REPORT TO:	**Corporate Policy & Performance Board**
DATE:	**18 March 2014**
REPORTING OFFICER:	**Strategic Director Children and Enterprise**
PORTFOLIO:	**Environmental Services**
SUBJECT:	**Energy Efficiency**
WARDS:	**Borough-wide**

1.0 PURPOSE OF THE REPORT

1.1 To provide an update on progress on the Council's Carbon Management Plan and the wider activity to reduce CO2 emissions across the Borough.

2.0 RECOMMENDATION: That

(1)The report be noted.

3.0 SUPPORTING INFORMATION

3.1 National and Local Policy Framework

3.2 The UK Climate Change Act 2008 requires an 80% cut in the UK's carbon emissions by 2050 including an interim target of a 34% reduction by 2020 (over a 1990 baseline). This reduction in carbon emissions will also be driven by expected rising fossil fuel costs over the long term. The UK's decarbonisation agenda is also supported by a range of other legislation, strategies and policies including:

- UK Renewable Energy Strategy
- Energy Act 2008
- Low Carbon Transition Plan
- Carbon Reduction Commitment Scheme (CRC)

3.3 This national framework provides the context for the City Region's and Halton Council's local policy framework for dealing with climate change and sustainable energy issues relating to:

- Liverpool City Region Sustainable Action Plan
- Council's Corporate Plan
- Sustainable Community Strategy
- Council's Carbon Management Plan

3.4 Since the National Indicator Set was abolished there are now no national indicators for measuring the performance around carbon reduction but the Council is required to report to DECC annually Greenhouse Gas emissions from our own activities.

3.5 The Carbon Management Plan set a local target to reduce emission from the Council's estate of between 5 -10% by 2013 from a 2006/07 baseline.

3.6 The Liverpool City Region sets a target to reduce emission by 20% by 2020 against a 1990 baseline.

4.0 REDUCING EMISSIONS FROM THE COUNCIL ESTATE

4.1 To help support the Council's ambitions for carbon reduction the Council took part in the Local Authority Carbon Management Programme in 2008, which culminated in the completion of a Carbon Management Strategy aimed at reducing the Council's emissions between 5-10% by 2014. This strategy aimed to set the Council on a path of changing our current practices over the short to medium/long term ensuring that carbon emissions were considered in the Council's decision making processes. The strategy contained a range of projects that would lead to cost and emission reductions.

4.2 Data from Greenhouse Gas emissions report shows that the 2006/07 baseline was 26,338 Tonnes of CO2e. The data for 2012/13 was 24,451 Tonnes of CO2e. There have been variations over the years in different sectors but overall emissions are down approximately 7%.

4.3 Many of the projects contained in the Plan have now been completed and if the Council is to continue to make progress towards its ambitions to reduce emissions and deliver cost savings the Plan is in need of refreshing.

4.4 Where investment has been made in energy efficient projects, the projects have paid for themselves in the short to medium term and the on-going savings are still being made by the Council or a long term income stream has been developed. A copy of the Action Plan is appended to the report. Projects implemented to date include:-

- Voltage optimisation in 14 Council Buildings – reduction in electricity consumption of between 8% and 14% (the Council secured an interest free loan of £100,000 for the above to be repaid over 4 years from the energy savings)

- Energy efficiency measures in Runcorn Town Hall (lighting controls, improved heating, LEDs, solar panels) have reduced consumption by an estimated 15%

- Energy efficiency measures at Halton Stadium (lighting controls, heating and water controls) have reduced electricity consumption by 24 % saving in excess of £30,000

- Boilers replaced at Picow Farm, Glendale and Inglefield

- Staff Awareness Programme introduced – regular articles in In Touch, Energy Saving Guide produced and available on the intranet

- Removal of standalone printers and switch to MFDs have delivered savings in excess of £200,000

- Introduction of 5% biofuels in the Council fleet

- Virtualisation of IT Servers have reduced consumption in the data centre room

- Pilot programme to replacement T8 light fittings with more efficient T5 fittings, together with incorporation of lighting controls – ongoing with payback period of 3 years £10,000 saving per annum

- Mileage Scheme has been reviewed and the new Salary Sacrifice Scheme has a limited to the CO2 emissions of vehicles.

- Programme to replace sodium street lights with LEDs and all road signs now contain LEDs

- Solar Panels have been installed at three sites (Select Security Stadium, Rutland House and Brookvale Leisure Centre). Total energy to date produced from the systems is 205,000kwh as at January 2014. This equates to an energy saving of around £20,000. In addition the Panels attract a Feed in Tariff Income which to date amounts to £75,000. The income is currently been used to pay off the capital investment but long term will generate an income stream for the Council.

- A biomass boiler is currently been installed at Brookvale Leisure Centre to replace to obsolete oil boilers. This will attract Renewable Heat Incentive payments to repay the capital investment and generate a long term income stream for the Council. The boiler will produce in the region of 1,500,000 kwh.

- Automatic Meter Reading (AMR) was installed in the majority of corporate buildings to log half-hourly gas and electricity use. Energy management summaries have been created in-house to monitor, analyse and manage energy consumption using this detailed data. The summaries and other energy efficiency resources are available to all staff on the Energy Management SharePoint Group site. Central Admin download AMR data each month, update the summaries for each building then nominated building managers are emailed when their records are updated. Workshops were held in late 2012 to help building managers to understand and manage their energy use. To

benchmark consumption, comparison charts for gas and electricity on the SharePoint site show staff how their building is performing against other monitored sites. Summaries and comparison charts are used to identify poor performers or anomalies for further investigation.

- Significant savings were made at Lowerhouse Lane Depot by monitoring energy use and involving staff. Electricity consumption was reduced by 20% 2012 to 2013 and gas use for 2013 cut by predicted 47% with estimated total savings of over £10k.

- Halton Lodge Children's Centre – An increase in gas use (over £200 per month) was found to coincide with the installation of a new boiler. Settings were adjusted on the heating controller to reduce consumption to previous levels.

- Moorfield Road – continuous electricity use was identified on site as back up immersion heater accidentally switched on by staff. Switching back to gas heated hot water resulted in net saving over £1000 a year.

- Widnes Crematorium – continuous gas consumption costing over £150 a day on top of usual operational use was detected using AMR. This was soon identified on site as a large underground leak.

- Community Centres – Using 'holiday' settings on heating controls over Christmas/New Year shutdown at Upton, Murdishaw and Grangeway community centres saved an average of 16% compared to predicted December consumption while maintaining frost protection.

- A Low Carbon Schools Service funded by the School Forum was offered to schools to help reduce their energy use. Ten schools signed up but only seven actively participated due to OFSTED and other commitments. Comparing consumption over 2013 to the previous year, electricity savings were variable and gas use increased overall, mainly due to colder weather. On average the participating schools saved nearly £2,000 a year.

5.0 CARBON REDUCTION COMMITMENT

5.1 The Carbon Reduction Commitment (CRC) is a new mandatory carbon emissions scheme that began in April 2010. The Council has been a participant in Phase 1 of the Scheme which runs from 2010 to 2014. Each year the Council has to report its annual emission from gas and electricity usage from our buildings and schools and purchase and surrender allowances based on those emissions. The current price of allowances is £12 per tonne. The total cost of allowances is in the region of £150,000 annual with the Council's contribution been around £70,000. The schools allowances are met from the School Forum budget. Phase 2 will commence in 2014 but the Council will not be a participant as our consumption does not meet the qualifying criteria. This will result in an annual on-going saving of around £70,000.

6.0 LIVERPOOL CITY REGION SUSTAINABLE ENERGY ACTION PLAN (SEAP)

6.1 The SEAP sets out the City Region's ambitions to transform its self into a low carbon economy in which future economic growth is decoupled from the consumption of fossils fuels. The SEAP sets out a coordinated programme for the delivery to ensure the City Region is at the forefront of the transition to a low carbon economy with all the economic, environmental and social benefits.

6.2 The key priority actions are around driving the growth in decentralised energy, increasing the take up of renewable energy, developing a combined retrofit programme for domestic and commercial properties and developing a programme of alternative fuel infrastructure for transport.

6.3 In terms of Decentralised energy the SEAP identifies opportunities around East Runcorn and the development of Daresbury Sci Tech and new housing and in the longer term Runcorn Docks. The Council has secured funding from the Heat Network Unit set up by DECC to carry out detailed feasibility study for the East Runcorn Area.

6.4 In terms of retrofit a number of large scale programmes have been developed using the old Community Energy Savings Programme and funding regime, which placed an obligation on energy companies to improve energy efficiency for homes within areas of high deprivation. In Castlefields approximately 330 mixed tenure properties have been treated with External Wall Insulation and new boilers. Total investment was in the region of £2.5m. On Halton Brook 386 mixed tenure properties have received similar measures with a total investment of £2m.

6.5 The Energy Companies Obligation (ECO) is an energy efficiency programme that was introduced at the beginning of 2013. It replaces two previous schemes, the Carbon Emissions Reduction Target (CERT) and the Community Energy Saving Programme (CESP).

6.6 ECO places legal obligations on the larger energy suppliers to deliver energy efficiency measures to domestic energy users. It operates alongside the Green Deal which is designed to help people make energy efficiency improvements to buildings by allowing them to pay the costs through their energy bills rather than upfront.

6.7 There are opportunities under ECO and the forthcoming ERDF Programme 2014- 2021 to develop further retrofit schemes. The recent Autumn Statement has had significant implications for the way ECO is funding and evaluation of the changes is on-going to assess the potential to develop future retrofit schemes across the Borough.

7.0 POLICY IMPLICATIONS

7.1 The objectives set out in the Carbon Reduction Plan and the Liverpool City Region SEAP are consistent with overall objective in the Corporate Plan and Sustainable Communities Strategy

8.0 OTHER IMPLICATIONS

8.1 Investment in energy efficient measures has the potential to reduce the Council's energy costs, reduce carbon emission and generate future income streams for the Council.

9.0 IMPLICATIONS FOR THE COUNCIL'S PRIORITIES

9.1 Children and Young People in Halton

None

9.2 Employment, Learning and Skills in Halton

Encouraging investment in energy-efficiency will benefit from lower carbon emissions, job creation, supply chain development and increased competiveness and security of energy supply.

9.3 A Healthy Halton

Households suffering from fuel poverty have an increased chance of ill health. Illnesses such as influenza, heart disease and strokes are exacerbated by the cold and living in a cold home can make it more difficult to recover from illness. Nationally, fuel poverty is a factor in thousands of excess winter deaths each year, particularly amongst pensioners and can also contribute to social exclusion, which has an adverse impact on mental health and wellbeing. There are huge potential benefits of increased joint working between health and housing professionals.

9.4 A Safer Halton

None

9.5 Halton's Urban Renewal

The transition to a low carbon economy can support the development of the local economy and ensure that future economic growth is decoupled from the consumption of fossil fuels and the inevitable carbon emissions.

10.0 RISK ANALYSIS

None

11.0 EQUALITY AND DIVERSITY ISSUES

None

12.0 LIST OF BACKGROUND PAPERS UNDER SECTION 100D OF THE LOCAL GOVERNMENT ACT 1972

None under the meaning of the Act.