HAMPSHIRE COUNTY COUNCIL

Decision Report

Decision Maker:	Executive Member - Environment
Date:	26 January 2011
Title:	Unmetered Energy Procurement for illuminated Street Furniture
Reference:	2391
Report From:	Director of Environment

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1. Executive Summary

1.1. The purpose of this paper is to outline the options considered for the purchase of unmetered energy.

1.2. This paper seeks to:

- set out the background to the project;
- consider the finance for the project and the impact on the budget; and
- consider the future direction of unmetered energy purchase.

2. Contextual information

2.1. Competitive energy procurement has been available for the last 13 years and the County Council has made significant savings over this period by purchasing its energy via the competitive process. Market prices peaked in the Summer of 2008 but, although there was a subsequent drop, prices have been steadily increasing ever since. The move in market prices is shown in Graphs 2 and 3, below.

2.2. The present supply contract provides energy from 100% brown energy sources.

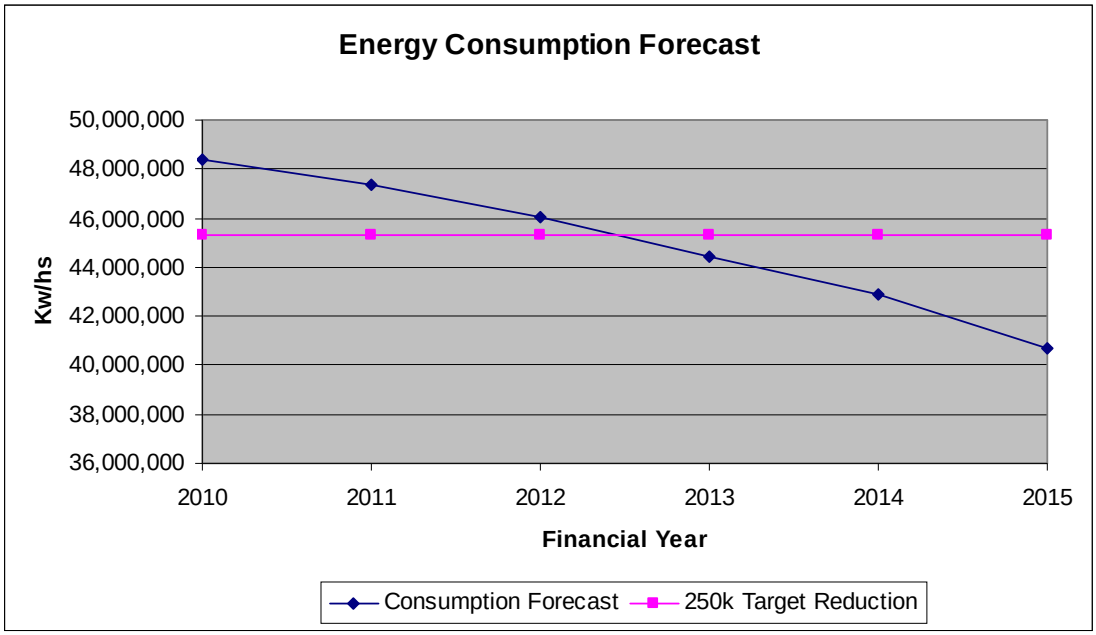
2.3. By way of explanation, brown energy is generally derived from fossil fuels, such as coal, gas and oil, whilst green energy is produced from wind, gas from discontinued waste tips and some hydroelectric applications. In the recent past the cost of Brown Energy has had a sustained lower price than other options even taking into account the addition of the Climate Change Levy (CCL).

2.4. The present contract was concluded via the LASAR CBC Unmetered Supply Tender in 2008. Laser is a leading energy buying group representing local

authorities and other publicly funded bodies. Hosted by Kent County Council, their approach to energy purchasing and contract management has evolved from 1989 when a small team of 4 people was established to service Kent County Council's energy requirement. They now provide this service to 106 Local Authorities with over 60 full-time staff.

3. Energy Strategy

3.1. The current energy consumption forecast, as taken from the PFI Method Statements, shows that the current £250k target reduction set by DMT will be met by the end of the 2013/14 financial year in line with expectations:



Graph 1 – PFI Energy Consumption Forecast

Additional savings might be accrued by the early introduction of a revised dimming strategy in concert with a long term shift in energy procurement strategy, by moving the tender date from the Spring to the Summer when prices are, traditionally, cheaper.

Projected savings, based on a combination of dimming times and levels are shown below:

Dimming %	Sunset to Midnight	Midnight to Sunrise
10%	£228,900.03	£176,893.38
25%	£572,250.08	£442,233.44
40%	£915,600.12	£707,573.51
50%	£1,144,500.15	£884,466.89
60%	£1,373,400.19	£1,061,360.27
90%	£2,060,100.28	£1,592,040.40

A shift from dynamic to passive energy monitoring (as discussed below) would, potentially take us out of the Carbon Reduction Commitment (CRC) although the Climate Change Levy (CCL) would still apply.

Further cashable savings may be possible by the use of LED fittings for sign lights and road lighting lanterns from the LED fund. This could achieve energy savings of between £20,430 and £39,840 depending on the wattage of lanterns replaced.

3.2. The introduction of the CRC and carbon trading, will add an extra £305,808 to the overall cost of energy. However this can be mitigated by the roll-out of the Mayflower remote monitoring system which allows for dimming of lights at specified times of night. Trading in carbon credits was due to commence in April 2010 but Phase 1 (where the price of credits is fixed at £12 per tonne) has now been extended until 2012 after which the price will be subject to the open market.

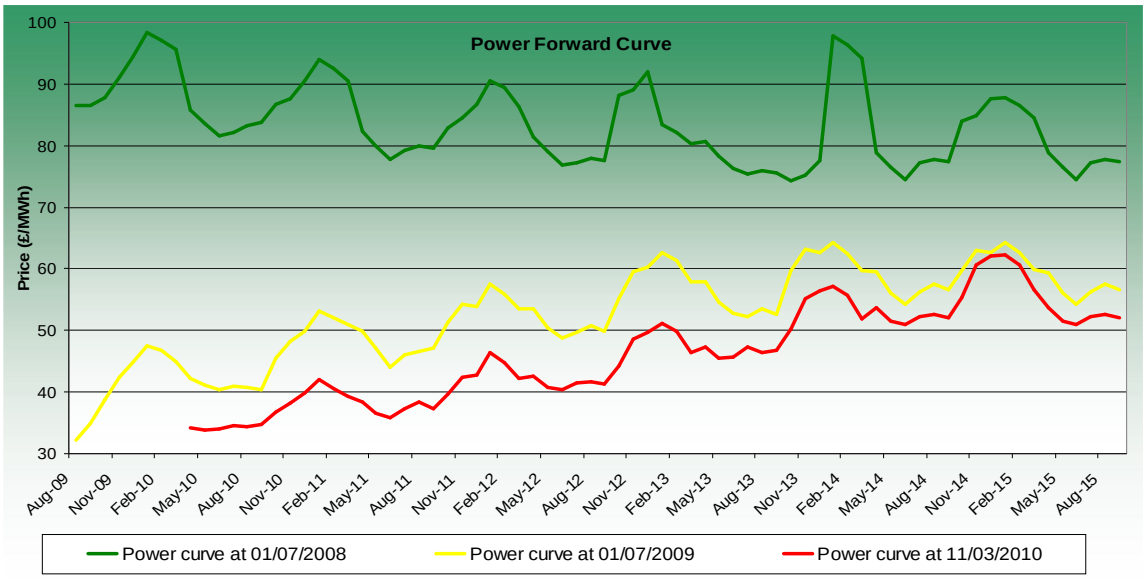
3.3. In a further development, revenue from the sale of CRC allowances will now be used to support the public finances rather than being recycled to participants; effectively introducing an additional carbon tax. It is unclear, at the moment, what the monetary impact of this will be.

3.4. This change in the CRC rules may require adjustment of our current dynamic metering arrangements. Reverting to a passive system of measurement (by disconnecting our photocell metering arrays) would negate our eligibility for CRC involvement but would result in the loss of any benefits our remote monitoring, dimming, trimming and reduced energy lamps will accrue. This would make this a short term solution (maybe up to 12 months maximum). It is understood that this current “loophole” in the legislation will be closed in 2014.

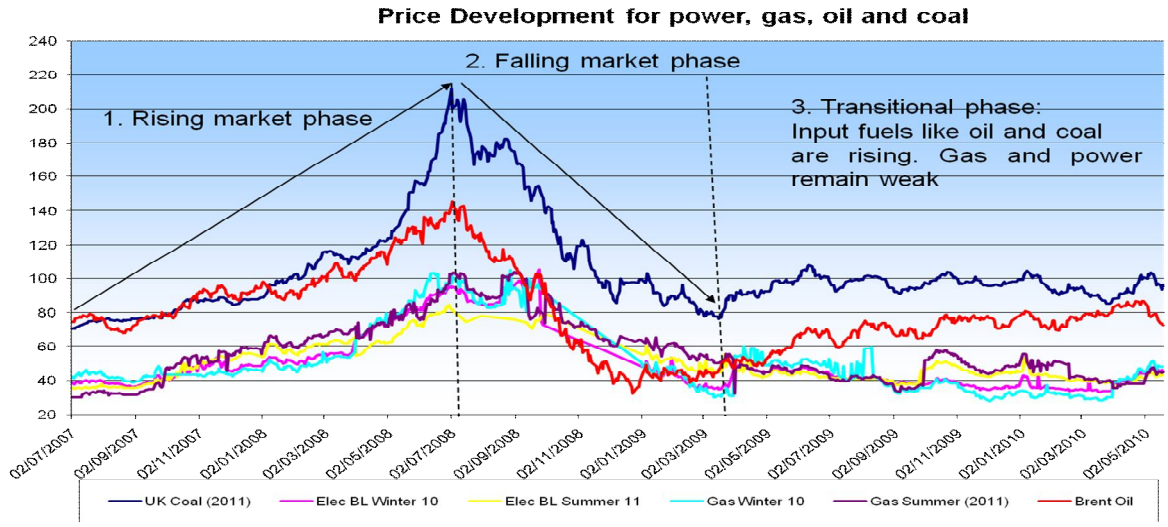
3.5. It is possible to have a second energy account to RMS controlled units only which would be dynamic and thus enjoy the best of both worlds until 2014. Consideration will also need to be given to any possible detrimental effect this may have under the PFI contract’s payment mechanism for energy forecasting.

3.6. Options for joint procurement have been discussed with both Southampton City Council and West Sussex County Council. Southampton City Council has recently finalised a 3 year energy contract through the LASAR CBC with NPower. This achieved a price of 7.7p p/kwh exclusive of CCL or the CRC. This is slightly lower than the 7.874p (again exclusive of CCL and CRC) obtained by Hampshire in 2008.

3.7. West Sussex County Council has also confirmed that they would not be seeking inclusion in any joint procurement venture in the near future.



Graph 2: Forward Energy Price Curves between 2008 and 2010.



Graph 3: Price Development for Power: Gas, Oil and Coal

3.8. A variety of options have been explored regarding the method of procurement and the type of energy to be purchased including:

(i) **Spot Contract Purchase:** Obtaining prices on a specific day, by sealed bid, then re-price the best two or three offers as the market moves and accept when the market is in our favour.

(ii) **Purchase in Advance (PIA):** Tranches of energy are bought during the current year for use in the next year. The price is averaged over the purchases, to set the rate for the following year.

(iii) **Purchase Within Period (PWP):** Tranches of energy are bought during the current year, for use in the current year. A price is estimated at the beginning of the supply period and then an adjustment made at the end of the year (either an additional charge or a refund) to balance the costs.

(iv) **Purchase Direct from Supplier:** - Accessing supplies directly from generators via a Power Purchase Agreement (PPA).

The advantages and disadvantages of all these options are set out in Table 1, overleaf.

Table 1. Purchase Options.

Option **Method of Purchase**	**Advantages**	**Disadvantages**
(a) Spot Contract Purchase. Tender with window to spot buy for 1st April, 2011	Easiest, tried and tested, gives price stability, allows window to fix price, low risk	Fixing price when spot rates are highest according to historical trends, effort of running tender, time constraints for decision making, not deemed as best practice as it's not felt to achieve the best rate.
(b) As above but option to spot buy 18 or 30 months later	As above, Contract start moved to a period when prices are traditionally lower	As above, duplicates tender effort in same year.
(c) Purchase in Advance (PIA)	Reflects market movement, deemed to save 3% on costs (1.5% after fees) compared with options a and b.	Risk of higher rates, more complex in terms of managing purchase, management fees involved (1.5%), still have to run tender. Cannot be put in place for 1st April, 2011 as it takes 12 months to put in place.
(d) Purchase Within Period (PWP)	Completely reflects market position, deemed to save more than option b.	Not a tried and tested process, unable to budget.
(e) Purchase Direct from Supplier	Potential for improved price	Demand not high enough to sensibly qualify, scheme is not yet underway, lack of expertise and resources, requires a 15 year commitment.

Option Mix of Purchase	Advantages	Disadvantages
Brown	Cheapest traditional option	Attracts Climate Change Levy and Carbon Reduction Commitment
Green	Reputationally more acceptable, does not attract Climate Change Levy	Normally more expensive than Brown by 5-10%
Nuclear	Doesn't attract Climate Change Levy or Carbon Reduction Commitment	Possible reputation concerns, routes to supply market not established, prices not known.

4. Finance

4.1. Procurement to be secured within the existing budget of £4.15m.

5. Other key issues

5.1. The County Council was designated as an Intensive Energy User by the previous Government as part of the CRC trading scheme. The new Coalition Government has not yet signalled whether the CRC will continue as planned but, given it's clear support for a lower carbon society, it is prudent to continue to plan on the basis that the CRC scheme will proceed in a similar vein.

5.2. The report entitled "Carbon Strategy", presented to Cabinet in July 2010, recommended the formulation of an Energy Strategy with a view to making Hampshire carbon neutral by 2050.

6. Future direction

6.1. The report has set out the rationale for realigning the purchase of unmetered energy to a point in the cycle where prices are, traditionally, lowest using a Spot Contract Purchase arrangement. This will align it with either milestones 5 or 7 of the PFI Core Investment Period by which time between 40% and or 66% of the County's lighting stock would have been replaced or upgraded.

6.2. Options for alternative, and more beneficial, methods of energy purchase will be reviewed on a regular basis to ensure the County Council achieves best value when tendering.

6.3. A potential shift from dynamic to passive energy monitoring for a period of 12 months is possible.

7. Recommendations

7.1 That competitive energy rates be sought, via the LASAR Central Buying Consortium, for the supply of unmetered energy to street lights, illuminated signs, bollards and traffic signals for a period of 18 to 36 months as deemed expedient by the Director of Environment.

7.2 That the Director of Environment be given authority to procure energy for these purposes within the existing budget limits.

Rpt/2391/JH

CORPORATE OR LEGAL INFORMATION:

Links to the Corporate Strategy

Hampshire safer and more secure for all:	Yes
Corporate Improvement plan link number (if appropriate):	
Maximising well-being:	Yes
Corporate Improvement plan link number (if appropriate):	
Enhancing our quality of place:	Yes
Corporate Improvement plan link number (if appropriate):	

Section 100 D - Local Government Act 1972 - background documents

The following documents discuss facts or matters on which this report, or an important part of it, is based and have been relied upon to a material extent in the preparation of this report. (NB: the list excludes published works and any documents which disclose exempt or confidential information as defined in the Act.)

Document	Location
Briefing Note – CO_2 Reductions	Street Lighting Offices
Briefing Note – Energy Reduction	Flanders Road
	Hedge End

IMPACT ASSESSMENTS:

1. Equalities Impact Assessment:

1.1. No adverse impact has been identified on any member of society.

2. Impact on Crime and Disorder:

2.1. Street Lighting makes a contribution to perceptions of public safety and to road safety which will be supported by this proposal.

3. Climate Change:

a) How does what is being proposed impact on our carbon footprint / energy consumption?

b) How does what is being proposed consider the need to adapt to climate change, and be resilient to its longer term impacts?

Should the price for energy increase significantly this will impact on our ability to provide a street lighting service throughout the hours of darkness. However, steps already under consideration (dimming of lights, trimming of burning hours and provision of energy efficient equipment) will help to offset such increases.