

REPORT TO: Corporate Policy & Performance Board

DATE: 3 September 2019

REPORTING OFFICER: Strategic Director – Enterprise Community
And Resources

PORTFOLIO: Environmental Services

SUBJECT: Energy/Carbon Reduction Update

WARDS: Borough-wide

1.0 PURPOSE OF THE REPORT

1.1 To provide an update on related activities aimed at reducing CO2 emissions within the Borough.

2.0 RECOMMENDATION: That the report and the ongoing work be noted.

3.0 SUPPORTING INFORMATION

3.1 Since the Council's participation in the Local Authority Carbon Management Programme the Council has continued to implement a number of actions to reduce its carbon emissions and impact on the environment and at the same time deliver financial savings. Overall the Council's CO2 emissions continue to reduce from a baseline in 2006/7 of 26,338 tonnes of CO2, to 14811 tonnes for 2015/16 which equates to a 43.7% reduction over the period.

3.2 The reduction is partly due to carbon reduction measures implemented by the Council and also the rationalisation of buildings with the Council now occupying fewer buildings.

3.3 The Council is currently implementing a programme to switch high sodium pressure street lighting used in residential areas and the main through routes in the borough to LEDs. The programme started in 2015. The total cost of the programme was estimated at £4.6 m.

3.4 In total the Council has now changed approximately 14000 street lights with a further 6000 to be completed. Since the programme the costs of lanterns has reduced from a projected cost of £290 per lantern to £170. To date the capital costs of the switch has cost approximately £1.7m which is considerable less than projected.

3.5 Electricity prices have increased significantly since the programme commenced as follows which means that the Council's energy spend on

street lighting has not substantially increased but last year as the roll out of the programme continues dropped significantly. :-

2015	11.2p / kwh
2016	11.9p / kwh
2017/18	12.4p / kwh
2019	15.1p / kwh
15/16	£1,186,460.15
16/17	£1,243,514.11
17/18	£1,141,788.58
18/19	£873,265.95

The energy reduction as a result of the 14,000 street lights changed equates to in excess of 2.75m kWh per Annum (equivalent to a £415,000 saving per annum at current prices) and saving over 775 Tonnes of CO2 per Annum. This has allowed the Council to avoid the need reduce operational costs by reducing the time street lights operate.

3.6 The Solar PV on Council buildings has generated approximately 800,000 kilowatts of energy which equates to 204 tonnes of CO2. The total income to date generated from Feed in Tariff payments is £290,000 with savings in energy bills approximately £70,000. The capital cost of the Solar PV was approximately £280,000 in 2012/13. This effectively means the capital has now been repaid but the Council has an ongoing 18 year income stream.

3.7 The Biomass boilers at Brookvale Leisure Centre and Norton Priory have used approximately 4.7m kilowatts respectively. This equates to a CO2 reduction of 860 tonnes. In addition they have generated £200,000 of income from the Renewable Heat Incentive Scheme. This is currently being used to repay the existing capital costs.

3.8 A contract has now been awarded to Absolute Solar and Wind based in Scotland for the construction of a 1 MW solar farm on the former St Michael's Golf Course which will provide energy via a private wire to the Stadium. The capital cost of the scheme is approximately £1.2m of which 50% will be provided by the European Development Fund. The construction is anticipated to be completed by February/March 2020

3.9 The system will produce approximately 850,000kwh per annum over the next 25 -30 years. The energy generated by the Solar Farm will reduce CO2 emissions by 380 tonnes per annum.

3.10 The energy used at the Stadium will offset costs by approximately £50,000 per annum at current prices. The surplus energy will be sold under a Power Purchase Agreement and used to cover the operation and maintenance costs.

3.11 New vehicles entering the Council's fleet for example Refuse Vehicles meet the latest European engine emission standards;

3.12 Euro 6 is currently the highest standard for vehicles and 95% of the Council fleet are Euro 6 with the remainder being Euro 5 & 4.

3.13 We have two Electric Vehicles on the Halton Borough Council fleet.

3.14 Council Vehicles are fitted with IT software to ensure the best routes are used and driver behaviour is monitored so they use less fuel.

3.15 Halton Council's vehicle policy states that vehicles obtained through lease/salary sacrifice must not emit more than 150g/km of CO₂; and to assist in the reduction of reducing carbon standardised mileage rates were introduced to discourage high polluting vehicles. Halton has 161 electric vehicles registered, and 8 electric charging points.

3.16 In the wider context, the Council is proactively working to support local companies that seek to engage in zero carbon transport and energy solutions, including offering assistance to bring forward major investment projects to ramp up energy related projects. A particular focus has been encouraging the commercialisation of locally produced hydrogen and the adoption of that hydrogen as a fuel for transport, domestic heating and industrial uses.

3.17 To highlight the size and scale of opportunities within the wider hydrogen economy within the broader region, this Council facilitated the recent North West Hydrogen event at the Heath in Runcorn, that was featured both on regional and national television and attracted an audience of almost 200 people from across the UK.

3.18 In May 2019 Liverpool City Region (LCR) declared a Climate Emergency.

The declaration cited three challenging hydrogen related targets:-

- a) To replace all methane with hydrogen from the city region's gas grid by 2035
- b) To deliver a network of at least eight zero-carbon refuelling stations (hydrogen and electric charging) across the city region by 2025
- c) To meet the city region's hydrogen demand from transport, industry and heat from clean hydrogen produced within the city region from 2023

In order to meet the targets described above Halton Borough Council will seek to make a positive contribution to assist the City Region's Low Carbon Team to achieve the hydrogen related targets within the Climate Emergency declaration.

3.19 A number of the LCR Authorities have followed the Combined Authority's lead. The Council is also considering whether to adopt a similar motion. The Council did previously adopt a Carbon Management Plan. Many of the actions have been implemented and the Plan is now expired and given the approach with the LCR it may be timely to set up a Task and Finish Group to review the Council's position going forward and to build on the successes to

date. This area of work falls within the remit of the Environmental Services Portfolio.

4.0 POLICY IMPLICATIONS

4.1 The approach and policies adopted to date are consistent with overall objective in the Corporate Plan.

5.0 OTHER IMPLICATIONS

5.1 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.

6.0 IMPLICATIONS FOR THE COUNCIL'S PRIORITIES

6.1 Children and Young People in Halton

None

6.2 Employment, Learning and Skills in Halton

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

6.3 A Healthy Halton

Reducing CO2 can bring about improved air quality.

6.4 A Safer Halton

None

6.5 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.

7.0 RISK ANALYSIS

Individual schemes would have to be assessed on an individual basis to develop risk registers for each measure.

8.0 EQUALITY AND DIVERSITY ISSUES

None

9.0 LIST OF BACKGROUND PAPERS UNDER SECTION 100D OF THE LOCAL GOVERNMENT ACT 1972: None