WIRRAL COUNCIL

WIRRAL SCHOOLS FORUM – 23RD JUNE 2010

REPORT OF DIRECTOR OF TECHNICAL SERVICES

CARBON REDUCTION COMMITMENT AND AUTOMATIC METER READING SYSTEMS

EXECUTIVE SUMMARY

This report recommends that Automatic Meter Readers (AMR's) are installed in all schools as agreed by Cabinet on 15th April 2010 and that the cost of installation and maintenance is met from a Schools Budget Reserve of £415,000 that has been created in 2009-10 for this purpose.

1. Background

1.1 On 1st April the government's Carbon Reduction Commitment Energy Efficiency Scheme (CRC) came into force. This legislation puts a price on carbon and affects many Public Sector organisations across the UK including Wirral Council.

2. What schools need to know

2.1 As part of our statutory responsibilities within the scheme the Council will be responsible for administering the scheme on behalf of Wirral Schools. The introductory phase runs until 2013. Organisations must register and start compiling emissions data for the 'footprint year' 2010/2011. These results must be reported by the end of July 2011 or we will be fined £5,000 plus £500 for every day overdue. The Council will then need to buy allowances from the UK government equivalent to their anticipated CO_2 emissions for the year ahead.

2.2 Participants will then be ranked in a league table to assess performance and allow costs to be recycled back to participants with financial incentives for organisations that reduce emissions and deductions in recycling payments for organisations in the bottom half of the table. This will be calculated at +/- 10% in year one rising to +/- 50% by year five. Inaccurate submissions carry a £40 penalty for each tonne of CO_2 incorrectly reported, mistakes in the evidence pack mean a £5,000 fine and even imprisonment for deliberately submitting false information. Over a five year cycle 20% of organisations will be audited annually.

2.3 I have calculated that the average price for purchasing allowances for a Primary school is likely to be just under £1,000 per year and £6,000 per year for a Secondary school. This could cost a poorly performing school £500 and £3000 respectively by year five, although these costs are expected to rise as the cost of buying allowances increases after 2013.

3. What schools need to do

3.1 **Now**

- All State-funded Schools (inc. Academies) are included under their local authority.

- PFI Schools are included under the PFI Company where the PFI Company is responsible for the energy supply contract, but under the Local Authority when it is responsible for the energy supply contract.
- Independent Schools will be included if the total half-hourly metered electricity use between 1st January and 3lst December 2008 was greater than 6,000 MWh (mega-watt hours): roughly a £ 500,000 bill.

3.2 Whilst the Council may be legally and financially responsible, schools must still supply data and help cut energy usage. Whilst the Council should assist schools and share the financial benefits or penalties accordingly, it's in everybody's interest to make the scheme work. Many schools could reduce energy consumption by up to 20% with no-cost or low cost energy reduction measures.

3.3 **This Year**

While qualifying is based on specific electricity consumption, all energy use is counted. The complexity of some energy use means auditable data can take months to collate. More disturbingly still, about 1 in 10 bills are inaccurate. It has been found that many organisations don't know what meters they have, read them wrongly or even record incorrect metering units. We therefore need to establish a process for the ongoing monitoring, collection and reporting of data in-house.

4. Metrics

4.1 League table rankings during the introductory phase will be based partly on three metrics:

- Absolute metric: percentage change in absolute emissions compared with previous years
- Early action metric: having Automatic Meter Reading systems (AMR) and the Carbon Trust Standard by 1st April 2011
- Growth metric: the growth or decline of an organisation during its participation.

4.2 ln Year 1, the early action metric accounts for 100% of the ranking. Achieving the Carbon Trust Standard can take three months and rolling out an AMR strategy isn't a swift process either, so needs to start as early as possible.

4.3 ln Year 2 it accounts for 40% with the absolute metric at 45% and the growth metric 15%. ln year 3 the split becomes 20%, 60% and 20% respectively.

5. Improving Future Performance

5.1 We need to plan to reduce emissions longer term. With the right approach carbon costs are reduced and penalties avoided.

6. Automatic Meter Reading Systems (AMR's)

6.1 AMR is the term given to a system that provides meter readings automatically, removing the need for manual meter readings and ensuring accurate bills with no estimates. The system will provide electricity, gas and water users with accurate bills and provide information that could help them reduce waste and encourage the efficient use of resources. Within the CRC estimated utility account data will incur a 10% penalty.

6.2 The Council currently has approximately 470 (250) Electricity meters, 400 (230) Gas meters and 400 (140) Water meters which will require the provision of an AMR system. The AMR contractor has been appointed subject to contract, which will be for a period of five years.

6.3 The benefits of an AMR system are:

- no need to provide the Council with annual evidence packs of utility data,
- improve the accuracy of information,
- eliminate estimated bills,
- improve the reliability of billing,
- increase energy efficiency as usage will be monitored by the Council and Schools if they wish,
- improve school budgeting,
- provide information which can be used within the curriculum,
- provide accurate information on carbon reduction to allow a school to measure it's performance,
- it will also assist with the purchasing of future energy requirements.

7. Financial Implications

7.1 AMR costs are site specific, as some schools have more meters than others, but all schools will usually have at least one of each utility (apart from oil fired sites with no gas supply). The expected annual leased cost per utility is as follows:
Electricity - £105; Gas - £135; Water - £185.

7.2 This gives a combined cost of £425 per year or £35.42 per month. Costs after the first five year contract are expected to reduce as the infrastructure will have been paid for.

7.3 As part of the year end accounts a reserve has been created to cover the estimated costs of installing and maintaining AMR's, which at the time were estimated to be £415,000. Now tenders have been accepted a more precise costing is as follows:
Lease option £426,934
Capital purchase / management option £371,436.

7.4 The capital option is recommended since this is significantly less than the cost of a 5 year lease. The reduction achieved will provide a fund to cover the replacement costs of obsolete gas or water meters as required, where AMR's cannot be fitted to existing meters.

8. Recommendation

That

(1) the Schools Forum agree to the use of this reserve as described in order to assist the implementation of the Carbon Reduction Commitment

David Green
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