

Nottingham City Council Delegated Decision



Nottingham
City Council

Reference Number:

1859

Author:

Gareth Edwards

Department:

Communities

Contact:

Alex Moczarski

(Job Title: City Energy Manager, Email: alex.moczarski@nottinghamcity.gov.uk, Phone: 01158765644)

Subject:

Energy efficiency installations at various sites

Total Value:

£270,000 (Type: Revenue)

Decision Being Taken:

- To approve project expenditure of up to £270,000 (£18,000 of which is contingency) allocated from the available budget within the Council's £1,100,000 Salix Fund to allow the Council to complete energy efficient installation projects at the sites set out in the attached appendix.
- To grant authority to carry out any necessary procurement processes in order to purchase any equipment required for the installations.- To delegate authority to Strategic Director of Commercial and Neighbourhood Services to award contracts to successful providers upon completion of the procurement process.

Reasons for the Decision(s)

- These projects support the Council's Carbon Management Action Plan to cut Council's emissions by 31%
- The projects can create an annual saving:
Financial: £35,100/year
Carbon Dioxide: 206.18 tonnes/year
Extra Saving due to reduction in Carbon Dioxide of £2,474 per annum from the CRC Energy Efficiency Scheme (£12/tonne)
- Before the projects can be installed the property budget holder has to agree to the repayments and sign a loan agreement form; the repayment values match the savings made.
- Where the projects have a 5 year payback or less the projects can be financed in full from the Salix scheme; when the payback is over 5 years a client contribution is required. The property's budget holder then repays the loan from the savings made on the energy bills. Once the loan is repaid savings go directly to the property budget holder.
- Further savings can be made on maintenance budgets for the installation of new equipment which then has a minimum 1 year warranty.
- If the Salix annual investment targets are not reached the money given to Nottingham City Council will have to be returned. This is undesirable as it would represent a lost opportunity to deliver against manifesto commitments.
- The projects will ensure the current required standards/levels are maintained or improved.
- Fully utilise the internal team from Highway and Energy Infrastructure to carry out the installations demonstrating value for money.

Briefing notes documents: Appendix1.doc

Other Options Considered: Carry out a like for like replacement to replace all failed luminaries and lose out on energy and financial savings. This option was discounted.

Background Papers: Carbon Management Plan

Unpublished background papers: Carbon_Management_Plan_-_Executive_Summary_1_[1].pdf

Published Works:

Affected Wards: Bilborough, Bridge, Dunkirk and Lenton, Radford and Park, Sherwood, St Ann's, Wollaton East and Lenton Abbey

Colleague / Councillor Interests:

Consultations: Those not consulted are not directly affected by the decision.

Crime and Disorder Implications:

None

Equality:

Please login to the system to view the EIA document: EIA form ashx 1415 measures.doc

Decision Type:

Portfolio Holder

Subject to Call In:

Yes

Call In Expiry date:

03/03/2015

Advice Sought:

Legal, Finance, Procurement, Equality and Diversity

Legal Advice:

There are no significant legal concerns arising from the proposals set out in this report.

Salix funding is an established means to fund energy efficiency projects within the public sector.

Any purchase of equipment must be in accordance with the Council's procurement requirements and advice should be sought from the Corporate Procurement unit with regard to the appropriate process to be followed. Legal support will be provided with regard to any purchase terms as required.

Advice provided by Naomi Vass (Senior Solicitor) on 16/07/2014.

Finance Advice:

The works are proposed to be funded initially from a loan from the SALIX fund, this is available at 0% interest repayable over 5 years. The repayments are to be funded from savings as a result of reduced energy consumption, the budgets of the services benefiting from the works will be adjusted to reflect these changes.

For those projects with a payback period of greater than 5 years, a contribution will be required to fund the elements of the works not eligible for SALIX funding. Appropriate approvals will be required for these contributions prior to works commencing.

The works will be undertaken utilising Council resources, procurement of equipment and materials will be undertaken in accordance with Council procedures.

Advice provided by Gary Robbins (Finance Analyst) on 07/07/2014.

Procurement Advice:

There are no significant procurement concerns with this decision.

On discussion with the service area, I understand that the majority of expenditure is either purchase of lighting equipment via ESPO framework 56/57 (a compliant procurement route in accordance with Contract Procedure Rules), and installation work carried out by the in-house team.

Any variations to this (eg: purchase/installation of heating equipment) will be of low value (below £50k), and the CPU will provide support as necessary where 3 written quotations are required to ascertain VFM and comply with Contract Procedure Rules.

Advice provided by Dawn Cafferty (Procurement Category Manager) on 23/02/2015.

Equality and Diversity Advice:

There is an opportunity to advance equality by prioritising the improvement of lighting installations in locations where there are concerns about community and road safety, particularly in neighbourhoods where poverty levels are high. The community as a whole should benefit from the effects of mitigation against climate change. Advice provided by Imogeen Denton (Senior Equality Specialist) on 01/07/2014.

Signatures

Alan Clark (Councillor) (Portfolio Holder For Energy and Sustainability)
SIGNED and Dated: 24/02/2015
John Kelly (Corporate Director Community Services)
SIGNED and Dated: 24/02/2015

Appendix

Projects that can be fully funded by Salix

Site Name	Estimated Material Cost	Estimated Labour Cost	Estimated Total Cost	Estimated Financial Saving	Payback (years)
Trinity Square Car Park	£51,000	£31,000	£82,000	£17,500	4.68
Victoria Market	£23,000	£7,000	£30,000	£6,000	5.00
Woodthorpe Grange Offices	£4,000	£1,200	£5,200	£1,041	5.00
Queens Walk Community Centre	£4,500	£1,500	£6,000	£1,200	5.00
The Willows	£2,600	£1,500	£4,100	£900	4.55
Long Day Meadow Day Centre	£5,000	£2,500	£7,500	£1,500	5.00
Sub Total	£90,100	£44,700	£134,800	£28,141	

Projects that require client contribution

Site Name	Estimated Material Cost	Estimated Labour Cost	Estimated Total Cost	Estimated Financial Saving	Salix Contribution	Payback (years)	Client Contribution
Radford Primary School	£16,500	£5,500	£21,000	£2,040	£10,200	5.00*	£10,800
Middleton Primary School	£18,000	£5,500	£23,500	£2,570	£12,850	5.00*	£10,650
Harvey Hadden Sports Centre	£47,933	£25,100	£73,033	£3,864	£19,320	5.00**	£53,713
Sub Total	£82,433	£36,100	£117,533	£8,474	£42,370		£75,163
Total	£172,533	£80,800	£252,333	£36,615			

*Salix terms allow the client to contribute towards the costs as a one off payment to bring the payback to 5 years or below. The schools have requested new fittings.

**At a feasibility stage with leisure, Salix terms allow the client to contribute towards the costs as a one off payment to bring the payback to 5 years or below. This is to upgraded proposed lights to be more energy efficient lighting.

Nottingham City Council Carbon Management Plan 2011 – 2016

Executive Summary

This document provides a performance update on Nottingham City Council's Carbon Management Plan which was first published in 2009.

We want a Nottingham which is a low carbon prosperous city, and as one of the biggest employers in Nottingham we recognise that we have to set an example for our citizens and businesses to follow. Our new manifesto places importance on a Cleaner, Greener Nottingham, and reducing the Council's and City's carbon emissions remains one of our highest priorities. As the UK's most energy self sufficient city we will continue to build on this.

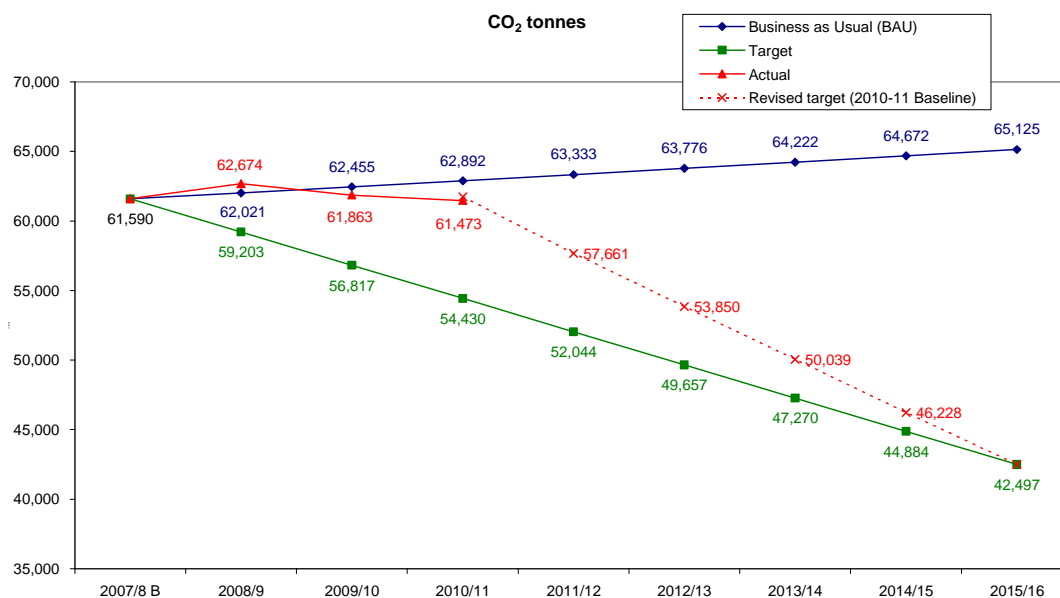
As an organisation we contribute 3% towards the city's overall carbon emissions. This is why we are committed to reducing our carbon emissions. In 2009 we published our first carbon management plan with the Carbon Trust, in which we set ourselves a challenging target of a 31% carbon reduction by 2016 from a baseline year of 2007.

The Carbon Management Plan is owned and performance managed by the Council's Climate Change Panel which consists of the Heads of Service responsible for delivering the action plan.

Past & Current Position

Our baseline in 2007-08 was 61,590 tonnes of CO₂ emitted from our services and operations. The latest data we have for 2010-11 shows we are at 61,473 tonnes of CO₂ emitted. This is represented in figure 1 actual emissions.

Figure 1 – CO₂ emissions from Nottingham City Council Operations



Although our carbon emissions have stayed remained static over the last four years, we have seen a marked reduction in the associated costs in delivering these utilities and services in the past year. Our associated costs are detailed in figure 2

Figure 2 – Associated Costs

2007-08	2008-09	2009-10	2010-11
£12,104,450	£14,365,867	£14,348,199	£13,174,311

The savings made between 2009-10 and 2010-11 where we have undertaken significant measures to reduce our energy consumption are £1.17m

As shown in figure 1 our carbon emissions performance has been fairly constant over the last four years. The main reasons for this have been:

- We are just beginning to realise the savings from our property rationalisation programme. Over the last four years our property portfolio & total square meterage has increased, with the move into Loxley House having an impact. We are only just now removing our old city centre offices from our portfolio. This will remove 2691 tonnes of CO₂
- The street lighting PFI was delayed, with service commencement being 1st September 2010, and not early 2009 as originally planned., Therefore not delivering the expected carbon savings at this time
- The improved service we now offer to citizens has resulted in longer operational hours for many of our buildings. This change in the use of community buildings such as schools, leisure centres, and community centres, has seen improved environmental conditions, and an increased energy demand from a greater emphasis on technology, which has resulted in many of these buildings producing more CO₂ than in 2007-08.
- Less funding available for sustainable features on new builds and refurbishments to our property portfolio
- Whilst our carbon emissions have risen by 0.28%, we have bucked the national trend, where in 2010-11 UK national carbon emissions rose by 3%.

There is a small impact in our carbon reporting via the change in carbon emission factors since 2007-08. The majority of the factors we use have increased.

We are using 2010 Guidelines from Defra / DECC's GHG Conversion Factors for Company Reporting.

Carbon Reduction Commitment (CRC)

As we use more than 6,000 mWh of electricity we are subject to the CRC. We will be submitting our first annual report in July 2011 and buy our first set of credits in 2012. The estimated cost of the CRC to the Council in the first year will be approximately £300,000 (not including schools or Nottingham City Homes). Therefore the carbon savings we make now will also reduce our annual cost of the CRC.

We are expecting the cost of the CRC credits to increase each year, but the savings we will make on revised action plan will deliver a net reduction on the CRC costs.

Carbon Efficiency

Whilst our power input remains static, the total floor space of the buildings we power has increased by 1.46% since 2007-08.

We have therefore chosen to introduce some new metrics that represent better how we utilise the space we have.

Figure 3 - Carbon intensity by floor space like for like (tonnes CO₂ per 1000 m²)

	2007-08	2008-09	2009-10	2010-11
Electricity (kWh)	37.17	37.33	41.06	41.90

This has increased slightly because of increased power demand due to improvements in services from our buildings.

Figure 4 - Carbon intensity by floor space like for like (tonnes CO₂ per 1000 m²)

	2007-08	2008-09	2009-10	2010-11
Gas (kWh)	35.57	36.08	32.86	33.85

This is as a positive result from our commitment to moving our property portfolio from gas heated to district network heated, which has a lower carbon factor. Our new corporate headquarters Loxley House is heated from our District Heating Scheme.

These reductions confirm that our investments and programme of works to reduce our carbon footprint are working whilst we are using the same amount of energy in our buildings.

Energy use in our buildings is the biggest contributor to our carbon emissions. In 2010-11 our energy use in buildings was 164 GWh, that's no change from our 2007-08 consumption. This equates to 75% of our total consumption.

This is why our focus is predominantly on reducing emissions from the built environment.

Figure 5 – Power & Heat to our Buildings

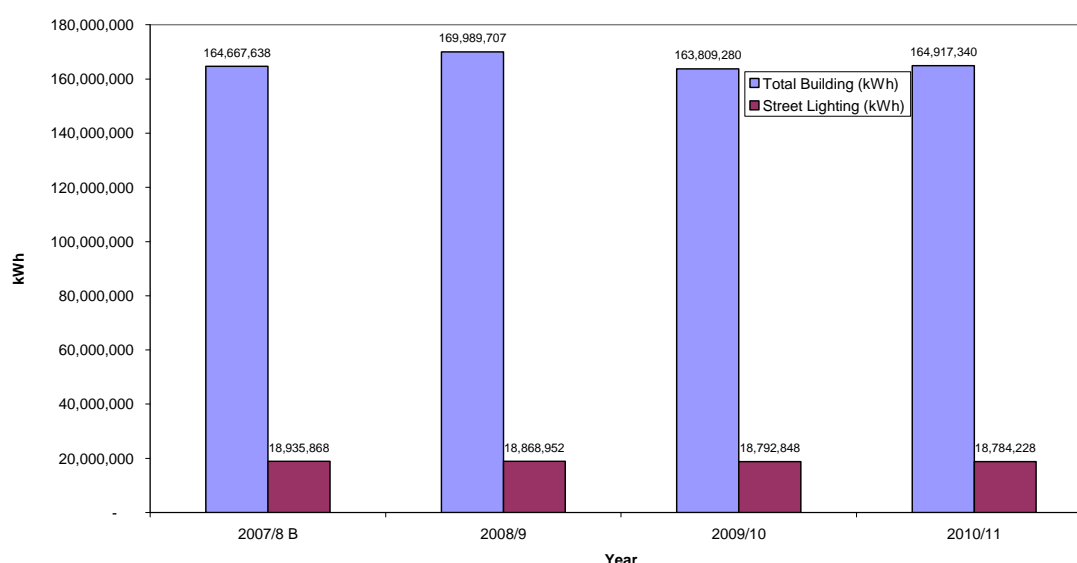


Figure 6 – Electricity consumption by building type

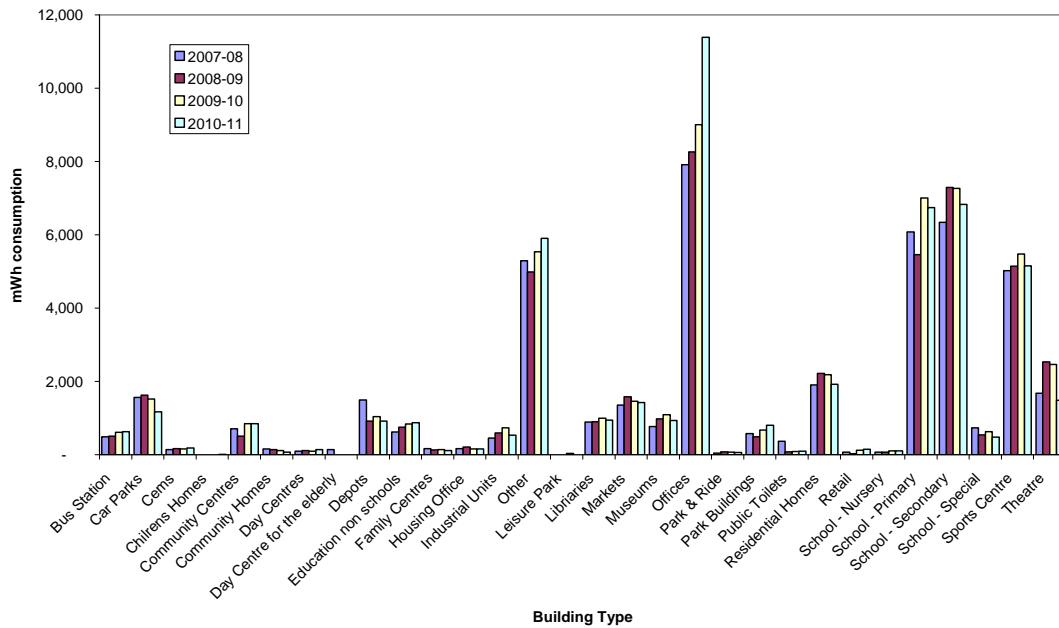
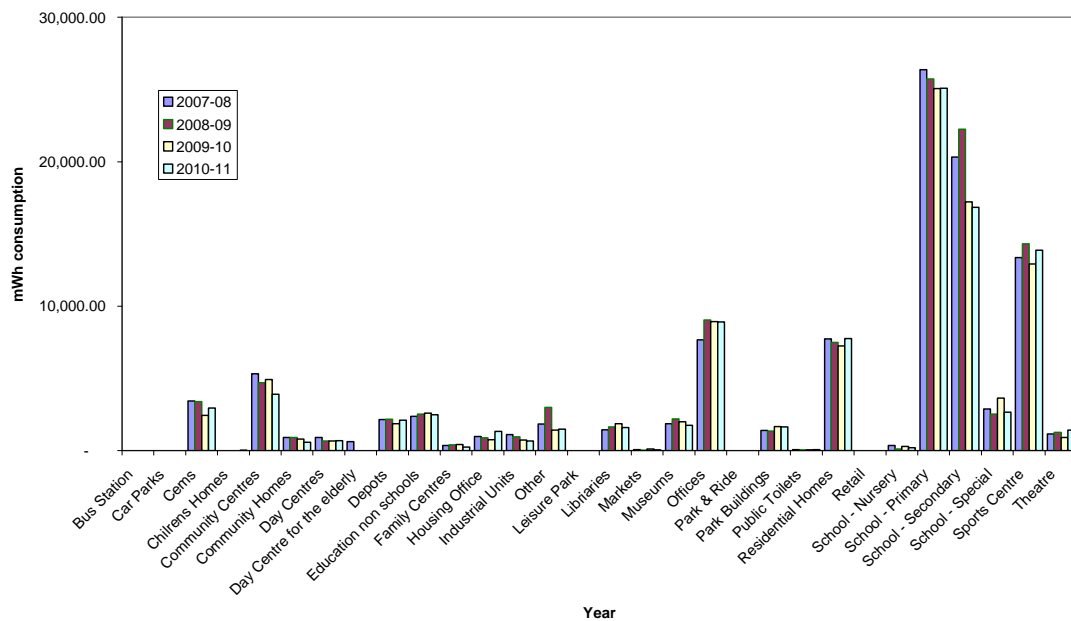
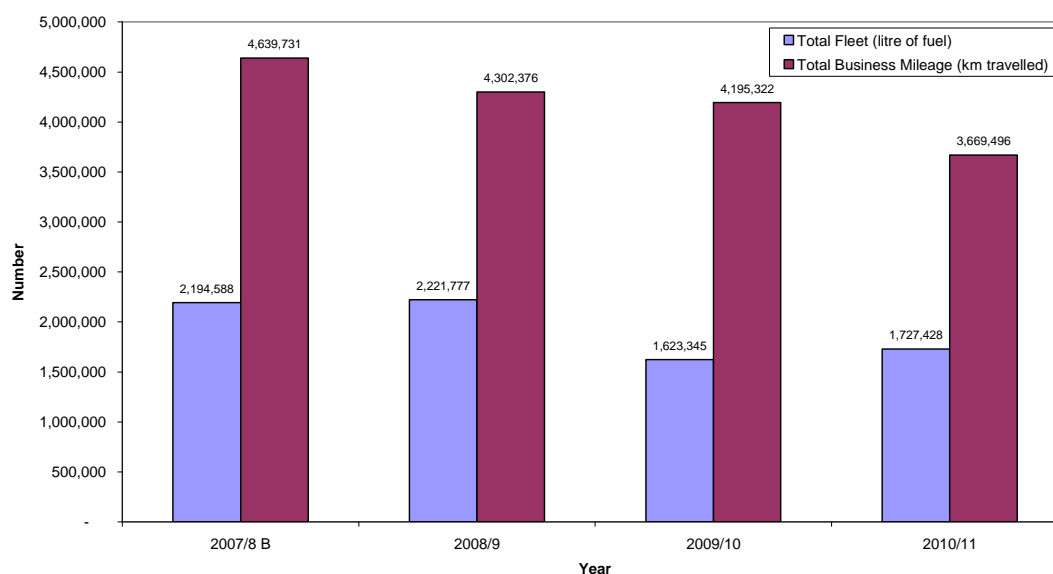


Figure 7 – Gas consumption by building type



We have delivered a 19% reduction in CO₂ emissions from our transport operations since 2007-08, which is equivalent to 1,264 tonnes of CO₂.

Figure 8 – Fleet usage



We have made excellent progress on our emissions from our fleet and business travel with a 19% reduction since our baseline year. The main reasons for this have been:

- Fleet utilisation programme, as part of the Corporate Transport Review
- Greater control of fuel cards, and fuel card data
- Staff travel plan and policy
- Increased use of e-solutions for meetings such as web-conferencing

Data Management

We have made great progress in collating robust carbon data since 2009, which now gives us improved intelligence on our carbon usage. This assists us in identifying and prioritising areas for behavioural change and investments.

We have accurate data for energy use in all of our buildings, which includes access to half hourly metering. Through our monitoring systems we are able to pin point fluctuations in energy usage. We continue to develop our energy monitoring via more intelligent ways of reporting energy usage such as energy by square meter, and investigating further metrics such as energy by visitor numbers and operating hours.

Our Fleet Management service has improved the collection of fuel use data for our off site fuelling via fuel cards. We now have a system controlling fuel card use and data, and this has contributed towards the reduction in CO₂ from our fleet vehicles.

Investments & Projects

Over the last 2 years we have made significant investments to reducing energy within our buildings. We have a plan to continue to identify and invest in cost effective projects that will reduce our energy costs and carbon emissions.

Since the start of this plan, we have invested over £500k in over 100 completed projects, which have resulted in 1,762 tonnes of CO₂ saved to date. These projects include improved lighting and heating systems and control upgrades. We have also completed targeted energy training to staff in some of our highest energy consuming buildings.

The average payback on our projects is 5 years. Much of this investment has come from the £700,000 funding from Salix that we secured for our energy reduction projects. This is match funded and is still being invested and repayments to the scheme will be re-invested.

Figure 9 – Project Investment Table

Project Status	Investment (£'000)	Predicted kWh saved p.a	Predicted water m ³ saved p.a	Predicted CO ₂ saved p.a	CO ₂ saving to date
Complete (116)	£583k	2,411,704	18,853	864	1762
Approved (38)	£204k	546,890	15,942	167	
For consideration (19)	£197k	536,379	291	117	
Awaiting approval (11)	£12k	2,875,588		537	
Identified (5)	£25k	230,081		49	

To achieve our target of 31% CO₂ reduction by 2016 we will need to continue our focus on improving energy efficiency and increase the level of investment to match our ambitions.

Future Work

We are continually assessing the programme of work we undertake to reduce our CO₂ emissions as an organisation, some of these projects include:

- Behavioural change programme – targeted at high end energy users and leadership
- Lighting upgrades and refurbishments
- Further investment in LED lighting
- Heating system upgrades and refurbishments
- School SCORE programme
- Loxley House private wire connection
- PV on commercial properties
- Reviewing renewable heating technology
- Property rationalisation
- Improved building management systems
- Adoption of Sustainable Construction policy
- Improved communication of consumption patterns

- Online access to half hourly metering for schools and other high end users
- Green driving – Green Fleet Review
- Phase 2 Cenex funding – Low Carbon Vehicle Programme
- Vehicle tracking on 50% of the fleet
- An assessment of actions required to reduce carbon will result in a revised and updated carbon management action plan which will be published later in 2011.

For further information on our Carbon Management Plan, please contact:
andy.whitley@nottinghamcity.gov.uk

Equality Impact Assessment Form

Name and brief description of proposal / policy / service being assessed

The installation of energy efficient measures in number of NCC properties. The properties have initially been selected after carrying out Energy Surveys as requested by the building users and identifying where energy savings can be made,

Information used to analyse the effects on equality

Where new lighting installed use CIBSE (Chartered Institution of Building Services Engineers) guidelines for recommended lighting levels as the minimum requirement; end user feedback.

	Could particularly benefit (X)	May adversely impact (X)	How different groups could be affected: Summary of impacts	Details of actions to reduce negative or increase positive impact (or why action not possible)
People from different ethnic groups	<input type="checkbox"/>	<input type="checkbox"/>	The introduction of new lighting will improve lighting levels and create a more natural day light look. This can improve community and road safety for the end users. Modern lighting life span is longer than the current lamps and therefore a benefit will be fewer interruptions to service provision and potentially having obstacles in the working environment.	Produce Dial Lux report's to ensure required lighting levels are maintained Lighting level readings have been taken already in a number of the identified properties and the remaining will be taken before the installation, and then again afterwards by Energy Management to ensure the lighting levels are equal or greater than expected from the Dial Lux report's Arrange for end user feedback after 3months, via feed back forms, questionnaire or meeting with building users.
Men, women (including maternity/pregnancy impact), transgender people	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
Disabled people or carers	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
People of different faiths/beliefs and those with none.	<input type="checkbox"/>	<input type="checkbox"/>		
Lesbian, gay or bisexual people	<input type="checkbox"/>	<input type="checkbox"/>		
Older or younger people	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
Other (e.g. marriage/civil partnership, looked after children, cohesion/good relations, vulnerable children/adults)	<input type="checkbox"/>	<input type="checkbox"/>		

Outcome(s) of equality impact assessment:

No major change needed Adjust the policy/proposal Adverse impact but continue Stop and remove the policy/proposal

Arrangements for future monitoring of equality impact of this proposal / policy / service:

Arrange for end user feedback after 3months

Approved by (manager signature): Alex Moczarski 23/06/14

Date sent to equality team for publishing: 23/06/14