

Cheshire West and Chester Council

Report to Council

Date of meeting: 21 January 2020

Report of: Andrew Lewis, Chief Executive

Title: Cheshire West and Chester's Response to the Climate Emergency Declaration

1 Purpose of Report

- 1.1 In May 2019 Cheshire West and Chester Council voted unanimously to declare a Climate Emergency. This declaration represented a major statement of intent by the Council, to treat Climate Change as requiring urgent local action.
- 1.2 This report provides Council with an update on the response to the Climate Emergency. The report sets out evidence on the Borough's current carbon footprint, and its potential trajectory over the period 2020-2050. It describes a range of actions to reach carbon neutrality within this period; including actions under the direct control of the Council, as well as those the Council could advocate for the Borough as a whole, and at national and international level.

2 Decision Required

- 2.1 That Council:
 - (i) Reaffirms its commitment to take rapid action to tackle the Climate Emergency, to support the borough as a whole to achieve carbon neutrality in light of the threat that Climate Change poses to the world;
 - (ii) Notes that, due to our unique industrial base, Cheshire West and Chester is one of the local authority areas with the highest carbon footprints in the UK; and that this creates an additional responsibility for action;
 - (iii) Notes that Cheshire West and Chester has a strong foundation on which to build a comprehensive action plan; including strong community support, mature and productive relationships with the borough's energy-intensive industries, and well-established environmental programmes; including its position as one of the UK's highest-performing waste and recycling authorities;
 - (iv) Agrees the process set out in the paper for the development of a Climate Emergency Response Plan;
 - (v) Sets an ambitious target date of 2030 to achieve carbon neutrality for the Council's own emissions, to be delivered through a Carbon Management Plan;

- (vi) Continues to support the on-going work of the Climate Emergency Taskforce, and Advisory Panel; and
- (vii) Requires reporting on progress and attainment annually to Council.

3 Report Details

3.1 The agreed motion declaring a Climate Emergency detailed that:

- Climate Change presents an existential threat to Cheshire;
- The Intergovernmental Panel on Climate Change's Special Report, published in October 2018, states that we have just twelve years to limit global warming to a 1.5°C. This can only be achieved with ambitious action from national and local government, the private sector and local communities, and requires that CO2 emissions fall from their 2010 levels by 45% by 2030, reaching net zero by 2045¹.
- The Council must play its part by evidencing leadership on this issue.

3.2 In response to the Council's declaration of the Climate Emergency, the Cabinet established a **Climate Emergency Taskforce**, chaired by the Leader's Champion for the Climate Emergency (Cllr Matt Bryan) and constituted by Members appointed on a cross-party basis. The Taskforce commissions and collates evidence to advise the Cabinet and Council on the response to the Climate Emergency.

3.3 The Council has also established a **Climate Advisory Panel**, to provide expert advice and support on the necessary measures, and to raise the Council's technical understanding of the scientific, social and economic issues involved. Chaired by the Chief Executive, the panel brings together people with a mix of scientific, ecological and economic expertise.

3.4 All meetings of the Taskforce and Advisory Panel are open to the public, and their minutes published on our website.

3.5 The Notice of Motion further required that a copy of the motion be sent to Cheshire West and Chester Members of Parliament and the Secretary of State for the Environment. This letter has been issued and is attached as Appendix one.

3.6 The general election has had a significant impact on the Council's planned meetings during the November and December period. The planned Public Evidence session on 6 November, West Cheshire Action on Climate Change on 22 November, and the Climate Taskforce on 2 December were rescheduled during the pre-election period and the associated restrictions on

¹ Derived from the UN Intergovernmental Panel on Climate Change report on Global Warming of 1.5° Summary for Policymakers. 2045 is the earliest year in the 2045-2055 interquartile range in models with no or limited overshoot of 1.5°C - "In model pathways with no or limited overshoot of 1.5°C, global net anthropogenic CO2 emissions decline by about 45% from 2010 levels by 2030 (40–60% interquartile range), reaching net zero around 2050 (2045–2055 interquartile range)". P14, https://report.ipcc.ch/sr15/pdf/sr15_spm_final.pdf

communications and public meetings. The meetings have been rescheduled as follows: the Public Evidence Session has been rescheduled to 24 January, West Cheshire Action on Climate Change to 14 February, and the Climate Taskforce to 27 February.

- 3.7 In declaring a Climate Emergency, the Council directed the Chief Executive to “produce a report to Council within six months to determine the earliest date before 2045 that Cheshire West and Chester Council and the borough as a whole can be carbon neutral, and revise its targets to meet that date (ideally 2030 to demonstrate leadership in the borough). These targets to be managed through the Cheshire West and Chester Annual Monitoring Report, business Carbon Management Plans, the Green House Gas Emissions Directive of 2019 and whatever other appropriate means become available”.
- 3.8 In declaring a Climate Emergency, the Council set an ambition for the Borough to reach carbon neutrality by 2045 or earlier. Evidence assessed by the Climate Emergency Task Force, the high carbon-intensity of our industrial sector, and the radical nature of policy changes that would be required to meet this target, makes this exceptionally challenging to deliver. Indeed, there is currently no feasible and deliverable set of national and local actions which would be sufficient to deliver carbon neutrality on this timetable. More importantly, the end-point of the transition to carbon neutrality is only part of the challenge. Unless progress is made over the next 6 years, the limits set by the Paris Agreement will already be breached within that period.²
- 3.9 As the Council’s Climate Emergency Taskforce has identified, reductions on this scale and timetable would require a radical change in the political, social and economic context, beyond anything currently envisaged by either national or local government. This reinforces the importance of continued national advocacy, alongside local action, if the Council’s ambitions are to be delivered.

Our Borough’s current carbon footprint

- 3.10 Cheshire West and Chester has extremely high carbon dioxide emissions compared to most local authority areas³ in the United Kingdom, at approximately four million tons per year⁴, this represents a significant reduction from 6.7 million tons reported in 1990. The borough ranks fourth of 391 authorities in terms of carbon dioxide emissions. Only Neath Port Talbot, North Lincolnshire and Birmingham⁵ have higher total emissions. Cheshire

² The Tyndall Centre for Climate Change Research states that the Cheshire West and Chester has a “maximum cumulative carbon dioxide emissions budget of 24.0 million tonnes (MtCO₂) for the period of 2020 to 2100.” At 2017 CO₂ emission levels – four million tons per year - Cheshire West and Chester would use this entire budget within 6 years from 2020.

³ This data covers carbon dioxide (not greenhouse gases) from District, Unitary and Metropolitan Borough authorities, which are the bodies which report this information to BEIS. The emissions of upper-tier counties are disaggregated into their individual lower-tier districts.

⁴ 4099.9 kilotons per year. This is a significant reduction from the 1990 baseline of 6739.5 kilotons per year.

⁵ Port Talbot and North Lincolnshire have significant steel industries; while Birmingham is the largest local authority by population in Europe.

West and Chester ranks fourteenth in per capita terms, and has the highest per capita carbon footprint amongst council areas with a population of more than 200,000.

- 3.11 The main reason for Cheshire West and Chester's comparatively high emission levels is the concentration of heavy industry in the borough. Centred around Ellesmere Port, the Stanlow Oil Refinery and the industrial areas north of the M56, this industrial corridor uses 5 per cent of the UK's total energy. This area is essential to the borough's prosperity, hosting large employers such as Essar, CF Fertilisers, Vauxhall and Innospec, who provide highly skilled jobs to many of our residents and a wider catchment area. But, while this concentration of high-energy businesses are clearly part of the problem of climate change, they also could provide many of the potential solutions. For this reason, the Local Enterprise Partnership's Strategic Economic Plan argues that Cheshire and Warrington "has the potential to lead the UK's clean growth and energy system".

Responding to the Climate Emergency

- 3.12 There is significant progress being made on the industrial decarbonisation agenda, led by innovative work undertaken by (among others) the Cheshire Energy Hub via the Energy Innovation District and the E-Port Smart Energy Master Plan. These projects aims to reduce the carbon emissions from the Ellesmere Port industrial cluster by 34 per cent by 2030, and create over 33,700 new full time jobs in Cheshire. The area's potential for energy innovation also benefits from its proximity to the Mersey, where there is a significant tidal energy opportunity. Furthermore, facilities such as the Protos energy hub provide a fertile space for innovation in the low carbon, clean growth sector.
- 3.13 The Cheshire Pension Fund, which is administered by Cheshire West and Chester Council and represents more than 100,000 employees across 300 employers, have recently made a £500 million investment in the Local Government Pension Scheme (LGPS) Central Climate Factor Fund, a fund which supports those investing in green technology. The Cheshire Pension Fund is one of the first two investors in the Climate Factor Fund.
- 3.14 The borough's assets are not, however, limited to the industrial and energy sectors. The Mersey Forest has been supporting the area's green infrastructure for more than 25 years, and has planted 2 million trees in Cheshire West and Chester, and in total, more than 9 million trees in that time across the Mersey Forest area, which spans seven local authorities. This volume of tree planting is more than three times the England average during that period. The Mersey Forest Plan sets out an ambition to increase woodland cover from 8 per cent to 20 per cent across the Mersey Forest area as part of their 25 year Plan. While tree planting is not a comprehensive solution to the problem of climate change, trees have a range of co-benefits which make them a core part of the borough's future planning, including improving air quality, improving mental health and wellbeing, reducing urban heat island effect and addressing health inequalities.

3.15 Cheshire West and Chester Council is one of the leading authorities in the country in respect of its waste and recycling performance. In Eunomia's Waste and Recycling Carbon Index published in summer 2019, the Council was first among its peer authorities. The Council recycled 58.3 per cent of its waste during 2017/18, with just 1.5 per cent sent to landfill, and also performs well on waste minimisation, as the eighth highest performing unitary authority, at 433.3kg per household per year. In order to address the impact of fuel poverty and the ensure lower income residents can make greener choices, the Council has also established Qwest Energy, which as part of its offer, provides low-carbon energy tariffs to residents of Cheshire West and Chester.

From Challenge to Opportunity; refining the evidence base:

3.16 In order to further develop our evidence base, the Council commissioned Anthesis, a sustainability consultancy. Anthesis have worked closely with BEIS and the Tyndall Centre for Climate Change research in recent years, and Councils such as Manchester, Nottingham and Cornwall. This work had a number of objectives:

1. The establishment of a baseline in Cheshire West and Chester that is compatible with carbon reporting standards such as the Carbon Disclosure Project;
2. The provision of a scientifically informed carbon budget for the Cheshire West and Chester area via the 'grandfathering'⁶ of UK's national emissions budget under the Paris Agreement to the Cheshire West area;
3. Analysis using the Setting City Area Targets and Trajectories for Emission Reduction (SCATTER) tool to review the impact of forty interventions at four ambition levels on the area's emissions, in order to determine the scale of change necessary;
4. Given the borough's significant agricultural economy and heritage, a review was completed of the emissions attributable to the agricultural sector's activities in the borough.
5. Finally, in light of the need for the Council to demonstrate both leadership and accountability for tackling the Climate Emergency, the Council requested additional information about its organisational emissions.

3.17 The outputs of the work by Anthesis are set out in full detail in Anthesis' report, available in the background documents section. The document sets out the Cheshire West and Chester emissions baseline via SCATTER. This refers solely to the borough's energy systems and excludes forestry, agriculture and land use, which are covered separately. It is detailed in Figure One that Cheshire West and Chester emits 4 million tons of carbon dioxide equivalent emissions per year, and that the primary contributor to emissions within the borough's boundary is Industrial and Institutional Buildings, at 53 per cent of emissions, followed by on-road transport at 19 per cent, residential buildings at 14 per cent, commercial buildings and facilities at 11 per cent,

⁶ A grandfathering approach allocates carbon budgets on the basis of recent emissions data. The most recent annual CO₂ emissions for Cheshire West and Chester up to the Paris Agreement (2011-2016) is averaged and compared to averaged data for the whole UK over the same period.

with 1 per cent or less from rail, waterborne navigation, solid waste disposal, and wastewater.

3.18 The Council's work has also been informed by a report from by the Tyndall Centre for Climate Change, available in the background documents section, which supported the delivery of the second objective, the setting of a scientifically informed carbon budget for the Cheshire West and Chester area. The Tyndall Centre produced a report for all UK local authorities setting out their carbon budgets under the Paris Agreement. The key recommendations of the report were that, to make its 'fair' contribution towards the Paris Climate Change Agreement, Cheshire West and Chester should:

1. Stay within a maximum cumulative carbon dioxide emissions budget of 24.0 million tonnes (MtCO₂) for the period of 2020 to 2100. At 2017 CO₂ emission levels, Cheshire West and Chester would use this entire budget within 6 years from 2020.
2. Initiate an immediate programme of CO₂ mitigation to deliver cuts in emissions averaging a minimum of -14.0 per cent per year to deliver a Paris aligned carbon budget. These annual reductions in emissions require national and local action, and could be part of a wider collaboration with other local authorities.
3. Reach zero or near zero carbon no later than 2040. This report provides an indicative CO₂ reduction pathway that stays within the recommended maximum carbon budget of 24.0 MtCO₂. At 2040 5 per cent of the budget remains. This represents very low levels of residual CO₂ emissions by this time, or the Authority may opt to forgo these residual emissions and cut emissions to zero at this point. Earlier years for reaching zero CO₂ emissions are also within the recommended budget, provided that interim budgets with lower cumulative CO₂ emissions are also adopted.

3.19 Objective three relates to the scale and pace of change required to achieve carbon neutrality in Cheshire West and Chester. The SCATTER model uses forty interventions which are considered across both energy supply and demand. Each intervention has a series of 'ambition levels' which are articulated as ranging from Level 1 to Level 4. Level 1 assumes minimal action beyond current, national policy (where sufficiently defined by sector or measure) and nationally led decarbonisation of the electricity grid. In contrast, Level 4 assumes that the region goes significantly beyond national policy and national grid decarbonisation, across both energy supply and energy demand measures.

3.20 High-level analysis of the borough's greenhouse gas emissions is set out below:

Figure One: Page 7:

<https://info.anthesisgroup.com/hubfs/CW&C%20Final%20Report.pdf?hsLang=en>

Figure Two: Page 10:

<https://info.anthesisgroup.com/hubfs/CW&C%20Final%20Report.pdf?hsLang=en>

- 3.21 Figure Two sets out that at SCATTER Level 4 (the green line), the most ambitious level of change modelled, achievement of the Tyndall Paris-aligned carbon budget is not possible based on currently viable technology. Level 4 is highly ambitious, and requires a range of extensive interventions. Sections 3.22 – 3.27 set out the scope and scale of these required changes.
- 3.22 **Domestic Buildings:** Residential property makes up a substantial proportion of Cheshire West and Chester’s greenhouse gas emissions, at 572,000 tons carbon dioxide equivalent per year, or 14 per cent as of 2016 based on SCATTER data. Limited progress has been made on energy efficiency in recent years; 9,122 Cheshire West households have been in receipt of ECO (Energy Company Obligation) energy efficiency measures such as loft or wall insulation between 2013-2019. In order to achieve carbon reductions to enable carbon neutrality by 2050, the following scale of intervention would be necessary;
- Solid wall insulation at a rate of 1,087 households per year;
 - Loft insulation at a rate of 2,500 households a year;
 - Superglazing installations of 2,345 per year;
 - new builds to Passivhaus standard and a 21 per cent reduction in thermal leakiness, by 2025.
 - By 2050, the vast majority of homes would have been subject to retrofit, and a 75 per cent reduction in thermal leakiness would have been achieved on all properties;
 - Furthermore, average home temperatures would have reduced from 17.3 degrees Celsius to 16 degrees; this could be achieved through zonal heating controls, rather than reducing comfort.
 - Significant changes are required to home heating. Currently, 139,200 – or 96 per cent of homes, have gas systems installed.
 - While gas boilers will be banned in 2025, there is a need to rapidly accelerate a transition from gas, through the installation of 43,400 new heating systems, including technologies such as air or ground-source heat pumps.
 - By 2050, 144,000 or 93 per cent of homes will have had new heating systems installed. Finally, the electrification of cooking (currently 47 per cent) will need to continue, achieving 69 per cent by 2025, and 100 per cent by 2050.
- 3.23 **Non-Domestic Buildings:** Commercial and non-domestic buildings fall within the 64 per cent of emissions derived from Commercial (11 per cent) and Industrial and Institutional buildings (53 per cent). This equates to 2.6 million tons of carbon dioxide equivalent emissions per year. In order to achieve the SCATTER L4 pathway, four interventions are proposed;
- A significant reduction in commercial heating and cooling (16 per cent by 2025);
 - The electrification of heat (a 32 per cent reduction in gas and oil-fired boilers by 2025);

- A significant increase in the energy efficiency of appliances and lighting in non-domestic buildings (from 1.63 TWh to 0.59 TWh) by 2025;
 - A 22 per cent increase in the electrification of cooking.
- 3.24 **Transport:** On-road, rail and waterborne navigation constitute 780,000 tons of carbon dioxide-equivalent emissions (19 per cent) of the Cheshire West and Chester's annual emissions, and this is therefore the second-highest emitting sector. The Anthesis report sets out that transformative modal shift will need to occur in order to achieve carbon neutrality. Currently, 74 per cent of employed residents travel to work by car, with 15 per cent of residents commuting out of the Cheshire West and Chester region. 40 per cent of households own more than one car, and within the Chester urban area, fewer than 10 per cent of journeys to work were undertaken on public transport. The most impactful intervention is distance reduction, i.e. avoiding powered travel entirely, which can be facilitated by the use of digital infrastructure.
- By 2025, a 17 per cent reduction in total travel demand will be required, alongside a 25 per cent reduction in car travel. This will be required to increase to 25 per cent and 38 per cent respectively by 2050;
 - Where travel is required, however, there is a substantial carbon benefit derived from using public transport. The modal share of public transport would need to increase from less than 10 per cent, to 18 per cent by 2025, increasing to 29 per cent by 2050;
 - This public transport would itself be low-carbon, either via electrification or the use of low-carbon hydrogen fuel, with the achievement of 100 per cent low carbon rail and 51 per cent electric buses by 2025;
 - Where car travel is unavoidable, these cars would need to be low or zero carbon, with a transition to 100 per cent electric or hydrogen vehicles by 2050;
 - The most challenging aspect of transport to decarbonise is road freight, and a conservative 6 per cent transition to zero carbon freight is assumed in SCATTER Level 4.
- 3.25 **Waste:** Cheshire West and Chester Council is one of England's leading waste and recycling authorities. This does not, however, mean that the challenge to decarbonise waste is any less difficult, as many of the 'easy wins' to achieve higher waste and recycling performance have already been delivered locally, such as the implementation of food waste collections. A 1.2 per cent reduction in household waste has been achieved between 2015 to 2018, alongside a 18.4 per cent reduction in non-household waste during the same period.
- The rate of reduction of household waste collection would need to increase from 0.3 per cent per year to around 1.3 per cent per year, in order to achieve the required 8 per cent reduction in household waste by 2025;
 - This reduction would need to increase to 25 per cent by 2050. Furthermore, in relation to recycling, currently 58 per cent of waste is recycled, and a 9 per cent increase to achieve 67 per cent by 2025 would be required to be on-track to achieve carbon neutrality by 2050.
- 3.26 **Industry:** Industrial emissions make up a large proportion of the area's total; 53 per cent of the borough's emissions are categorised as industrial and

institutional buildings within SCATTER. Specifically, large industrial installations constitute 39 per cent of the borough's total, at 1.6 million tons of carbon dioxide-equivalent emissions per year. As a notable sub-set of this 39 per cent, Anthesis estimate that the Stanlow Oil Refinery, owned and operated by Essar Energy, produces 20 per cent of the borough's total annual emissions. Four interventions are referenced as essential for reducing industrial emissions;

- Reductions in industrial energy demand, the electrification of industry, carbon capture and storage and reductions in oil production;
- An 11 per cent reduction in industrial energy demand would need to be achieved by 2025, moving towards a 38.5 per cent reduction by 2050;
- This would need to be accompanied by a 6 per cent electrification of industrial processes, with a view to a 31 per cent increase by 2050. Significant expansions in carbon capture usage and storage are required; with 2 per cent of industrial energy coming from carbon capture and storage by 2025, increasing to 42 per cent by 2050.
- Finally, an 18 per cent reduction in oil production would be required by 2025, with a 77 per cent reduction by 2050, relative to 2015 levels.

3.27 Renewable Energy Supply: In the final category within the Energy systems analysis provided by Anthesis, the scale of change required in the delivery of renewable energy is set out.

- Anthesis set out that to provide sufficient solar power to support the decarbonisation of the grid, 0.3 gigawatts (GW) of installed capacity is required by 2025, prior to the delivery of 0.8 GW by 2050. This would represent a 25x increase in installed capacity, based on current capacity of 0.032 GW;
- The report also references the need to significantly increase wind capacity, at a 20.4x increase by 2050;
- A 52.6x increase in Bioenergy capacity – from 5 MW to 263 MW, is required, alongside a 681x increase in installed solar thermal capacity for the provision of hot water;
- Furthermore, the potential for wave and tidal power to grow in capacity over time is noted but is largely unaccounted for in the tool.

3.28 In addition to consideration of the borough's energy systems, a review of the borough's agricultural emissions was also produced⁷. This set out that emissions from the agricultural system equate to 340,000 tons of carbon dioxide equivalent emissions per year, approximately 8 per cent of those of the energy system. Emissions from livestock constitute 92 per cent of emissions from land, with the other 8 per cent a result of crop and grassland emissions, primarily from nitrous oxide emissions from fertilisers, while land also acts as a carbon sink, removing around 1 per cent of gross emissions from the atmosphere.

3.29 The report notes that dairy cows are responsible for 55 per cent of gross agricultural emissions and non-dairy cows are responsible for 33 per cent in

⁷ Anthesis report, Page 34:

<https://info.anthesisgroup.com/hubfs/CW&C%20Final%20Report.pdf?hsLang=en>

Cheshire West and Chester. Anthesis used national assumptions of reductions in Beef, Dairy and Lamb consumption derived from the UK Government's Committee on Climate Change, which set out scenarios which included a 20 per cent reduction, and a 50 per cent reduction. Both scenarios assume a 20 per cent increase in pork and chicken numbers. The high scenario would result in emission reductions of 37 per cent from agriculture, and a reduction of 13,000 hectares of grassland. In the report, freed grassland is converted to forestland by 2100, at a rate of 150 hectares per annum in the high scenario. This would deliver a reduction of 25 per cent of agricultural emissions. Therefore in total the 'high' scenario could achieve a 62 per cent reduction in agricultural emissions by the end of the century.

Conclusions following the research process

- 3.30 The scale of change required would represent a whole-society policy shift to Climate Change and Environmental issues being considered as the top priority at all levels. It is not something that the Council can deliver in isolation, given that the Council contributes approximately 0.7 per cent of borough-wide emissions based on its currently measured scope. The Council is however committed to evidencing leadership in relation to its own carbon reduction efforts, and concerning the design of its key strategic plans and programmes. But the achievement of carbon neutrality will also require significant contributions from business, residents and comprehensive support from Government in regard to both resources and an ambitious legislative and policy framework for carbon reduction.
- 3.31 Figure Two demonstrates that achieving carbon neutrality in Cheshire West and Chester by 2045 would require a level of technical intervention that is not currently feasible under the most ambitious scenarios. Given its industrial characteristics, the borough would achieve carbon neutrality mid-way through 2050 under the Level 4 scenario. This represents both a challenge and an opportunity. It sets out that Cheshire West and Chester has a significant responsibility to make a contribution to the nation's carbon reduction objectives, and that there is a strong case for support to be provided to the authority and the region to support industrial decarbonisation. Furthermore, there is a requirement for innovation and the development of new technologies to play a role in closing the gap between SCATTER Level 4 and the Tyndall Paris Aligned Budget. As a hub of both energy innovation, and the site of the UK's largest Carbon Capture and Storage project at Tata Chemicals Northwich, the area is well-placed to be at the heart of the development of new technologies to repair the climate and reduce emissions.
- 3.32 In order to facilitate discussions regarding the local target setting approach, Anthesis held a SCATTER workshop on 7 October with the Climate Emergency Taskforce. At this meeting, the Taskforce were briefed on the SCATTER interventions and asked to vote between levels 1 and 4 to set out what was considered locally feasible. The outputs of this workshop were that the Taskforce voted on average between Levels 3 and 4, a higher level of ambition than the norm, according to Anthesis.

- 3.33 Subsequently, at the second meeting of the Taskforce on 14 October, there was a discussion regarding an appropriate borough-wide target in light of the evidence presented. It was considered by the group that, while not wanting to limit our ambition, a 2045 target would be exceptionally challenging based on the current policy, funding and technological environment. It was recognised, as set out in section 3.8, that the speed of action in reducing carbon emissions was the most significant consideration. Additionally, it was discussed that the Council should seek to set a more ambitious internal target, to be developed in-line with the revised carbon management plan, in order to demonstrate leadership.

The Council's organisational emissions

- 3.34 It is proposed to establish an ambitious 2030 target for the Council's own emissions. The Council has worked closely with Qwest Services' Energy and Carbon Reduction team to review currently available data, internal reporting mechanisms and the Council's borough-wide emissions position in relation to other authorities. The Council has not approached the ambition to reduce carbon emissions from a standing start; it has had two prior Carbon Management Plans, for 2010-2015, and 2016-2020. Making further progress will require a significant programme of action including energy supply measures, energy efficiency measures, and offsetting residual emissions through mechanisms such as tree planting. As described in section 4.2, the resources allocated to low-carbon projects via the Council's capital programme will support these activities.
- 3.35 In considering the Council's direct emissions, it is helpful to distinguish the different scopes:
- Scope 1 emissions are 'direct' emissions produced on-site, such as via the use of gas/oil to heat buildings, and other fuel combustion, such as the transportation of materials, products, waste and employees⁸
 - Scope 2 emissions are 'indirect' emissions from the purchase of electricity.
 - Scope 3 emissions are those embodied in the goods and services which the Council procures.

In its Carbon Management Plan for 2016-2020, the Council set a target to reduce in scope carbon emissions by 30% by 2020. A reduction of 48 per cent has actually been achieved by an earlier date of 2018/19. This is on the basis of primarily Scope 1 and Scope 2 emissions. These substantial reductions have been achieved through a range of measures including the use of solar energy on assets, the LED street lighting programme, and enabling schools to invest in energy efficiency projects. The Council's current emissions against this scope were 28,322 tons in 2018-19. This closely correlates with Anthesis' evaluation of the Council's Scope 1 and Scope 2 emissions. In order to

⁸ Full definition available at: <https://ghgprotocol.org/corporate-standard>

ensure we have a clear picture of all the emissions generated via our supply chain, Anthesis also completed a high-level analysis of our Scope 3 emissions. These emissions totalled to 117,874 tons in 2018-19.

Proposed Process to Develop a Climate Emergency Response Plan and Revised Carbon Management Plan:

3.36 It is proposed that two key products should be developed in 2020/2021. These are:

- A borough-wide 2021 – 2045 Climate Emergency Response Plan for Cheshire West and Chester to be monitored annually at Council and structured via a series of five-year carbon budgets. This will set out how the Council will respond in relation to:
 - The Council's plans, strategies, funding and local influence. This covers 'levers' such as the Local Plan, Local Transport Plan, Health and Wellbeing Place Plan, the Council's Plan and Budget, including the Council's Capital programme, the Low Emissions Strategy, and it also includes the Council's relationships with local stakeholders and residents.
 - Issues which the Council has limited influence, such as national legislation, policy and funding priorities, and therefore the Council is required to work with partners in order to seek changes from national Government.

- A refreshed internal carbon management plan, to set out how the Council will achieve carbon neutrality in relation to its own in-scope emissions by 2030, which are Scope 1 and Scope 2 emissions primarily, as described in 3.35. These are the emissions that the Council can directly influence. The Council also has an ambition to monitor and reduce emissions throughout its supply chain, and ensure staff are supported to travel sustainably while at work. In addition to current work to ensure carbon considerations are included in procurement activity, the Council will consider the expansion of reported emissions to include these supply chain (Scope 3) emissions during the 2030-2035 Carbon Management Plan.

3.37 The Climate Emergency Taskforce will continue with the development of a Climate Emergency Response Plan for the borough between October 2019-October 2020. Meeting bi-monthly, the Taskforce will consider key topics in the following sequence:

- **October 2019:** The Council's organisational emissions;
- **February 2020:** Energy and Waste;
- **March 2020:** Business;
- **May 2020:** Transport;
- **July 2020:** Housing and Land Use;
- **September 2020:** Offsetting and Climate Repair;
- **October 2020:** Final recommendations discussion.

- 3.38 In addition to setting out a resourced and comprehensive programme of carbon reduction, the Climate Emergency Response Plan will establish appropriate monitoring frameworks to ensure we understand and can track the carbon benefits of each action. Furthermore, this document will set out an ambition to embed climate change awareness throughout the organisation. There is a need for climate change to be the responsibility of all staff, and similarly to other cross-cutting responsibilities such as Equality and Diversity or Information Governance, it cannot be delivered by one team in isolation. The impacts of decisions on Climate Change will be considered as a core part of the Council's decision making, as outlined by the inclusion of a section on Climate Change in Council, Cabinet and Individual Member Decision reports. In the development of the carbon management plan, it is important to consider carbon emissions from a borough-wide perspective. For example, it would be beneficial from a carbon perspective to dispose of inefficient assets. However this would simply pass the problem on to the next owner, and not make a net positive contribution to the borough's total carbon emissions. We will, therefore, need to balance this as a consideration alongside commercial considerations in how we manage our portfolio of assets in future.
- 3.39 Following ratification by the Taskforce in October 2020, it is proposed that the borough's Climate Emergency Response Plan would be reviewed by Cabinet and Council in Winter 2020.
- 3.40 The development of a refreshed internal carbon management plan for the Council's own emissions began in December 2019. A working group with service area leads was convened to review the Council's prior attainment, best practice in carbon reduction and the data provided by Anthesis. It is anticipated that a revised carbon management plan will be completed in Spring 2020 to set out the positive steps the Council will take to rapidly reduce its emissions to neutrality by 2030.

Communications and Engagement

- 3.41 Given the scale of public interest and enthusiasm within communities to tackle the Climate Emergency, the Council has started a programme of internal and external communications activity to engage with staff and residents. Initially this has involved ensuring that all relevant campaigns and stories include consistent messages on the significance of considering the climate impacts of the Council's activities.
- 3.42 The Council has also established a webpage to summarise its Climate Emergency Response, at: <https://www.cheshirewestandchester.gov.uk/your-council/councillors-and-committees/the-climate-emergency/the-climate-emergency.aspx>. This page provides information regarding the times and dates of public meetings, the minutes of meetings, the Council's commissioned research, and links to wider resources on climate change. To provide regular progress updates to residents and other interested local stakeholders, we have established a monthly e-newsletter which now has a regular readership of 500, and the Council has a regular campaign of social media promotion and engagement on the issue of the climate emergency.

- 3.43 Anthesis' feedback to the Taskforce emphasises that in relation to communications on the Climate Emergency, it is important to emphasise the co-benefits of Climate action. For example, rather than only discussing the carbon benefits of home energy efficiency measures, a focus should be on ensuring people have warmer homes which are less draughty, similarly, when promoting the transition to electric vehicles, walking, cycling and public transport, benefits such as better air quality, improved physical and mental health should be promoted. This approach will be integrated into the Council's communications on the Climate Emergency. The Council already takes a range of action on issues such as Air Quality, with an adopted Low Emissions Strategy and four Air Quality Management Areas, and it is important that communications on these interlinked issues are 'joined up'.
- 3.44 The Climate Emergency has also played a core part in the Council Plan consultation, "Play your part", as one of the six main challenges identified for the borough over the next four years. Residents have been invited to share their views and ideas about how the Council can contribute to tackling the Climate Emergency, and also provided a forum for residents to state how they are willing to contribute.
- 3.45 The Council will hold a public evidence session in the new year. Prior to the announcement of a General Election, a public evidence session was scheduled for 6 November. We received more than 60 written evidence submissions. This session has been re-scheduled to 24 January to ensure both the written and verbal submissions are shared with the Taskforce.
- 3.46 Furthermore, the Council had arranged to hold a Climate Summit, "West Cheshire Action on Climate Change", in order to bring together a diverse range of stakeholders from the public, private, third sectors and from our communities in order to share the outputs of our research develop a consensus regarding the scale and urgency of the challenge, and begin jointly producing solutions with our partners. This has also been postponed due to Purdah and has been rescheduled to 14 February.
- 3.47 The Council has sought to engage both Members, staff and trade unions to ensure there are many opportunities to be fully informed about the progress of the Climate Emergency programme. This has included;
- Member briefings;
 - 'Keeping You Informed' messages from the Chief Executive;
 - Use of the 'Intouch' staff magazine;
 - Including climate change messages in all linked communications campaigns;
 - A 'Talking point' video;
 - Social media posts;
- 3.48 The Council has also sought to engage with a diverse array of stakeholders. This has included;

- Engagement with voluntary and community sectors groups such as the Chester Sustainability Forum and Friends of the Earth;
- Agreement from the Taskforce and Advisory Panel that future meetings will be held in public;
- Engagement with private sector partners in a range of sectors, including the energy, chemicals and manufacturing sectors;
- Providing signposting to Parish Councils who have requested support;
- Adding questions to the Resident's Survey relating to Climate Change awareness and the urgency of responding to Climate Change;
- Receiving enquiries and public evidence submissions to inform the Public Evidence session of the Taskforce via ClimateChange@cheshirewestandchester.gov.uk;
- Engagement with the Local Enterprise Partnership on the issue of the Climate Emergency to ensure this issue is central to the development of the Local Industrial Strategy.
- Engagement with local authority partners in the Cheshire and Warrington sub-region and in North Wales to align action to tackle the Climate Emergency, including supporting the delivery of shared priorities such as Growth Track 360.
- Engagement with partners in the local public sector, including the NHS, Police, Fire and Rescue service.
- Engagement with Housing Associations via the Housing Partnership;
- Engagement with stakeholders via the Climate Advisory Panel such as;
 - The Federation of Small Business;
 - Environment Agency;
 - Cheshire Energy Hub;
 - WRAP (Waste and Resources Action Programme)
 - Chester Zoo
 - Mersey Forest
 - Grosvenor Farms
- The Play your part consultation, specifically, the ParticipateNow site provides opportunities to set out your ideas and how both residents and the Council can contribute to tackling the climate emergency. Notably the Climate Emergency section has received more ideas from residents than other aspects of the site combined, demonstrating the extent of public interest in this topic.

3.49 Staff engagement will be central to the Council delivering on its ambition to be a carbon neutral organisation by 2030, and to support the borough to achieve carbon neutrality by 2045. In light of this, the Council will roll-out an e-learning module to all staff on carbon literacy to promote awareness of the changes that can be made in both a personal and professional capacity to reduce carbon emissions.

3.50 It is recognised that this process will not have engaged directly with all stakeholders. This issue touches on all of our communities and given the extent of the interest in the topic there will be vital groups who we have not yet had the chance to engage with directly. We will seek to continue over the next twelve months alongside the development of the borough's Climate

Emergency Response Plan to provide opportunities for all residents and stakeholders to engage and have their voices heard. This may include but is not limited to; the continued monthly newsletter; the rescheduled public evidence session, any appropriate public consultations, and attendance at public meetings.

- 3.51 Both the Climate Emergency Response Plan and the Carbon Management Plan are will be living documents which will be refreshed on both an annual (light touch review) and five-yearly (in-depth review) basis to ensure their continued relevance.

4 What will it cost?

- 4.1 The development of the Climate Emergency Response Plan, Carbon Management Plan and Taskforce support costs will continue to be met through existing resources and relevant external grant applications, as appropriate.
- 4.2 In order to support low-carbon projects and programmes, the Council's draft budget and capital programme includes provision for £300,000 of permanent revenue funding to enable the Council to support borough-wide decarbonisation alongside £100,000 in temporary revenue funding in 2020-2021. The Council's £400m+ capital programme will leverage carbon reductions across the borough, as schemes will be required to evaluate their impacts, positive and negative on climate change. The Council will also consider the potential of additional carbon assessments to complement the use of the BREEAM standard. The draft budget includes £7.5m of dedicated carbon reduction investment between 2020-2024, and £8m of funding for the LED street lighting programme⁹. The dedicated capital funding will be used to support a range of priorities, such as support for energy investment, energy efficiency, and offsetting residual emissions from Council activities. In addition to traditional value for money considerations, these investments will also be considered in terms of which offer the best carbon return on investment, to ensure that activities are appropriately prioritised. Furthermore, there is not a requirement that this expenditure should only be used to fund 'invest to save' projects; funded projects may exclusively deliver carbon benefits. In this regard, elements of this capital expenditure may be seen as support for the maintenance and repair of the natural environment, in the same way that the Council invests to protect the value of other crucial assets, such as highways or facilities.

5 What are the Legal aspects?

- 5.1 The UK's primary legislation relating to climate change is the Climate Change Act 2008 which sets a legally binding target to reduce carbon dioxide and other greenhouse gases by at least 80% of 1990 levels by 2050, and required

⁹ This is linked to a bid to the Government-funded Salix Finance scheme which provides interest-free loans to the public sector to finance energy efficiency projects.

the setting of statutory five year carbon budgets towards the 2050 target¹⁰. The UK government on 27 June 2019 amended the 2008 Act to set a net-zero target for 2050.

5.2 Internationally, the Paris Agreement, adopted in 2015 and signed in 2016, was entered into by a number of states and the European Union. The Paris Agreement sets out a global action plan on climate change with a target of limiting global warming to well below 2°C and pursuing efforts to limit it to 1.5°C.

- a. Locally, considerations will include ensuring that the impact of emerging new legislation as a result of the Government's recent commitments on Climate Change are fully understood, and that legal impacts and risks are accounted for when considering the response and actions of the Council.
- b. In addition to legislative updates, legal advice will be sought on all applications for grant funding and any partnership and contractual implications of projects arising to ensure compliance with the Council's Finance and Contract procedure rules. Governance advice is being sought on collaborative working arrangements.

6 What risks are there and how can these be reduced?

6.1 There is a significant risk that not rapidly progressing work to tackle the Climate Emergency will increase risk to residents' health, livelihoods and wellbeing, due to the impacts of climate change. As shown in this winter's flood events, the impacts of climate change are significant and disruptive, and they fall disproportionately on vulnerable communities. As demonstrated in data published in a recent study in the journal Nature Communications¹¹, sea level rise as a result of carbon emissions commensurate with an increase of two degrees Celsius presents a risk to a range of settlements within Cheshire West, including Ellesmere Port and its surrounds, Frodsham and Chester. If action is not accelerated in order to support the delivery of carbon neutrality and adaptation to the effects of climate change, this will also pose a risk to the Council's reputation, given the priority residents and partners place on responding to the climate emergency. Furthermore, given national legislative commitments to achieve carbon neutrality by 2050, in the long-term areas which do not demonstrate appropriate action may be subject to additional government scrutiny and intervention.

7 What is the impact of the decision on health inequalities and equality and diversity issues?

7.1 There are no detrimental equality and diversity issues directly associated with the ongoing development of the Borough's Climate Emergency Response Plan. The proposal to develop this Plan is with a view to enhancing

¹⁰ A carbon budget places a restriction on the total amount of greenhouse gases the UK can emit over a 5-year period.

¹¹ <https://www.nature.com/articles/s41467-019-12808-z>. It should be noted that this mapping solely represents the effects of sea level rise and does not account for the impact of coastal defences.

environmental wellbeing, preparedness and prosperity for everyone who lives and works within the Borough. Action linked to reducing carbon emissions will have co-benefits such as creating better air quality, increases in walking and cycling, warmer homes, better access to green spaces which are proven to support mental wellbeing, and healthier diets. This will in turn combat health inequalities and reduce the demand on the NHS and Social Care.

For further information:

Cabinet Member: Councillor Karen Shore (Environment, Highways and Strategic Transport)

Officer: Andrew Lewis

Job Title: Chief Executive

Background Documents:

Appendix 1: Letter to Secretaries of State for DEFRA and BEIS

Full CWC Climate Emergency Strategy Support Anthesis Report:

<https://info.anthesisgroup.com/hubfs/CW&C%20Final%20Report.pdf?hsLang=en>

Setting Climate Commitments for Cheshire West and Chester – Tyndall Centre:

<https://carbonbudget.manchester.ac.uk/reports/E06000050/>