Report of the Carbon Reduction Targets Working Group – Commissioned by the Place Overview & Scrutiny Committee

CONCLUSIONS

The Carbon Reduction Targets Working Group concludes that —

1. The council is effectively measuring much of its carbon emissions.

2. The council is welcomely leading the way by developing robust plans to reduce its own emissions. Nevertheless, the council's carbon emissions account for only 0.22% of Oxfordshire's emissions and the council's commitment to developing countywide decarbonisation route map informed by the Pathways to a Zero Carbon Oxfordshire Report is highly important.

3. The council has developed robust plans to reduce its carbon emissions and is already making good progress against them.

4. The council has developed a clear and insightful dashboard for close monitoring of its carbon emissions and performance against its targets.

RECOMMENDATIONS

The Cabinet is RECOMMENDED to implement the following recommendations:

1. The council continue to work to understand and quantify its emissions, particularly supply chain emissions.

2. The council continue to provide leadership through its focus on reducing its own carbon emissions, develop a route map to a zero-carbon Oxfordshire and engage other organisations and the public in respect of why they should, and how they can, reduce their emissions, including by sharing the learning generated by the council's decarbonisation initiatives.

3. The council continue to educate staff and service providers on the importance of carbon and emissions accountability and seek improvements and feedback to improve, accelerate and engage staff wherever possible.

4. The council closely monitor the financial saving generated by initiatives which reduce energy use and carbon emissions; and such financial savings be reinvested in further such initiatives.

5. The council report publicly on its carbon emissions and progress against its carbon targets at least quarterly so that the public can hold decision-makers to account.

6. The carbon emissions of maintained schools and the council's supply chain be included in the dashboard once reliable data are available.

7. The council continue to drive reductions in the carbon emissions of maintained schools and academies in Oxfordshire.

Executive Summary

1. The Carbon Reduction Targets Working Group was established by the Place Overview & Scrutiny Committee to review the council's targets in relation to reducing its carbon emissions, and related initiatives. It discharged its terms of reference by considering written reports and oral evidence.

2. The Working Group welcomes the council's ambitious target for its buildings and operations to be carbon neutral by 2030. The council is effectively measuring much of its emissions, although there remain areas where more work is needed. While only responsible for 0.22 per cent of Oxfordshire's carbon emissions, the council is providing leadership by getting its own house in order whilst also working to develop a pathway to decarbonising the county as whole. The council is also using its position as a local education system leader to support schools, including academies, to decarbonise their operations.

3. Overall, the Working Group was assured of, and supports, the council's plans and progress.

The Working Group's Inquiry

4. On 24 November 2021, the Place Overview and Scrutiny Committee established this Working Group to review the council's carbon reduction targets for its estates and operations, and related initiatives, in the context of the council's strategic priority to *put action to address the climate emergency at the heart of [its] work.*[1]

5. The 'council's carbon emissions' are defined herein as those generated by its buildings and operations and excludes the emissions of maintained schools, which are operationally independent of the council and not included in its net zero by 2030 commitment. The council's carbon emissions are referred to variously as the 'council's own emissions', the 'council's emissions' and 'its emissions' herein.

6. The following Members were appointed by the Committee to the Working Group:
   - Councillor Yvonne Constance (Chair)
   - Councillor Sally Povolotsky (Deputy Chair)
   - Councillor Charlie Hicks

7. The Working Group met twice: 3 March and 27 April 2022. At its first meeting, the Working Group elected Cllr Constance as its Chair and Cllr Povolotsky as its Deputy Chair and agreed a project plan. At its second meeting, the Working Group reviewed a draft of the council's draft Carbon Management Plan 2022-25[2]

[1] Oxfordshire County Council, 'Strategic Plan 2022 – 2025'
[2] Appendix 2

and draft Climate Dashboard[3] and the initiatives in place to support schools with carbon reduction[4] and heard oral evidence from the following council officers:

- Rachel Wileman, Assistant Director – Strategic Infrastructure and Planning
- Vic Kurzeja, Director of Joint Property Services
- Anthony Hulsman, Group Manager – Traffic and Road Safety
- Kunal Prasad, Climate Action Delivery Manager
- Sandra Fisher-Martins, Programme Manager – Climate Action
- Tom Layzell, Climate Action Policy Officer

The Council's Climate Commitments

8. In April 2019, Oxfordshire County Council declared a climate emergency and pledged to be carbon neutral by 2030 for its own operations and estate, excluding maintained schools. In October 2020, the Cabinet adopted a Climate Action Framework.[5]

9. The first strategic priority in the council's Strategic Plan 2022-2025 is,

   '*put action to address the climate emergency at the heart of work.'*

10. The priority is followed by the commitment that the council,

    'will lead by example, setting ambitious targets to reduce our own carbon emissions and aligning our carbon net zero commitments to the principles of the Climate and Ecology Bill. Our environmental and planning ambitions will prioritise climate action and community resilience.'

11. There are seven areas of focus underpinning the strategic priority, which may be summarised as:

    - Working with partners to implement a comprehensive plan for decarbonising Oxfordshire.

    - Working to bring the council's own buildings and operations to net zero by 2030, introducing science-based emissions reduction targets for the council's major suppliers and supporting the retrofit of homes to improve energy efficiency.

    - Accelerating work on supporting biodiversity and nature recovery while adapting to and considering the impacts of climate change, including extreme weather and supply chain disruption.

    - Supporting community and business activity to cut carbon emissions and accelerate a shift to a resilient and locally focused zero carbon economy.

[3] Appendix 3
[4] Appendix 4
[5] Agenda for Cabinet on Tuesday, 13 October 2020, 2.00 pm (oxfordshire.gov.uk)

- Supporting and promoting a shift towards active travel, reducing the need for private cars and accelerating the transition to electric vehicles by expanding charging capacity across Oxfordshire.

- Accelerating and sustaining the benefits of Project Local Energy Oxfordshire, which is running trials to build a greener, more resilient, fairer renewable energy network.

- Accelerating the council's LED street lighting replacement programme and further reducing the energy, visual and environmental impacts of street lighting.

The Council's Carbon Emissions and Management Plan

12. Between 2010/11 and 2020/21, the council's emissions from its operations and estate have decreased by 60 per cent. However, there issues with the council's data, which it is seeking to address. The council has achieved such reductions through the following initiatives:

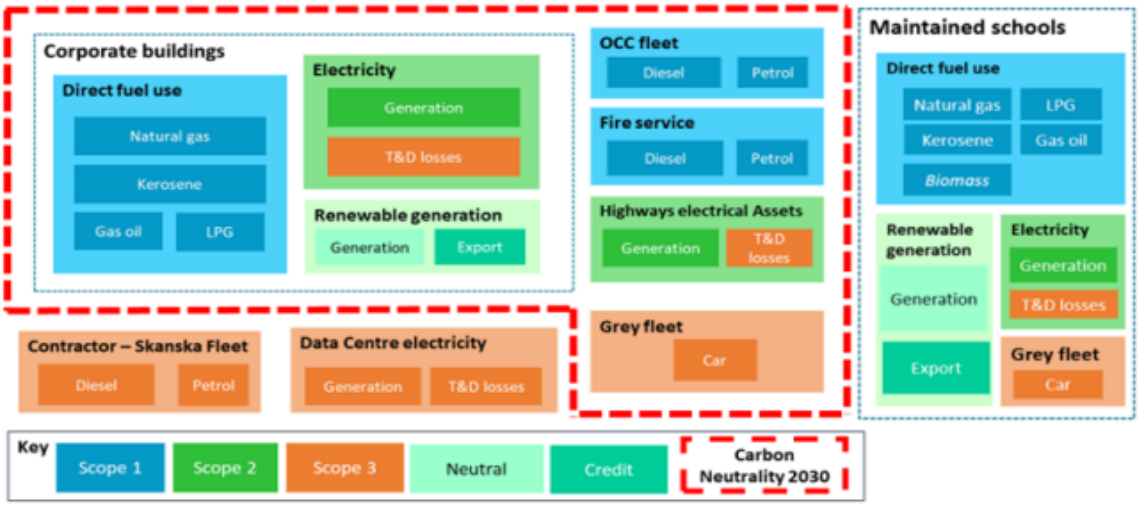
    - *38 per cent of street lighting replaced with LEDs*
    - *£2.1m for heat decarbonisation and energy efficiency measures at 7 corporate buildings and 4 schools funded by Public Sector Decarbonisation Scheme*
    - *23 electric vehicles and 44 charge points on council sites*
    - *Virtual meetings and agile working policies*
    - *Benson Library off the gas grid with solar panels, battery storage and heat pump*
    - *42 solar panels at Ron Groves House in Kidlington*
    - *LED and Building Management System upgrades in corporate buildings*[6]

13. The council categorises its emissions as follows,

    Scope 1: direct emissions from fuel used on the council's estate and fleet.
    Scope 2: indirect emissions from purchased electricity.
    Scope 3: indirect emissions from staff travel and electricity distribution.

[6] Appendix 2

Image 1: The council's carbon emissions within the scope of its 2030 net zero target[7]



14. It was reported that, when excluding maintained schools, the council's largest areas of carbon emissions are street lighting (33%), property heat (20%), property electricity (14%), followed by fleet (8%) and staff miles (3%). However, while acknowledging the importance of supply-chain emissions – which typically contribute 80 per cent of a local authority's carbon footprint – due to a lack of available date, the council only reports a limited subset of its Scope 3 emissions.

    Consequently, [the council] has committed to consider the climate and carbon implications of our key investment decisions and working with suppliers to reduce the emissions associated with the delivery of council contracts.

    [… we] will expand our capacity to develop a comprehensive view of the council's supply chain emissions. We will work collaboratively with the supplier base to design and implement measures to inform, support and encourage suppliers to deliver contracts that are increasingly aligned with science-based targets on net-zero emissions.

    ***Conclusion 1:** The council is effectively measuring much of its carbon emissions.*

    ***Recommendation 1:** The council continue to work to understand and quantify its emissions, particularly supply chain emissions.*

Carbon Management Plan 2022-25

15. The Carbon Management 2022-25 (Appendix 2) sets out the council's approach to reducing its carbon emissions from its buildings, highways assets, fleet and staff business travel; maintained schools are again out of scope. It contains direct actions that generate measurable emissions reductions – e.g. replacing lighting with LEDs – and enabling actions that create the conditions for further reductions – e.g. introducing a fleet management system. Progress is to be monitored monthly and reported to the Climate Action Programme Board (quarterly), the

[7] Greenhouse Gas Report 2020 - 2021

Senior Leadership Team and Members (quarterly via the Corporate Performance Report) and Cabinet (annually).

16. The following conditions must be met to ensure delivery of the longer-term actions in the Plan and a pathway towards net zero by 2030:

    a. *Identifying a way to continue decarbonising our estate in the face of changing service needs for assets – the Agile Working Strategy (currently under development) will address this issue*

    b. *Implementing One Fleet, integrated asset management system for fleet – estimated to be in place by March 2023*

    c. *Implementing an integrated energy management system for buildings*

    d. *Identifying the measures and investment required to decarbonise the estate; determining which offer a viable invest-to-save payback and which require external funding*

    e. *Estimating the investment required to decarbonise the fleet*

    f. *Securing adequate funding for approved decarbonisation measures*

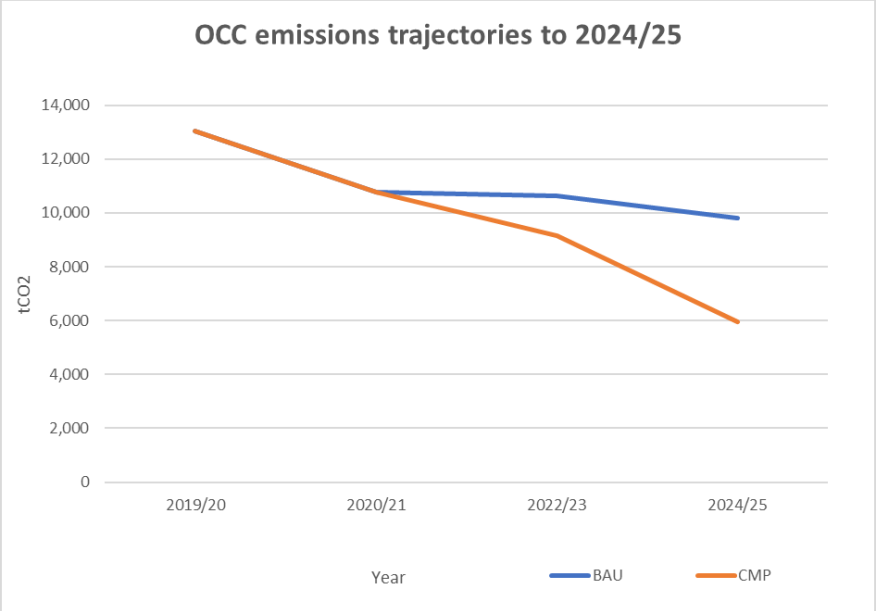
    g. *Agreeing an offset threshold above which alternative investment options will be considered*

    h. *Implementing a council-wide programme to minimise emissions from staff travel, linked to a corporate KPI*.[8]

17. The Carbon Management Plan combined with the decarbonisation of electricity supply were reported to put the council on a trajectory to reduce its carbon emissions by approximately 6,000 tonnes of CO2e by 2024/25, a 75 per cent reduction from its 2010/11 baseline.

[8] Appendix 1

Chart 1: The council's emissions trajectories 2019/20 to 2024/25[9]



18. The council's carbon emissions account for only 0.22% of emissions in Oxfordshire.[10] There was discussion amongst the Working Group as to whether it would be more beneficial for the council to prioritise supporting countywide emissions reduction. However, the Working Group notes that working with partners to decarbonise the county is an area of focus under the council's Strategic Plan and acknowledges the benefits of the council providing leadership by reducing its own emissions and identifying portable solutions that can be used by others in the county and further afield. In joining UK100, a network of local government climate leaders, the council committed to annual county-wide greenhouse gas reporting.

Conclusion 2: *The council is welcomely leading the way by developing robust plans to reduce its emissions. Nevertheless, the council's carbon emissions account for only 0.22% of Oxfordshire's emissions and the council's commitment to developing countywide decarbonisation route map informed by the Pathways to a Zero Carbon Oxfordshire Report is highly important.*

Recommendation 2: *The council continue to provide leadership through its focus on reducing its own carbon emissions, develop a route map to a Zero Carbon Oxfordshire and engage other organisation and the public in respect of why they should, and how they can, reduce their emissions, including by sharing the learning from the council's decarbonisation initiatives.*

Recommendation 3: *The council continue to educate staff and service providers on the importance of carbon and emissions accountability and seek improvements and feedback to improve, accelerate and engage staff wherever possible.*

[9] Appendix 2
[10] Appendix 2

19. Some carbon reduction programmes are likely to deliver financial savings. For example, the replacement of streetlighting with LEDs has a 9.7-year payback period and will deliver £77m of savings over 20 years and zero-carbon buildings and electric vehicles incur lower operating costs. An invest-to-save programme is to be developed and business cases are to be put forward for funding, including from grant sources such as the Public Sector Decarbonisation Scheme.

Recommendation 4: *the council closely monitor the financial saving generated by initiatives which reduce energy use and carbon emissions; and such savings be reinvested in further such initiatives.*

Decarbonisation approach

20. The council's decarbonisation approach is guided by three principles: demand reduction; inclusive transition; and innovation.

Demand reduction

21. The council is to prioritise actions that avoid energy consumption and then actions that save energy. Once energy demand has been minimised, it is to replace fossils fuels with cleaner energy sources, ideally locally produced renewables, with offsets only used as a last resort.

Inclusive transition

22. The council is to consider the potential impacts of its decarbonisation measures on local communities and adopt a participatory approach, ensuring communities are engaged and supported to take action, particularly those most vulnerable to the impacts of the climate and ecology emergency.

Innovation

23. The council describes its estate as a 'living lab' to trial new ideas and accelerate innovation; it is to share learning and is actively seeking new business models to make investment for zero carbon viable.

Buildings

24. The Working Group heard that the council's estate is too large with too many antiquated buildings which cost too much to maintain and operate.

25. The council's building decarbonisation strategy is based on the following principles:
    - *Adhere to the new design standard in any new buildings to minimise consumption and use renewable energy e.g., using low-carbon heating systems instead of gas boilers.*
    - *Encourage staff behaviours that save energy in our buildings.*
    - *Improve the way we manage energy consumption in our buildings, drawing on the data provided by our energy management systems to identify savings opportunities and move towards smart buildings.*

- *Focus upon rationalisation of our estate to minimise travel and consolidate assets to support service delivery in light of the growth in population.*

- *Deliver low carbon retrofit measures in our properties:*
    - *carry out investment grade energy building audits and condition surveys to identify a full suite of measures*
    - *determine which measures offer a viable invest-to-save payback and which require external funding.*

- *Explore opportunities to buy renewable energy for our estate via a power purchase agreement in order to support local generation and a resilient local energy system.*

- *Identify an offset threshold above which alternative investment options will be considered (aligned with the council's offset strategy to be developed).*

26. The Working Group heard that the council recently held a two-day workshop with its senior leadership team and has recruited a decarbonisation manager to support the delivery of its building decarbonisation strategy.

27. The developing property strategy will connect with emerging agile and IT strategies, which are to be reviewed by the Performance and Corporate Services Committee in June 2022. Once finalised, the strategy will be used to develop a strategic investment plan and corporate initiatives will be aligned with it as the council moves into the 2023/24 budget setting process.

Highways assets

28. The council's highways assets include streetlighting, traffic signals and signage. In 2018, the council launched a six-year £40 million streetlighting LED conversion programme. The Working Group heard that the council failed to meet its streetlight conversion target in 2021 but had met its carbon reduction target for streetlighting by installing different, more energy efficient lanterns than originally planned. There had been some challenges around the procurement of materials and components, but those had been addressed by the council. Witnesses were confident that the programme would be delivered on time.

29. The council is also considering reducing streetlighting at night to decrease energy usage and support biodiversity at night. The Working Group notes the importance of balancing the safety of residents, particularly women and girls, with the environmental benefits of reducing streetlighting at night.

30. The council is converting eight traffic signals per year to LED, is to deliver a Department for Transport-funded project to convert a further six sites in 2022/23 – a business case for the conversion of a further 40 sites has also been submitted – and is reviewing opportunities to convert bollards to solar when replacing LED traffic signals.

Fleet vehicles

31. The council's vehicle fleets total over 380 vehicles. The largest fleets are in the Fire and Rescue Service, Supported Transport, Community Support and

Highways. To decarbonise its fleet, the council is to prioritise the avoidance of emissions by rationalising the fleet, encourage the sharing of vehicles and replacing fossil fuels with zero-tailpipe-emissions alternatives.

32. The council is to implement an integrated fleet management system and a dedicated team to centralise all fleet information from March 2023, which will enable the development of a fleet management plan.

33. The council has an electric-by-default policy that stipulates that it will work to phase out petrol and diesel vehicles where operationally feasible and will consider other ultra-low emissions alternatives where zero-emissions is not feasible. To minimise the additional costs of this, the council is to replace vehicles when they are already due for renewal. The council has to date introduced 44 electric vehicle charging points and 24 electric vehicles and aims to have electrified all its cars and vans by 2028. By mid-2023/24, a pipeline for a fully electric fleet will be developed to inform the further expansion of the council's charging infrastructure.

34. The Carbon Management Plan notes an innovation and viability gap in respect of the electrification of large vehicles, such as heavy goods vehicles and fire appliances. The council is to explore alternatives and innovative solutions and bring forward busines cases as such solutions become financially and operationally viable. In practice, it is currently working with a technology partner, ULEMCo, on a feasibility study for a hydrogen fuel cell fire appliance. The first phase of the project was to produce a full specification and detailed engineering design for a prototype vehicle. The council is to subsequently seek additional funding for a second phase in which to construct a prototype vehicle in 2022/23.

Staff business travel

35. The council's decarbonisation approach for business travel undertaken by staff in their own vehicles prioritises avoiding travel (such as by meeting online), reducing miles travelled (such as through route optimisation), and replacing car travel with active travel (a pool of e-bikes is available). An electric car scheme with tax benefits is also available to staff.

36. The council has introduced carbon emissions targets for business miles which allow for a post-covid-19 increase in emissions. The focus on carbon emissions, rather than miles, supports services to travel while encouraging more carbon-efficient modes. The targets are to be reviewed in 2022/23 once data for the previous year has been analysed to provide a more accurate picture of post-pandemic emissions.

Table 1: Council Services CO2e targets

Directorate	2019/20 tCO2e	2022/23 target reduction	2022/23 tCO2e	2024/25 target reduction	2024/25 tCO2e
Adult & Housing Services	170.4	10% reduction	153.3	25% reduction	127.8

Children's Services	744.5	10% reduction	670.0	25% reduction	558.4
Commercial Development, Assets & Investment	54.8	10% reduction	49.3	30% reduction	38.4
Customers, Organisational Development & Resources	82.9	10% reduction	74.6	30% reduction	58.0
Environment & Place	84.4	10% reduction	76.0	40% reduction	50.7
Members	15.5	10% reduction	13.9	10% reduction	13.9

Conclusion 3: *The council has developed robust plans to reduce its carbon emissions and is already making good progress against them.*

Monitoring

37. A draft of the Carbon Neutrality Dashboard (Appendix 3), which is being developed to enable progress to be monitored by Members and senior officers, was shared with the Working Group. It contains monthly data on energy and fuel consumptions, carbon emissions and progress on key projects, along with KPIs and targets agreed with services. In its current form the dashboard does not contain information on supply chain emissions, due to it not yet being available, and does not contain data on the significant carbon emissions of maintained schools (discussed below), which are responsible for their own operations and most of their maintenance and are not included in the council's net zero by 2030 commitment.

Conclusion 4: *The council has developed a clear and insightful dashboard for close monitoring of its carbon emissions and performance against its targets.*

Recommendation 5: *The council report publicly on its carbon emissions and progress against its carbon targets at least quarterly so that the public can hold decision-makers to account.*

Recommendation 6: *The carbon emissions of maintained schools and the council's supply chain be included in the dashboard once reliable data are available.*

Carbon Reduction Initiatives for Schools

38. In 2019/20, the council's 137 maintained schools contributed 5,260 tonnes of carbon emissions, with a combined energy bill around £2 million pounds. Energy

is the second largest cost for schools, after staffing, and reducing their energy consumption will free up significant financial resources for them. While the council does not include maintained schools' significant emissions within its net zero by 2030 target, it does measure and report on maintained schools' emissions in its annual Greenhouse Gas Report.

39. It was reported that schools, which are responsible for their own operations, including energy and maintenance budgets, often lack the knowledge and capacity to reduce energy use and carbon emissions, particularly as they seek to support pupils' development following the covid-19 pandemic. The council, having committed to reducing carbon emissions from all areas of its influence, is implementing a range of programmes to support maintained schools and academies to reduce their emissions and energy use.

Oxfordshire Action on Carbon and Energy in Schools (ACES)

40. The Environment Information Exchange, Oxford Brookes University, has been commissioned at cost of £60,000 per annum to provide a range of support to both maintained schools and academies in Oxfordshire to reduce the carbon emissions associated with their operations. The two-year contract commenced in April 2022, with the option to extend for a further year.

41. The ACES programme will provide schools with different levels of support appropriate to their needs and levels of progress towards carbon reduction. Such support will range from workshops for governors and senior leaders to in-depth assessments of energy-saving opportunities for individual schools. Advice and guidance will be available to school staff and resources will be available to engage pupils on climate action and energy issues. There is also a fund to provide boiler insulation to at least ten schools per year.

Table 2: Anticipated ACE support activities during initial two-year contract

Activity	Year 1	Year 2
Schools survey	1	-
Webinars	5	5
Workshops	2	2
Network meetings	4	4
Day events	4	4
No. of energy assessments	10	10
No. of schools for boiler room insulation	10	10
No. of schools receiving thermal imaging	5	5

Schools Capital Works and Finance

42. The council has a Schools Structural Maintenance Plan (SSMP) and annual capital budget to carry out high-priority structural works for its maintained schools, such as boiler replacements, major roof repairs, and double-glazing projects. Where possible, works undertaken through the SSMP prioritise low-carbon replacements and where that entails significant additional costs, the Public Sector

Decarbonisation Scheme has been used to secure additional funding – £950,000 to date.

43. Detailed building condition surveys to enable better forward planning are due to be completed by September 2022. They are to include catering facilities and consider innovative ways to reuse waste heat.

44. The availability and affordability of finance for the implementation of energy-saving and carbon reduction measures is a key barrier to reducing energy use and carbon emissions in schools. As the Public Sector Decarbonisation Scheme is limited to heat decarbonisation initiatives, the council is developing an in-house financing scheme to provide financing opportunities for energy efficiency projects for maintained schools. Initially, £400,000 from the Budget Priority Reserve will be made available to schools, with repayments used to replenish the fund in subsequent years. The ACES scheme will provide a pipeline of projects requiring financing and promote the financing scheme to schools.

Zero Carbon New Build Policy

45. The council is currently developing a policy under which new council buildings, including maintained schools, will be designed to net-zero emissions standards. The council is already making progress with two schools, in Shrivenham and North East Didcot, which are to be constructed to net-zero specifications for regulated and operational energy uses respectively.

Recommendation 7: *The council continue to drive reductions in the carbon emissions of maintained schools and academies in Oxfordshire.*

Councillor Yvonne Constance OBE
Chair of the Carbon Reduction Targets Working Group

Appendices:

Appendix 1: Briefing – Carbon Management Plan and climate and ecology additional funding

Appendix 2: Draft Carbon Management Plan

Appendix 3: Draft Carbon Neutrality Dashboard

Appendix 4: Briefing – Initiatives in place to support schools with carbon reduction

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