Carbon Update 2024/25

1. Overall Position

    a. Since baselining of the council's carbon position was undertaken in 2019 the council has reduced it's own emissions by 15.3%. The council now offsets almost 52% of its emissions through insetting projects within the borough.

    b. Overall the council has achieved 60% of its target to reach carbon neutrality by 2027.

    c. The council has enough projects in development and delivery to be confident that it can reach its 2027 target. However this is dependent on all projects being completed as planned. These projects include two large woodland creation schemes, a second solar farm, electrification of food waste collections and the remaining planned phases of fleet decarbonisation. If any one of these projects is not delivered it is very unlikely that the council will achieve its ambition to be carbon neutral by 2027.

Carbon Reduction

2. Street Lighting

    a. Work continues to replace any street lights with LED units. Most lights within the borough have now been replaced but the target is to reach 100%.

    b. Illuminated bollards are being replaced by non-illuminated bollards as an energy saving measure, these bollards are made from recycled plastic to reduce their carbon impact.

3. Building Gas and Electricity

    a. The work to decarbonise buildings across the corporate estate is continuing at pace where projects are being completed within budget despite the challenging economic conditions.

    b. Recent work includes the commissioning of solar PV at Jordangate MSCP where significant solar surplus will generate income for the Council. The total building mounted solar PV capacity is now at 1.6 MWp with a solar yield around 1.3 GWh per annum.

    c. Delamere House will see ASHP provide heat to the building following a package of measures that saw LED lighting upgrade, new double-glazing windows and an upgrade of the heat emitters.

    d. There are fourteen ASHP installations that were installed where the electricity supply upgrade had posed a significant challenge. Some of the schemes that were

completed across the libraries and day centres have already demonstrated carbon savings.

e. The planning and design phase is nearing completion to introduce further Air Source Heat Pumps at Tatton Park, Lyceum Theatre, and Crewe crematorium chapel.

f. Following the successful application to the Public Sector Decarbonisation Scheme (3c), a further £1.4M of grant funding has been made available for the corporate estate.

g. LED lighting schemes are ongoing where recent schemes include libraries and day centres.

h. The Trend Building Energy Management System was upgraded to the latest version to ensure corporate buildings HVAC systems can continue to operate at optimum performance levels.

i. Provisions are being made for EV charging that have seen new chargers at Council offices, leisure centres and car parks whilst supporting a programme to introduce EV charging for the Councils fleet vehicles.

j. As the largest energy consumers, the Council continue to work closely with Everybody to better manage energy and water within their leisure facilities.

k. The decarbonisation of buildings programme is anticipated to result in CO_2 savings of around 900 tonnes per annum following LED lighting upgrades, solar PV installations, Air Source Heat Pumps, and fabric measures.

4. Fleet

a. The Carbon Neutral Action Plan baselined the carbon from council fleet at 3,543tCO2e and targeted a reduction of 30% to 2,498tCO2e.

b. Our work time charge network continues to improve; the council now operates a total of 23 dual charge points with 5 more dual charge points due for commissioning. These are located at Delamere House, Macclesfield Town Hall and Westfields, plus the Environmental Hub, Jordan Gate multi storey car park as well as Macclesfield & Congleton leisure centres with additional points coming online in Crewe Town Centre. Use of publicly available chargers at Macclesfield Leisure Centre has increased significantly.

c. We have seen the council business mileage steadily rise since the end of the pandemic. The Car Club is now in it's third year with over 46,000 miles travelling by 40 regular uses saving over 15 tCO2e. Other measures are in place to reduce emissions from business miles with a green travel plan in development with HR as well as seeking partnership for an Electric Car salary sacrifice scheme.

d. Funding was secured through the MTFS for the electrification of up to 90 vehicles, recent reduction in fleet sizes at the Environmental Hub through cost saving efforts means that the total will likely be less on completion of the project.

e. This project has been split into three phases representing the charge infrastructure locations. At Cledford Lane now has 22 dedicated charge bays within the operational area as well as a 120kW rapid charger for shift time boost charging.

f. Phase 1A of the fleet electrification project has now been delivered. The street cleansing, waste collection and bin delivery teams based in Cledford Lane now have 11 E-Transit tippers of various configurations and 5 small team leader vans. We were also able to convert 6 of the 7 Community Enforcement Teams vehicles to electric and they are now operating. There is enough infrastructure at Cledford Lane to electrify the remaining 5 street cleansing vehicles once a market option for Crewe cab vehicles becomes available.

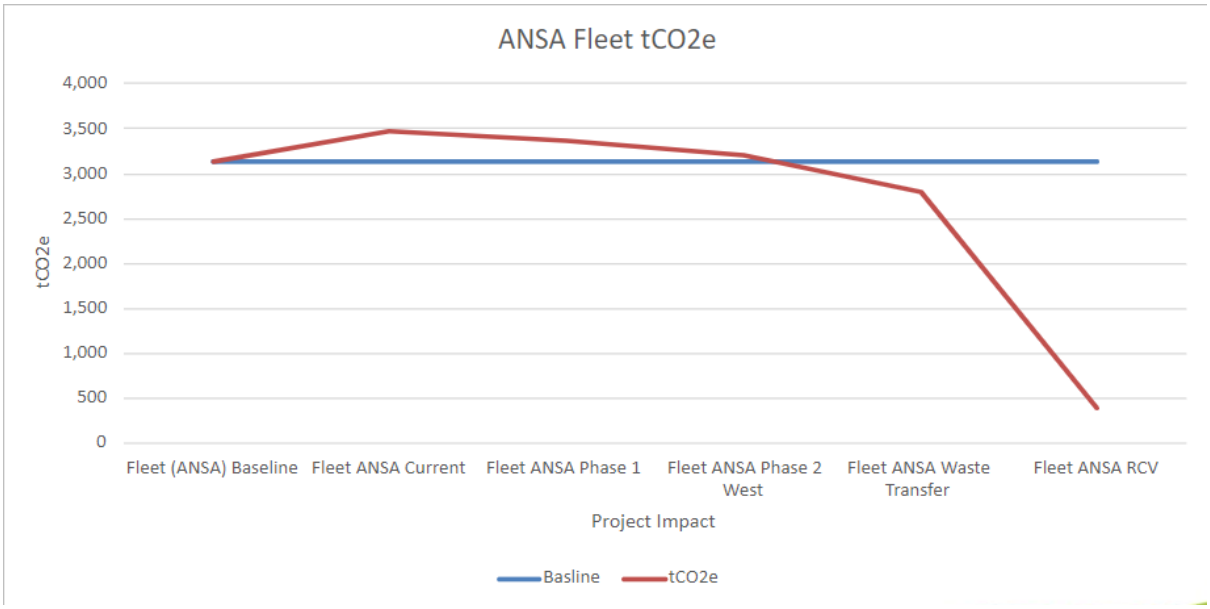
g. Phase 2 is currently having the infrastructure designed and with the fleet being specified. There remains a challenge of the capabilities of the electric offerings ability to tow, without significant limitations on range. This remains a key requirement for our ground's maintenance teams. A first trial was unsuccessful; however, we anticipate more market options in the coming year.

h. Phase 3 has now reached delivery stage with the supporting infrastructure for a new substation located on our west park depot now delivered. This will give the site the necessary power to support fleet electrification with up to 24 vehicles now specified and quoted for by the market.

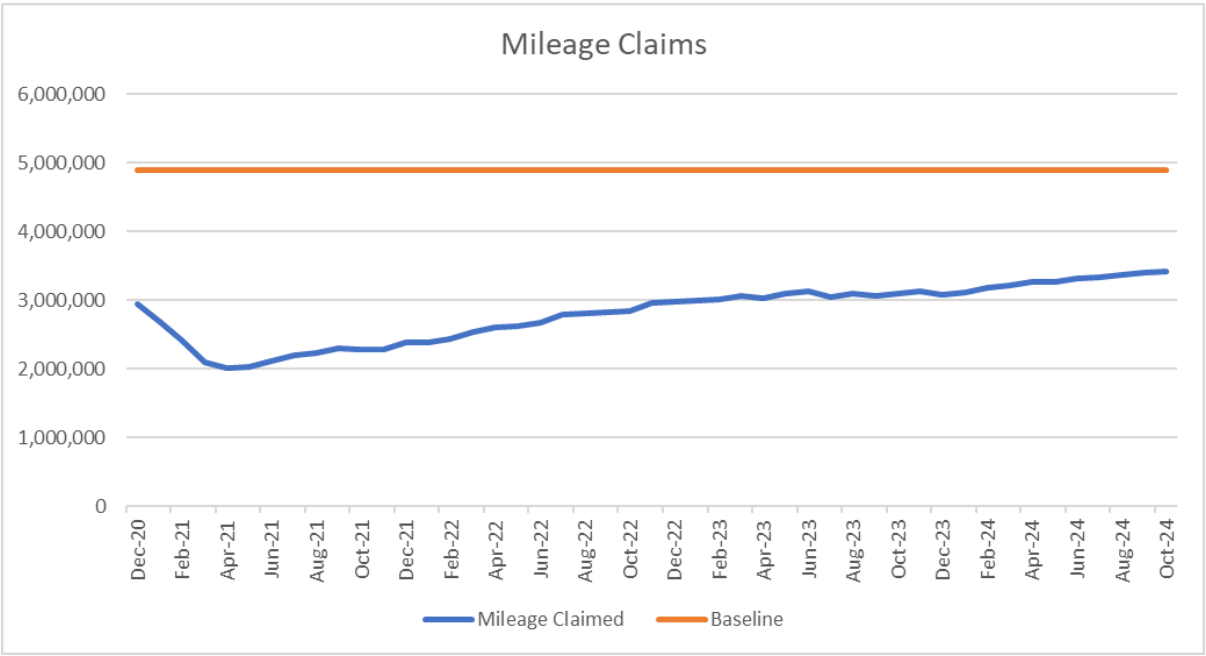
i. The waste transfer station project has gained approval for a feasibility study for a fully electrified operation. In the interim period, through discussions with our current Energy from Waste contract, it may now be possible to cease the need for processing waste at all removing an energy intensive process in our waste management. This could save up to 412 tCO2e per year.

j. The RCV fleet remains challenging, however technology has progressed and there now could be solutions which would meet our requirements. Trials are being arranged for this and as a solution to the upcoming food waste collection requirements.

k. Whilst progress has been made on reducing the councils' emissions from it's fleet, there continues to be significant challenges in meeting the councils requirements for it fleet. The graph below show how each project will decrease emissions from the ANSA fleet vehicles.



5. Business Travel
    a. Although business travel remains lower than baseline, due mainly to the changes in working practices arising from the Covid-19 pandemic, it is noted that the miles driven has trended upwards for the last few years as the graph below shows.



    b. The council has taken steps to refresh the Travel Mode Hierarchy to ensure that staff have a focus on sustainability when making travel mode choices.

6. Waste and Water

    a. Waste and water represent a very small percentage of council emissions.

b. Focus continues on encouraging recycling in all council offices and minimising the use of single use plastics.

Carbon Inset

7. Green Electricity

    a. Cheshire East Council has continued its policy to purchase 100% REGO backed green electricity.

    b. The current contract is in place until 2027.

    c. As more heat becomes electrically generated the purchase and generation of green electricity provides more carbon savings to the council.

8. Energy Generation

    a. The council's first solar farm was opened in September 2024.

b. The solar farm at Leighton Grange is a 4.1MW array and is expected to generate approximately 3,750KWH per annum.

c. The electricity generated will supply the council's composting plant with the residual power being exported to the grid.

d. The Carbon Action Plan provided for a minimum of 10MW of ground mounted solar, therefore a second solar farm will need to be developed.

e. This committee has previously provided agreement to develop and build out a second solar farm on Cheshire East Council owned land. It is anticipated that this will be a grid only connected scheme and will be brought forward for a planning decision during the next financial year.

9. Natural Sequestration

a. The Carbon Neutral Action Plan targeted an inset of 3,529 tCO2e annually from nature-based solutions.

b. To date projects totalling 53 hectares of council owned land have been completed to achieve 47.5% of this target.

c. In the 2023/24 season, a total of 28,558 trees were planted on the 15.5 hectare site at Long Lane, Goostrey.

d. During the 2024/25 season a further 35.51 hectares of council owned land will be planted with trees bringing the total to 88, providing a total of 1,671 tonnes of carbon offset.

e. Each new woodland has been designed to allow for existing natural features, utilities, historical features and consideration of neighbours. There is no public access to the new woodlands, apart from any existing public rights of way that may cross the land.

f. Further tree planting projects are planned for the 2025/26 planting season on 73 hectares of council owned land to support the insetting target.

Peat

g. CEC commissioned a desk top review to identify any recorded areas of peat on council owned land. The review identified several sites of potential peat, however the majority of sites presented constraints that meant that it would not be possible or practical to rewet and restore those areas.

h. The review did indicate that peat was present on a site that had already been identified for natural insetting, however field investigations conducted by Mersey Forest and Natural England concluded that deep peat was not present, and restoration was therefore not viable.

i. Information from the desk top review will be added to the council's internal GIS system to flag the necessity for further investigation where peat is indicated.

j. The 1.5 hectares of peat that was previously rewetted at Pastures Wood farm is being monitored annually and any adjustments to water levels or removal of scrub arranged as necessary. The change from pasture to arable farming on the

surrounding land has impacted the site and the level of maintenance required to maintain water levels and manage scrub has increased.

k. The Pastures Wood peat restoration project was funded with Section 106 funds plus a capital contribution. Currently, there is little grant funding available for peat restoration and most is only applicable to landscape size projects. In order to be effective, any restoration scheme needs to allow funding for future maintenance.