

OPEN

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**Environment and Communities
Committee**

11 March 2024

Carbon Neutral Progress Update

**Report of: Tom Shuttleworth – Interim Director Environment and
Neighbourhoods**

Report Reference No: EC/25/23-24

Ward(s) Affected: All

Purpose of Report

- 1 This report provides an update to committee of the progress the Council has made in relation to its carbon neutral commitments.

Executive Summary

- 2 In May 2019 Cheshire East Council committed to being a carbon neutral council by 2025 and to influence carbon reduction across the borough. In May 2020 we adopted our Carbon Action Plan which set out how we will achieve this. Following this the Council adopted the UK100 pledge committing to the borough of Cheshire East being carbon neutral by 2045.

Carbon Neutral Council by 2025

- 3 In 2023/24 a range of carbon reduction projects have been developed and implemented such as ten additional air source heat pumps, the council's first solar farm at Leighton Grange and a further 15ha of tree planting. Once fully completed in the Spring 2024 these measures are forecast to move the Council up to 68% of it's carbon neutral target. This is an increase from 41% as reported at the last annual update in February 2023.

- 4 The council has projects in progress to achieve the target it has set itself to be carbon neutral by 2025, however this is now unachievable for the following reasons;
- Due to the complexity of the projects required and how their practical delivery has been influenced by external market forces. These external factors are issues such as securing off takers for Electricity we will produce through our solar farm and difficulty in acquiring the necessary volume of affordable small electric fleet vehicles within the required timescales.
 - The decision made at Full Council on 27th February to defer capital expenditure on the second larger solar farm and transition to EV fleet. This decision was made on the basis of the Council's very challenging financial position and the need to defer spend, in this case the cost of prudential borrowing, to future years wherever practicable.
- 5 As such and as referenced at Full Council when setting the budget a more realistic target for the Council to become carbon neutral is by the end of 2027.

Wider Borough Progress

- 6 Following the decision of the council to sign up to the UK100 pledge and commit itself to borough wide carbon neutrality by 2045 Cheshire East Council commissioned a baseline assessment of the carbon footprint of the borough and a review of the options for reducing that impact. The next step has been to create an initial action plan to cover the five years from 2024-29, the first draft of which is appended to this report (appendix one). Permission is sought from this committee to engage in a public consultation to ensure the actions and priorities within the draft plan are reflective of the priorities of the residents of Cheshire East.
- 7 The council has continued to develop projects to disseminate grant funding and encourage the uptake of renewable technologies.

RECOMMENDATIONS

The Environment and Communities Committee is recommended to:

1. Note the progress made to date towards the Council's carbon neutral commitments.
2. Note that Full Council has approved an extension of the time for the achievement of the Carbon Neutral Council objective to 2027.
3. Authorise the Head of Environmental Services to take all necessary steps to carry out a public consultation to seek views on the Wider Borough Carbon Action Plan 2024-29 (Appendix 1) and to inform the final action plan to be returned to this committee for adoption and approval of actions arising from it.

Background

- 8 The carbon neutral action plan set carbon budgets against different areas of the Council's operations, illustrated at Figure 1. These were intended to outline the scale of the reduction required against each area and would be reviewed annually and as and when new opportunities or technologies emerge. Where targets were not being met it is intended that other areas may be able to compensate through additional action.

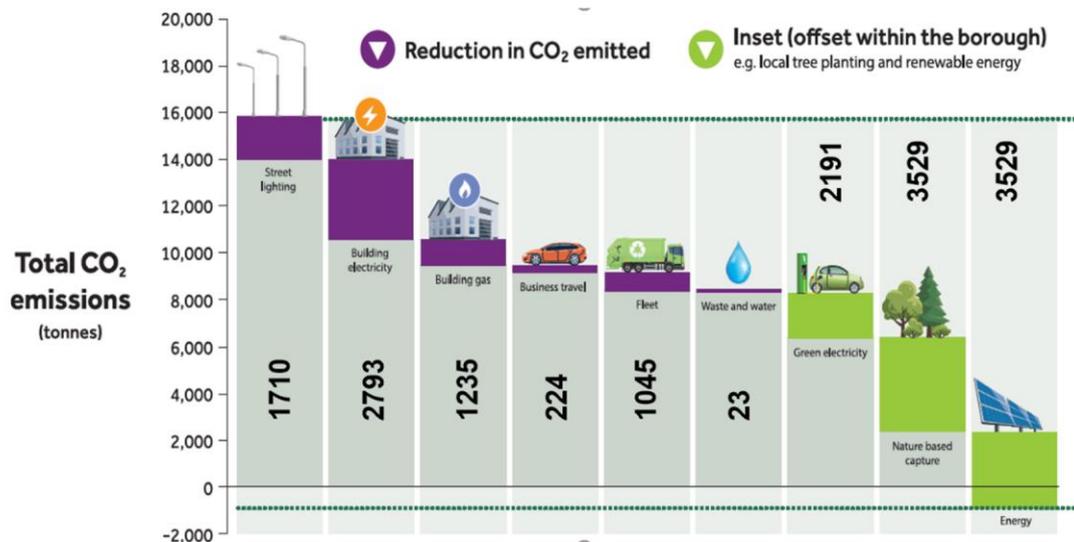


Figure 1: illustration of carbon budgets against different service areas

Carbon Neutral Council - Progress Update

- 9 An assessment of progress against each area is summarised below. We have separated the forecasted impact of projects and policies which have been put in place and funded to date, and those projects which are at a high level of development and could be delivered by 2027. There are also a number of projects which are at concept stage, and so there is a higher level of risk that these will not deliver the required carbon savings.

Table 1 – Overall carbon position of council	Tonnes of CO ₂	%
2019 Baseline CO₂	15,447	100%
Carbon Reduction Target	7,030	46%
Current carbon reduction achieved	1,640	11%
Estimated carbon reduction from completed, progressing and proposed projects	2,304	35.5%
Insetting Target	9,268	60%
Current Carbon Reduction Achieved	4,673*	30%*
Estimated Insetting from completed, progressing and proposed projects	9,533	62%

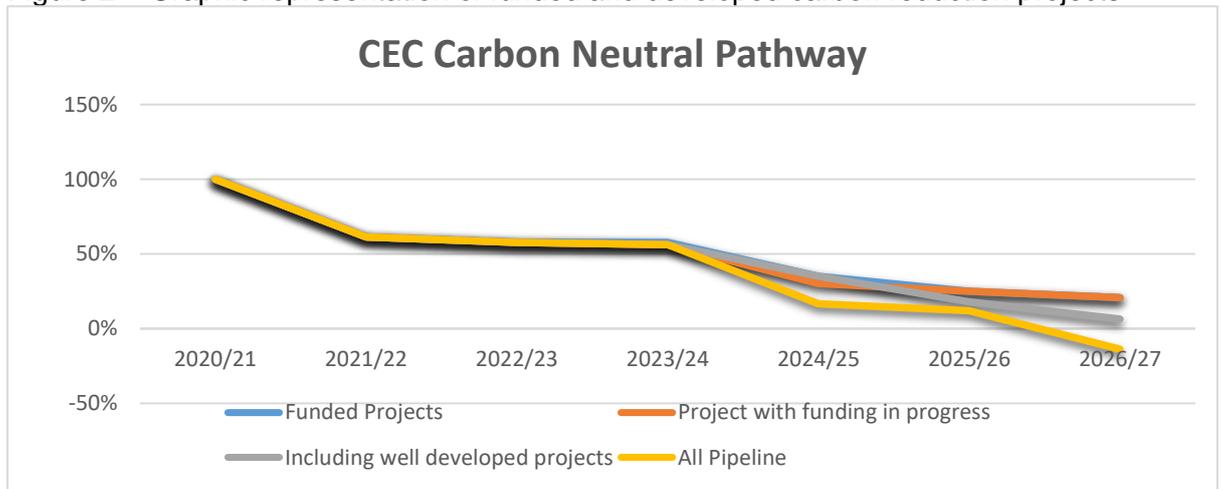
* This figure includes the purchase of green electricity, the impact of which will reduce as the grid continues to decarbonise.

- 10 The council has projects in progress to achieve the target it has set itself to be carbon neutral by 2025, however this is now unachievable for the following reasons;
- Due to the complexity of the projects required and how their practical delivery has been influenced by external market forces. These external factors are issues such as securing off takers and an ability to acquire the necessary volume of small fleet vehicles over a restricted time period;
 - The decision made at Full Council on 27th February to defer capital expenditure on the second larger solar farm and transition

to EV fleet. This decision was made on the basis of the Council's very challenging financial position and the need to defer spend, in this case the cost of prudential borrowing, to future years wherever practicable.

- 11 As such and as referenced at Full Council when setting the budget a more realistic target for the Council to become carbon neutral is by the end of 2027.
- 12 In the following sections we have taken the elements of the waterfall diagram shown above and broken them down to show where progress has been made and where there are gaps on which we need to focus.

Figure 2 – Graphic representation of funded and developed carbon reduction projects



- 13 It should be noted the authority uses green electricity backed by the Renewable Energy Guarantees of Origin (REGO) scheme. In line with established good practice, however, it is still necessary to first look to reduce electricity usage and to decarbonise through schemes such as solar before the remainder is then offset by the green electricity tariff.
- 14 **Street Lighting**
- 15 The Carbon Neutral Action Plan baselined the carbon from streetlighting at 2,556tCO₂e and targeted a reduction of 67% to 846tCO₂e. To date a reduction of 50% has been achieved and projects are in progress to over achieve the targeted reduction.
- 16 There is a continuing ongoing programme to de-illuminated traffic bollards in line with industry guidance.
- 17 Reviewing existing illuminated signs for requirement to be illuminated across the network.

18 Reviewing all illuminated apparatus to ensure suitability in line with current standards and to remove assets which no longer need to be installed or illuminated.

19 **Building Electricity**

20 The Carbon Neutral Action Plan baselined the carbon from building electricity at 3,911tCO₂e and targeted a reduction of 71% to 1118tCO₂e. To date a reduction of 30% has been achieved and projects are in progress to achieve a further 20% of the targeted reduction.

21 Cheshire East building electricity usage has risen as expected as more gas use is displaced to electricity. It should be noted that all Cheshire East Council purchased electricity is green electricity backed by renewable energy guarantee of origin (REGO) certificates.

22 Solar PV arrays have been installed at two multi-storey car parks within Macclesfield. making a total of 25 building mounted solar arrays installed across the council estate.



23 LED lighting works have been completed at an additional five buildings across the council estate making a total of 17 buildings converted to LED

24 Much of this work has been completed with funding from the Public Sector Decarbonisation Scheme (PSDS) of which the Council has successfully bid for £14.8million.

25 **Building Gas**

- 26 The Carbon Neutral Action Plan baselined the carbon from building gas at 4,410tCO₂e and targeted a reduction of 28% to 3,175tCO₂e. To date an increase of 8% has taken place due to increased heating demands, however air source heat pump projects are nearing completion in addition to other measures to achieve over 90% of the targeted reduction.
- 27 The PSDS funding has also allowed the council to install heat pumps to reduce the gas usage of many of our buildings. The full gas savings from these projects will show in next year's update as several are awaiting commissioning activity.
- 28 Delamere House in Crewe has undergone work in preparation for the commissioning of the air source heat pump with new double glazed windows and new radiators installed throughout the building.
- 29 Additional air source heat pump projects for Tatton Park, Crewe Lyceum Theatre and Crewe Crematorium are within the design and planning phase.
- 30 Funding has been secured for air source heat pumps coupled with solar PV and LED lighting at 11 schools within the borough.

31 **Business Travel**

- 32 The Carbon Neutral Action Plan baselined the carbon from business travel at 884tCO₂e and targeted a reduction of 25% to 660tCO₂e. To date a reduction of 40% has been achieved which is beyond the target set.
- 33 The reduction on business miles following the Covid-19 pandemic continues to show a reduction in emissions of more than the targeted 25%. It is however important that a continued focus is applied to this area as travel habits revert. Flexible and agile working remains a significant contributor to carbon reductions in business travel. It is critical that we maintain a "virtual first" approach to prevent the gains made being lost.
- 34 As the council considers changes to its built estate through the WorkplaCE programme it will be vital to be mindful of business travel and commuting impacts of changes.
- 35 Cheshire East Council has commissioned a staff travel plan and will bring forwards recommendations from this through the Corporate Policy Committee.

36 The first year of the Car Club was a successful pilot and helped the carbon team develop an understanding of the demand from staff. In line with the current financial climate the council faces, the decision was made to streamline the offering to increase efficiency and reduce costs. This means that the fleet now consists of two electric vehicles located at Delamere house and the Environmental Hub. We will continue to engage with officers operating from Macclesfield Town Hall to understand their requirements.

37 We continue to explore with our highways colleagues about the possibility of developing a public offering of the car club model which potentially falls in line with LEVI funded on street EV charging. This has been shown to offer residents the chance to try electric cars before committing as well as reducing the amount of two car families in the area immediately surrounding the car club offering improving local parking conditions.

38 **Fleet**

39 The Carbon Neutral Action Plan baselined the carbon from council fleet at 3,543tCO₂e and targeted a reduction of 30% to 2,498tCO₂e. To date an increase of 14%, projects are in progress reduce the fleet footprint by 13%.

40 Our work time charge network has improved, with 28 new and upgraded charge points located at corporate offices 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. All new and replacement chargers are 22kw and the leisure centre locations have already proved popular with site users.

41 The decarbonisation of the council's operational fleet continues to be a challenging area for our carbon reduction efforts. Electric vehicle technology continues to mature and now offers workable solutions for many of our small to medium sized utility vehicles.

42 Funding was secured through the MTFS for the electrification of up to 90 vehicles. This project has been split into three phases representing the charge infrastructure locations. Phase 1 includes the installation of 22, 22kW overnight charge bays at the Environmental Hub, Middlewich as well as an ultra-fast 120kW back up charger. These projects require significant power upgrades, and the council was successful in securing an uplift from the district network operator from 400kVA to 2000kVA supporting the feasibility of decarbonising the operations at the Environmental Hub Site.

- 43 Phase 1A of the fleet electrification will include between 16-18 small vans, 3.5 tonnes tippers & boxed tail lift transits operated by our waste, street cleansing, trees & bin delivery teams. The mix of vehicles and teams reflects our approach to transition the fleet on a case-by-case basis and only when an electric vehicle can meet specification and fulfil the role required.
- 44 Phase 1B will involve the transition of the remaining bin delivery & street cleansing vehicles when the anticipated market offering meets the specification required.
- 45 Phase 2 will involve the installation of additional overnight charge bays for the ground's maintenance fleet located at the Environmental Hub. The precise number of vehicles will be determined following the ground maintenance review and whether the EV vehicle market can provide the specifications required.
- 46 Phase 3 will focus on the street cleansing and ground maintenance vehicles which service the north of the borough, located at our West Park depot. The installation of vehicle charging infrastructure at this location requires significant local grid upgrades and plans to install a new substation on council land at West Park are ongoing with Electricity Northwest. We anticipate that this will take place through 2024 and the fleet electrification will follow on during 2024/25.
- 47 The waste transfer station at the Environmental Hub Middlewich has also been identified as a feasible project to electrify the councils' activities. Specifically, the industrial shredder and material handler which process the residual waste from household bin collections. This will require some operational considerations due to the cabling requirements. The impact on emissions from transport will be significant on the successful completion of this project with a 3-5% carbon reduction predicted.
- 48 The RCV fleet still presents the most challenging aspect of the fleet electrification and there has yet to be a significant enough improvement in the electric offering to provide a solution.
- 49 **Waste and Water**
- 50 The Carbon Neutral Action Plan baselined the carbon from council waste and water at 144tCO₂e and targeted a reduction of 16% to 121tCO₂e. To date an increase of 121tCO₂e has taken place.
- 51 The council has taken steps to reduce water usage.

52 Waste and water remain a very small aspect of the council's carbon emissions.

53 **Green Electricity**

54 The Carbon Neutral Action Plan targeted a carbon inset of 2191tCO₂e from the purchase of green electricity.

55 All council buildings are now being supplied with green electricity backed by the Renewable Energy Guarantees of Origin (REGO) scheme which offsets a significant proportion of the emissions meaning all assets at CEC under our financial control consume 100% green electricity. This includes Leisure centres and Streetlighting. Since 2019, Schools under CEC energy framework benefit also from 100% green electricity.

56 It is recognised that the purchase of green electricity, while important, should not negate the need to reduce consumption.

57 **Nature Based Solutions**

58 The Carbon Neutral Action Plan targeted an inset of 3,529tCO₂e from nature based solutions. To date projects have been commenced or completed to achieve 57% of this inset and there are sufficient pipeline projects to provide comfort that the full target can be achieved.

59 The council continues to work with partners to bring forward new sites for tree planting and other natural sequestration projects.

60 15ha of tree planting is taking place on Cheshire East owned land during the 2023/24 planting season, providing a carbon offset of 441tCO₂e. This brings the total planting to date to 45ha.

61 The council has identified enough suitable land for tree planting to be confident of meeting its targeted figure of 120ha by 2025. It is anticipated that circa 45ha will be planted in the 2024/25 planting season leaving 30ha to be planted before the end of 2025.

62 A review has been completed of the peat resources within the borough and the actions to be taken to ensure the peat remains of sufficient quality to sequester, rather than emit, carbon.

63 **Energy Insetting**

- 64 The Carbon Neutral Action Plan targeted an inset of 3,529tCO₂e from the local generation of green electricity. To date projects have been commenced or completed to achieve 37% of this inset and there are sufficient pipeline projects to provide comfort that the full target can be achieved although there are significant risks as to the timescale for delivery of these projects.
- 65 The 4.1MW solar farm located at Leighton Grange, Crewe is nearing completion and will begin generating renewable electricity within the next few months. The electricity produced will be supplied to the council's in-vessel compost facility, managed by Biowise, with any surplus power generated being supplied directly to the grid.



- 66 As noted above the council has installed roof mounted PV across its built estate, primarily this solar is being used to offset the additional electricity requirements of providing spatial heating from air source heat pumps rather than gas fuelled boilers.
- 67 A review of council owned land assets was undertaken in 2021 with a view to finding those parcels of land with the potential for solar sites. From this review two additional sites were identified with potential for solar.
- 68 Following further feasibility studies a site has been identified with the potential for an 18MW solar farm supplying power to a private off taker. This project would fulfil the energy insetting requirements of the council's carbon action plan but is subject to securing planning permission, power purchase agreements and a contractor to complete

the installation and is therefore subject to risk.

69 **Wider Borough Influence**

70 Following the acceptance of the Wider Borough Carbon Baseline report in 2023 the council has continued to progress work towards the 2045 borough wide carbon neutrality target.

71 The primary focus has been the development of an initial five year action plan, a draft of which is attached (appendix one). The draft plan has been developed in consultation with council members and officers alongside specific interest groups including business groups, environment groups and town and parish councils.

72 The committee is requested to delegate authority to authorise officers to complete a full public consultation to ensure that the actions and priorities within the report are aligned to the priorities of local residents.

73 The draft action plan focuses on carbon emissions in the following areas: Domestic Buildings, Non-domestic Buildings and Industry, Transport, Agriculture and Land Use, Waste, and Energy Supply.

74 The draft plan contains the below principles for action:



Evidence-based

Linking actions back to the carbon footprint and emission modelling that has been carried out, to ensure the actions are guided by an understanding of the type and scale of interventions needed. This will also help with monitoring progress and impact.



Inclusive

Ensuring actions consider equity in order to improve the lives of those most marginalised and vulnerable in society and that climate action does not leave communities behind or negatively impact some groups of society.



Localised

Consideration of local priorities to ensure that actions tackle local concerns and use local opportunities. Actions are tailored to the specific context of Cheshire East and the borough's strengths to ensure they are relevant.



Collaborative

As outlined on previous pages, collaboration with stakeholders is key for achieving borough targets. Actions should seek to bring together stakeholders, create partnerships and remove barriers for others.

- 75 Summary - For Cheshire East to meet its 2045 target the council can use its influence and powers to accelerate action across the borough. Implementing the action plan will require significant resource, including collaborating with various groups so actions are implemented successfully and fairly. It is important to monitor the impact of actions to understand the progress towards the 2045 target.
- 76 Once the action plan is finalised, following a consultation with the public, a full monitoring framework will be established to enable the actions within the report and their impacts to be monitored and reported on during the five years.
- 77 It is recognised that much of the activity within the action plan is characterised as enabling activity. It is considered that this will provide a basis from which to increase more directly targeted actions during the next 5 – 10 years. It is intended that each service with the council will take responsibility for the influence of carbon reduction related to their service area. A member of each service to form a wider borough carbon officer group reporting to the carbon board and member steering group. Some areas of the Council may require additional officer support to undertake the carbon work, in particular carbon reduction of domestic buildings is a key priority for the action plan and hence the Council housing team may need additional resource.
- 78 It is also clear that the reduction of all areas of carbon emission within the boundaries of Cheshire East is not within the control of the council. There is therefore a focus on building relationships and enabling activities to allow those with the control over the emitted carbon to reduce it.
- 79 While the action plan is in development a select group of projects has been undertaken to begin the process of reducing the borough's carbon footprint using the resources and influence of the council.
- 80 Cheshire East Council, in collaboration with Cheshire West and Chester Council and Warrington Borough Council, launched a Solar Together campaign. Working with iChoosr the scheme reached out to households within the sub-region to enable them to have a trustworthy mechanism for receiving a quote for the provision of solar panels and battery storage. It is anticipated that approximately 300 solar installations will take place within Cheshire East as a result of the scheme and that the small revenue expenditure of the council to issue the mailings will be full recouped. A second round of the scheme would possibly encourage additional solar installations, iChoosr experience is that a second round tends to be more successful than a first round.

- 81 Cheshire East Council has successfully applied for grant funding schemes to allow local councils and community groups to understand the routes to carbon reduction of their buildings and apply for capital assistance to begin the retrofit work needed. The Low Carbon Skills Fund grant provided 8 town councils with heat decarbonisation plans for their building and the Shared Prosperity Fund grant is providing a revenue facility for approximately 20 heat decarbonisation plans or energy performance certificates for community buildings within the borough. There is also a capital allocation to provide community groups with up to 75% of the capital required to retrofit their buildings to reduce the carbon footprint.
- 82 Cheshire East Council is also taking steps to understand the carbon footprint of its procurement activities and use this information to influence the companies within its supply chain.

Consultation and Engagement

- 83 There has been regular consultation with Council members through the Carbon Members Advisory Panel and officers through the Carbon Board.
- 84 Consultation will proceed on each individual reduction measure as part of the project development process.
- 85 The development of the Wider Borough Carbon Action Plan 2024-29 (Draft) has been the subject of consultation with council members, town and parish council members and special interest groups which has informed the production of the proposed actions.
- 86 To ensure we receive the maximum input this paper seeks permission for the draft report will be taken to a full public consultation process.
- 87 It is envisaged that the consultation will run from April 2024 over a period of 6 – 8 weeks with final dates to be publicised in due course. The consultation will have its own communications plan attached to ensure residents are actively engaged.
- 88 Following the public consultation a final Wider Borough Carbon Action Plan 2024-29 will be developed and brought back to the Environment and Communities Committee for a decision to adopt and implement, this is targeted to be September 2024.

Reasons for Recommendations

- 89 The above recommendations will continue to progress the Council’s ambition to be carbon neutral for its own operations by 2025 and to influence carbon reduction across the wider borough.
- 90 The 2045 target for borough wide decarbonisation is a target that the council will not be able to meet without public support and partnership working. It is therefore important for all members of the public and other stakeholders to have the opportunity to contribute and comment on the action plan.

Other Options Considered

Option	Impact	Risk
Do nothing	There is an option to do nothing however this would severely curtail the Council’s ability to meet its declared target of being carbon neutral for its own operations by 2025 and for the borough by 2045.	Risk that council does not reach its own targets and risk to those who will be most affected by climate change of inaction.
Purchase offsets	The Council has the option to purchase registered carbon offsets. This is not recommended as the offsets would be outside of the borough and lose the co-benefits of borough wide carbon reduction.	Risk that this moves the financial value of council intervention outside of Cheshire East

Implications and Comments

Monitoring Officer/Legal

- 91 The report asks Members to note progress against the existing Carbon Action Plan and for approval to go out to consultation on the Wider Borough Carbon Action Plan. Consultation should be carried out at a

point where the Council is forming its plans and the responses can be taken into account when formulating a final plan for approval. It is proposed that following consultation, the final plan will be brought back to Committee for adoption.

Section 151 Officer/Finance

- 92 The Council's current Medium Term Financial Strategy (MTFS) includes a revenue budget to support the delivery of the Carbon Neutral programme. The revenue budget for 2023/24 was £266,000 and for 2024/25 is anticipated to be £202,000. The MTFS also includes several carbon neutral related capital schemes in furtherance of the council's operational carbon neutrality ambition, including £568,000 for Carbon Offset Investment (Natural Sequestration), £3,950,000 for Green Investment Scheme (Leighton Grange Solar), £14,180,000 for Solar Energy Generation at a second solar farm and £6,897,000 for Fleet EV Transition. It is noted that the two solar projects fall under the invest to save model, the fleet EV transition is anticipated to cover its own costs through vehicle lease and fuel savings and the natural sequestration has attracted a significant level of grant funding in support.
- 93 The current MTFS has no allocation relating to the 2045 target for borough wide carbon neutrality. Funding associated with this target will be requested through the Council's Medium Term Financial Strategy (MTFS) process when the final detailed action plan is available.

Policy

- 94 The recommendations within this report are reflective of the priorities within the council's Corporate Plan 2021-25 and the vision for an open, fairer, greener Cheshire East. The plan includes the goal to be a carbon neutral Council by 2025.

An open and enabling organisation

Listen, learn and respond to our residents, promoting opportunities for a two-way conversation

Equality, Diversity and Inclusion

- 95 An equality impact assessment was undertaken for the Environment Strategy, of which the Carbon Neutral Action Plan forms a key element and concluded there are no adverse impacts on any of the protected characteristics. All residents are expected to benefit from taking action

on climate change. Further assessment will be needed to assess individual measures proposed in the action plan on a case-by-case basis.

Human Resources

- 96 Policy changes may have HR implications and will be consulted on before they are implemented.

Risk Management

- 97 A programme risk register has been developed and is attached (Appendix 3). Individual projects also maintain their own risk register and individual risks are managed or mitigated.

Rural Communities

- 98 Changes in land use to support the delivery of the carbon neutral goal may have an impact on rural communities. The land assessment has considered the competing priorities for different land parcels and given a rounded view.
- 99 It is recognised that rural communities have different needs with regards to issues such as transport and may require particular solutions.

Children and Young People including Cared for Children, care leavers and Children with special educational needs and disabilities (SEND)

- 100 As part of the wider communications strategy plans are in place to engage with children and young people through various channels.

Public Health

- 101 It is expected that reductions in carbon emissions and associated pollutants will have a positive impact on public health.

Climate Change

- 102 The matters within this report are concerned with reducing the council's carbon footprint.

Access to Information

Contact Officer:	Ralph Kemp – Head of Environmental Services Ralph.kemp@cheshireeast.gov.uk
Appendices:	Appendix 1 – Cheshire East Borough Wide Carbon Action Plan 2024-29 (Draft) Appendix 2 – Equality Impact Assessment for Wider Borough Carbon Action Plan 2024-29 (Draft) Appendix 3 – Risk Register for Carbon Programme
Background Papers:	Cheshire East Carbon Neutral Action Plan