

## **Wrexham Borough County Council**

This document details the efforts to improve energy efficiency within a local authority since the start of the Carbon Reduction Commitment Energy Efficiency Scheme. This case study will be reviewing Wrexham County Borough Council, a fairly typical Welsh local authority who participated in Local Energy's Carbon Trading Public Sector network and more recently the Carbon Saving Public Sector network. Since March 2011, Local Energy have been working more closely with Wrexham onsite, following staff changes.

For 4 years now Wrexham CBC has been manually recording the gas and electricity meter readings for the 60 primary and 8 secondary schools that are the responsibility of the council and in contract for their energy supplies. This was seen to be an important step towards monitoring data in order to review their findings and understand where there are opportunities to reduce energy consumption. Originally this was compiled through manual "green cards" that were filled out monthly and posted through to the Energy Management Team (EMT), but many of the schools now email the information through and currently there are plans to migrate the entire system to an online service provided by Digital Energy™.

The success of this programme was through a combination of contributory factors. Effective communication and strong relationship building with each of the schools was crucial; having a named staff member responsible for every school ensured that any issues were addressed quickly, whilst having a standardised template to fill out helped simplify the process and minimise errors. Other significant components were the robust process and dedicated member of staff to manage the data. An on-going project such as this has the potential to become mismanaged over time which could result in missing data and a breakdown in communications, but through continued diligence this has been prevented; any schools that fail to complete the templates are contacted via email, then phone, then a site visit, in order for the information to be collected. The meter reading project is still currently underway as it is seen as a good way to engage with the school staff and pupils, which may be beneficial for future projects, such as solar panels.

The administrative burden of manually reading meters and compiling data is however somewhat high, and as a result of this Wrexham started installing Automatic Meter Readers (AMRs) into all schools in 2009 for both gas (which has been installed in all but 2 schools) and electric (which is around 80% complete). The AMR percentage reported for the purposes of CRC was 62%, a by the end of this year will be approximately 85% of total consumption.

Wrexham Council decided in 2009 to try for Carbon Trust Standard Accreditation, which it attained in 2010. It covered all of the council buildings and schools, and accounted for 100% of the carbon emissions for their annual report in the Carbon Reduction Commitment report. This allowed them to assess the energy consumption of the council and identify opportunities for change in the future, which has resulted in further reductions of 800 tCO<sub>2</sub> in the last year.

Since 2011, Wrexham have been committed to a solar panel project across 3000 houses in the area, as well as in the town hall and other civic buildings. The ambitious project is set to produce 5.5kWh to 6kWh per annum which will not only ensure security but also provide a revenue stream of £20million over the 25 year FIT period which will pay of the initial investment. As well as the obvious financial benefits, this has also given Wrexham Council an opportunity to engage with the public and increase awareness of the importance of alternative energy sources, as well as saving around 3000 tCO<sub>2</sub> each year.

Over the next 3 years, Wrexham hopes to have installed AMR across all council buildings, finished it's solar panel project, and reduced their consumption by 1,500 tCO<sub>2</sub> OR 8% of their totals emissions.