and Staff minibus between sites. Update: The use of car | members during 2014/15 year, based on one | Encourage share Discourage use | High | Med |
| | sharing helps to maximise use of the available spaces. East Herts Council car | registered journey per week (46 week year). | Multi-functional courier | | |
| | share data base system in operation available for all staff and members | If 5 days a week then saving increases to | | | |
| | operated by "Liftshare" and linked to intranet. This allows regular and <i>ad</i> <i>hoc</i> journeys to be | 20,900 kg CO ₂ | | | |
| | requested. System is also linked to HCC and other Hertfordshire based | | | | |
| | public sector clients, plus options to share with Hertfordshire/UK wide public data base should | | | | |
| | the user wish. At the current time there are 57 registered staff | | | | |
| | users. There are 4 regular sharers for commuting. In addition to Liftshare 7 | | | | |
| | members of staff in Environmental Services/Community Development car share on | | | | |
| | a regular weekly basis amongst themselves. Staff bus between sites | | | | |
| | and the idea of pool cars has not been progressed | | | | |

| | on cost benefit grounds. | | | | |
|-----|---|-----|--|---------------------------|-----|
| 2.2 | Investigate "Green leased cars" eg biofuel mix and LPG / extend lease car period / CO2 emissions limits Update: Lease scheme deleted as part of Terms and Conditions review. | | Lease vehicles tend to be more fuel efficient as more modern engines and regular maintenance, than privately purchased vehicles. | Cost borne by staff | Med |
| 2.3 | Permit LPG use in staff vehicles. Update: Lease scheme deleted as part of last Terms and Conditions review. | Med | Overall CO ₂ reduced. | Cost borne by staff | Med |

| Member Travel | | | | | |
|--------------------|---|--|------------------------------------|-------------|-----|
| 2.4 | Investigate opportunities for reducing member travel through car share /location of meetings/ opportunities for use of IT | | Reduce car travel. | Low/ Med | Med |
| | Update: Following move to a single site, meetings in the main take place at Wallfields. The Car Share scheme is open to both staff and members. | | | | |
| Staff Commuting | | | | | |
| Cycle/walk | | | | | |
| 2.5 | Investigate potential for encouraging increased cycle use and greener travel by staff and members including: Provide Adult cycle training. Cycle storage at work. | Potential carbon saving for electric vehicle use is high, but | Carbon saving. Health benefits. | Med | Med |

| Provide better changing facilities/Showers/ hairdryers.currently uptake is low mainly due to perceived unavailability of charge points, hence actual carbon saved atSubsidised bikes.Bike mileage scheme. Incentives.of charge points, hence actual carbon saved atSubsidised bikes.Update: Electric car charging points have been installed at Gascoigne Way car park. There is also a single charge point at Wallfields and in use by staff. Bike mileage scheme is in operation. Hertford Theatre has been asked to promote the availability of public transport/ location of cycle racks in appropriate publicity material. A ride to work scheme providing discounts on the purchase of new bicycles - on a salary sacrifice basis – is available for staff.Staff travel survey undertaken late summer 2015, appetite for car sharing and greener travel modes appears relativelycurrently uptake is low mainly due to perceived unavailability of public transport/ location of staff.Staff travel survey undertaken late summer 2015, appetite for car sharing and greener travel modes appears relativelysurvey undertaken late summer tanbe easilysubsidised bikes.Staff travel survey undertaken late summer 2015, appetite for car sharing and greener travel modes appears relativelysurvey travel survey undertaken late summer tanbe easilysurvey tanbe easily |
|--|
|--|

| | possible external funding. "Novel" approaches to charge point provision could be considered including supply from lamp columns. Partnership working with neighbouring authorities to build wider network to be considered. Potential for increasing staff/general public bike use is considerable if public network of bikes available, however, this is an expensive service to set up and maintain and also usually costly for users. Potentially more practical option is use of folding bikes "dispensed" from lockers (at station or town centre sites) which less prone to theft and set up/maintenance cheaper. | | | |
|-------------------|--|--|--------------|-------------|
| Bus/Trains 2.6 | Promote season ticket loan scheme for staff To/from work On business EHC funded bus service | Reduced emissions. B/S to Hertford. | High High | Med Long |
| | Update: Officers continue to investigate all opportunities to promote greener staff travel, with staff travel survey undertaken summer 2015 but initiatives above not implemented due to cost. | | | |
| 2.7 | Investigate reciprocal office arrangements with other local authorities | Staff work near home reduce commuting time / carbon | Med | Med |

| | Update: Not progressed due to change in IT provision but some staff working in other locations due to 'shared services' partnering e.g with Stevenage Council for certain functions. The Council also shares reception space with South Anglia Housing Association. | emissions | | |
|--|--|---|------|------|
| Contractors vehicles / transport | | | | |
| 2.8 | Investigate and implement stricter Environmental criteria in contracts relating to transport issues – readjust weighting of contract evaluation. Carbon limits for tenders Mapping routes. Alternative fuel / electric vehicles. | Improved environmental performance. | High | Long |
| | Update: In place as necessary. Environmental criteria are strengthened where possible as was case when the Waste Contract was last tendered. Energy savings achieved by the contractor ultimately are passed on to the Council through a reduced contract price. | | | |

| Procurement | Action | Carbon Saving | Benefit | Cost | Time |
|-------------|--|---|--|------|------|
| 3.1 | Investigate Video conferencing and advanced communications. Update: Web casting of certain public meetings and committee meetings is now available. http://www.eastherts.public- i.tv/site/ For staff IT effort is currently geared to enabling staff to work at home/remotely. This will mean significantly fewer journeys for staff to/from work. | Significant carbon saving achieved by reducing commuting, however, this is not accountable as part of East Herts Council's own carbon emissions. | Reduced travel to meetings. Time saved travelling. | Med | Med |
| 3.2 | Investigate "Wireless town hall" approach including: Update: Increased use of internet available council services including payments and planning applications on line are in operation. Greater use of electronic document management. Greater use is being made of managing/storing documents electronically rather than retaining paper copies. Examples can be found on East Herts web site as follows: http://www.eastherts.gov.uk/ind | | Reduced paper. | High | Med |

| | ex.jsp?articleid=9376 - on line benefit claims and keeping track of payments <u>http://www.eastherts.gov.uk/ind</u> <u>ex.jsp?articleid=12699</u> - on line housing applications <u>http://www.eastherts.public-</u> <u>i.tv/site/</u> - web casting of meetings and on-line consultations - <u>http://www.eastherts.gov.uk/ind</u> <u>ex.jsp?articleid=16149</u> saves paper | | | | |
|-------|---|---|--|------|-----|
| 3.2.1 | a) Cordless office telephones which permit mobile workstations. Update: Not introduced. Some staff work at home. All staff can log in to any work station. | Home working staff commuter data not quantifiable | Faster decision making as meetings can be held sooner than otherwise. | High | Med |
| 3.2.2 | b) WiFi – access to Council network from any workstation, Update: New IT system permits access to all files from any workstation in office or from any PC. Council WiFi network now in operation from late summer 2015 | | Increased speed of resolving problems / better customer service. | High | Med |
| 3.2.3 | c) Workflow improvements e.g. "prompting" to advise a message has been received. Update: New IT system | | Reduced number of workstations and saving in office space. | High | Med |

| | permits access to all files from any workstation in office or from any PC. | | | | |
|-------|--|---|--|------|-----|
| 3.2.4 | d) Home working – IT and telephony at home. Update: New IT system permits access to all files from any workstation in office or from any PC. | Home working staff commuter data not quantifiable | Reduce travel to/from work. Office space savings. | High | Med |
| 3.3 | Provide oasis links with partners – e.g. accessibility from Town and Parish Council offices. Update: Not now required as replaced by WiFi access. New IT system permits access to East Herts network from any workstation in office or from any PC. | | Reduced need for customer travel to visit office – vehicle emissions savings. | High | Med |
| 3.4 | Investigate potential of providing access to Council services from mobile locations e.g. "mobile town hall" vehicle. Update: Not progressed | | Improved customer service. Payments made more quickly | High | Med |
| 3.5 | Investigate opportunities for "Paperless meetings" for officers and Members wireless access; mobile devices; tablet style PC's in meeting rooms; software that permits electronic note making on | | Reduce paper / printing (including water, energy and ink). | High | Med |

| | committee agendas; digitizing of hand written notes. Update: IT Services continue to investigate range of options to enable more efficient methods of working. New IT system more energy efficient. | | Require fewer / smaller printers – leasing and maintenance savings. Saving in staff time – both print unit and service staff making copies. | | |
|-------|---|-----|--|------------|--------------|
| 3.5.1 | Omit the last blank page from Council committee agenda papers – replace with worded statement at end of report to indicate final page Update: Completed | | Reduces paper | No cost | Short |
| 3.6 | Revise default printer settings – double sided and replace single side printers. Update: Double sided printing can be undertaken on most machines, but recommended that this is set as default option by IT where possible. | | Reduce paper. | Low | Quick Win |
| 3.7 | Ensure all new PC's are low energy units. Update: IT Services now actively consider energy efficiency of equipment during procurement process and current equipment is very significantly more energy efficient. | Low | Electricity saving. | Low | Quick Win |

| 3.8 | Procure software for automatically powering down PCs after a period of non-use. Update: Power down not required due to use of " zero" client technology, however, potential for further saving if all staff reminded to switch screen off standby on leaving office. | Current 2014/15 carbon emissions from PC terminals/equ ipment is approx 105,500kg CO ₂ | Electricity saving. | Med | Med |
|------|--|--|------------------------------|-----|-------|
| 3.9 | Procure hardware for turning off electrical equipment at the socket rather than leaving on standby. Update: Not yet implemented. Procurement of electrical timers could be investigated for larger electrical equipment such vending machine and also potential for refrigeration equipment to be fitted with saver plugs. | | Energy saving Convenience | Low | Short |
| 3.10 | Review server room energy usage of hardware and air conditioning Allow temp of server room to rise to 25C (from 20C) save a/c costs. Virtualisation increases server/system efficiency. Update: virtualization of IT completed, but no specific movement on | Current 2014/15 carbon emissions from Servers are approx 220,000 kg | Electricity saving | Low | Med |

| | server room technology | | | |
|--|--|---|------|--------------|
| Other | | | | |
| 3.11 | Continue to specify use of sustainably sourced (FSC) timber for projects and procurement. Update: Council policy | Protects forests. Ethically correct. | Low | Quick Win |
| | in place. FSC timber specified where ever available. | | | |
| Contracted out services | | | | |
| 3.12 | Investigate potential for energy saving / procurement saving measures within contracts. | Possible reduction in energy consumption. Reduction in costs. Batter procurement choices. | Med | Med |
| | Update: Energy efficiency is now a factor that is considered within major contracts e.g as was the case with the Waste Contract leading to balanced approached between energy/cost efficiencies | | | |
| 3.13 | Investigate potential for enhanced recycling facilities in leisure facilities. | Popular with public. | Low | Short |
| | Update: No progress to date. | | | |
| Contractors vehicles / transport | | | | |
| 3.14 | Investigate and implement stricter Environmental criteria in | Potential carbon saving | High | Long |

| | contracts relating to transport issues – readjust weighting of contract evaluation. Update: Stricter environmental criteria are now increased in consideration within new contracts e.g Waste Contract. | | | |
|--------------------------|---|--|--|--|
| | Mapping routes. Alternative fuel / electric vehicles. Update: The waste contract has delivered considerable ongoing CO ₂ savings since the 2009 baseline, mainly as a result of improved scheduling of rounds using mapping technology and the use of newer more energy efficient vehicles. 33% reduction in emissions from the fuel use of the refuse freighters between 2012/13 and 2013/14 following change of number of recycling vehicles from 8 kerbsider vehicles to 6 twin packs together with a move to zonal working on rounds making collections more efficient. Lower carbon emission maintained in 2014/15. | There has been a fall of almost 100,000 kg CO ₂ emissions over the past 2 years. | | |
| Contracted Services – | | | | |

| Strategic | | | | |
|---------------------|--|---|------|------|
| Procurement 3.15 | Review Council Procurement Strategy re contract terms for operational contracts - Requirement for contractors to show carbon reduction over life of contract - Contract performance criteria re carbon reduction Contracts to require tenders to include alternative options and costs for provision identifying the carbon impact of each e.g. alternative vehicles; alternative fuels; alterations to operational building; contractor staff travel. Update: Specific questions were asked of waste contract tenderers relating to potential improvements over life of contract. Enhanced environmental performance criteria have been achieved. | Ensure that carbon efficient options are considered at contract award stage. Engage contractor is supporting the Council's Policy objectives on Climate Change. | High | Long |

| Contracted | | | |
|-------------|--|--|--|
| Services – | | | |
| Operational | | | |

| improvements | | | | | |
|--------------|---|--|---|------|------|
| 3.16 | Review Refuse and Recycling Service rounds to identify costs and carbon benefits of re- scheduling. Update: Review was included in Waste management contract. It is a requirement of the Waste contract that a reduction in carbon savings is sought during the life of the contract. | There was a very significant 33% reduction in emissions from the fuel use of the refuse freighters between 2012/13 and 2013/14 due to change in number of vehicles and more efficient zonal working. (see 3.14) | Reduction in fuel usage benefiting contractor and the Council. | High | Med |
| 3.17 | Request County Council to include carbon impact assessment when determining disposal / re- processing locations. Update: Reference made to HCC to confirm use of carbon impact assessments. | | Less distance to travel to tip – fuel saving. | High | Long |
| 3.18 | Next Refuse and Recycling contract to include options and costs for alternative fuels for vehicles and evaluate emissions of vehicles. Update: Wide range of options included in new contract eg enhanced use of Biodiesel, on board vehicle driver performance monitoring, agreement to reduce carbon emissions over life of | Significant ongoing energy efficiency savings achieved amounting to total of over 27% reduction in CO ₂ emissions from 2008/09 and 2014/15. | Fuel savings. | High | Long |

| | contract. | | | | |
|------|--|---|--|------|------|
| 3.19 | Recycling –Continue to develop options to increase level of recycling relative to waste sent to landfill. Update: Ongoing developments eg mixed plastic recycling was introduced mid 2011. Co-mingled introduced November 2013. Overall total waste going to landfill reducing so reducing greenhouse gas (principally methane CH ₄) emissions from landfill. Note: CH ₄ is 21x more damaging than CO ₂ . | Significant carbon savings achieved through increased and continued recycling although cannot be accounted for as part of East Herts Council's own carbon emissions accounting process. | Reduce emissions from landfill. | High | Long |
| 3.20 | Recycling - introduce monitoring of carbon impact of materials collected Depot operations – set targets for contractors to contribute to reduction in energy use. Update: Monitoring of carbon impacts of recyclables on ongoing basis. | | Better understanding of how recycling impacts on the Council carbon footprint. Set targets which involved contractors. | Med | Med |
| 3.21 | Depot operations – evaluate energy efficiency of materials processing machinery. Update: Not yet implemented | | Procure energy efficient machinery. | High | Med |

| 3.22 | In future procurement/ service contracts the Council will consider the impacts of Climate Change, where appropriate. | Variable – depending on contract | Reduced carbon emissions Potentially helps achieve national/ local carbon saving targets | Variable | Variable |
|------|---|--|--|----------|----------|
| | Update: Impacts of carbon reduction considered in waste contract, however, need to examine how best to include Climate Change /carbon reduction initiatives in other Council procurement contracts. Officers to raise this with Procurement Manager. | | | | |

| Planning | Action |
|----------|--|
| 4.1 | Planning will require and enforce the requirement for new developments of more than 10 dwellings or 1,000m² of non-residential floor space to secure at least 10% of their energy from decentralised renewable or low-carbon sources, or onsite renewables unless this is not feasible or viable. East Herts policy approach is to continue to maintain the policy approach contained in the now revoked East of England Regional Spatial Strategy, relating to the creation of energy through new developments. |
| 4.2 | Planning will require development to comply with policy in respect of flood prevention and alleviation. |
| 4.3 | Planning will require the incorporation of Sustainable Urban Drainage systems in accordance with the recommendations of the Council's Strategic Flood Risk Assessment and the Flood and Water Management Act 2010. Hertfordshire County Council is the Lead Local Sustainable Drainage System (SUDS) Approving Body or 'SAB'. |
| 4.4 | Planning will seek to encourage, where appropriate and viable, new developments to install District Heating systems and Combined Heat and Power (CHP) generation facilities, in accordance with national policy as part of a series of approaches and allowable solutions. |
| 4.5 | Planning will require new development to achieve ambitious standards in sustainable construction, measured against the Code for Sustainable Homes and the BREEAM building standards for non-residential development. |

| | East Herts, where possible, encourages developments to exceed the minimum requirements of Building Regulations. |
|------|--|
| 4.6 | Planning will seek to encourage new development to incorporate facilities for zero-and low emission vehicles. |
| 4.7 | Planning will seek to encourage new development to maximise opportunities for more sustainable modes of transport, including cycling and walking. |
| 4.8 | Through the East Herts District Plan, Planning will work with the County Council's Waste Local Development Framework to establish a policy framework which reduces the impact of waste disposal and maximises the opportunities for use of waste as a resource. |
| 4.9 | Through the East Herts District Plan, Planning will support in principle opportunities for innovative sustainable development initiatives across the District |
| 4.10 | Through the East Herts District Plan, Planning will consider opportunities for development of sustainable and renewable energy sources such as biomass generation. |
| | Planning encourages all development across the District to use appropriate and viable solutions for renewable energy generation and use where feasible. |
| 4.11 | Through the East Herts District Plan, Planning will encourage developments to address climate change adaptation measures, such as provision of green infrastructure. |
| 4.12 | The Council will seek to raise awareness of national guidelines relating to permitted development in respect of permeable paving and installation of domestic micro-renewables outside conservation areas. |
| | Planning is continuing to encourage the use of such features where appropriate |
| 4.13 | The Council will continue collaborative working between Planning Policy and other teams such as Environmental Services in order to develop a robust evidence basis for Climate Change policy development. |
| 4.14 | The Council will continue to promote awareness of the Hertfordshire Building Futures website <u>www.hertslink.org/buildingfutures</u> in order to encourage higher standards of development within the district. |

| | Action | Carbon Saving | Benefit | Cost | Time |
|-------------------------------|---|------------------|--|------------|--------------|
| Promotion and Awareness | | | | | |
| 5.1 | Caretakers to check that printers & copiers are switched off during night time close of buildings. | | Low cost | No cost | Quick Win |
| | Update: Has not been added to duties of caretakers. Instead staff are requested to turn off screens when leaving the office. | | | | |
| 5.2 | Staff awareness sessions to include climate change / energy / facts and figures / top tips. | | Improves awareness. Demonstrates commitment from senior management. | No cost | Quick Win |
| | Update: Potential to promote tips on energy saving through new staff weekly email newsletter. In addition occasional poster " campaign" via poster frames in staff restrooms. | | | | |
| 5.3 | Introduce climate / carbon awareness at staff induction. Update: Potential for including top tips/information to be readdressed. | | Improves awareness of measures available. Reduces energy consumption. Improves recycling targets. | No cost | Quick Win |
| 5.4 | Discuss with HR feasibility of including climate change / carbon reduction as element of | | Raises awareness and increases opportunity for positive actions. | No cost | Short |

| all staff JD's /PDR. | | | | |
|--|--|--|--|---|
| Update: HR has advised that this is difficult to include. | | | | |
| Include carbon implications assessment on committee report. | | Raises awareness and identifies carbon "costs". | Low | Med |
| Update: Not implemented, as carbon calculations can be difficult to quantify, but key issue is to insure that energy efficiency is considered at procurement/design stage of projects | | | | |
| Increase ready access to recycling receptacles: Reduce number waste bins Increase number of paper recycling bins. Update: Number of general waste bins has been reduced throughout offices. Increased number of recycling bins including can collection. Has been provided. Large paper recycling wheelie bins are located at strategic points on | It is not possible to directly account for carbon saved through recycling to be attributable to East Herts Council own carbon emissions. | Improves recycling Reduces waste to landfill Highlights issue | Low | Short |
| each floor. | | Low cost. | Low | Quick |
| initiative on regular basis. Update: Undertaken on <i>ad hoc</i> basis. | | Popular with staff Easy. | | Win |
| | Update: HR has advised that this is difficult to include. Include carbon implications assessment on committee report. Update: Not implemented, as carbon calculations can be difficult to quantify, but key issue is to insure that energy efficiency is considered at procurement/design stage of projects Increase ready access to recycling receptacles: • Reduce number waste bins • Increase number of paper recycling bins. Update: Number of general waste bins has been reduced throughout offices. Increased number of recycling bins including can collection. Has been provided. Large paper recycling wheelie bins are located at strategic points on each floor. Promote office recycling initiative on regular basis. | Update: HR has advised that this is difficult to include.Include carbon implications assessment on committee report.Update: Not implemented, as carbon calculations can be difficult to quantify, but key issue is to insure that energy efficiency is considered at procurement/design stage of projectsIncrease ready access to recycling receptacles: • Reduce number waste bins • Increase number of paper recycling bins.It is not possible to directly account for carbon saved through ustable to East Herts Council own carbon emissions.Update: Number of general waste bins has been reduced throughout offices. Increased number of recycling bins including can collection. Has been provided.It is not possible to directly account for carbon saved through recycling to be attributable to East Herts Council own carbon emissions.Promote office recycling initiative on regular basis.Promote office recycling that the paper recycling throughPromote office recycling initiative on regular basis.It is not possible to directly account for carbon saved through emissions. | Update: HR has advised that this is difficult to include.Raises awareness and identifies carbon "costs".Include carbon implications assessment on committee report.Raises awareness and identifies carbon "costs".Update: Not implemented, as carbon calculations can be difficult to quantify, but key issue is to insure that energy efficiency is considered at procurement/design stage of projectsRaises awareness and identifies carbon "costs".Increase ready access to recycling receptacles: • Reduce number of paper recycling bins.It is not possible to directly account for carbon saved throughout offices. Increased number of recycling bins including can collection. Has been provided.It is not possible to directly account for carbon saved throughout offices. Increased number of recycling bins including can collection. Has been provided.It is not possible to directly account for carbon saved throughout offices. Increased number of recycling bins including can collection. Has been provided.Improves recycling to be attributable to East Herts Council own emissions.Improves recycling to be attributable to East Herts Council own carbon emissions.Promote office recycling initiative on regular basis.Low cost. Popular with staff Easy. | Update: HR has advised that this is difficult to include.Raises awareness and identifies carbon "costs".LowInclude carbon implications assessment on committee report.Raises awareness and identifies carbon "costs".LowUpdate: Not implemented, as carbon calculations can be difficult to quantify, but key issue is to insure that energy efficiency is considered at procurement/design stage of projectsIt is not possible to directly account for carbon saved through recycling bins.It is not possible to directly account for carbon saved through recycling bins.It is not possible to directly account for carbon saved through recycling to be attributable to East Herts Council own carbon emissions.LowUpdate: Number of general waste bins has been reduced throughout offices. Increased number of recycling bins including can collection. Has been provided.It is not possible to directly account for carbon saved through bins.LowUpdate: Number of general waste bins has been provided.East Herts Council own carbon emissions.It is not possible to directly account for carbon saved throughout offices. Increased number of recycling bins including can collection. Has been provided.Low cost. Popular with staff Easy.Low |

| 5.8 | Promote energy insulation measures to staff. Update: Home energy efficiency awareness promoted to be promoted as part of Herts Sustainability Forum autumn/winter 2015 campaign. | Ditto | Ditto | Ditto | Ditto |
|------|--|-------|--|-------|--------------|
| 5.9 | Investigate Introduction of Ioan / deduction from salary for purchase of domestic loft / cavity wall measures by staff. Update: Not historically progressed to date, as national/local schemes in operation. | | Popular with staff Reduces energy consumption | Med | Short |
| 5.10 | Investigate possibility of making staff 'Update' electronic only. Update: Completed | | Reduces cost. Saves paper. | Low | Short |
| 5.11 | Investigate potential for provision of safer driving / fuel efficient driver training for staff and members possibly linked to advanced driver training course. | | Reduces cost. Low cost if lunchtime seminar. | Low | Short |
| | Update: Fuel efficient driver training has been investigated, but no budget available. Officers will continue to investigate any options for subsidised training through external agencies, should they become available. | | | | |
| 5.12 | Encourage staff to allow more time to travel to meetings to encourage | | Low cost Increased safety | Low | Quick Win |

| | speed reduction. Update: This is reflected in corporate advice to staff | | Reduces fuel consumption | | |
|------|--|---|--|-------------|--------------|
| 5.13 | On electronic marketplace procurement investigate promotion of carbon footprint on standard items to allow comparison. Update: Not yet investigated. Environmental Services officers will discuss potential for this with Corporate Procurement Manager. | | Increases awareness. Highlights other environmental costs of procurement options. Better informed choices. | Med | Short |
| 5.14 | Promote concept of a 'computer siesta'. Update: Use of new highly energy efficient equipment means this is less of an issue. | | Promote concept of turning off PC when away from desk for any length of time. Good practice. | No cost | Quick Win |
| 5.15 | Encourage a switch off lights campaign. Update: Lighting in Wallfields/Charringtons zoned and PIR linked to occupancy. | | Low cost Energy saving. | Low cost | Quick win |
| 5.16 | Appoint volunteer staff energy wardens to promote switch off campaign. Update: Not implemented – see 5.15 | | Low cost Energy saving | No cost | Quick Win |
| 5.17 | Investigate further improvements to office recycling, as good basis for staff awareness / promotion of climate | It is not possible to directly account for carbon saved | Low cost | Low | Short |

| | change. Update: Number of general waste bins has been reduced throughout offices. Increased number of recycling bins including can collection. Large paper recycling wheelie bins are located at strategic points on each floor. | through recycling to be attributable to East Herts Council own carbon emissions. | | | |
|------|---|---|--|-----|-------|
| 5.18 | Promote use of 'Hippos' (water saving devices) to reduce flush volume in toilet cisterns Update: 'Hippos' not used for Council premises as dual flush toilet cisterns now installed. However, water saving options/kits were promoted to local residents/staff in October 2013 and October 2014 through "Don't be a Drip campaign" launched by Herts Sustainability Forum, of which EHC is an active member. Water usage in East Herts, along with the rest of Herts is highest in UK at approx 170 litres per person per day. Top new build regulations aim for 105 litres ppd, but still need to reduce use in existing household as | Carbon emissions saved through water efficiency are not directly attributable to East Herts Council carbon emissions account. | Low cost Useful promotional tool | Low | Short |
| | Herts is one of driest areas in UK and water resources are under | | | | |

| | severe pressure. | | | |
|------|---|--|-----|-------|
| 5.19 | Investigate development of a staff volunteering scheme to promote team development and undertake small scale local community environmental improvements Update: Not progressed | Positive staff development tool Potential to link with other organisations e.g. Groundwork and Herts and Middx Wildlife Trust Will enable small projects to be undertaken | Low | Med |
| 5.20 | Undertake staff environmental awareness to provide briefings on carbon saving/green measures at home and work Update: Staff awareness to be promoted through new staff weekly on ad hoc basis | Provides information for staff. Encourages uptake of carbon saving measures and spreads corporate message | Low | Short |

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