

REPORT TO: Corporate Policy & Performance Board
DATE: 2 November 2021
REPORTING OFFICER: Strategic Director – Enterprise Community & 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 the Council's impact on the environment and CO2 emissions from Council activities.

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

3.0 SUPPORTING INFORMATION

3.1 Carbon Footprint

3.1.1 The Council started to measure its baseline for carbon emissions in 2006/07. In 2006/07, emissions stood at 26338 tonnes of CO2.

3.1.2 In 2019/20 emissions were 11354 tonnes of CO2. For 2020/21, the overall emissions have reduced to 9770 tonnes, a further reduction of 13.9%. Meaning that since reduction efforts began in 2008, to date the Council has reduced its carbon footprint by a total of 43%.

Emission from specific Sectors	CO2 (Tonnes)
Fleet Transport	937
Business Mileage	148
Street Lighting	1502
Corporate & School Buildings	7183

3.1.3 The key headlines for this year's figures are:

Overall figures

Overall CO2 emissions for 2020/21 – 9,770 tonnes

Overall KWh consumption down by 7.6% from 2019/20

Overall CO2 emissions down by 13.9% from 2019/20 (this is a higher figure than the consumption figure as a result of the conversion factor going down as the grid decarbonises).

Each sector

Overall CO2 emissions for fleet transport down 16% from 2019/20

Overall CO2 emissions for business mileage down 57% from 2019/20

Overall CO2 emissions for street lighting down 15% from 2019/20

Overall CO2 emissions for corporate building down 10% from 2019/20

Overall CO2 emissions for school buildings down 13% from 2019/20.

3.1.4 The impact of COVID has had a significant impact on CO2 emissions in 2020/21 with reductions across all sectors. The majority of staff have been homeworking and many buildings were closed for a period of time during lockdown. Fleet transport and business mileage were also significantly down due to homeworking and reduced service levels at various times of the year during lockdown periods.

3.1.5 In addition to a range of carbon reduction measures over the years a number of changes have also impacted on emissions such as the removal of Academies in 2015 and the introduction of Care Homes in later years.

3.1.6 Whilst 2020/21 saw the impact of Covid we would expect to see some increase in consumption as staff return to the workplace, however, the overall reductions since the Council started to measure its carbon footprint remain significant. The Covid lockdowns impacted on the ability of the Council to deliver new projects as staff resource in all areas was diverted to deal with the pandemic. A number of projects have continued and details are set out below together with the work underway to pull together a more coherent approach with the developing the Council's approach to respond to the Council Climate Emergency motion.

3.2 Street Lighting

3.2.1 The roll out of the LED programme commenced in 2015. Currently around 16,800 of the Council owned street lighting stock of around 20,440 columns have been upgraded to LED.

3.2.2 All the residential areas and side roads are completed, with current work focussed on distributor roads, secondary/primary roads and Principal routes.

3.2.3 Officers are now in the process of designing up and issuing the schemes for this year, which is expected to be around 1500-2000 more upgrades, leaving the remaining to be carried out next financial year.

3.2.4 Traffic signals are now fully LED, and traffic signs are around 95% LED.

3.2.5 The programme is achieving around 70% energy savings with each scheme. Emissions from street lighting have reduced from 4637 tonnes in 2015/16 to 1502 tonnes in 2020/21.

3.3 Roof Top Solar and Biomass

3.3.1 The Solar PV on Council buildings has generated approximately 974,245 kilowatts of energy, which equates to approximately 230 tonnes of CO₂. The total income to date generated from Feed in Tariff (FIT) payments is £374,238. The capital cost of the Solar PV has been repaid but the FIT will continue to 2037.

3.3.2 The Biomass boilers at Brookvale Leisure Centre and Norton Priory have used approximately 4858500 and 625200 Kilowatts, respectively. This equates to a CO₂ reduction of approximately 1000 tonnes. In addition, they have generated a combined income of £278,778 from the Renewable Heat Incentive Scheme. This is currently being used to repay the existing capital costs but RHI payments will continue until September 2034 for Brookvale and July 2037 for Norton Priory.

3.4 Solar Farm

3.4.1 The 1MW solar farm on the former St Michael's Golf Course has been operational for just over a year. This scheme provides renewable energy via a private wire to the Stadium. The capital cost of the scheme was approximately £1.3m of which 50% funding was provided by the European Development Fund.

3.4.2 The system has produced 1,131,467 in year one, which exceeded the target of £850,000kwh per annum. The energy generated by the Solar Farm will reduce CO₂ emissions by 380 tonnes per annum.

3.4.3 The scheme has been impacted by Covid with less energy used on site and more exported to the Grid than expected. The combined costs of the energy used on site and that exported to the Grid under a Power Purchase Agreement is approximately £50,000 compared with projections of around £70,000. A proportion of this income has been used to meet the operating and maintenance costs of the solar farm which amount to £15,000.

3.4.5 The Council has developed plans to extending the farm and connecting it to the new Leisure Centre in Moor Lane, Lower House Lane and Municipal Building. The project is also looking to provide EV charging infrastructure at the Depot and will allow Air Source Heat pumps to be installed at the Leisure Centre, which will significantly reduce the carbon footprint of the building.

3.5 Public Sector decarbonisation Fund

3.5.1 Towards the end of 2020, the Government launched a Public Sector

Decarbonisation Fund of 1bn of grant funding, up to 100% of capital costs for energy efficiency and heat decarbonisation projects within public sector non-domestic buildings.

3.5.2 The purpose of the Scheme was to help make eligible buildings more energy efficient and install low carbon heating measures, for example; insulation, glazing, heating controls, and heat pumps. All bids had to include some form of heat decarbonisation of a building by installation of a low carbon heating technology. For example, heat pumps or connections to low carbon heat networks. The cost to save a tonne of carbon (Co₂e) over the lifetime of the project must also be no more than £500.

3.5.3 The Council developed a bid focussed on the DCBL Stadium, which included replacing the current gas boilers with air source heat pumps; replacing existing lighting fittings with new energy efficient LED lighting; replacing single glazed windows; and installing additional insulation.

3.5.4 The improvements will significantly reduce the carbon footprint of the building and support the Council's commitment to reduce its impact on the environment. The Council was awarded £1,295,846 to deliver the improvements and work is currently being implemented and will be completed early in 2022.

3.6 Transport

3.6.1 A number of transport projects have been completed and these are set out below:-

- Improve the Council Fleet - Vehicle Fleet Efficiency 2 Electric Vehicles (service vehicles, meals on wheels / passenger transport service).
- Small trial introduction of HVO fuel in the summer of 2022 for a small number of public space vehicles.
- Bus Strategy - Opportunity to improve bus services and facilities on key corridors, Strategy document with action plan, started March 2021 and due for completion December 2021.
- Workplace charging points at Council Offices.
- Emergency Active Travel Fund (EATF) - allowed the Council to implement a number of temporary cycle schemes across the borough whilst in lockdown, all but one has now been taken out. The Runcorn Busway from Halton Hospital to Murdishaw Local Centre has been awarded monies to become permanent and should be completed in the next 12 months.
- The EATF has also allowed us to work with 6 schools to encourage walking and cycling to school when coming out of lockdown. This is in partnership with Living Streets and is part of the WoW programme.

- The Delinking of redundant structures connecting to the SJB and the re-alignment of the carriageway has allowed Halton to add a permanent cycle corridor over the SJB connecting Widnes and Runcorn Town Centres. Initial findings showed a dramatic increase in usage by sustainable methods in the first 3 months.
- An EV taxi event was held in September 2021. The aim was to encourage Halton registered Taxi drivers to consider moving over to Electric / Hybrid.
- The Daresbury to SJB Cycle Link via Manor Park is currently in design and we looking to deliver in 2022-23.
- The Council has completed the roll out of 29 EV charging points in residential areas and plans for further phases are being developed.

3.7 Climate Action Plan

3.7.1 In December 2020, the Council declared a Climate Emergency. The work in this area has been affected by Covid19 and the need to divert resources to address the pandemic. The Council recently commissioned APSE Energy to support the work to develop a Climate Change Action Plan and they have been reviewing the Council's current approach.

The Action Plan will seek to:-

- Collate all relevant projects
- Highlight themes for action
- Identify responsible individuals and timetables for projects
- Guide future investment in this area
- Acknowledge progress to date
- Record ongoing projects as well as those planned
- Identify areas in which action needs to be taken
- Link existing relevant plans and strategies, to raise profile of the topic
- Formalise Action Plan as one, covering all the Council's activity areas
- Ensure the engagement of all parts of the organisation

3.7.2 The initial feedback from the APSE work identifies a number of areas for the Council to focus on. These are around strengthening our policy framework, developing training and support, embedding climate change in our decision making processes, particularly service plans and developing capacity, and resource allocation to support the work.

3.7.3 It is intended, over the next 2/3 months, to work with key Council Officers and the Portfolio Holder for Climate Change to develop an action plan to cover the period 2021/22 to 2025/26.

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. Ensuring that future economic growth is decoupled from the consumption of fossil fuels and the inevitable carbon emissions.

7.0 RISK ANALYSIS

7.1 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.