

CABINET 22 OCTOBER 2020

COUNTY COUNCIL NET ZERO CARBON PLAN

Relevant Cabinet Member

Mr T Miller

Relevant Officer

Strategic Director of Economy and Infrastructure

Recommendation

1. The Cabinet Member with Responsibility for Environment recommends that Cabinet:

(a) approves the proposed Net Zero Carbon* Plan;

(b) agrees that an annual progress report and updated plan be returned to Cabinet for approval in 2021.

Background

2. The Net Zero Carbon plan has been produced in direct response to the notice of motion agreed at the 16 May 2019 Council meeting. At that meeting Worcestershire County Council reaffirmed its commitment to tackle climate change. It agreed to:

- Note that Parliament had declared a "Climate Emergency"
- Pledge to make Worcestershire County Council in all areas where it was directly responsible, carbon neutral by 2050, taking into account both production and consumption emissions
- Call on Westminster to provide the powers and resources to make the 2050 target possible
- Continue to work with partners across Worcestershire and the region, such as district, town and parish councils and WLEP, to deliver this new goal
- Request the Economy and Environment Overview and Scrutiny Panel monitors the progress made by Worcestershire County Council towards this goal.

3. In May 2019 the Government committed to achieving net zero carbon emissions by 2050, recognising much of this reduction must happen before 2030.

4. UK Government has established the National Climate Change Adaptation

*Carbon - includes carbon dioxide and other carbon compound gases (e.g. including methane), that have the property of absorbing infrared radiation (net heat energy) emitted from Earth's surface and reradiating it back to Earth's surface, thus contributing to the greenhouse effect.

'Net zero carbon /carbon neutral - net amount of carbon dioxide or other carbon compounds emitted into the atmosphere is reduced to zero because it is balanced by actions to reduce or offset these emissions. Achieving an overall balance between emissions produced and emissions taken out of the atmosphere.'

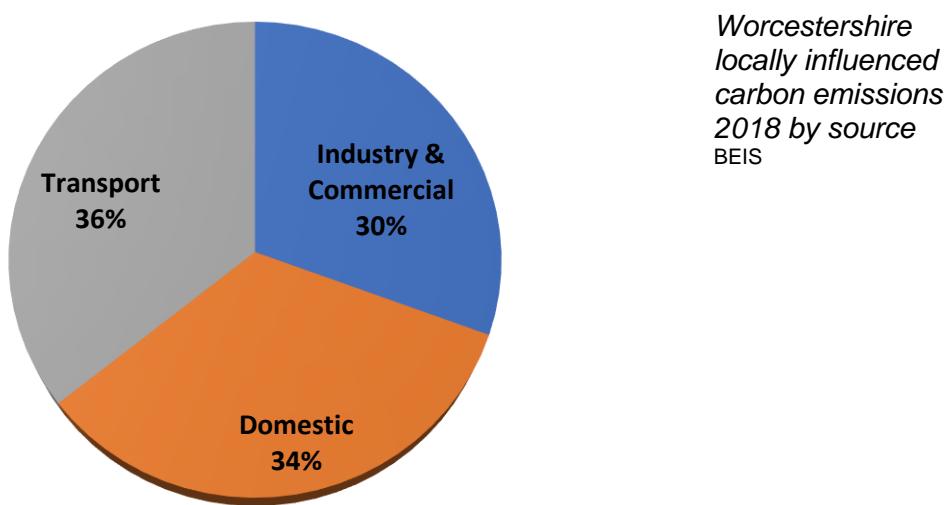
Programme. The corresponding UK Climate Change Risk Assessment identifies six priority risk areas: flooding, high temperatures, water supply shortages, natural capital, food production, and pest and disease.

5. Worcestershire County Council (the Council) has a long history of action on Climate Change, as shown in the attached Climate Action Timeline.

6. The Economy and Environment Scrutiny panel appraised the Council's role in tackling climate change on 4 August 2020. This is currently programmed to take place every year.

The Council's Countywide Role in Tackling Climate Change

7. Worcestershire's total carbon emissions were c.3.3 million tonnes CO₂ in 2018, (latest available data). Locally influenced emissions, excluding, for example, emissions from motorway traffic passing through the county, were c.2.6 million tonnes CO₂. The source of these locally influenced emissions was broadly evenly distributed between homes, workplaces and transport, as illustrated below.



8. By working together with partners, the County Council can have significant influence in reducing these emissions and is continuing to work to this aim.

9. In 2002 the Council led the development of one of the UK's first countywide climate change strategies through the Worcestershire Partnership. The third Worcestershire Climate Change Strategy concludes at the end of 2020. All six Worcestershire district councils are now developing their own district wide climate change plans and aligning them with Worcestershire's Energy Strategy.

10. WCC are working with the Worcestershire Local Enterprise Partnership to coordinate the development of the Worcestershire Energy Strategy, which was launched in 2019 and includes the aim for halving county carbon emissions by 2030.

11. The County Council supports the Energy Strategy's steering group, monitors progress and has developed, and is managing, a range of projects supporting the strategy (some of which are outlined below).

12. The Worcestershire Partnership Executive Group (PEG) has an emerging interest in joint working on the issue of climate change. In consequence, the Council is coordinating shared working sessions with district councils and other public sector partners on various aspects of the challenges posed by climate change, such as carbon sequestration, climate change adaptation and community engagement.

Progress to Date

13. Worcestershire's Carbon emissions reduced by 32% between 2005 and 2018 (latest data available).

14. The Council has been active on a wide range of initiatives that have an impact on cutting countywide emissions. In many cases successfully securing external funding to take this work forward. Examples include:

- Home Energy Efficiency
 - Coordination of the Warmer Worcestershire home energy efficiency network and the county's fuel poverty plan.
 - Project management of home energy efficiency schemes currently focused on tackling fuel poverty. (Energy company and BEIS funded)
- Public Sector Energy Efficiency
 - Delivery of an advice and grant programme for energy efficiency and renewable energy measures across Worcestershire's public sector (EU funded)
- Clean Economic Growth
 - Delivery of business support programmes providing advice and grants for energy efficiency, renewable energy generation, waste reduction and restoring the natural environment, as well as helping Worcestershire businesses as to enter and develop in the growing low carbon market. (EU funded - more than 400 local businesses assisted to date)
- Overcoming infrastructure and development barriers
 - Commissioning of research into heat network development e.g. South Worcestershire's deep geothermal heat resource and Countywide heat network master planning.
 - Provision of climate change related advice and response to neighbourhood plans, major planning applications and local development plan reviews.
 - Engagement with the distribution network operator on increasing the capacity and flexibility of Worcestershire's power grid.
 - Investment in digital infrastructure, which has enabled changes in patterns of working and travel. An accelerated impact of this was observed during Covid 19 lockdown.
- Low emission transport and active travel
 - Installation of electric vehicle charge points in car parks across the county. (Predominantly funded by central government.)

- As part of the Local Transport Plan, pursuing the development of active travel projects e.g. corridors for walking and cycling, linking major centres of population.
- Developing Worcestershire's rail network, including the creation of a new station at Worcestershire Parkway and upgrading Bromsgrove and Kidderminster stations.

15. In terms of preparing the County for the impact of climate change, the Council's work includes the following:

- It is the lead Local Flood Authority with a duty to manage flood risk from surface water, groundwater and ordinary watercourses across the county;
- It coordinates Worcestershire's Local Nature Partnership, which addresses natural capital, water quality and climate change as its main foci;
- It is actively delivering the Worcestershire Green Infrastructure Strategy to ensure protection and enhancement of environmental quality throughout the county.
- It has designed new buildings to cope with future climatic change. Buildings such as Redhill School, Worcester and The Hive were designed to cope with intense rainfall and hotter summers;
- As part of the Joint Impact Assessment for new County Council projects, project managers must consider the impact of severe weather and climatic change.

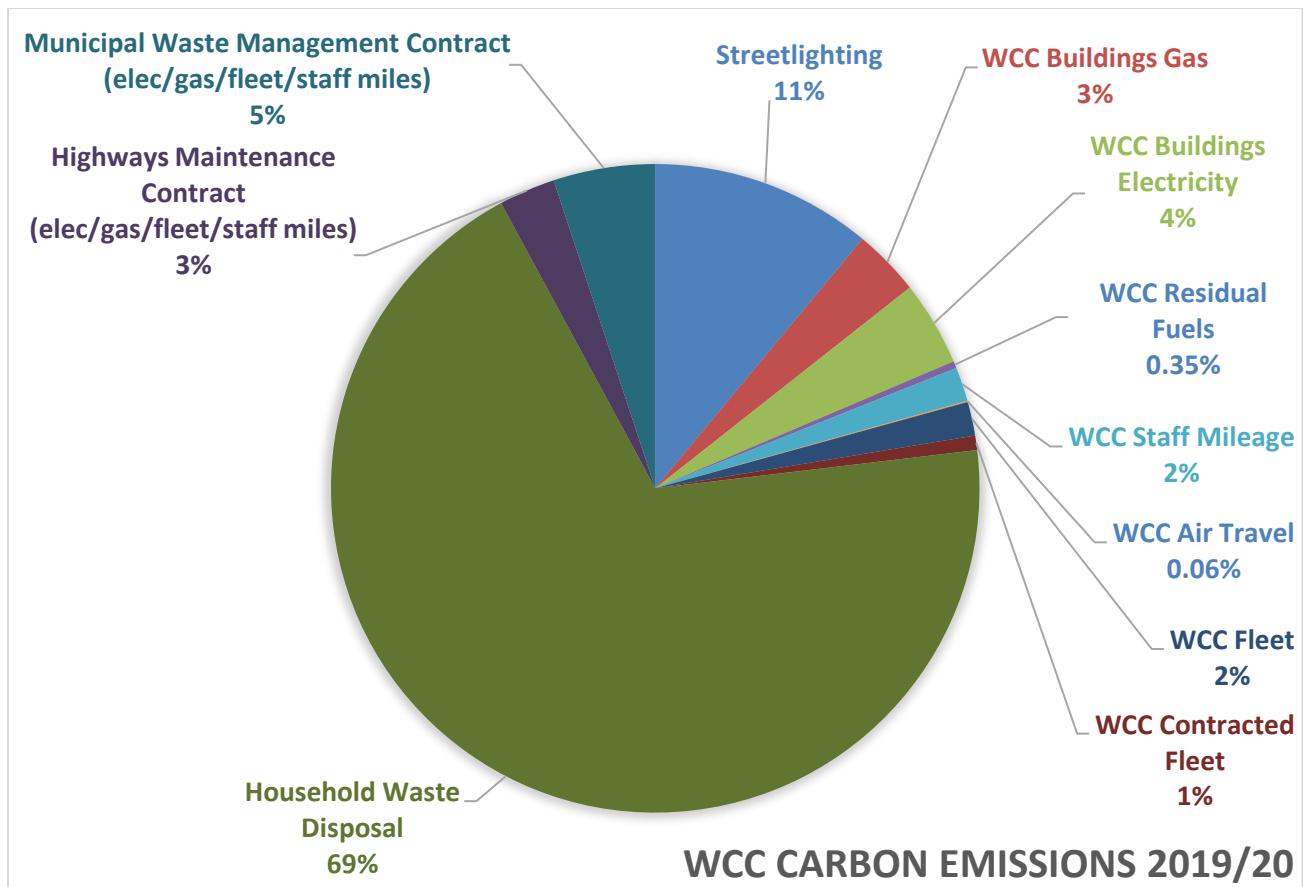
County Council Carbon Emissions

16. Through its own operations the Council emits at least 1.5% of Worcestershire's carbon emissions. Since 2002 the Council has delivered a series of carbon reduction plans aimed at reducing these emissions.

17. The Council currently accounts for emissions from its buildings, street lighting, fleet, staff travel and some major contracts, such as highways maintenance and household waste management. In the last decade there has been an overall 40% reduction in these emissions.

18. This reduction has been achieved through measures including: investment in energy efficiency and renewable energy, increase in remote working, contraction of estate and fleet, reduction in the carbon intensity of grid electricity and the move from the landfilling of household waste to disposal through the Hartlebury Energy from Waste plant.

19. Accounted Council carbon emissions were c46,000 tonnes CO₂e a year in 2019/20. The chart below illustrates the sources of these emissions; 69% of which were attributed to the Council's role as waste disposal authority. The next largest source was street lighting; 11%.



Net Zero Carbon Plan

20. The proposed Net Zero Carbon Plan (Appendix 1) outlines how the Council could reduce the above emissions to Net Zero and achieve its pledge of carbon neutrality within its own estate and operations by 2050.

21. The plan also recognises the aforementioned wider role of the Council in influencing emissions reduction across the county, as well as responding to the impact of climate change.

22. The plan has been developed by the Council's Zero Carbon and Sustainability Board. The Board has officer representation from each Directorate, as well as Member representation: the Cabinet Member for Environment and a representative from the Economy and Environment Scrutiny Panel.

23. The proposed plan sets out progress to date, provides a baseline carbon emissions assessment and outlines the strategy the Council could take to deliver on its commitments.

24. It is proposed an annual monitoring report will be considered by the Economy & Environment Scrutiny panel and Cabinet.

Proposed Approach

25. The Council's proposed approach to achieving net zero emissions includes:

- The reduction of carbon emissions associated with the Council's estate and activities as far and as fast as possible and practical. (The plan sets short and longer-term reduction targets).
- The requirement for carbon reduction measures to be cost effective, (e.g. maximum payback times will be set).
- The prioritisation of local carbon offsetting projects with environmental and/or social benefit, where offsetting is necessary
- Continuation of the requirement to assess the environmental impact of all proposed Council projects, including carbon emissions and the impact of severe weather and climatic change, (through the Joint Impact Assessment process)
- The continuation of the Council's role in cutting carbon emissions and promoting environmental improvement across the county, working together with partners to achieve this aim.
- The communication of Climate Change, raising the awareness of staff and of residents of the need to cut carbon emissions, the Council's role in this and how everyone can play their part.

26. Measures to achieve net zero emissions from the Council's estate and operations include:

- Ongoing investment in energy efficiency measures in WCC properties to achieve annual reduction in energy consumption and to ready them for zero carbon emission heating systems
- Further investment in generation of renewable energy at WCC properties
- Moving to 100% LED street lighting
- Moving to 100% Ultra Low Emission fleet vehicles (ULEVs)
- Procurement of 100% renewable electricity for property and street lighting
- Inclusion of carbon reduction requirements in new contracts
- Provision of carbon reduction advice sessions with service providers, (in particular SMEs)

27. Offsetting will be required to balance remaining WCC emissions. More detail on this will emerge. As an initial example, the Council has already committed to the planting of 150,000 trees, which will offset annually an average 350 tonnes CO₂.

28. The ability of the Council to achieve net zero carbon emissions from estate and operations by 2050 is based on a number of assumptions, some included above and also:

- Move to 100% of staff travel via ULEV by 2050
- Aspiration for 3% annual emissions reduction of contracted services
- Carbon capture and storage retrofitted to energy from waste plant by 2040

29. There is recognition that some carbon reduction solutions may not yet be available, or market ready or cost effective, but may become so in the future. The Council will need to keep a watching brief to enable adoption of such solutions at the optimum time.

Constraints

30. The ability of WCC to achieve net zero carbon emissions within its own estate and operations will be influenced by:

- resource constraints

- technological development, for example the complete decarbonisation of the UK's grid electricity, the availability of ultra-low emission HGVs, including gritter lorries; and the viability of carbon capture and storage (CCS) technology for energy from waste plants;
- the ability to offset¹ carbon emissions. As the Council reduces its carbon emissions, offsetting requirements will be subsequently reduced.

It must also be recognised that certain factors may be outside the Council's direct control, such as the rate at which fossil fuelled vehicles are replaced with ULEVs by contractors or staff for business travel.

Legal, Financial and HR Implications

31. Financial implications of delivery of the plan:

- Capital and revenue requirements to deliver the plan will be assessed on a project by project basis, this will require demonstrable evidence of:
 - funding sources, which could include WCC's revenue budget, external grant and partner income
 - A maximum pay back threshold will be required to assess all energy efficiency and renewable energy investments as part of the council's Energy Efficiency Spend to Save programme. That payback should be within 5 to 7 years, although where there is grant funding for a scheme that maybe longer in line with the terms of the grant.
 - The assessment of pay back will include consideration of cost avoidance as well as cash.

32. There are no direct Legal and HR impacts of the plan – such issues will be considered at individual project and activity level.

Joint Equality, Public Health, Data Protection and Sustainability Impact Assessments

33. The JIA screening and Equality and Public Health Full Impact Assessment did not identify any potential negative impacts of the plan. The Environmental Sustainability Full Impact Assessment noted the many positive environmental impacts associated with the delivery of the plan; including improved air quality and increased biodiversity as well as reduced carbon emissions. The need to ensure the procurement process for goods or services associated with plan delivery aims for environmentally sustainable product choices was highlighted. The Council's Planning Team and County Ecologists will be involved in the assessment of any potential impacts upon wildlife and biodiversity of installation of carbon reduction measures e.g. roof top solar PV. The Council will ensure all relevant surveys and planning prerequisites are met.

¹ a Carbon offset is a reduction of emissions of carbon dioxide or other greenhouse gas made in order to compensate for emissions made elsewhere

These have been attached as appendices 2, 3 and 4

Supporting Information

All available electronically

- Appendix 1 Draft Net Zero Carbon Plan
- Appendix 2 Joint Impact Assessment Screening
- Appendix 3 Equalities and Public Health Full Impact Assessment
- Appendix 4 Environmental Impact Assessment

Contact Points

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Background Papers

In the opinion of the proper officer (in this case the Director of Economy & Infrastructure) the following are the background papers relating to the subject matter of this report:

- [County Council Climate Action Timeline](#)
- [United Nations Intergovernmental Panel on Climate Change Report 2018](#)
- [16 May 2019 Council Agenda and Minutes \(Council's commitment to tackle climate change\)](#)
- [Worcestershire County Council Energy and Carbon Management Plan 2016-2021](#)
- [Worcestershire County Council Greenhouse Gas Emissions Report 2019/2020](#)
- [Worcestershire Energy Strategy 2019-2030](#)