

Agenda



Contact Officer: Democratic Services Officer
Tel: 07895 213820
E-mail: candida.basilio@southoxon.gov.uk
Date: 12 July 2024
Website: www.southoxon.gov.uk

Listening Learning Leading

A MEETING OF THE

Climate and Ecological Emergencies Advisory Committee

WILL BE HELD ON MONDAY 22 JULY 2024 AT 6.00 PM

THIS WILL BE A VIRTUAL, ONLINE MEETING.

Members of the Committee:

Ali Gordon-Creed (Chair)

James Barlow	Mike Giles	Andrea Powell
Sue Cooper	Katharine Keats-Rohan	Leigh Rawlins
Maggie Filipova-Rivers	Denise Macdonald	Andrew Tinsley (Vice-Chair)
Stefan Gawrysiak	Freddie van Mierlo	

Substitutes

<i>Ken Arlett</i>	<i>Georgina Heritage</i>	<i>Jo Robb</i>
<i>Pieter-Paul Barker</i>	<i>Kellie Hinton</i>	<i>Anne-Marie Simpson</i>
<i>Tim Bearder</i>	<i>Mocky Khan</i>	<i>Tony Worgan</i>
<i>David Bretherton</i>	<i>Axel Macdonald</i>	
<i>Peter Dragonetti</i>	<i>James Norman</i>	

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Vivien Williams
Head of Legal and Democratic (Interim)

1 Chair's announcements

To receive any announcements from the chair and general housekeeping matters.

2 Apologies for absence

To record apologies for absence and the attendance of substitute members.

3 Minutes of the last meeting (Pages 4 - 9)

To review minutes of the meeting held on 10 June 2024 and agree as a correct record.

4 Declaration of interests

To receive declarations of disclosable pecuniary interests, other registrable interests and non-registrable interests or any conflicts of interest in respect of items on the agenda for this meeting.

5 Urgent business

To receive notification of any matters which the chair determines should be considered as urgent business and the special circumstances which have made the matters urgent.

6 Update from the Cabinet member for Climate Action

A verbal update from the Cabinet member for Climate Action.

7 Public participation

To receive any questions or statements from members of the public that have registered to speak.

REPORTS AND PRESENTATIONS FOR THE CONSIDERATION OF THE COMMITTEE

8 Review of the 2025 operational net zero target (Pages 10 - 24)

CEEAC is asked to consider the report on the progress of the operational net zero target and provide recommendations to Cabinet.

9 Review of the District net zero carbon target (Pages 25 - 31)

CEEAC is asked to consider the report on the District net zero carbon target and provide recommendations to Cabinet.

10 Task and Finish group update and future agenda items

For committee members to suggest topics for the future consideration of the committee.

Minutes

OF A MEETING OF THE



Listening Learning Leading

Climate and Ecological Emergencies Advisory Committee

**HELD AT 6.00 PM ON MONDAY 10 JUNE 2024
THIS WAS A VIRTUAL, ONLINE MEETING.**

In attendance:

Councillors: Ali Gordon-Creed (Chair), Maggie Filipova-Rivers, Sue Cooper, James Barlow, Tony Worgan, Denise Macdonald, Leigh Rawlins, Sam James-Lawrie and Mike Giles, Peter Dragonetti (sub) and Stefan Gawrysiak.

Cabinet members: David Rouane (Cabinet member for climate action), Robin Bennett (Cabinet member – economic development)

Officers: Tim Oruye (Head of Policy and Programmes), Suzanne Malcolm (Deputy Chief Executive – Place), Dominic Lamb (Climate and Biodiversity Team Leader), Jessie Fieth (Senior Climate Action Officer), Chloe Bunting (Senior Climate Action Officer), Candida Basilio (Democratic Services Officer), Nick King (Economic Development Manager), Karen Tolley (Principal Economic Development Lead), Roselle Chapman (Nature Recovery Officer).

Guests: Sara La Roux (Oxford Brookes Business School) and Councillor Alexandrine Kantor

63 Chair's announcements

The new committee chair, Councillor Ali Gordon-Creed, introduced herself and welcomed all to the meeting. She explained how climate and nature concerns had been a part of her life for many years.

Chair gave thanks to previous members of committee – previous chair, Councillor Sam Casey-Rerhaye and Councillors Sam James Lawrie, Alexandrine Kantor and Ben Manning.

Chair welcomed new members – Councillors Andrea Powell, Freddie van Mierlo, Sue Cooper and Maggie Filipova-Rivers.

64 Apologies for absence

Apologies were received from Councillors Andrea Powell (Peter Dragonetti was present as substitute member), Andrew Tinsley and Katharine Keats Rohan.

65 Minutes of the last meeting

The minutes of the meeting held on 11 December 2023 were agreed as a correct record.

66 Declaration of interests

None.

67 Urgent business

None.

68 Update from the cabinet member for Climate Action

Councillor Rouane gave his update as Cabinet member for Climate Action. The chair moved this agenda item ahead of public participation.

It was explained that the cabinet changes reflected the logic that all cabinet members should take responsibility for climate matters under their own portfolios, but with Councillor Rouane overseeing, with Climate Action under his portfolio.

- The team had been working on the climate and nature recovery action plan – update to be provided in this meeting
- Local energy area plan – an update will be provided in the meeting
- Funding had been received for decarbonisation scheme – including trialling a new electric waste vehicle.
- Innovate UK funding had been secured for carbon-based offsetting
- Nature recovery projects had been created using CIL funds. We utilised the expertise of Trust for Oxfordshire’s Environment.
- Bathing water status gained in Wallingford, which shows regular monitoring and progress in this area.

69 Public participation

Jo Lazarus addressed the committee to talk about the promotion of a plant-based diet, what the council was willing to do to support this and what, if any, information would be needed by the council on this matter. Also present but not speaking was Jane Lovering.

Chair explained that there were discussions about this but she could not give an answer in the meeting.

Cabinet member Maggie Filipova-Rivers explained that the council had endorsed the Oxfordshire Food Strategy and an action plan resulted. We had been talking to many food stakeholders. She would ask officers about the progress of the action plan, which the public will be able to view in due course. The election may result in a slight delay to the progress being made, but the cabinet member would respond to the public speaker with an update.

The speaker was thanked for her contribution to the meeting.

70 Understanding the Net Zero Challenge for SMEs in South and Vale

Introduced by Nick King, Economic Development Manager. Karen Tolley (Principal Economic Development Lead) was also present to support the item. The slides would be provided with the minutes.

Members were updated on decarbonisation projects for small and medium sized enterprises (SME's) and the research carried out on this, before a report was published publicly.

Sara Le Roux from Oxford Brookes Business School presented and provided some results from the research carried out and the findings. She talked about barriers to action, the appetite and priority given to environmental issues by smaller businesses. Grants would be earmarked for environmental sustainability projects.

Economic Development Manager discussed that this was a pilot scheme, as future funding was unknown, and ran through the planned process, and the support and tools that were being planned for businesses who wanted to get involved. A draft grant policy was being circulated for grants up to £10k. Projects would need to demonstrate the value a project would have for sustainability/carbon reduction. There may be up to 20 grants offered in this pilot scheme.

Principal Economic Development Lead added that business engagement events, business breakfasts and a festival had been arranged. She mentioned the need for solutions to issues with business landlords that renting businesses may have, and the need to reach out to landlords.

Members asked questions and made suggestions:

- A member suggested that the type of customer would differ and react differently to changes in behaviour in a SME. For example, direct individual customers or other companies who may be looking to get their own accreditation. Could add emphasis on keeping up to date on sustainability in order to gain business, as those who do will be selected more often.
- A member suggested we needed to look at different sectors and how different the roadmap may look per sector. Should focus on the most polluted, for example, construction, and look at interventions. Can we look at micro businesses as well?
- It was confirmed that five outcomes would be monitored after grant acceptance, the grant recipients would agree to provide the data. Officers hoped to build case studies. It was confirmed that support would be in place to help people to apply, as described there would be events, guides and also the climate team had supported this work.
- A member suggested that generic accreditation would be preferable to industry-specific accreditation.
- Do we have a sense on minimum hurdle rates from other areas? Sara Le Roux explained that small businesses she had consulted with wanted a more sustainable product, but there were issues of higher costs. Cost savings were obtained from green energy and energy saving, but those were quick wins, and there was a block towards the next more expensive stage (such as retrofitting). Economic Development Manager added that energy cost was a topic asked about, for support. The aim would be to start people on a sustainable journey, so this could begin with small changes. Therefore it was difficult to quantify at this point and there was not much national data yet.

- Platforms were discussed, and the variety there were on the market, and varying preferences, measuring tools and the need for dedicated sustainability staff in businesses. There may be market leaders in due course. It could be a longer-term consideration, however the funding available was not sufficient at present to consider a platform.
- A catalogue of local providers was raised by a member as a useful tool. What can we do as a committee? Officers would like members to communicate and promote the pilot when announced. Officers welcomed any feedback.
- Data being a carbon issue. A member asked whether some funding could help businesses to make carbon cuts through their data and web services. This was an example of an issue that affects all. It was confirmed that it would be the topic of an upcoming business breakfast.

Officers and guest were thanked for their time.

71 Local Area Energy Planning

Senior Climate Action Officer Jessie Fieth updated the committee.

LAEP was a spatial plan that mapped out the existing energy infrastructure in an area and evaluates future demand. There would be a range of scenarios and technology suggested to help meet net zero targets.

This was not a statutory requirement of the council, but councils tend to lead them.

We think it is important to lead on this because:

- We can have some control over our operational emissions, but district-wide there was a limit on what we can do. Having a LAEP will assist.
- Major updates were needed to our energy systems. The LAEP will produce a plan of actions to help us transition to a suitable system to deliver net zero ambitions.
- Identify solutions for our area and alternatives.
- LAEP will help us as a planning authority.
- The LAEP should be ready by summer 2025.

This workstream was county-wide. It was proposed that data collection was to occur county-wide, but detailed scenarios would be district specific, so there would be five LAEPS at the final stage. Consultants would be in place to collect the data, with officer teams assisting. Future Oxfordshire Partnership (FOP) would decide on approving the budget. If approved, consultants would be in place in autumn.

This would be led by Oxfordshire County Council, but we would be involved, with more input in the final stages for the district specific LAEP.

CEAC could help further at the district level and this item could come back to the committee at those points.

Councillor Rouane gave an update as a member of FOP and that they would need to consider the value of the work and the impact on officer time.

A member discussed taking a light approach on this, and the chair felt that it was important to link up our other aspirations and plans and make sure it still fit our fit-for-purpose area plans.

Officer added that the links between local authorities and the energy system were not that good, and LAEP could help. Climate and Biodiversity Team Leader added that the hardest part was transitioning existing housing stock, rather than working out needs from planned

new housing. The LAEP will help inform future demands and help identify the gaps for local energy networks to inform their investment in infrastructure.

72 Progress on the Draft Climate and Nature Recovery Action Plan

Senior Climate Action Officer Chloe Bunting updated the committee on the updates being made to the Climate and Nature Recovery Action Plan for 2024-2028 (CNRAP), including reviewing long-term targets and consideration of new legislative requirements. This plan would be adopted in line with the corporate plan at the end of the year. There was a task and finish group and staff consultation, and the team analysed the responses to bring a short-list of actions.

To report on progress, this would be in tandem with the corporate plan, a once-a-year in-depth reporting process with live data at more frequent intervals and consideration would be given to a data dashboard.

It was asked whether members of committee could be more involved, officers suggested another task and finish as an option, when there was a draft shortlist of options.

Climate adaptation route map and action plan – who was leading? It was responded that county council were developing this, and at a certain point they will commission separate work to see how it impacts their operations. We can then input into and decide whether we develop our own action plan or decide to incorporate other actions from this work.

73 Progress of the Oxfordshire Local Nature Recovery Strategy

An update was given by the Climate and Biodiversity Team Leader.

There had been workshops this year. The strategy was now a statutory requirement and we needed to produce one, and we will be given a clear national picture as to what we should be doing to address nature recovery, and also bring access to funding streams to help deliver targets.

The team leader ran through the stages already covered by the team, to produce maps and statements of what the local priorities were (forming the strategy). Over one thousand people attended the workshops. There was a live map on Oxfordshire County Council's (OCC) website where members can input information to inform on activities happening in their wards. In May, there was a wrap-up event to feedback to those who took part in workshops. OCC were responsible for the strategy, but we had a statutory duty to support and input into this.

The next stage was to work on the draft plan, with consultation planned in September/October. There would be a specific task and finish group for CEEAC to contribute to the draft strategy. It was expected that the strategy would be published in Spring 2025.

74 Task and Finish group updates and future items

As mentioned, there would be Climate and Nature Recovery Action Plan task and finish group – this would be joint with Vale of White Horse District Council, due to being a joint strategy. Local Nature Recovery Strategy would have a task and finish group once out to consultation.

An idea raised by a member was to discuss the treasury and procurement strategies, from a CEEAC point of view. The team leader explained that this would tie into the approach to scope three emissions, and procurement was central to this.

A member asked for an update on trialling the climate impact tool. An officer updated that the uptake had been good – 40/50 percent of corporate decisions had used the climate impact wheel in reporting. The climate team had been approached a lot for advice. It was noted that some reports were not suitable for this but that these examples were all part of the learnings from the trial. A report would be written to senior management to recommend continuing with this process, possibly becoming mandatory in future.

UK100: An update was given that SODC was still in the process of applying to join. We were due to meet with UK100 to confirm.

A member asked about following up on meeting actions. Officer explained that updates were provided to members – this could come to CEEAC.

The meeting closed at 8.00 pm

Chair

Date

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Climate and Ecological Emergencies Advisory Committee Report



Author: Heather Saunders/Dominic Lamb
Telephone: 07801 203590
E-mail: dominic.lamb@southandvale.gov.uk

Date: 22 July 2024

Review of the 2025 Operational Net Zero Target

Recommendation(s)

- (a) That CEEAC recognises the significant progress made in reducing our operational carbon emissions by 50 per cent since 2009/10.
- (b) CEEAC recommends that Cabinet adopts a revised operational net zero target of 2030.

Purpose of report

1. This report reviews the council's progress towards the 2025 target for achieving net zero carbon in its own operations. It is intended to guide the decision as to whether the operational net zero target should be changed in the next Corporate Plan and Climate and Nature Recovery Action Plan.
2. This paper presents four scenarios designed to test the earliest possible date that the council could reach net zero in its own operations. The scenarios presented are for illustrative purposes only, they do not represent the agreed policy or position of the council at the current time, and they are not reflected in current capital or revenue budgets.

Corporate objectives

3. Corporate Plan Objective 3 – Action on the Climate Emergency

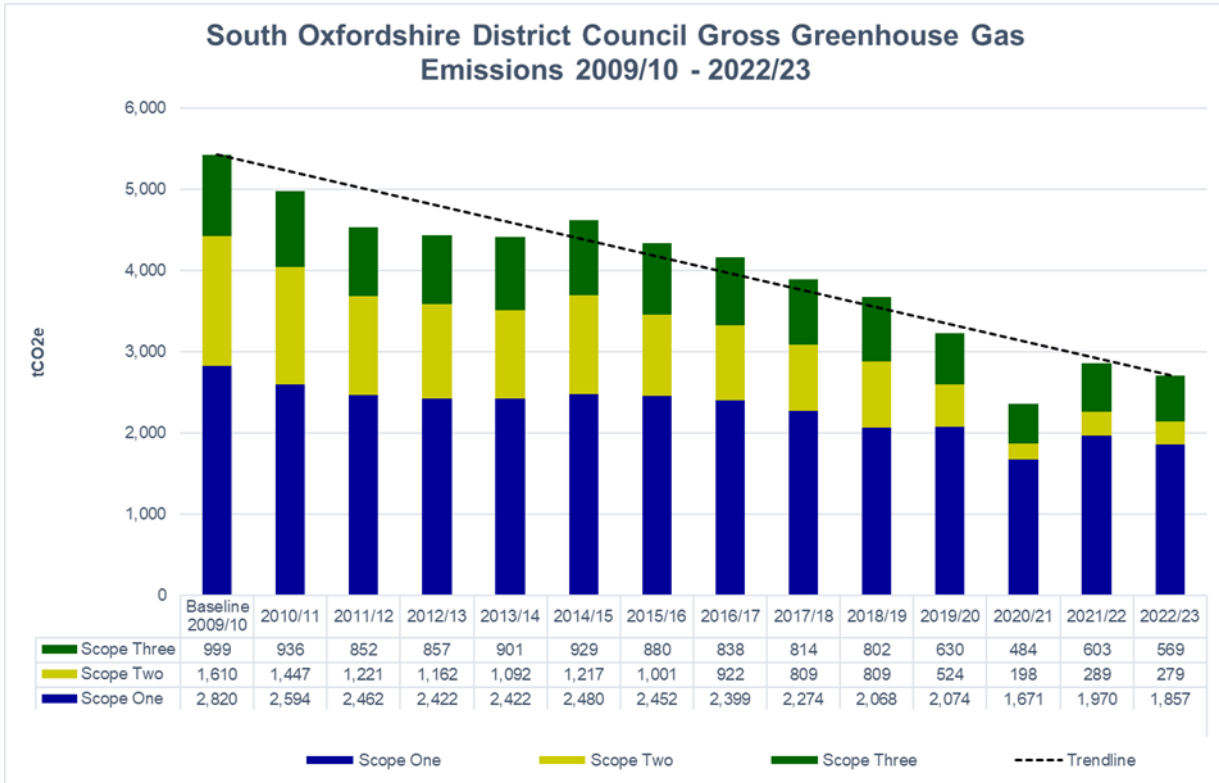
Background

4. In 2019, South Oxfordshire declared a Climate Emergency. Whilst recognising it was an ambitious target, the Climate Emergency Advisory Committee recommended that South Oxfordshire District Council should become a carbon neutral council by 2025. This target was endorsed by Full Council on 10 October 2019. The baseline year used in this report is 2019/20.
5. In February 2022 the council adopted its Climate Action Plan 2022-2024, which for the first time set out clearly the actions that we would take to reduce our carbon emissions to reach our net zero target.
6. Nearly 400 UK local authorities have declared climate emergencies and have set carbon emission reduction targets. Most of these seek to reach net zero before the UK target of 2050 but 2025 remains one of the most ambitious targets for operating at net zero. All other Oxfordshire councils have a net zero target of 2030 for their own operations.

What progress have we made so far?

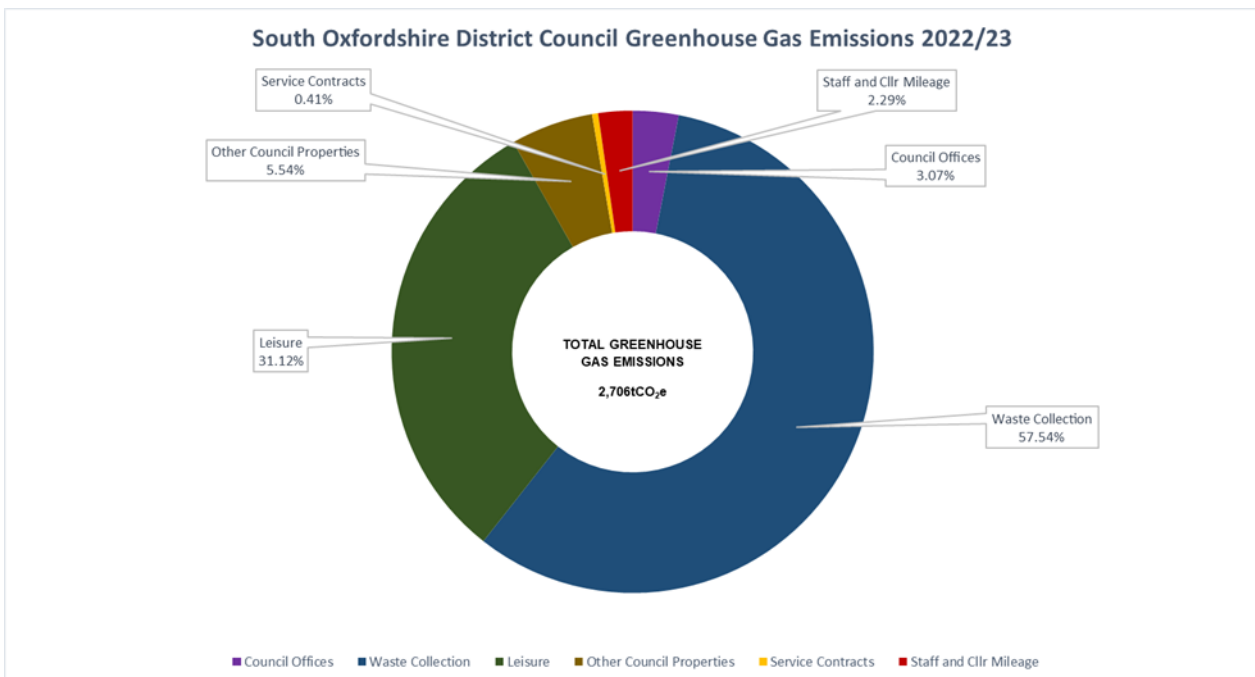
7. The council's net zero target adopted in 2019 is part of a long-term trajectory to reduce the council's carbon emissions. We have reported our emissions annually since 2009/10 through the council's Greenhouse Gas Emissions report. As at March 2023, overall council emissions had reduced from 5429 tonnes carbon dioxide equivalent (CO₂e) in 2009/10 to 2704 tonnes CO₂e. This reduction of 50 per cent since 2009/10 is in part due to the delivery of an ongoing programme of energy and carbon saving projects. Part of this reduction has also come about as a result of reductions in the carbon content of grid electricity (the carbon factor), which reduced by 57 per cent over the same period. This is derived from the increasing proportion of renewable electricity fed into the national supply and is reflected in the reduction in scope 2 emissions in figure 1 below.
8. Figure 1 shows greenhouse gas emissions from council operations between 2009/10 and 2022/23. Scope one emissions are from gas and oil use in buildings and fuel use in fleet vehicles. Scope two emissions are from purchased electricity and Scope three emissions are indirect emissions as a consequence of the council's actions.

Figure1:



9. South Oxfordshire’s greenhouse gas emissions by source from 2022/2023 are shown in figure 2 below. This shows that the biggest contributors to our carbon emissions are waste collection (57.5 per cent) and leisure (31.1 per cent). Reducing the carbon emissions from these two sources will have the biggest impact on our carbon emissions.

Figure 2



10. The Climate Action Plan outlines all the areas where we are taking action to reach our net zero target. Progress against these actions is reported quarterly however, until now, we have not been able to track the progress of individual actions in carbon reduction terms and the contributions they make in delivering the net zero target.
11. To allow us to both record progress against targets to date and to predict our future trajectory a 'Glidepath' tool has been commissioned. This is a spreadsheet-based tool which shows actual emissions to date and future projections to 2030 which can be entered using a range of scenarios (projects the council could invest in) to further reduce our carbon emissions.
12. Potential projects can be entered into the tool by adding expected energy savings and delivery dates. These are converted into carbon emissions using estimated carbon factors for future years. To use the tool we have to include the dates by which certain actions will be completed, it should be noted that these dates are illustrative and set to test the fastest that we could decarbonise if the money and capacity were available. The dates are however not all reflected in current service plans, and budgets for many have not been agreed. The list of assumed dates are included in Appendix 1. Actual emissions are likely to be slightly lower than the Glidepath trajectory indicates as they will also include the cumulative effect of many minor changes that are not possible to include in the model.
13. We are currently using a prototype Glidepath tool which has limited functionality. If the tool is found to be effective, then we would seek improvements to the tool based on the findings of this initial trial to develop an updated version.

Our trajectory to net zero

14. Four scenarios have been used in the Glidepath tool to inform this paper. Each of the scenarios builds on the last, and the cumulative results are presented visually in a series of graphs. A summary description of the four scenarios and what they involve is shown in table 1 with further detail included in the individual sections below.

Table 1

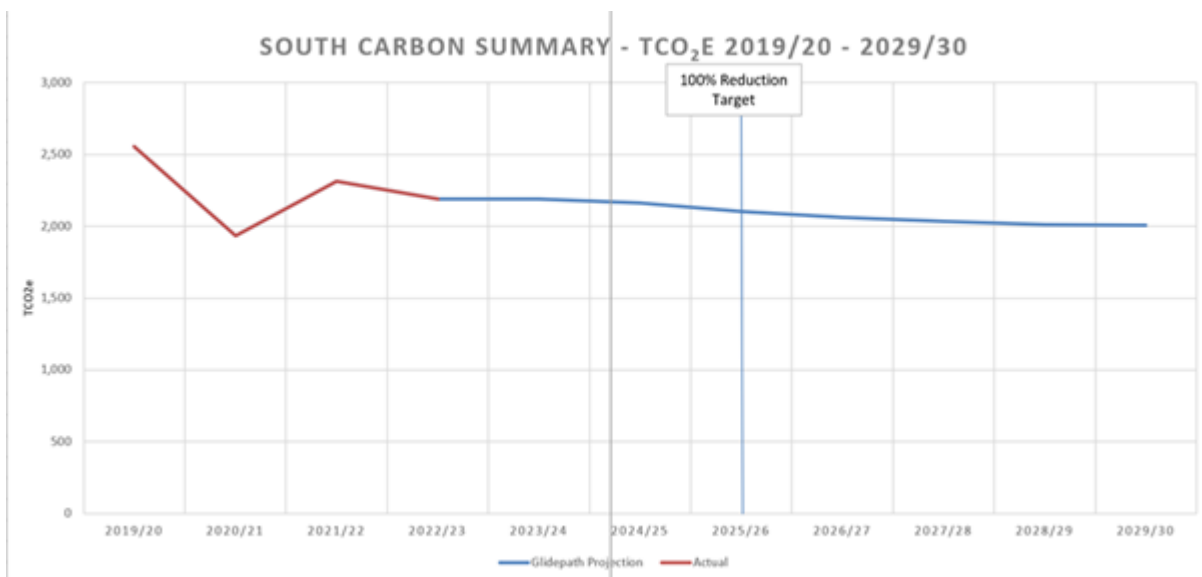
Scenario 1	Committed projects	Cornerstone Arts Centre decarbonisation Office moves to Didcot Gateway Some Council vehicles transition to EV
Scenario 2	Potential projects	Leisure centre decarbonisation
Scenario 3	Solar farm	Local offsetting
Scenario 4	Low carbon fleet	Waste collection vehicles Sweepers and tippers Grounds maintenance vehicles transition to EV

15. All of the scenarios presented are included in current work programmes across the council. The projects are at various stages in their development and approval process. Further information on each scenario and the results of the modelling are presented below.

Scenario 1 – Committed Projects

16. Scenario 1 includes work that the council has committed to and is currently in progress. This work has yet to be completed and therefore the carbon savings are not captured in Figure 1. Scenario 1 includes decarbonisation works at Cornerstone Arts Centre, the proposed council office move to Didcot Gateway and further expected reductions in the national grid carbon factors. These projects are modelled to be completed by 2025.
17. In addition, up to six council vehicles are expected to transition to electric vehicles in 2024. These include the Parks Supervisor, Toilet Cleaning Supervisor and Facilities vans and are also included in Scenario 1.
18. There are some other projects which may happen in this period however, due to uncertainties or insufficient data on the carbon savings achieved, it has not been possible to include these in Scenario 1. Examples include the expected purchase of an electric food waste truck and the impacts of some CIL funded capital projects.
19. Modelling the Scenario 1 changes above, together with reductions already achieved by March 2023, gives an estimated emissions reduction of 19 per cent from the Climate Action Plan baseline of 2019/20 by 2025.

Figure 3¹ – Carbon emissions trajectory, Scenario 1.



Scenario 2 – Potential Projects

20. Scenario 2 includes potential leisure projects where initial preparatory work has been completed but funding and resources to deliver the projects have yet to be confirmed. Where external funding sources that are likely to help cover the costs of the projects

¹ The emissions in the Glidepath trajectories do not exactly match the published emissions in the council's Greenhouse Gas reports due to the limitations of the prototype tool. The Glidepath tool does not include some indirect Scope 3 emissions from minor sources such as electricity grid transmission losses and therefore has a lower total figure. These inconsistencies can be addressed in future iterations of the Glidepath tool.

such as the Public Sector Decarbonisation Scheme (PSDS) have been identified, these have been specified. The projects are listed in table 2 below:

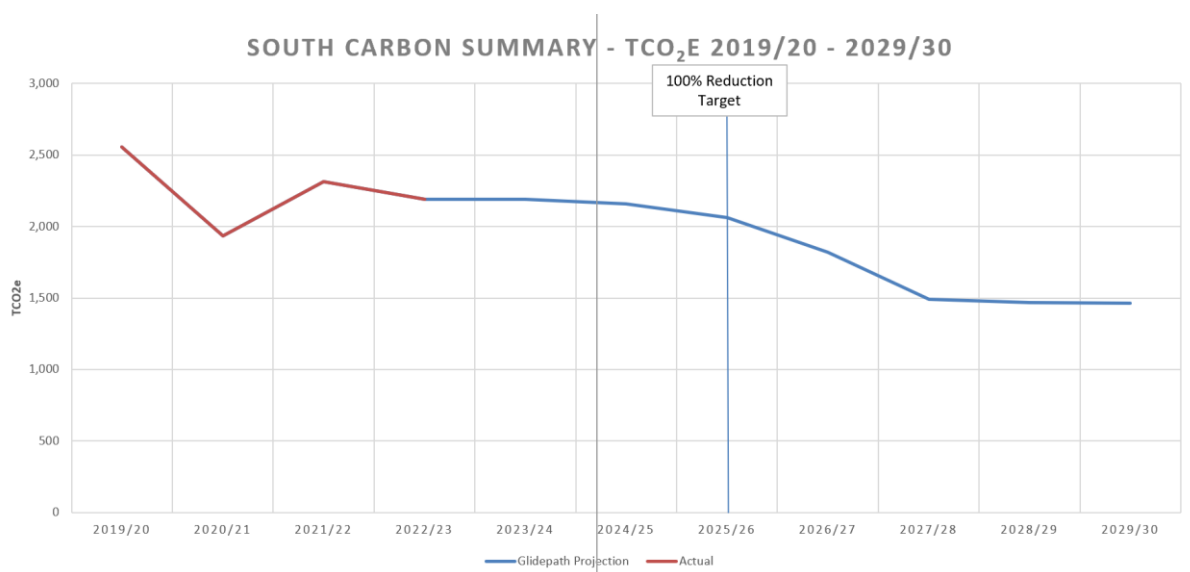
Table 2

Project	Potential for part funding from external funding sources	Estimated capital cost £m	Carbon savings TCO ₂ e
Decarbonisation of: Didcot Wave Park Sports Centre	PSDS3c bid funding approved Spring 2024	£1.28 £1.80	170.6 51.9
Decarbonisation of: Abbey Sports Centre Henley Leisure Centre	Likely PSDS bid in 2024.	£1.55 £1.89	79.7 165.9
Decarbonisation of: Thame Leisure Centre Didcot Leisure Centre Riverside Pool	To be confirmed. Swimming pool support fund (Thame only).	£0.88 £1.28 £0.29	239 21 14.5

21. Successful applications to the Public Sector Decarbonisation Scheme (PSDS) and other funding sources would allow us to install low energy heat pumps, solar power and energy saving technologies at further sites as set out in the table above. This report was written prior to recent announcements about PSDS3c so some of this funding has now been secured. Future PSDS funding remains uncertain due to likely changes in funding criteria.

22. These changes show a cumulative estimated emissions reduction by 2027 of 42 per cent from the Climate Action Plan baseline of 2019/20.

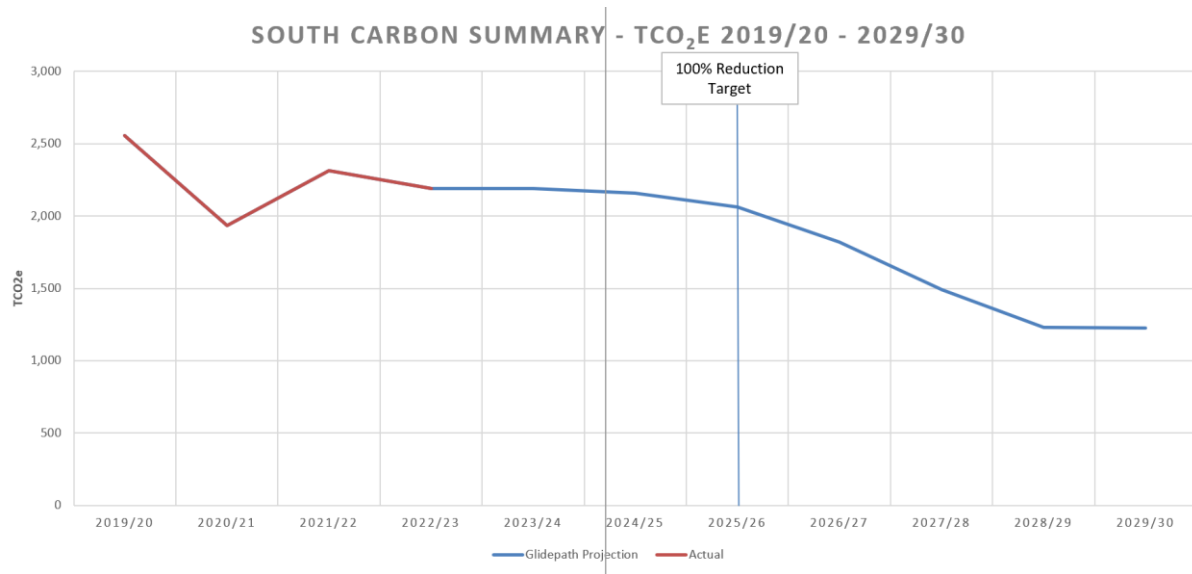
Figure 4 – Carbon emissions trajectory Scenario 2



Scenario 3 – Offsetting – Renewable energy

23. The Climate Action Plan Action L3 called for the preparation of a business case for the development of a renewable energy project such as a solar farm. Investment in a 2MW solar farm would allow the council to offset its own electricity use. Initial work on this action is underway with potential options being considered.
24. The initial findings indicate that land owned by South Oxfordshire is unlikely to be cost effective for the development of a solar farm. Further work is ongoing to investigate alternative options to allow this project to proceed, such as a joint venture with a neighbouring council.
25. As a generator of electricity, the council would need to apply for Renewable Energy Guarantee of Origin (REGO) certificates to show the renewable content of the electricity we have supplied (one certificate is issued per MWh of eligible renewable output). As we intend to use the renewable energy generated to offset our own carbon emissions, the REGO certificates must be retired on the Renewables and CHP Register to prevent the associated zero emissions also being claimed by the national grid and therefore double counted.
26. The cost of a 2MW solar farm, including options with/without battery storage, is estimated at £1.4m/£2.6m, based on standard industry costs, this excludes any costs associated with the acquisition of a site.
27. The completion of Scenario 3 would result in a cumulative estimated emissions reduction of 52 per cent from the Climate Action Plan baseline of 2019/20.

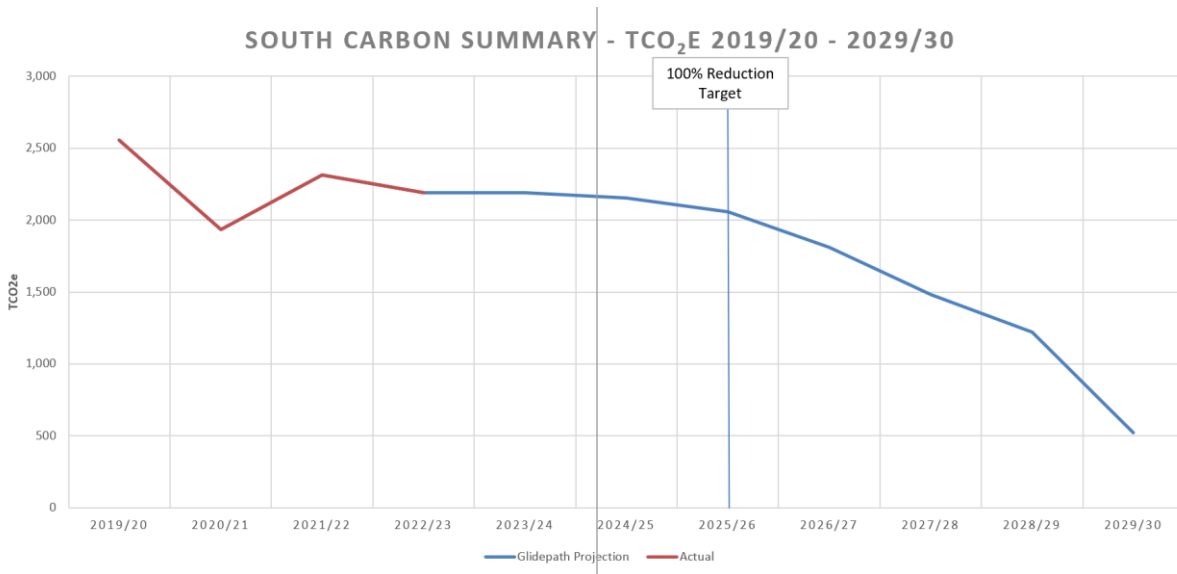
Figure 5 – Carbon emissions trajectory Scenario 3



Scenario 4 – Transition to a low/no carbon fleet

- 28. The Waste Collection and Street Cleansing Vehicle Strategy sets out the options for how the waste vehicle fleet is replaced over the next period. The ultimate decision about which vehicles are procured and when will be taken by Cabinet, and a transition to a low carbon fleet has yet to be fully costed as the current capital programme is based upon like for like replacements. What is certain however, is that the type of vehicles that are procured and when will be a significant determining factor in how quickly the council can meet its net zero target.
- 29. For the purposes of presenting a scenario in this report it is assumed that there will be a staggered introduction of low carbon vehicles over the next six years with the aim that 80 per cent of vehicles will be replaced with low carbon alternatives by 2030. This scenario is subject to the successful completion of trials to demonstrate suitability of EVs for the council’s rural routes. Diesel vehicles purchased recently by the council to replace end of life stock are expected to still be in operation in 2030 making a full transition to a zero-carbon fleet unlikely.
- 30. There are 98 vehicles in the waste fleet of which 59 are 26 tonne refuse collection vehicles (RCVs) which are shared with Vale of White Horse. The remainder are a range of smaller vehicles, sweepers and tippers.
- 31. This scenario also includes the transition to a low carbon grounds maintenance fleet by 2030.
- 32. The completion of Scenario 4 would result in a cumulative estimated emissions reduction of 80 per cent from the Climate Action Plan baseline of 2019/20.

Figure 6 - Carbon emissions trajectory Scenario 4



The impacts on the 2025 net zero target

- 33. The above four scenarios track the path of emissions reductions from our most significant carbon emitting services and the impacts of investing in a renewable energy project such as a solar farm. In addition to these reductions there are many minor reductions which will be achieved but which are less easy to quantify in the Glidepath tool.
- 34. It is clear from the above that it will not be possible to meet a 2025 net zero target given current progress on decarbonisation. The modelling used in the above scenarios has been relatively ‘optimistic’ about the potential progress of the projects and has necessarily had to make assumptions about expected carbon savings, project delivery timescales and costs. Where possible, and data is available, real data has been used. Inevitably this will need to be refined as the individual projects are developed.
- 35. Even if all these projects are completed in 2029/30 the council will still be a net emitter of carbon. These ‘residual’ emissions include for example staff and councillor mileage, where they are using their own vehicles. This is likely to be difficult to reduce further in the short term.
- 36. Residual emissions can be offset by purchasing carbon credits on the open market. The cost of carbon credits in 2025 is currently estimated as £45 per tonne of carbon. Carbon credits can be purchased in advance for a specific future year. The cost of carbon credits is expected to increase significantly over time. There are some complexities with the use of carbon credits which are explored further in paragraphs 41 to 42 below. The use of carbon credits now is not recommended but they could be considered in future years.
- 37. The current Glidepath projection included in scenario 4 would require the council to purchase between £23k - £30k (at current prices) of carbon credits each year from 2029/30 to offset its residual emissions. The range of values quoted is due to variability in the emissions year on year caused by external factors such as weather.

Can we still meet the 2025 net zero target?

38. The scenarios presented above are for illustrative purposes to test the fastest rate that it is likely that the council could reach its net zero target. Whilst it may be possible to accelerate our progress in some areas, it is not possible to increase the pace of change for the most significant projects (leisure, waste and the solar farm) to meet a 2025 target, nor does the council have the financial resources to invest in accelerating progress.
39. It is possible to meet the 2025 target if the council were to offset its emissions from 2025 onwards by purchasing carbon credits. Whilst carbon credits would have to be purchased every year for the council to remain net zero, the number of credits purchased each year would reduce as the projects set out in the above scenarios are delivered. It must be noted that the council has made no budgetary provision for purchasing carbon credits.
40. According to the projections set out above, the cost of carbon credits to become net zero in 2025 is currently estimated at around £100,000 and would reduce each year until 2030, after which the council would only be offsetting its unavoidable residual emissions. The purchase of carbon credits at the current time is not recommended for the reasons set out below.
41. There are currently two options for buying carbon credits. The first is to go to the open market and purchase credits from overseas projects which are readily available. These projects rely on investments in various environmental projects which deliver carbon reductions, including afforestation, hydroelectric schemes, and wind power. Despite various international verification schemes there is a body of evidence suggesting that these schemes may exaggerate some of their climate benefits and underestimate potential harms. As a result of this difficulty in verification and ongoing negative press around poor traceability and greenwashing this option is not recommended at present.
42. The second option is to purchase verified carbon credits from UK sources, which focus on carbon removals through afforestation or peatland restoration. However, the size of the market here is currently limited due to the availability of suitable projects. The demand for offsetting is growing as individuals, businesses, and organisations such as the council strive to offset their carbon emissions. This growth in demand is driving an increase in supply and it is likely that as the market matures both the availability and price of carbon credits will stabilise.

Alternatives to the existing carbon offset markets

43. Work is underway within Oxfordshire to develop new local carbon markets. Local markets have the benefit of delivering the carbon credits that organisations, such as the council, need to achieve net zero whilst also capturing the benefits of delivering the offsets within the county. The Local Nature Partnership is co-ordinating efforts to develop a nature-based carbon offset market that will help deliver new wildlife habitats within the county. This has the added benefit of delivering against our work to tackle both the climate and ecological emergencies.
44. In addition, work is underway to investigate the potential for carbon-insetting. The insetting model involves direct investment in retrofitting of homes locally, for example,

social housing or homes in priority neighbourhoods, and then marketing and selling the carbon savings realised as carbon credits.

The council could also offset residual carbon emissions through creating its own woodland however, with limited options to use existing council estate for large scale tree planting, land would need to be purchased.

45. The above approaches have the obvious advantages of delivering benefits locally whilst delivering against several of our key targets however, all are at a very early stage of development and are unlikely to be part of a short-term solution to achieving net zero.

Options

46. CEEAC could recommend that Cabinet chooses not to change the current target, which is to become a carbon neutral council by 2025.
47. CEEAC could recommend that Cabinet opts to amend the target for achieving net zero to 2030 in line with the recommendation of this report.
48. CEEAC could recommend that Cabinet chooses to set a target date later than 2030.

Financial Implications

49. The projects included in the four scenarios presented in this report are a mixture of a small number where some, or all of the funding has been secured, and those (the majority) that are currently un-funded and are not included in the council's MTFP. The assumptions are designed to test the rate at which the council can de-carbonise its main emission sources if it were able to commit to these projects.
50. The council made successful applications to the Public Sector Decarbonisation Scheme (PSDS) in 2022 and 2023 that will provide a significant contribution to the costs of decarbonising some of the leisure centres and Cornerstone Arts Centre. The council currently relies heavily on external funding to reduce emissions from our buildings however, the future of the PSDS scheme is uncertain.
51. There are other sources of external funding or borrowing options that may be available to the council that could help to pay for decarbonisation works and reduce the reliance on the council's capital reserves. Initial investigations suggest that the council could consider loans from the Public Works Loan Board or UK Infrastructure bank which may be available for projects that meet the council's strategic objectives, subject to affordability.
52. Indicative funding requirements for key decarbonisation projects have been estimated as follows:

Leisure centre decarbonisation £8.9m (part of this has now been secured through PSDS3c)

Purchase 50 percent share of an electric waste fleet £19.5m

Develop solar farm (with or without battery storage) £1.4m - £2.6m

Legal Implications

53. No legal implications are anticipated as result of this report.

Climate and ecological impact implications

54. The climate implications of this work are contained within the body of the report.

Equalities implications

55. An Equality Impact Screening Assessment has been completed and there are no implications identified.

Risks

56. The following significant risks have been identified:

- The availability of council funding
- The future of the PSDS funding scheme beyond 2024 is uncertain. The criteria for allocating funding can be complex and subject to change.
- The solar farm project may only be able to proceed if it is possible to agree a form of joint venture with a neighbouring authority or land in the local area is identified for purchase or lease. In addition, a solar farm project would be subject to the successful grant of planning permission and securing a grid connection with the Distribution Network Operator.
- The council may not be able to recruit experienced staff with the necessary skills to deliver decarbonisation projects.
- Electric waste vehicles may not come on the market with the range suitable for the routes in our rural district, and the high purchase costs could remain a barrier.
- The council's baseline emissions are likely to increase over time as a result of; the purchase of new properties for housing refugees, investment in new leisure facilities, additional costs for waste collection due to new housing developments, the potential addition of working from home emissions into future baselines and a review of Scope three emissions reporting.
- The cost of carbon credits is expected to increase significantly over time which will increase the cost of offsetting residual emissions.

Conclusion

57. The council has made significant progress in reducing carbon emissions by 50 per cent since 2009/10 and much of this is due to the way our staff have collectively met the challenge of tackling climate change, by embracing innovative and new technologies and making a myriad of small changes and adaptations which collectively add up. Despite this however, we must recognise that events like the covid pandemic had a significant impact on our ability to meet our targets, central government progress and

support stalled, staff from across the public sector were mobilised to fight the pandemic which significantly impacted our ability to deliver carbon savings and meant a complete cessation of funding streams that would have enabled us to deliver change faster.

58. It would be possible to meet the 2025 net zero carbon target only by purchasing carbon credits (in addition to completing current committed projects included in Scenario 1) at an estimated cost of £100,000 in 2025. Thereafter, the annual cost of carbon credits would reduce provided planned projects are delivered. There are significant financial and reputational risks associated with reliance on this approach and it is not recommended.
59. Accelerating projects within our influence could reduce emissions from the 2019/20 baseline by 80 per cent, and these are included in scenarios 2-4. Assumptions and estimates to arrive at these conclusions are listed in Appendix 1.
60. An accelerated programme could potentially deliver a net zero council, with some use of carbon credits, by 2029/30. However, this is still based on some optimistic assumptions and there remain risks with revising a target to 2030.
61. A 2030 target has a number of potential benefits which would enable a smoother and potentially more cost-effective transition to net zero, these are likely to come as a result of:
 - a. Technological advances should enable the fledgeling market for battery operated vehicles such as waste trucks and grounds maintenance vehicles and associated kit to develop to the extent that they become realistic and affordable options for the council.
 - b. The carbon offset markets should expand and hopefully provide more options for local offsetting of the council's residual emissions. A well-designed local offsetting market has the potential to deliver multiple benefits such as flood prevention, nature recovery and sustainable farming systems, as well as allowing carbon offset money to be spent locally.

APPENDIX 1 - LIST OF ASSUMPTIONS

1	Carbon factors	Carbon factors reduce for the next five years, due to an increase in renewable grid electricity, in line with the average variance over the previous five years, afterwards level out
2	PSDS	PSDS projects have a two-year delivery timescale from funding award, year 1 project design, permissions and contractual arrangements, year 2 deliver out of heating season
3	Solar farm	Timescale for project delivery three to four years, estimated commissioning date 2028/29
4	Leisure centre decarbonisation	Carbon savings from proposed low carbon heating, energy efficiency measures and renewable energy, and outline costs, in site decarbonisation reports – Concept Energy 2023.
5	Waste fleet	<p>For illustrative purposes it is assumed that the cost of an electric 26 tonne RCV £430,000 and the average cost for remaining smaller vehicles and sweepers estimated is £350,000. The cost is then divided equally between South and Vale.</p> <p>Assume 70 per cent reduction in emissions when changing diesel vehicle to EV. Emission reductions may be greater if using alternative fuels such as Hydrogenated Vegetable Oil.</p> <p>For the purposes of modelling, we have included an assumption that 80 per cent of vehicles transition to low carbon by 2029/30 with a staggered introduction over the next 6 years.</p>
6	Grounds maintenance	<p>Electric alternatives are currently not available for vehicles that tow. No project plan is currently available for the new GM depot. For the purposes of modelling, we have assumed all GM vehicles transition to EV in 2029/30</p> <p>Assume 70 per cent reduction in emissions when changing diesel vehicle to EV.</p>
7	Public conveniences and facilities	<p>Mileage data of existing users is used to calculate current carbon emissions.</p> <p>Assume 70 per cent reduction in emissions when changing diesel vehicle to EV.</p>
8	Didcot Gateway	<p>Assume 93% reduction in emissions compared to baseline council offices at Milton Park – based on modelled data. In line with government guidance, we report operational emissions and do not include embodied carbon.</p> <p>Assume no energy use for council operations in Abbey House from 2026</p>

9	Carbon credits	Price of £45 based on Woodland Credits, estimated price of Pending Assurance Units (PAU). Very few projects were planted and registered long enough ago to be yielding Carbon Units now i.e. around 15 years ago, as trees sequester significant amounts of carbon between Year 15 and Year 65 of planting. PAUs are the 'promise' of Carbon Units in the future once the trees have grown. Price taken from the upper end of the estimate as likely high inflation in coming years.
10	Retrofit-based offsetting	Our research shows that some UK local authorities (such as Reading Borough Council and Bristol City Council) are requiring developers to pay an offsetting fee if new build housing does not meet their net-zero standards. Others (such as Camden Council) have established optional offsetting schemes for local businesses to purchase carbon credits through. Such schemes set a precedent for a retrofit-based scheme to offset council emissions.

Climate and Ecological Emergency Advisory Committee



Listening Learning Leading

Author: Dominic Lamb/Jessie Fieth

Email: jessie.fieth@southoxfordshire.gov.uk

Date: 22 July 2024

Review of the District net-zero carbon target

Recommendation(s)

(a) That CEEAC formally recognises that the aspirational target of being a net zero carbon district by 2030 cannot be met.

(b) That CEEAC recommends that Cabinet commits to a new but still ambitious target of 2045 for reaching net zero carbon for the district.

Purpose of briefing paper

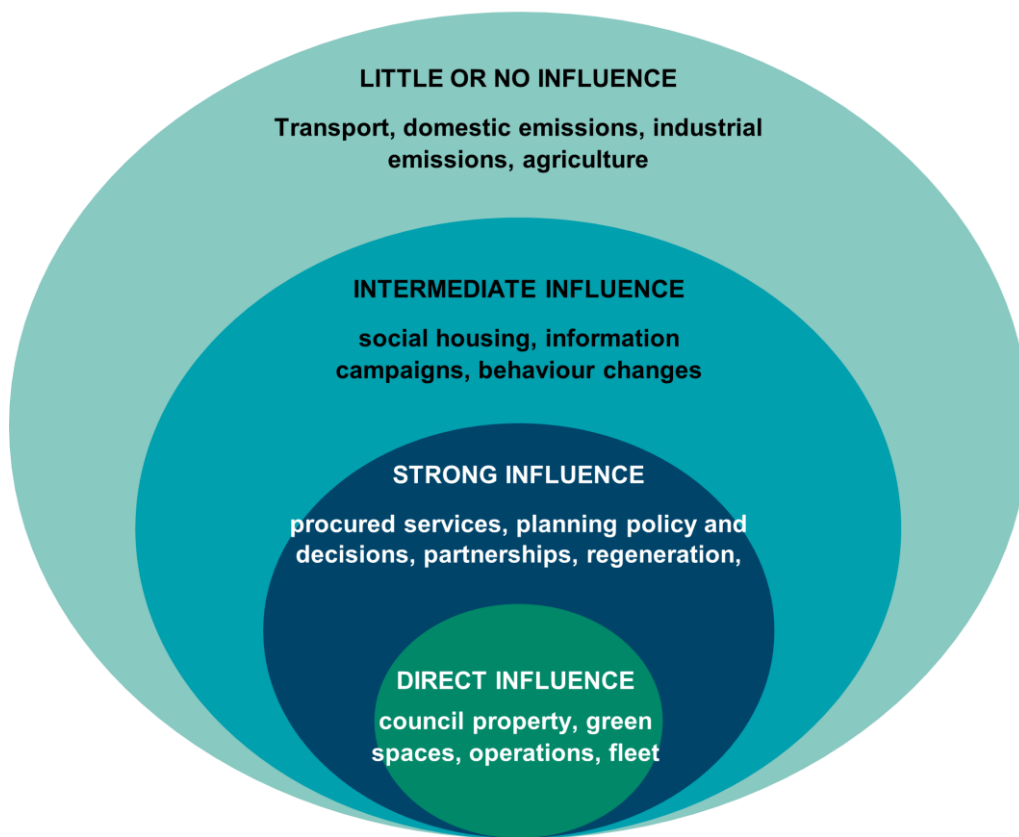
1. This paper reviews the progress towards meeting South Oxfordshire's target to be a net-zero carbon district by 2030. It presents the latest data (2021) on emissions in South Oxfordshire published by the Department for Energy Security and Net Zero in July 2023.
2. This paper sets out the progress that has been made towards the district-wide net-zero carbon target and recognises that the aspirational 2030 date will not be achieved. The paper recommends that South Oxfordshire should set a new target to be a net-zero carbon district by 2045.

Background

3. In 2019, South Oxfordshire declared a Climate Emergency. The Climate Emergency Advisory Committee recommended that South Oxfordshire should become a carbon neutral district by 2030. This target was endorsed by Full Council on 10 October 2019. This target is amongst the most ambitious in the country. The Oxfordshire-wide target is 2050.

4. South Oxfordshire District Council is well placed to influence emissions reduction in the district, but the majority of emissions are not within our direct control (see Figure 1). Some of the actions in the council’s Climate Action Plan 2022-2024 do start to address district-wide emissions but it predominantly focuses on the council’s own emissions. Our activity to reduce district-wide emissions is focused on working in partnership with our neighbouring councils. This collaborative approach is set out in the [Oxfordshire Net Zero Routemap and Action Plan](#), which was endorsed by the Future Oxfordshire Partnership in March 2023. This sets out a pathway for the county to achieve net zero by 2050 (the Oxfordshire-wide target) and 14 actions to reduce the county’s emissions were set through an extensive consultation process and were chosen as the actions which would be most effectively delivered through joint working across the county.

FIGURE 1 – the district council’s sphere of influence

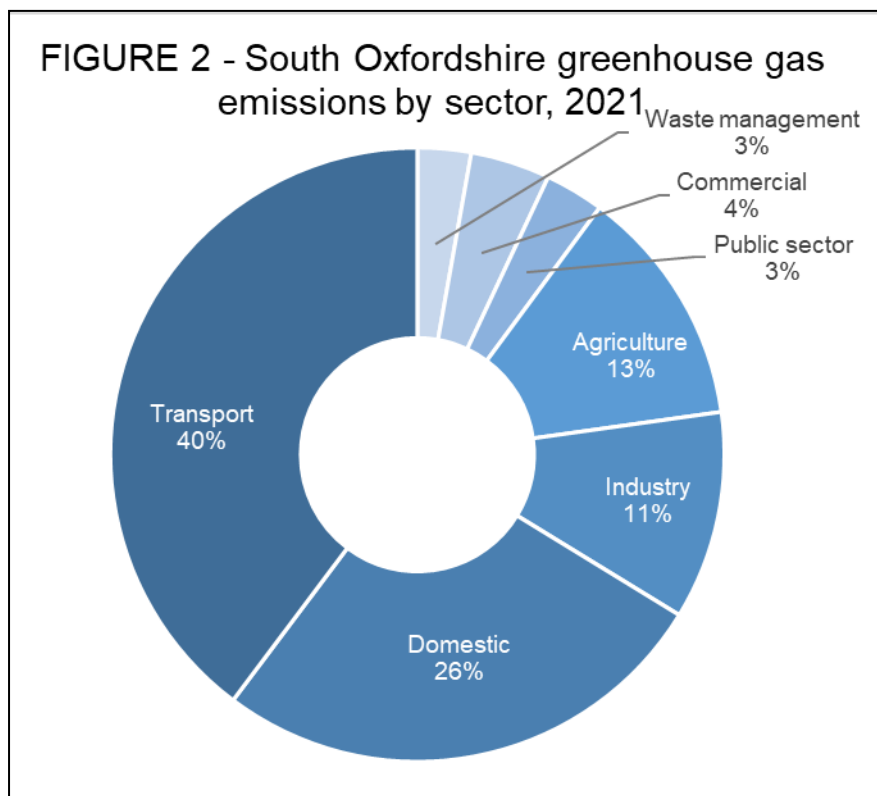


5. Recent policy changes by national government will make reaching the district net zero by 2030 target more challenging, for example:
- phase out of gas boilers now aiming for 80% phase out rather than complete phase out by 2035
 - ban on off-grid oil boilers delayed to 2035, again with an 80% phase out target by that date
 - ban on sale of new cars with combustion engines moved from 2030 to 2035.

- The data presented in this report is for the 2021 calendar year, which was published by the Department for Energy Security and Net Zero in 2023. Despite this 18-month time-lag, this is the most accurate and up-to-date readily available data and is what all local authorities who reported their area-wide emissions use.

What progress have we made so far?

- The latest greenhouse gas emissions data published by the Department for Energy Security and Net Zero¹ shows that 872.2 ktCO₂e were emitted from sources in South Oxfordshire during 2021², equivalent to 5.81 tCO₂e per person. This emissions per person is above the average across England (5.5 tCO₂e) and the southeast region (4.7 tCO₂e). A breakdown of emissions by broad sector is provided in Figure 2.

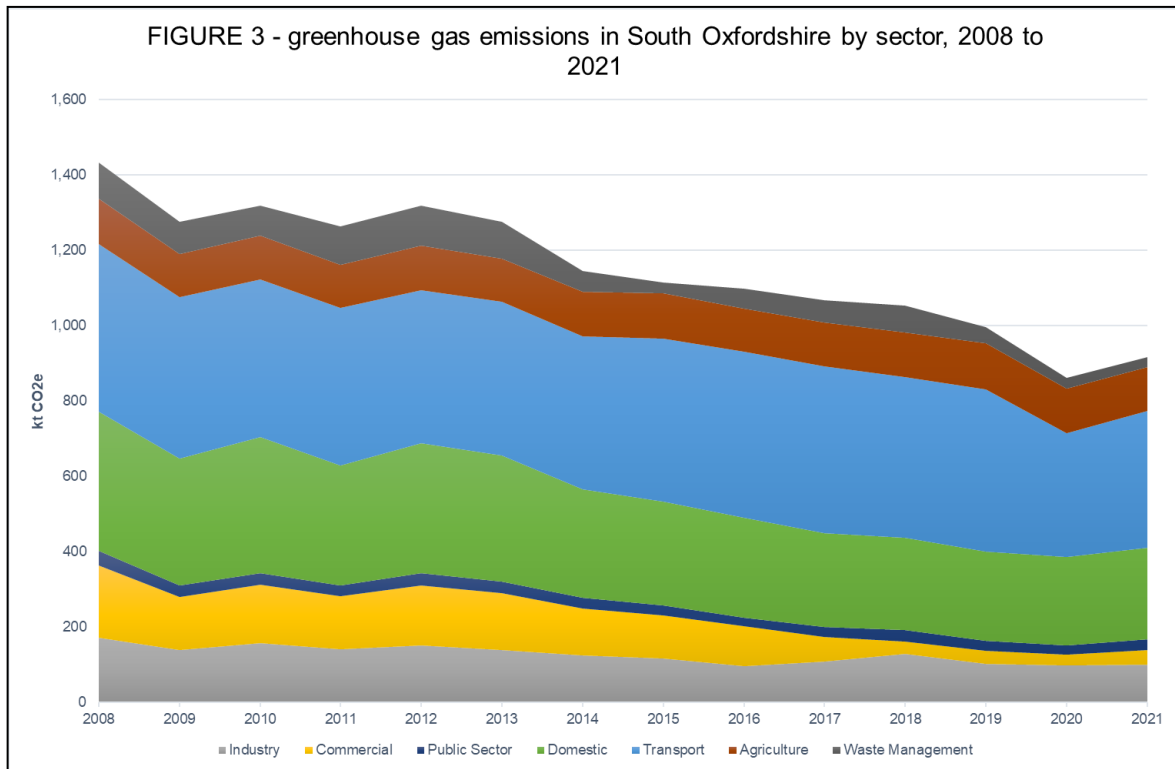


- Total emissions in 2021 were 7% higher than in 2020 (872.2 ktCO₂e compared with 817.2 ktCO₂e in 2020), although 8% lower than in 2019 (Figure 2). The figure for 2020 was clearly hugely influenced by the disruption caused by the pandemic and it is highly likely that the 2021 data reported here is similarly distorted. Total emissions in South Oxfordshire fell by more than one third (37%) between the 2008 baseline year³ and 2021 (see Figure 3).

¹ All data and figures in this report are sourced from the [UK local authority and regional greenhouse gas emissions national statistics, 2005 to 2021 \(published July 2023\)](#) unless otherwise stated

² Due to a lag in reporting, 2021 is the most recently published dataset.

³ The Oxfordshire Energy Strategy set the objective to halve emissions by 2030 from 2008 levels. 2008 is therefore used as the baseline year here.



9. Through the Oxfordshire Net Zero Route Map and Action Plan work, a five-yearly countywide carbon budget⁴ for the Oxfordshire-wide 2050 target was set. This indicated that an annual average reduction in carbon emissions of 9% is needed between 2021 and 2025 to stay within the 5 year cumulative budget. The actual progress made between 2019 and 2021 was roughly only half of what was needed (and that includes the additional savings in the pandemic).

10. Although progress is being made, the South Oxfordshire target to be a net-zero carbon district by 2030 is not going to be reached. The council is limited in our ability to meet the target as a large proportion of district-wide emissions are outside of our influence.

11. However, the council is committed to accelerating and supporting progress across the district and has invested significantly in building up our in-house capacity through the expansion of the climate and biodiversity team. Working collaboratively with the other Oxfordshire authorities will maximise the impact of the council’s activities to reduce district-wide emissions as officer resources, expertise and funding can be pooled, particularly for areas like transport which are outside of the district council’s direct sphere of influence. Work has started on five of the Oxfordshire Net Zero Route Map and Action Plan actions which were identified as immediate priorities, which officers are closely involved in:

- Buildings decarbonisation
- Net Zero Local Area Energy Planning
- Electric Vehicle Infrastructure
- Land-based carbon sequestration
- Green Finance

⁴ Carbon budgets are the maximum quantity of cumulative emissions which can be emitted within the five-year period that will not exceed the projected pathway.

Options

12. CEAC could recommend that Cabinet chooses to retain the current target, which is for South Oxfordshire to be a carbon neutral district by 2030.
13. CEAC could recommend that Cabinet chooses to amend the target to be carbon neutral by 2045. This is the recommendation of this report.
14. CEAC could recommend that Cabinet chooses to align with the national target to be carbon neutral by 2050.

Climate and ecological impact implications

15. The climate implications of this work are contained within the body of the report.

Financial Implications

16. No financial implications are anticipated as result of this report.

Legal Implications

17. No legal implications are anticipated as result of this report.

Procurement Implications

18. No procurement implications are anticipated as a result of this report.

Equalities Implications

19. There are no equalities implications arising from this report.

Conclusions and recommendations

20. Although progress is being made, the council does not have control of a large proportion of district-wide emissions which significantly restricts our ability to meet the 2030 target. With the publication of a new Corporate Plan later this year, there is an opportunity now to review and re-set the target to a more realistic, yet still ambitious, date.
21. This paper recommends that South Oxfordshire adopts the target of being a net-zero carbon district by 2045, bringing it into line with the Vale of White Horse District Council target. This still reflects an ambition to move faster than the UK 2050 target but offers a more realistic date to work towards. There will be no slowing down of our efforts to reduce district-wide carbon emissions.
22. Much of the council's current work in this area is being carried out in partnership with the other Oxfordshire authorities. The Oxfordshire-wide partnership target for reaching net zero is 2050 which is based on the 'Oxfordshire leading the way' pathway set out in the Pathways to a zero carbon Oxfordshire report. The best course of action is to fully commit to, and accelerate where possible, the

collective efforts to achieve the pathways as set out in the Net Zero Routemap and Action Plan.

23. Going forward the district-wide carbon emissions will be reported on an annual basis.

