

**REPORT OF SERVICE DIRECTOR TRANSPORT, PROPERTY AND
ENVIRONMENT****ENERGY COSTS AND PROCUREMENT****Purpose of the Report**

1. The purpose of this report is to:
 - update Committee with regard to the procurement of energy for the Council's buildings and street lighting
 - update on projected costs of energy for this financial year and advise on the estimated fuel costs for the 2014-15 financial year
 - report on the Council's carbon emissions and costs associated with mandatory participation in the Carbon Reduction Commitment Energy Efficiency Scheme
 - provide a brief update on current energy cost and carbon saving measures, and
 - recommend that representation be made to Government regarding Phase 2 of the Carbon Reduction Commitment Energy Efficiency Scheme.

Information and Advice**Energy procurement**

2. This report updates information reported to this Committee on 25 February 2013 and relates to energy and carbon management performance reported to Environment and Sustainability Committee on 10 October 2013.
3. For electricity and gas for Council buildings and street lighting, Members should note that some of the Council's supplies, covering about 70% of its consumption, are purchased under a flexible, variable procurement model, whereby energy is purchased in advance of and during the supply period (financial year). The remaining 30% is purchased prior to the supply period. This should be borne in mind when noting the predicted energy costs in the following section.
4. Procurement of gas and electricity takes place through the Council's appointed central purchasing body, Government Procurement Service (GPS - formerly known as Buying Solutions). The supply contracts for gas and electricity are also made available to state schools in Nottinghamshire through a participation agreement, which virtually all schools take advantage of. The GPS performance review for 2012-13 shows that for the energy baskets from which the Council's supplies are procured, GPS continues to achieve better than average market

prices, with electricity up to 5%, and gas up to around 4% better. The three year average shows a saving of about 15% for both gas and electricity against average market prices.

Energy costs

- Table 1, below, shows the predicted energy costs (electricity and gas) for this and next financial year, compared to actual costs for 2012-13 and 2011-12. Overall, predictions for next financial year show an increase in costs, with an average increase of around 6% for electricity and a 14% increase in gas costs. It should be noted that for gas the percentage increase is above what might be expected owing to a one-off discount of 10% applied to 2013-14 prices.

Table 1. Summary of predicted electricity and gas costs for 2013-14 and 2014-15

	2011- 12 actual	2012-13 actual	2013-14 predicted	2014-15 predicted	Difference compared to 2013-14 (% increase in brackets)
Schools*	£9,102,531	£10,052,120	£9,482,830	£10,359,999	£877,169 (9%)
Traffic signals	£300,749	£307,621	£373,926	£393,861	£19,935 (5%)
Street lighting	£3,813,514	£4,203,333	£4,339,877	£4,570,176	£230,299 (5%)
Corporate	£3,021,779	£2,828,101	£2,922,784	£3,162,263	£239,479 (8%)
Total cost excluding schools	£7,136,042	£7,339,055	£7,636,587	£8,126,300	£489,713 (6%)

*Schools meet their own energy costs

- Members should be aware that these are very much best estimate figures based on average consumption over the past three years, predicted prices and the limited amount of energy purchased in advance, with many variable factors that can influence actual costs. Street lighting and traffic signals comprise around 60% of the Council's electricity and gas costs. Although rising, predicted combined costs for schools and the Council in 2014-15 of £18.5million still compare favourably to the £21million equivalent costs in 2010-11, which was prior to the new procurement arrangements (above) being put in place.

Carbon Reduction Commitment Energy Efficiency Scheme (CRCEES)

- Reducing emissions of carbon dioxide (the main greenhouse gas), including those from the Council's own estate and operations, is one of the Council's Strategic Plan priorities. Carbon emissions for the financial year 2012-13 arising from the use of energy in Council buildings (including schools), as declared in the annual report under the Government's Carbon Reduction Commitment Energy Efficiency Scheme (CRCEES), amounted to 73,400 tonnes of carbon dioxide, representing a total cost of £880,800 at the current price of £12 per tonne. This is an increase

of 5,947 tonnes compared to the previous year, which reflects the particularly cold and prolonged winter of 2012-13.

8. Table 2 shows reported carbon emissions under the CRCEES, and those associated with street lighting, for the previous 3 years, with figures in brackets showing weather corrected carbon emissions for energy use in buildings. This shows that when the effect of weather is taken into account (which the CRCEES does not do), a year on year decrease in emissions from County Council buildings has been achieved.

Table 2. County Council carbon emissions

County Council carbon emissions			
Year	Reported emissions from energy use in buildings (weather corrected figures in brackets)	Emissions from energy use in street lighting, signs and signals	Total (tonnes)
2010-11	78,579 (76,635)	24,619	103,198
2011-12	67,453 (72,404)	24,515	91,968
2012-13	73,400 (70,030)	24,772	98,172

9. The Government has made significant changes to Phase 2 of the CRCEES designed to simplify the scheme and reduce the administrative burden for participants, whilst maintaining its effectiveness in delivering energy and carbon savings. The main changes with financial implications for the County Council come into effect in 2014-15, and are as follows:

- The cost per tonne increases from £12 to £16, and then in line with RPI each year
- Emissions from schools and academies will be excluded
- Emissions from street lighting, signs and signals will be included.

These changes result in an estimated increased cost to the Council in 2014-15 of about £470,000, based on current emissions. Table 3 summarises predicted costs of CRCEES up until 2016-17.

Table 3. Predicted costs under CRCEES

Predicted CRCEES costs						
(Based on 2012-13 emissions, assuming these remain constant, and an RPI of 5%)						
Cost area	2012-13 emissions (tCO ₂)	Year and cost per tonne				
		2012-13 £12	2013-14 £12	2014-15 £16	2015-16 £16.8	2016-17 £17.64
Schools	55,228	£662,736	£662,736	-	-	-
Corporate buildings	15,434	£185,208	£185,208	£246,944	£259,291	£272,256

Street lighting	24,772	-	-	£395,552	£415,327	£436,096
Pensions portfolio	2,738	£32,856	£32,856	£43,808	£45,998	£48,298
Total excluding schools	42,894	£218,064 (actual cost)	£218,064	£686,304	£720,616	£756,650

10. Due to energy consumed by schools and street lighting not being included in the qualifying energy consumption for Phase 2, a somewhat arbitrary pattern of local authorities now appears to be captured by the Scheme, such that some authorities of comparable size to Nottinghamshire County Council (including other Highway Authorities) will be exempt because they do not consume above the qualifying threshold of electricity through certain types of electricity meter associated with sites with high consumption. This is considered inappropriate and inconsistent and therefore it is proposed that representation be made to Government to remove this anomaly.

Measures to reduce energy costs and carbon emissions

11. The Council has a number of key programmes in place to tackle energy consumption and reduce its carbon emissions. These include:

- (i) A revolving loan fund for investment in energy efficiency measures, which has now increased from £1.2 to £1.3million following additional funding provided by Salix Finance.

Up to the end of September 2013 this fund had invested £1.85million in the Council's schools and other buildings, saving 2,639 tonnes of carbon dioxide and £449,586 in energy costs per year. Measures funded include low energy lighting, energy management systems, improved heating controls and voltage optimisation. Salix Finance publishes the performance of its Recycling Fund clients and in the most recent league tables Nottinghamshire County Council is placed in the top 6 or above in 5 of the 7 performance measures.

- (ii) A revised street lighting energy saving project approved by Policy Committee in September 2013.

This has now been enhanced by a successful bid to Salix Finance for two interest-free energy efficiency loans, totalling £1.8million, for a county-wide dimming and an LED lighting replacement programme. Once these programmes are completed, expected to be some time around March 2016, savings are estimated to amount to about £550,000 p.a. in energy costs and a further £44,000 p.a. in CRCEES costs.

- (iii) Investment in photovoltaic (PV) panels on the roofs of various Council properties.

To date the SunVolt programme, which is about 2 years old, has invested a total of £617,061, with £117,203 so far received as income by way of Feed in

Tariffs. In addition to this, the panels have offset over £36,662 worth of electricity that the Council would otherwise have had to pay for, bringing the total financial benefit of the project to £153,865. At this rate the investment cost will have been covered in about 8 years. In addition to the financial benefits, the programme has also prevented the generation of about 250 tonnes of carbon dioxide and raised awareness of energy issues amongst staff at the affected buildings. A further £1.2million has been allocated for PV investment in the next phase of the SunVolt programme.

- (iv) A £2million programme approved in September 2012 to replace remaining ageing coal, oil and LPG boilers in Council properties with modern biomass heating systems.

This programme will utilise the Government's Renewable Heat Incentive (RHI) to repay the capital costs and generate a surplus income for the Council. The programme is now well underway with the first few boilers installed and commissioned at a number of schools and the Council set to start receiving RHI payments. This programme follows on from previous activity, which has resulted in over 60 Council sites now heated by modern biomass boilers, saving each year over 6,000 tonnes of carbon, currently worth £72,000. This activity has been supported over the years by c£1.85million of external funding.

12. Work reviewing billing has resulted in £172,500 of refunds being made to sites on the Council's contract. In addition, on-going energy savings of £12,900 p.a. have also been achieved this year through regular review of available electricity supply capacities across the Council's properties. This has enabled savings by lowering the maximum amount that suppliers agree to make available to sites at any moment in time.
13. The Council will also be limiting its carbon emissions through its programme of property rationalisation and the creation of more energy efficient working environments. This has included the integration of energy efficiency measures into the refurbishment of County Hall, energy efficient design for new Council buildings such as Worksop library, and the use of low carbon technologies, such as ground source heat pumps, which feature in the new bus station at Mansfield.
14. All Council new build projects are designed to meet current building regulations and incorporate, where possible, daylight sensitive lighting controls, natural ventilation, sustainable drainage, rainwater harvesting, and other measures that save energy and reduce running costs. Use is increasingly being made of modular construction methods, which reduce time on site, help minimise waste and meet requirements for improved air tightness. Where refurbishments, such as the Schools Capital Refurbishment Programme and Day Service Review, are being undertaken, every opportunity is taken to upgrade the buildings and services to meet the current regulations and reduce future energy use.
15. The Council is developing performance profiles for each of its property assets with high level indicators to be presented to Members for approval later this year. These profiles will bring together key information for each building, including

running costs and energy performance ratings, and will enable an assessment of each property's performance from both a building and service perspective. The profiles will provide information to support decisions regarding which assets to retain or sell, and allow target setting in respect of the performance of retained assets. Furthermore, they will assist with more effective prioritisation of spending, including that on energy efficiency measures, thus optimising the use of available funds and supporting the drive towards reducing costs. The Council is also progressing with the 'One Property' central government initiative that seeks to promote the shared use of property. One of the direct effects of this is to reduce individual organisations' carbon footprints.

Other Options Considered

16. Not applicable

Reason/s for Recommendation/s

17. The reason for recommending that representation is made to Government is set out in paragraph 10.

Statutory and Policy Implications

18. This report has been compiled after consideration of implications in respect of finance, the public sector equality duty, human resources, crime and disorder, human rights, the safeguarding of children, sustainability and the environment and those using the service and where such implications are material they are described below. Appropriate consultation has been undertaken and advice sought on these issues as required.

Financial Implications

19. Energy costs are predicted to rise in 2014-15. This impacts on a number of service areas which have been informed of the predicted increases. Affected service areas should be planning how to finance these as part of their budget setting process. The net effect of the changes to the CRCEES is estimated to result in an increased cost to the Council of about £470,000 in 2014-15 based on current emissions. The Council has a number of programmes in place to tackle energy consumption and reduce carbon emissions. These will help militate against price increases and reduce the charges for carbon emissions under CRCEES.

RECOMMENDATIONS

Committee is recommended to:

- (i) note the contents of this report, and
- (ii) authorise the Service Director to make representation to Government to point out the inequitable consequences of the changes to CRCEES in consultation with the Committee Chair.

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Constitutional Comments (NAB 20/12/2013)

The Finance and Property Committee has authority to consider and approve the recommendations set out in this report by virtue of its terms of reference.

Financial Comments (TMR 20/12/2013)

The financial implications are set out in paragraph 19.

Background Papers

None

Electoral Division(s) and Member(s) Affected

None