

Cabinet

Date of Meeting: 05 May 2020

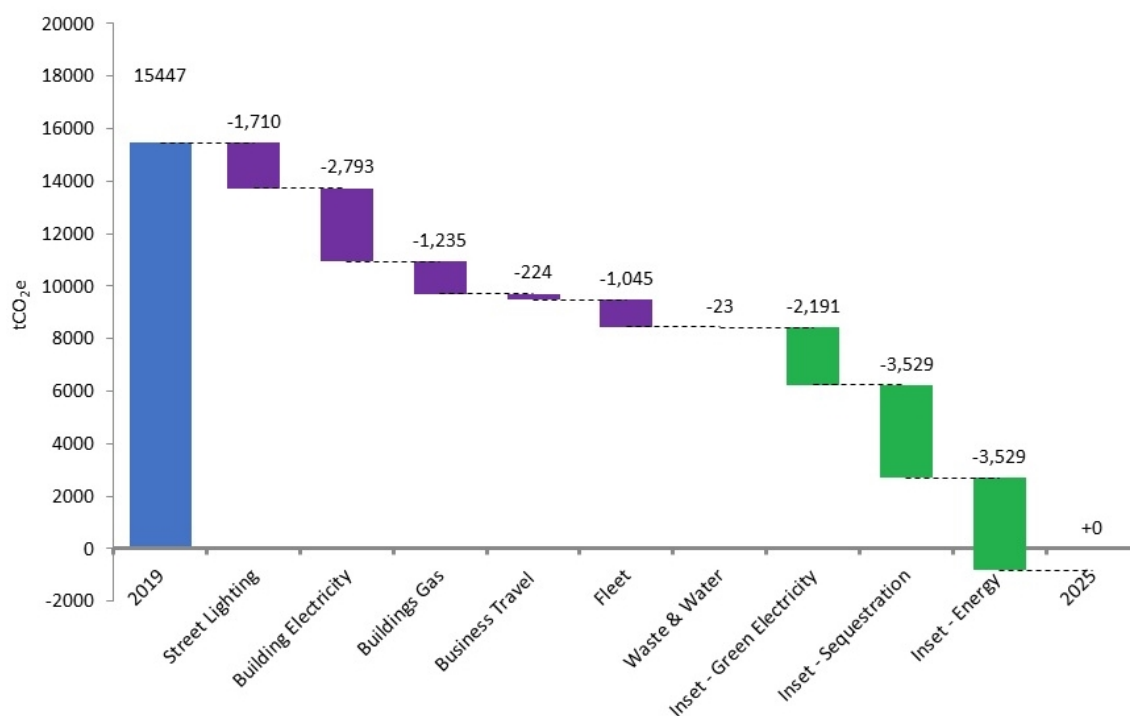
Report Title: Cheshire East Carbon Action Plan

Portfolio Holder: Cllr Nick Mannion - Environment and Regeneration

Senior Officer: Frank Jordan, Executive Director Place

1. Report Summary

- 1.1. The Council has committed to be carbon neutral by 2025 and to work to encourage businesses, residents and organisations in Cheshire East to reduce their carbon footprint by reducing energy consumption and promoting healthy lifestyles.
- 1.2. The Carbon Action Plan sets out how the Council will achieve carbon neutrality by 2025 and influence emission reduction across the Borough.
- 1.3. Since 2010 the Council has reduced its carbon emissions by 55% but recognises there is still much work to do to achieve carbon neutrality. The current carbon footprint of the Council has been assessed to be 15,447 t/CO₂e (tonnes of carbon dioxide equivalent).
- 1.4. The Council commits to address its remaining carbon footprint through further carbon emission reduction measures, sustainable energy production and carbon offset through local environmental schemes such as large-scale tree planting sequestration (long term removal of carbon from the atmosphere).
- 1.5. The diagram below outlines the relative contribution of all activity that will be required to achieve carbon neutrality by 2025, including a 10% contingency. The Council will also develop communication resources and toolkits to assist town and parish councils and communities in calculating, reducing and offsetting Carbon.



2. Recommendations

2.1. That Cabinet:

2.1.1. Approves the Carbon Action Plan as outlined at Appendix One.

2.1.2. Delegates authority to the Head of Environmental Services to take all necessary actions to implement the Carbon Action Plan, including:

2.1.2.1. Embedding carbon accounting into the business planning and investment processes;

2.1.2.2. Reducing carbon from buildings by adopting the Building Research Establishment Environmental Assessment Method (BREEAM) 'Excellent' or equivalent standard for new buildings and aiming for the highest BREEAM standard achievable for refurbished Council buildings;

2.1.2.3. Reducing carbon from council vehicles through the use of ultra-low carbon vehicles wherever possible;

2.1.2.4. Continuing to seek opportunities to develop sustainable energy production across the borough;

2.1.2.5. Focusing on environmental carbon offsetting within the borough through sequestration and reduction schemes, such as tree planting, with communities and partners from across the borough;

2.1.2.6. Seeking to become a full partner of the Northern Forest scheme and offset carbon through tree / hedgerow planting and peat moss restoration on Council owned land and farming estate;

2.1.2.7. To approve receiving £700,000 of external funding for the Crewe Heat Network from the Local Enterprise Partnership's Local Growth Fund, and bringing forward the associated supplemental revenue estimate in the MTFS to 2020/21.

3. Reasons for Recommendations

3.1. On the 22 May 2019, Cheshire East Council approved the following Notice of Motion relating to Climate Change.

“This Council notes that on 1 May Parliament declared an environment and climate emergency and

a) Requests that a Cheshire East Environmental Strategy is brought forward as a matter of urgency;

b) Commits to the target of Cheshire East Council being carbon neutral by 2025 and asks that details of how to meet this commitment are included in the Environmental Strategy;

c) Will work to encourage all businesses, residents and organisations in Cheshire East to reduce their carbon footprint by reducing energy consumptions and promoting healthy lifestyles.”

3.2. The Council has developed its Environment Strategy with the following strategic goals:

- Cheshire East Council will be carbon neutral by 2025
- Reduce waste
- Improve air quality
- Ensure new development is sustainable
- Increase sustainable transport and travel
- Protect and enhance our natural environment

3.3. The Environment Strategy will be delivered through a suite of action-oriented strategies and plans. The Carbon Action Plan is the delivery plan that sets out how the Council will be carbon neutral by 2025.

4. Other Options Considered

4.1. The action plan sets out the council's approach to achieve carbon neutrality. An alternative approach could have prioritised delivery of accreditation through existing carbon neutrality standards (PAS2060). This would require the procurement of carbon credits to offset residual emissions in 2025 which

is considered inappropriate given these credits are not currently available for projects within the borough.

- 4.2. Green investment opportunities could also be explored by the Council to provide additional offsetting. Prioritising offsetting through local carbon reduction and sequestration projects will support all businesses, residents and organisations in Cheshire East to reduce their carbon footprint.
- 4.3. The action plan seeks to balance the options available to become carbon neutral, with the input of Services from across the Council. It sets the overall strategic approach with actions based upon the available knowledge and current best practice. However, it does not preclude other actions being incorporated through to 2025, especially as new and innovative solutions emerge.
- 4.4. The Council cannot 'do nothing' and continue with existing reduction measures in a business as usual approach but will need to make significant changes to its approach to achieve carbon neutrality by 2025.

5. Background

The Council's Carbon Emissions

- 5.1. In achieving carbon neutrality, the Council has a range of influences on carbon emissions depending upon the amount of control it has. The scope of the carbon neutrality ambition for 2025 are those emissions which the Council has direct operational control. These have reduced by 55% since 2010 from 34,1033 t/CO₂e and currently total 15,447 t/CO₂e, as of 2019. These include the nationally recognised scope 1 (direct fuel/gas use) and scope 2 (direct electricity use) below:
 - Owned Building Gas.
 - Council owned Fleet vehicles.
 - Owned Building Electricity.
 - Street Lighting Electricity.
- 5.2. Some elements of Scope 3 (indirect) have been included, where the council has a high level of control even when procured/commissioned and are consistent with the wider environmental messaging around sustainable travel, waste and water use. These are:
 - Non-Council Highways and Waste Fleet.
 - Business Travel.
 - Owned Building Waste.
 - Owned Building Water.

- 5.3. The scope does not include emissions from schools and commuting given the council does not have the ability to directly influence. Most schools are separately controlled; and the council cannot mandate the type of vehicle officers and members own. These are placed into the 'Stronger Influence' scope and will still be the subject of action to reduce emissions.
- 5.4. The scope also does not include the remainder of Scope 3 emissions concerned with emissions from the wider array of goods and services procured or commissioned, given that the council does not directly control and they are impossible to measure accurately. This footprint is ten times larger than the operational footprint at around 155,000 t/CO₂e. The council's approach to procurement, working with suppliers and using best practice in specifications, can influence these emissions and these actions are included in the action plan.
- 5.5. The Council's carbon neutral commitment also sought to influence carbon reduction across the borough. Currently carbon for the borough is estimated to be 2,518,000 t/CO₂e of which 38% is On-Road Non-Electric (transport fuels), 35% is Stationary Energy Non-electric (heating and process gas), and 24% is Stationary Energy Electric (electricity use). The residual are small amounts of landfill and rail emissions.
- 5.6. Going forward the emissions in the Borough should decrease in line with the UK Government's 2050 zero carbon objective; however, there is a significant amount of influence the council will bring locally to facilitate this, and it is worth noting that decarbonising transport and heating will be the most difficult areas.

Carbon Neutrality

- 5.7. It is believed that currently no local authorities have been certified as carbon neutral. There are 'carbon neutral' standards, such as PAS2060, which have been developed and these have been used by the private sector to demonstrate their environmental credentials. PAS2060 requires a demonstration of the actual carbon reduction in its scope of emissions, and then allows for offsetting of residual emissions given that it is not currently practical to become zero-carbon for most companies.
- 5.8. The offsetting follows very strict guidelines and there are only a few mechanisms available at the present which meet these. There is only one domestic scheme, the Woodland Carbon Code, but there are currently no projects in Cheshire East, which means that in order to be 'certified' the council would need to invest in schemes outside of the borough to offset its residual annual emissions. This is not considered appropriate for local

authorities given that this investment would come from local taxation with no direct benefit to the local area.

- 5.9. Cheshire East's approach to carbon neutrality will therefore mimic the PAS2060 approach through prioritising actual carbon reduction before then offsetting the residual emissions, except this will be done through investing in projects locally. Through the development of the action plan, this local offsetting approach has been refined to be termed 'Authority Based Insets'. These would be investments into permanent, additional and verified carbon reduction or sequestration projects within the boundary of Cheshire East. Examples of this would be local tree planting, peat restoration, or energy generation projects. It is hoped to work with other authorities to develop this approach further, including seeking a new accreditation scheme so that the council can look to become certified by 2025.
- 5.10. There is still the option to become 'certified carbon neutral' through purchasing accredited offsets outside of the borough in 2025 (unless projects emerge in Cheshire East). This would require an ongoing commitment of resources.

Action Plan

- 5.11. The Action plan to reduce emissions is broken down into 5 areas which can be mapped onto the spheres of influence:
- 5.11.1. Behaviour Change and Internal Policy - Actions that focus on internal policy, culture and behaviour of the council (e.g. decision-making and procurement process). Changes in this category are generally the least financially intensive and can be initiated quickly. It is also important to drive actions in this area as an enabler and stimulus of further action in the wider borough.
 - 5.11.2. Energy Demand Reduction - Focused on council operations and assets (e.g. council buildings, fleet), but unlike the above, relates to more tangible, capital investment related actions that the council can take to use less energy and fuel, and improve efficiency.
 - 5.11.3. Increase Low Carbon Energy Supply - Alongside a reduction in energy demand, it is necessary to improve the supply of energy from renewable sources. This includes both a council and borough-wide focus for action, as measures will commonly deliver benefits at scale that can provide opportunity for stakeholders beyond just the council.
 - 5.11.4. Natural Capital - Similar to energy supply – the council has the opportunity to progress action both on its own land estate and within the borough more widely.

5.11.5. Reduce Borough-wide Emissions/External Policy - Although these emissions may be under the least influence from the council, in-borough emissions must also reach net zero to keep the UK on track with the national target. The council's role becomes one of a partner or facilitator amongst the community and local businesses, but there is the potential to offset direct council emissions through this work. The Council will develop communication resources and toolkits to assist parish town councils and communities in calculating, reducing and offsetting Carbon.

5.12. It is anticipated that these actions, alongside decarbonisation of the electricity grid, will save 6,095 t/CO₂e, across all relevant services, a 39% reduction on 2019.

Carbon Budgets

5.13. Once the actions to reduce emissions are taken into account, the council is still expected to produce 9,352 t/CO₂e.

5.14. To ensure this level of emissions is reached, each service area will be allocated a carbon budget and will be required to develop a costed implementation plan to deliver this. These budgets will be based upon 90% of the expected carbon emissions and so will total 8,417 t/CO₂e to allow for a contingency in meeting the 2025 target.

5.15. These carbon budgets will be reviewed annually by the Programme Board and progress will be reported through the Council's KPI monitoring system. The initial carbon budgets for the council will be based on a ramping up of activity towards 2025 to take into account mobilisation:

Area	2019/20 t/CO ₂ e	2020/21 t/CO ₂ e	2021/22 t/CO ₂ e	2022/23 t/CO ₂ e	2023/24 t/CO ₂ e	2024/25 t/CO ₂ e	% Reduction
Buildings Gas	4,410	4,366	4,210	3,964	3,593	3,175	28%
Building Electricity	3,911	3,771	3,492	2,933	2,095	1,117	71%
Business Travel	884	873	850	806	738	660	25%
Street lighting	2,556	2,470	2,299	1,957	1,444	846	67%
Fleet	3,543	3,490	3,386	3,177	2,864	2,498	29%
Waste	53	52	51	49	46	43	19%
Water	91	91	89	87	83	78	15%
Total	15,447	15,113	14,378	12,972	10,863	8,417	46%

- 5.16. This budget takes into account the expected carbon reduction in electricity (Building Electricity and Street lighting) from the decarbonisation of the grid, hence the smaller budgets for these areas.

Residual Offsetting

- 5.17. The Council will therefore need to plan to offset a minimum of 9,352 t/CO₂e, though this number has yet to be risk adjusted. This will be done through two mechanisms:

5.17.1. Green Electricity – the residual carbon from electricity can be offset with purchase of green electricity, this includes an allowance of 10% electrification of heat and fleet emissions. The Council will prioritise purchase from local energy generating projects where available. This is expected to save 2,191 t/CO₂e.

5.17.2. Authority Based Insets – the remaining 7,058 t/CO₂e will be offset through local offsetting projects. These local offsets being described as ‘insets’ because they are within the scope of the council’s control, in this instance the borough. It is anticipated that this will be a 50/50 split between carbon sequestration and reduction projects, but this will be reviewed following the development of detailed implementation plans.

- 5.18. In order to ensure permanence of offsetting, the carbon sequestration required will be based upon offsetting the cumulative residual emissions expected between 2025 and 2050, when the UK economy will be decarbonised and therefore no further offsetting will be required. This assumes the achievement of UK ambitions and an approximately flat rate reduction to 2050.

- 5.19. This would equate to approximately 40,000 t/CO₂e requiring offsetting locally which at 300 t/CO₂e per hectare would require approximately 130 hectares of tree planting or equivalent sequestration being planted by 2025. Given that this rate of sequestration is based on the average over the lifetime of a tree, this will mean that the Council will not have sequestered 50% of the residual carbon by 2025 but would have ‘baked in’ this offsetting through to when the UK is planned to be carbon neutral.

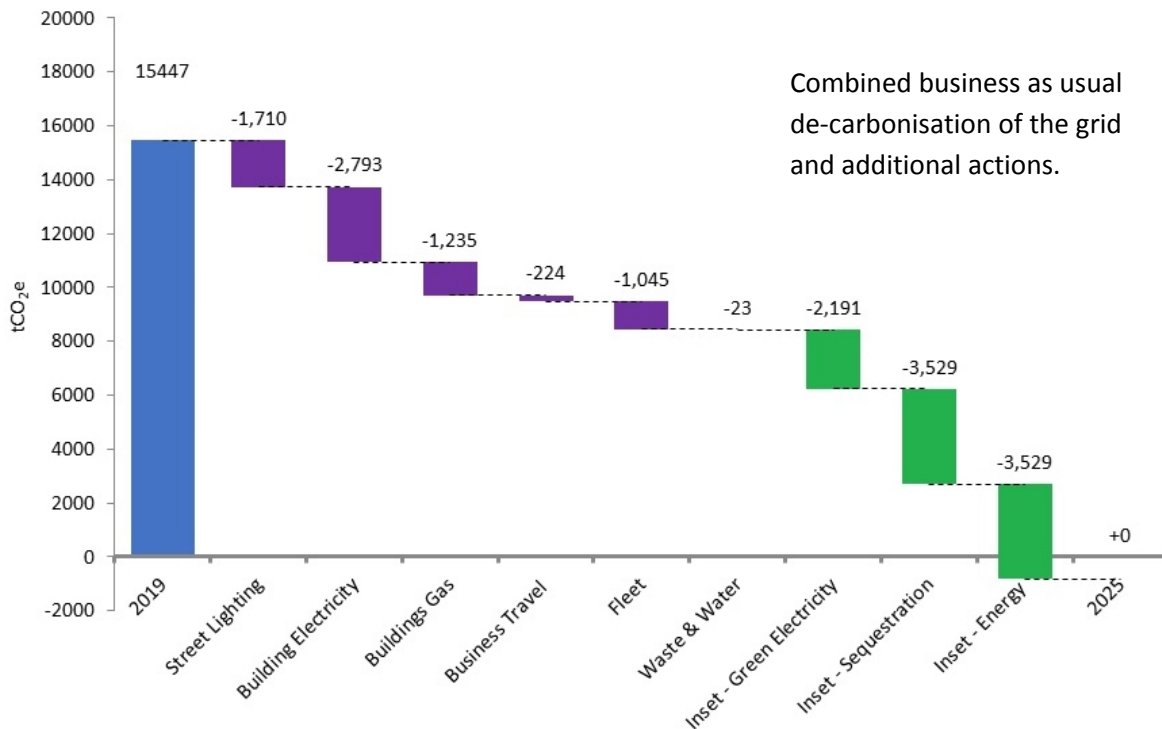
- 5.20. Energy generation projects are permanent in that they avoid carbon being generated so to offset the other 50% of the residual emissions the Council will need to have only completed projects to the value of 3,529 t/CO₂e by 2025. At current carbon factors this would equate to approximately 10MW of photovoltaics covering approximately 20 hectares. It could equally be achieved through new connections to heat networks, smaller renewable

projects, and carbon reduction projects across the borough. These projects could deliver an income or cost saving for the council.

5.21. One of these key projects is a proposed Heat Network for Crewe Town Centre. The Local Enterprise Partnership has offered a contribution towards the cost of the Crewe Heat Network in 2020/21 through the Local Growth Fund, this is to support innovation linked to their Clean Growth and Energy Strategy in promoting the use of heat networks and potentially connecting to the geothermal resource in Crewe in the long term. It also supports the Growth of Crewe linked to HS2.

5.22. This offsetting is based upon a rate of decarbonisation which is slower than the level some scientists believe is required to meet the Paris Accord, so the level and balance of offsetting required should be continually reviewed against national and international progress so the Council may need to revisit this approach.

5.23. The diagram below outlines the relative contribution of all activity to achieve carbon neutrality by 2025, including an additional 10% target on emission reductions, acting as the contingency.



Delivery

5.24. It is proposed that the current Carbon Neutrality Programme Board will continue to oversee the approach to carbon neutrality, as part of the Brighter Future Transformation Programme.

5.25. In addition, working groups will be established to lead on the individual implementation plans based upon the areas of emissions reduction needed.

6. Implications of the Recommendations

6.1. Legal Implications

6.1.1. The Government's 25 Year Environment Strategy sets out how the UK will honour its commitments through the Paris Climate Accord to limit average temperature rise to below 2°C. Building on the Climate Change Act 2008, which introduced legally binding carbon budgets, as amended in June 2019, to enshrine into law that the UK will be carbon neutral by 2050.

6.1.2. The Council has the opportunity to indirectly influence carbon emissions when tendering contracts. The Council can ask for carbon reduction measures as part of the social value requirements of a bid and provide training to officers on the scope to do so when commissioning goods and services.

6.2. Finance Implications

6.2.1. Initial carbon neutral revenue and capital budget requirements are included in the Council's Medium Term Financial Strategy 2020-24, this also includes a contribution from retained business rates income (from renewable energy assessments) likely to increase as the Council influences greater sustainability in business property.

6.2.2. The action plan however lists significant additional capital and revenue requirements; these will need to be incorporated into the Council's Medium Term Financial Strategy process, as projects complete initial feasibility and business case planning stages.

6.2.3. The Council's Medium Term Financial Strategy 2020-24 also identifies the expected external grant funding for the Crewe Heat Network in 2021/22, this includes the £700,000 from the Local Enterprise Partnership's Local Growth Fund for which the supplementary revenue estimate will need to be brought forward into 2020/21.

6.3. Policy Implications

6.3.1. The action plan supports the Council's vision and strategic outcomes and will require wide spread policy implications across the council, in order to introduce carbon budgets and targets and assess projects on a carbon benefit, in addition to cost benefit.

6.4. Equality Implications

- 6.4.1. An Equality Impact Assessment has been undertaken. Further work will be needed to assess individual measures proposed in the action plan on a case-by-case basis.

6.5. Human Resources Implications

- 6.5.1. All newly created projects, including the costed implementation plans for key service areas, will assess the specific HR implications through the business case process.

6.6. Risk Management Implications

- 6.6.1. The key risk to the delivery of the action plan will be competing priorities within the council that prevent or delay the delivery of the action plan.
- 6.6.2. The carbon action plan sets out the priorities and actions that will help contribute to the council and borough wide commitments. A key risk is therefore delivering the necessary change to the hierarchy of decision-making and sufficient HR and financial resources to ensure embedding across the council in the business planning and investment process.

6.7. Rural Communities Implications

- 6.7.1. There are no implications for rural communities.

6.8. Implications for Children & Young People/Cared for Children

- 6.8.1. There are no implications for children and young people.

6.9. Public Health Implications

- 6.9.1. Carbon reduction initiatives will have corresponding benefits for public health through encouraging active travel such as cycling or walking, and low carbon fuels and increased tree planting have the potential to improve air quality.

6.10. Climate Change Implications

- 6.10.1. The action plan will have a positive impact on climate change through delivering carbon neutrality for the Council's operations and promoting climate action mitigation measures across the Borough.

7. Ward Members Affected

- 7.1. All

8. Consultation & Engagement

- 8.1. The Environment Strategy Consultation in 2019 included the topic of Carbon Neutrality, and therefore a dedicated consultation exercise is not required. Inputs from the consultation and engagement will therefore be incorporated accordingly into generation of projects.

9. Access to Information

- 9.1. This paper is supported by the appended Carbon Neutrality Action Plan 2020-2025.

10. Contact Information

- 10.1. Any questions relating to this report should be directed to the following officer:

Name: Ralph Kemp

Job Title: Head of Environmental Services

Email: ralph.kemp@cheshireeast.gov.uk