

Meeting **CABINET**

Date **14 September 2011**

agenda item number **8**

## **REPORT OF THE CABINET MEMBER FOR FINANCE AND PROPERTY**

### **ENERGY PROCUREMENT – BIENNIAL UPDATE NO. 3**

#### **Purpose of Report**

The purpose of the report is to:

- a) Update Cabinet on the Council's progress with regard to the procurement of electricity and gas.
- b) Advise of the estimated gas and electricity costs for the 2011–12 financial year.
- c) Provide an update on the potential financial implications of the Carbon Reduction Commitment Energy Efficiency Scheme (CRCEES).

#### **Background**

1. On the 15 December 2010 Cabinet received a report updating it on energy procurement matters and specifically welcomed estimated energy savings for street lighting, schools and corporate properties of £6million for the 2011/12 financial year, following the switch to new contracts for electricity and gas supply in April 2011.
2. These new contracts have been secured following the appointment of Buying Solutions (BS) as the Council's Central Purchasing Body for the provision of specialist energy procurement services. The purchasing strategy agreed by the Council means that approximately 30% of its consumption (mostly electricity supplies to small buildings) is met by energy purchased in advance of the supply period. The remaining 70% (electricity supply to larger buildings, most street lighting and all gas supply) is met by energy purchased by what is termed a flexible variable procurement model. Under this arrangement energy is purchased in advance of and during the supply period. Reference prices for these supplies are set by BS at the beginning of the supply period based on the volumes already purchased and the estimated market value of volumes still to be purchased. The billed electricity and gas costs are then subject to reconciliations against these reference prices throughout the contract period.

## Revised predictions for gas and electricity prices for 2011-12

3. Now that the Council has entered into the new contract period, the costs for energy purchased in advance are known and the reference prices for flexible, variable supplies have been set, a more accurate prediction of eventual costs can be made. A summary of predicted costs for different supplies is set out in Table 1 and shows an overall predicted reduction of around 24% compared to actual costs for 2010-11. The prediction takes no account of the proposed rationalisation of the corporate estate, which may see some buildings close during this financial year, leading to cost savings. It should also be noted that the final amount of saving will be dependent upon the actual amount of energy used; therefore occupant behaviour and weather conditions over the next year will affect the final outcome.

**Table 1: Showing the predicted cost saving in 2011 – 12 compared to 2010 – 11**

Utility	Site Type	Spend 2010 – 2011 £	2011-2012 Cost prediction £	2011 - 12 Predicted cost saving £	2011 - 12 % saving against 2010 - 11
<b>Gas</b>	Schools	4,852,346	3,858,412	993,934	20%
	Non Schools	1,476,434	1,126,346	350,088	24%
<b>Electricity</b>	Schools	6,350,056	4,904,911	1,445,144	23%
	Non Schools	2,599,254	2,067,161	532,093	20%
<b>Buildings Total</b>		<b>15,278,090</b>	<b>11,956,830</b>	<b>3,321,260</b>	<b>22%</b>
<b>Electricity</b>	Street lighting	5,592,684	3,984,916	1,607,767	29%
<b>Totals</b>		<b>20,870,774</b>	<b>15,941,747</b>	<b>4,929,028</b>	<b>24%</b>

4. The reduction in the predicted saving compared to that presented to Cabinet in December is a result of a particularly cold winter affecting forward energy prices and the rise in wholesale energy prices, largely brought about by the unsettled situation in North Africa and the Middle East.
5. It should be noted that individual portfolio and service budgets for 2011/12 were set based on the predicted energy cost savings from the 15 December 2010 Cabinet report, together with proposed efficiency measures for 2011/12. Real costs are now however likely to be around £800k more than expected for schools, £200k more for the corporate estate, and around £1m more for street lighting, although for Street Lighting this is mainly due to delays in implementing the dimming project efficiency measures, and underpayment of the Climate Change Levy. These are new budget pressures and appropriate mitigating measures will need to be identified within the individual portfolios concerned.

6. Whilst the new contracts are still set to provide a significant reduction in energy costs, long term forecasts over the next 20 years indicate that energy prices are going to rise over the foreseeable future. This is due to increasing global competition for finite resources and the need for increased domestic investment to decarbonise energy, increase energy security and upgrade the UK distribution network.

### **Energy Market Analysis and Buying Strategy**

7. Since the last Energy Procurement report to Cabinet we have seen a period in energy markets comparable to the time in July 2008 when the forward crude oil price rose to \$145 per barrel. In June last year oil was \$78 per barrel, in June this year it was at \$114, peaking at \$121 per barrel on 5 May. Given the difference in exchange rates between now and 2008, oil has achieved the highest market prices ever seen in £sterling. In turn, due to the relationship between oil prices and gas prices, and subsequently electricity prices, the wholesale gas and electricity markets have risen significantly over the last year.
8. Much of the pressure on oil prices has been driven by the unstable political situation in the Middle East and North Africa. However there has been a range of additional market pressures that have maintained the forward prices for gas and electricity at higher than anticipated levels. These include the exceptionally cold winter that we have just experienced, which put the UK's gas storage and distribution systems under immense pressure. In addition, increased demand in gas from Japan and Germany following the events at the Fukushima nuclear power station in Japan is maintaining a high future price, along with the UK's inability to commit to the further development of nuclear power plants within its generation portfolio, leaving increased gas-generated electricity the only real option. The price of coal has risen due to increased demand from China and the reduction in output from Australia following the floods in Queensland; this again affects forward electricity and gas prices.
9. As if the rises in commodity prices were not enough, April 2011 saw significant increases in electricity transmission and distribution charges and gas transportation charges, which rose by an average of 12%. Given all these factors and the £110bn that suppliers are going to have to raise over the next ten years as a result of the Government's proposals to reform the electricity market, plus the proposal to increase the market floor price for carbon to £30 tonne by 2020, the Council should only expect to see the cost of using energy and emitting carbon increase over the short, medium and longer terms.

### **Carbon Reduction Commitment Energy Efficiency Scheme (CRCEES)**

10. At the end of July the Council reported its carbon emissions under the CRCEES. Since providing an update on the CRCEES as part of the energy procurement report to December's Cabinet, the Council's likely costs have been reduced by altering the way street lighting energy supplies are metered, rendering associated carbon emissions outside of the Scheme. Although altering the metering arrangement will cost c£50k per year, by taking this action an overall saving of £220k per year is predicted based on the estimated consumption and the price of £12 per tonne of carbon dioxide. It is expected that changes to the scheme in 2014 will necessitate the inclusion of street lighting, incurring an additional cost.

Based on energy consumption figures for 2010-11, it is expected that the Council's costs under the CRCEES for 2011-12 will be c.£1.2 million.

11. Also since reporting in December, the Government has indicated that it expects the price of carbon under the Scheme to rise to £30 per tonne by 2020. Other changes include now allowing local authorities to treat the costs of carbon emissions from schools as an allowable item against the central part of the schools budget. At present the cost of emissions from schools is covered by the allocation for CRCEES costs and overheads made in the Council's Medium Term Financial Strategy. Work is underway to explore whether these costs could be devolved to individual schools.
12. Given the impact that the Scheme will have on Council energy costs and the expected increase in energy prices, it is essential that the Council adopts a strategy to reduce the level of its energy use and its carbon emissions. The report presented to Cabinet on 8 September 2010 contained a recommendation, which was approved, that "a report on investment proposals that reduce CO<sub>2</sub> and improve energy efficiency be submitted to Cabinet". This report, covering strategic opportunities to deliver energy efficiencies is currently being prepared and will be presented to Members at the earliest opportunity, however a number of specific projects as detailed below have already been taken forward to maximise the benefits to the County Council in the short term.

### **Energy cost saving measures**

13. In the December report, it was reported that an estimated saving to schools and non-school buildings of £76,343 has been made by reducing electricity supply capacities to a number of sites. For large electricity users, a fee is charged for an agreed amount of supply capacity based on the anticipated maximum demand for electricity at any one time during the year.
14. Officers are already implementing a range of agreed measures as a first tranche of actions aimed at mitigating, to some extent, the future financial impacts of energy and carbon price increases. These include:
  - the installation of voltage optimisation equipment at County Hall (H-block and Riverside) and Trent Bridge House to reduce electricity costs by approximately 9%
  - the installation of new heating controls at County Hall, saving approximately 10% on gas heating costs
  - the installation of local thermostatic controls at County Hall H-block, saving an additional 10% on the cost of heating this building
  - the installation of a 45 kilowatt solar electricity array (PV) at Lawn View House, which will reduce electricity use and provide a return on investment of 15% p.a.
  - the initiation of scoping studies on other energy efficiency and renewable energy opportunities throughout the corporate estate
  - the adoption of a supplementary heating protocol designed to reduce the use of portable electric fan heaters within the corporate estate.
15. These measures will be funded through existing capital allocations including the Council's Local Authority Energy Finance Scheme and invest-to-save funding allocated to the Waste and Energy Management Team.

16. Following Cabinet approval in September 2010 a four-year programme of street lighting energy saving measures is currently being implemented, aimed at saving 26% of street lighting energy usage (compared with 2009/10 usage). The measures comprise:
- switching off completely some lights where they are no longer considered necessary
  - dimming of some lights on main roads between the hours of 10pm and 7am
  - switching off some lights between midnight GMT and 5.30am GMT in residential areas.
17. Changes were implemented in four pilot parishes in March 2011 and the main programme is now progressing, currently in the districts of Bassetlaw and Rushcliffe. Monetary savings arising from the street lighting energy saving measures were estimated at £1.25m per year, upon completion of the programme. These savings were based on 2009/10 costs and the 2009/10 unit cost of electricity. However the savings are subject to changes in the unit cost of electricity, the Climate Change Levy and, eventually when street lighting is brought back within the CRCEES, the expected escalation of the price of carbon.
18. In addition, officers are exploring the potential benefits of a staff awareness project around energy saving and working to integrate energy efficiency into the Ways of Working Project.

### **Statutory and Policy Implications**

19. This report has been compiled after consideration of implications in respect of Finance, Equal Opportunities, Personnel, Crime and Disorder and those using the service. Where such implications are material, they have been brought out in the text of the report.

### **RECOMMENDATION**

It is RECOMMENDED that Cabinet note the contents of this report.

#### **COUNCILLOR REG ADAIR**

Cabinet Member for Finance and Property

### **Legal Services' Comments**

This report is for noting only and therefore there are no legal implications arising from it at present. (NAB 24.06.11)

### **Comments of the Service Director - Finance**

As indicated in the report individual portfolio and service budgets for 2011/12 were set based on the predicted energy costs outlined in the report to Cabinet on the 15 December 2010, together with savings from proposed energy efficiency measures. However, due to factors outlined in paragraph 4 these savings are going to be reduced. The real costs are likely to be around £800k more than expected for schools, £200k more for the corporate estate, and around £1m more for street lighting, although for Street Lighting this is mainly due to delays in implementing the dimming project efficiency measures, and underpayment of the Climate Change Levy. These are new budget pressures and appropriate mitigating measures will need to be identified within the individual portfolios concerned. (P.B 24-06-2011)

### **Background paper(s)**

- 1) Energy Procurement – Gas and Electricity Report to Cabinet on 16 September 2009
- 2) Energy Procurement – Biannual Update Report to Cabinet on 9 June 2010
- 3) Energy Procurement – Biannual Update Report to Cabinet on 15 December 2010

### **Electoral Division(s) and Member(s) Affected**

All