



**OXFORDSHIRE
COUNTY COUNCIL**

Carbon Management Plan

2022 – 2030

June 2023

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1. Introduction

Oxfordshire County Council has committed to reaching net-zero carbon emissions in our estate and operations by 2030 and to embed climate considerations into all our decision making. In 2020, we published our Climate Action Framework, setting out how we are going to reduce our emissions, transform into a climate active organisation and play our part in Oxfordshire's transition to net-zero.

Since then, addressing the climate and ecological emergency has become the Council's number one priority. The Climate Action Framework is complemented by the Climate and Natural Environment Policy Statement which was approved by Cabinet in November 2022 and re-affirmed our commitment to the shared environmental principles of the Oxford-Cambridge Arc.

The Carbon Management Plan 2022-30 sets out the approach to reducing the emissions from our buildings, highway assets (streetlighting, traffic signals and signage), fleet and staff business travel in their own vehicles. These are the emissions that we committed to reduce to net-zero by the end of this decade. The Plan is part of a wider Climate Action Programme that also includes our actions to embed climate and ecological considerations into the organisational DNA and importantly to enable Oxfordshire's transition to net-zero across transport and connectivity, buildings, schools, energy systems, waste and consumption, and the natural environment.

1.1. Putting our own house in order

While our corporate emissions represent only 0.28% of Oxfordshire's total¹, we are conscious that we all need to play our part in the transition to net-zero, adopting more efficient ways of working, travelling, and consuming. By leading the way and seeking to become net-zero significantly ahead of the national 2050 timeline, we hope to demonstrate what can be achieved and inspire residents and local businesses to join us on this rewarding journey.

The Carbon Management Plan 2022-30 outlines the decarbonisation approach taken for each area of our 'net-zero by 2030' target, as well as short-term and longer-term actions that make up to the Council's emissions trajectory to 2030/31.

¹ Oxfordshire's total 2020 emissions as reported in the Oxfordshire Net Zero Route Map & Action Plan

2. Progress so far

In the 11 years between our baseline year of 2010/11 and 2021/22, our emissions have decreased by 60%².

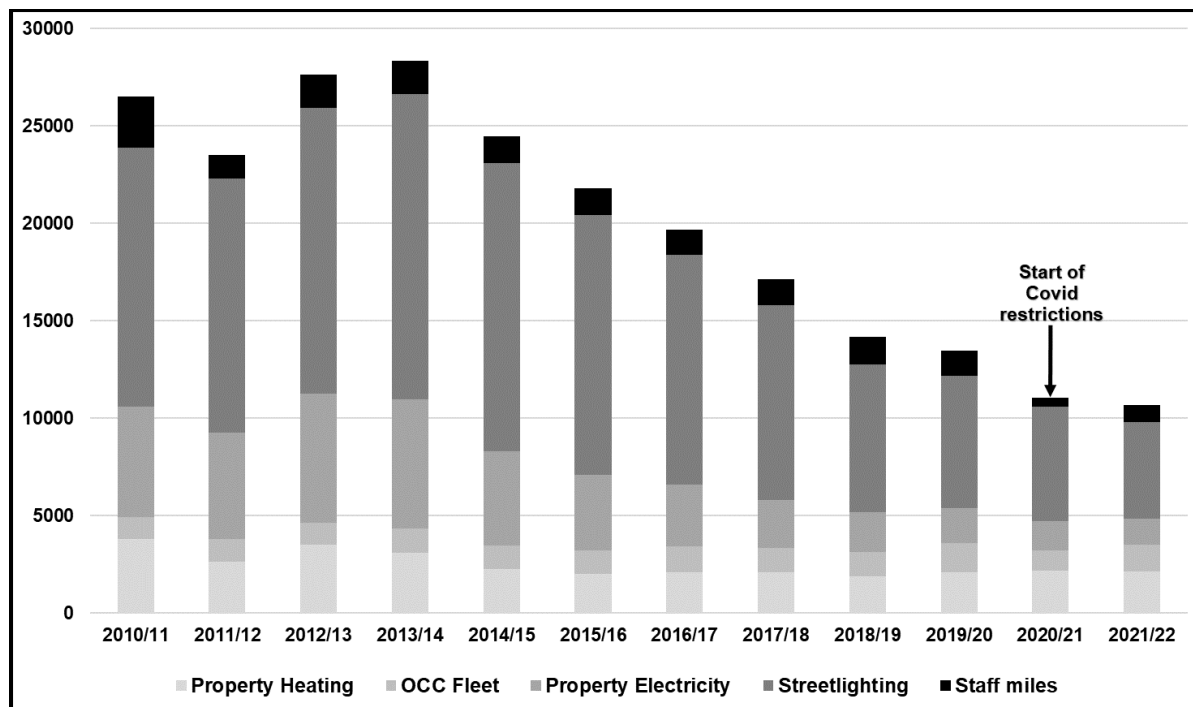


Figure 1: Evolution of emissions included in our 'net-zero by 2030 target'

Key past projects and initiatives to decarbonise our estate and operations:

- 87 per cent of street lighting replaced with LEDs.
- LED replacement programme at two Park & Ride sites completed at the end of 2020/21 resulted in a 54% reduction in site electricity consumption.
- Awarded £2.1m for heat decarbonisation and energy efficiency measures at seven corporate buildings and four schools through the Public Sector Decarbonisation Scheme (PSDS) round 1.
- Further £856k of funding attained under PSDS round 3a for heat decarbonisation and insulation measures at one corporate site and five schools, works to be completed by March 2023.
- 42 solar panels installed at Ron Groves House in Kidlington.

² As part of the council's commitment to continuously improve and expand its data reporting, emissions figures per year might change as additional emissions sources are identified. During 2021/22 four additional sources were added and to allow direct comparison, the emissions in 2019/20 and 2020/21 were also updated:

- Fuel used in OCC Highways fleet refuelled at depots managed by Milestone, which was previously reported in Scope 3 contractor's emissions, was moved to our scope 1.
- Fuel used in OCC's fleet minibus refuelled at Wallingford and Cherwell Depot.
- Business mileage done by agency staff
- Daily hire car mileage

- Benson Library off the gas grid with solar panels, battery storage and an air-to-air heat pump.
- Property Strategy developed and adopted in November 2022.
- Virtual meetings and agile working framework adopted.
- 34 electric vehicles and 46 charge points on Council sites.
- Three electric pool cars and two electric bikes available to staff since 2019 and trial of four dedicated ebikes with three city-based teams.

3. Our emissions

In 2021/22, 46% of our emissions came from streetlighting and 33% from our buildings. Fleet and staff travel emissions combined represented about 21%.

In 2020/21, due to COVID restrictions and changes in work practices, fleet and staff travel emissions dropped by 27% and 67% respectively. We expected that, in 2021/22, emissions from highways assets and electricity usage in buildings would continue to decline, while fleet and staff travel emissions were likely to show a degree of bounce back as services resumed. Emissions from streetlighting and property did decrease in 2021/22 compared to 2020/21. However, as expected, emissions from both fleet and staff business travel increased in 2021/22 compared to 2020/21. Emissions for both still remain lower than the 2019/20 pre-COVID levels.

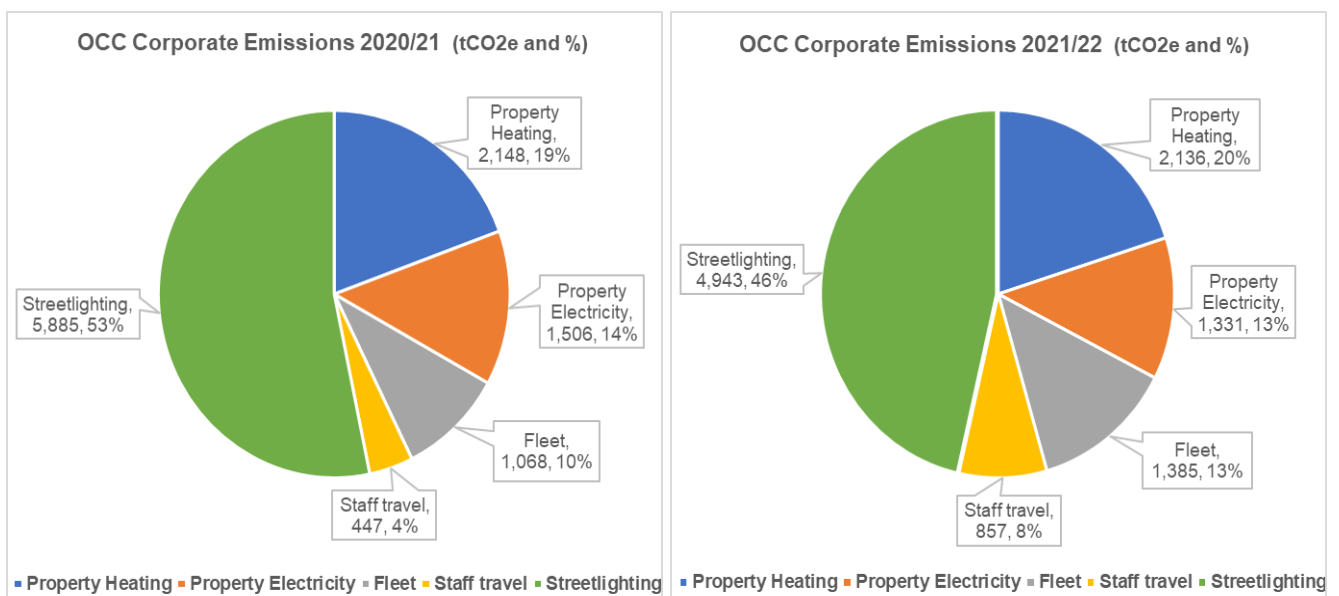


Figure 2: OCC corporate emissions 2020/21 and 2021/22³

³ Source: 2021/22 Greenhouse Gas report

3.1. Scope 1, 2 and 3 emissions within scope of our net-zero target

Figure 3 shows the scope of emissions reported in our annual Greenhouse Gas report and the boundary of our net-zero by 2030 target.

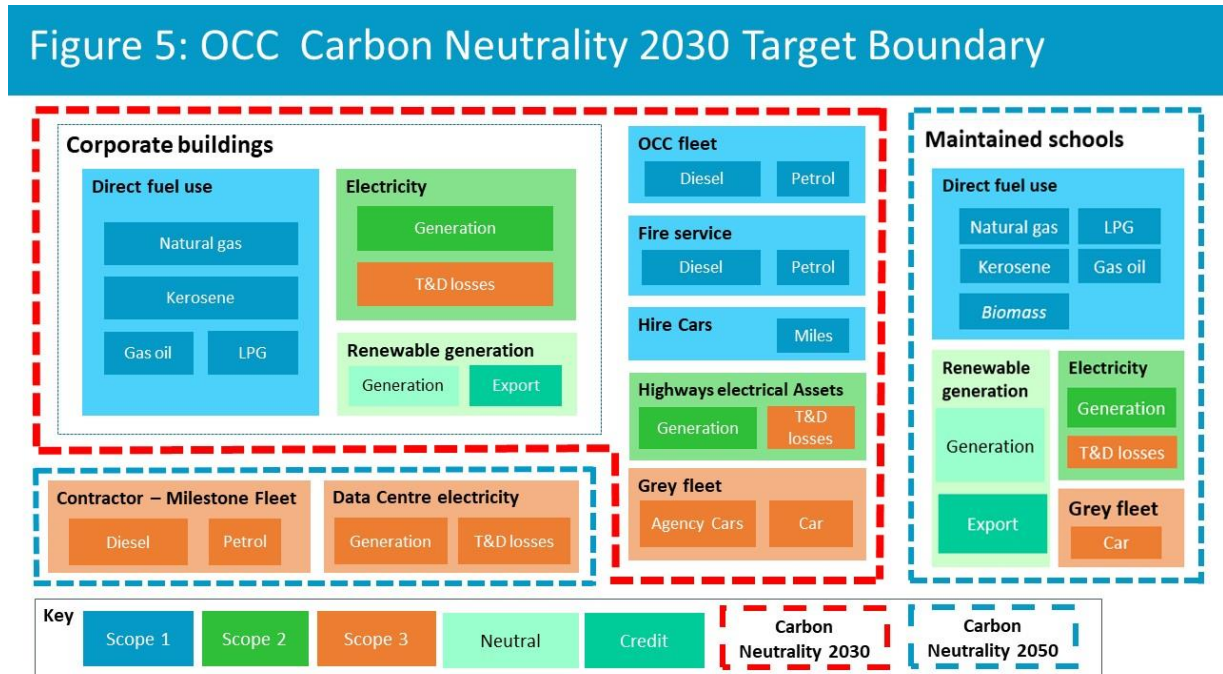


Figure 3: Boundary of our net-zero by 2030 target

This Carbon Management Plan covers the following emissions, as described in our annual Greenhouse Gas report, which are within scope of our net-zero by 2030 target:

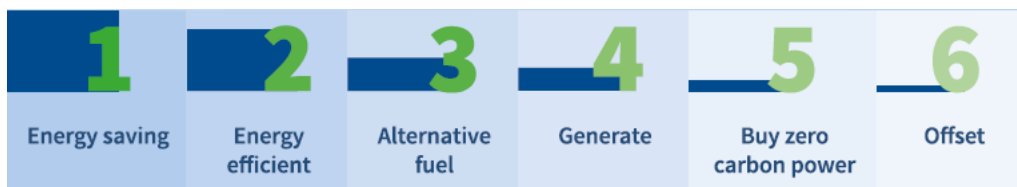
| | |
|---------|--|
| Scope 1 | direct emissions from fuel use on Council estate and fleet |
| Scope 2 | indirect emissions from purchased electricity |
| Scope 3 | indirect emissions from staff travel (grey fleet) and electricity distribution |

4. Our approach

4.1. Guiding principles

Our decarbonisation approach is guided by the following principles:

- **Demand reduction (avoid-shift-improve).** Our actions embody the ‘energy hierarchy’ to reduce demand and ensure best value. We prioritise actions that avoid energy consumption, such as avoiding unnecessary journeys, and actions that save energy, such as replacing streetlighting with LEDs. Saving energy not only reduces the amount of carbon emitted but protects against price increases. Once energy demand has been minimised, fossil fuels are replaced with cleaner energy, ideally locally produced renewables, and in relation to vehicles, with zero tailpipe emissions alternatives. Offsets are only used as a last resort.



- **Inclusive transition.** We consider the potential impacts of our decarbonisation measures on local communities. We take a participatory approach, ensuring communities are engaged and supported to take action, particularly those most vulnerable to the impacts of the climate and ecological emergency.
- **Innovation.** Our estate is a ‘living lab’ to trial new ideas and accelerate innovation. We share our learning and are actively seeking new business models to make investment for zero-carbon viable.

4.2. Decarbonisation approach

4.2.1. Buildings

Decarbonising our corporate buildings is one of the six strategic objectives set out in our newly adopted [Property Strategy](#).

120 corporate sites are currently in scope of our net-zero by 2030 target and our buildings decarbonisation approach 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. We will identify and rationalise underutilised workspaces and seek co-location opportunities with partners wherever possible. Leasehold properties will also be reviewed with the view to give up leased properties.
- Deliver low carbon retrofit measures in our properties:
 - eight corporate sites have already received a combination of energy efficiency and heat decarbonisation measures as a result of being awarded Public Sector Decarbonisation Scheme funding.
 - carry out building energy building audits and condition surveys to identify a full suite of measures. 46 audits completed to date, awaiting details on four. The remaining estate will be completed over the following years.
 - determine which measures offer a viable invest-to-save payback and which require external funding.
 - continue to submit funding applications, such as to the Public Sector Decarbonisation Scheme programmes, in order to maximise available capital to the Council.
- 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).
- Engage with relevant heat network opportunities where they present a viable solution to assisting in a building's decarbonisation.

Figure 4 shows the emissions trajectories for our corporate buildings based on the estimated carbon emission savings from the actions set out in the tables of chapters 6, 7 and 8. The annual carbon savings from each action will only be realised in full in the year following the works. All the trajectories allow for the assumed continued decarbonisation of the electricity grid. The phase 1 energy efficiency actions set out in this plan, combined with the decarbonisation of the electricity supply, are likely to result in an 80% reduction from our 2010/11 property baseline by 2025/26. The phase 1 actions in combination with the proposed, currently unfunded phase 2 projects are estimated to result in an 87% reduction from our 2010/11 property baseline by 2030/31.

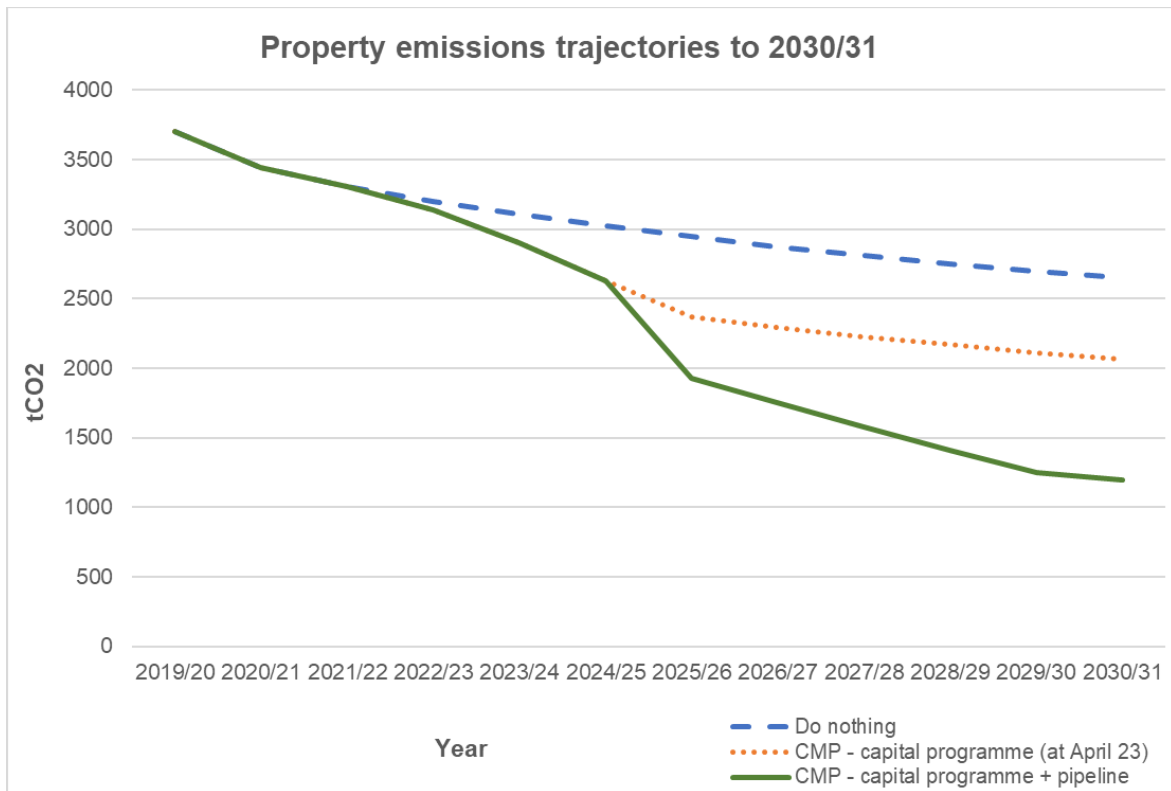


Figure 4: OCC's property emissions trajectories to 2030/31 (CMP = Carbon Management Plan)

4.2.2. Highways electrical assets (streetlighting, traffic signals and signage)

Our highways electrical assets include street lighting, traffic signals and signage (signage includes illuminated bollards, illuminated signs and miscellaneous other). The Council operates 60,684 streetlights, 445 traffic signal sites and over 5,400 illuminated signs and bollards⁴.

The approach to decarbonisation involves delivery of the £40.8m, six-year street lighting LED conversion programme that started in 2018. As at the end of March 2023, 87% of the streetlights have been converted to LED. The LED conversion programme is due to complete in 2023/24. Upon completion, this programme is expected to have reduced energy consumption and carbon emissions from street lighting by 70%.

The approach for traffic signals involves aiming to convert eight traffic signals a year to LED dependent on funding and resources. As at the end of March 2023, 272 of the traffic signal sites have LED lighting. Department for Transport funding enabled the conversion of five of the more challenging traffic signal sites to LED in 2022/23. A business case for the conversion of an additional 40 sites was approved in 2022/23 and works are due to complete in 2023/24.

The approach for signage involves reviewing opportunities to either de-illuminate or convert bollards to solar as part of routine maintenance or alongside other projects

⁴ Figures based on 31.03.2023 data.

such as when replacing the LED traffic signals. In 2021/22, emissions from signage accounted for c. 3.7% of the total highways electrical emissions and as at the end of March 2023, over 30% of illuminated signs and bollards are LED.

In October 2022 Cabinet approved the adoption of an updated Street Lighting and Illuminated Assets [Policy](#). The new policy will reduce our impact on climate change and the environment through the use of optimised lighting systems whilst retaining appropriate lighting for safe passage of all users. To reduce energy consumption and support biodiversity, the possibility of dimming lighting during low traffic periods and reducing burns hours at night when appropriate is being explored. This will be explored in respect of existing lighting and, where new street lighting infrastructure is deemed necessary, the right type of lighting will be provided in the right way at the right times approach will be taken. This approach will help preserve the night sky, mitigate environmental impacts and support dark skies.

Figure 5 shows the emissions trajectories for our highways electrical assets based on the estimated carbon emission savings from the actions set out in the tables of chapters 6, 7 and 8. The trajectories start in 2018/19 as that is the year in which the street lighting LED conversion programme began, and all allow for the continued decarbonisation of the electricity grid. The actions planned for 2023/24, including the completion of the streetlighting programme, are likely to result in an 88% reduction from our 2010/11 highways electrical assets baseline by 2024/25. Continued grid decarbonisation and conversion of traffic signals to LED are estimated to result in an 93% reduction from our 2010/11 baseline by 2030/31.

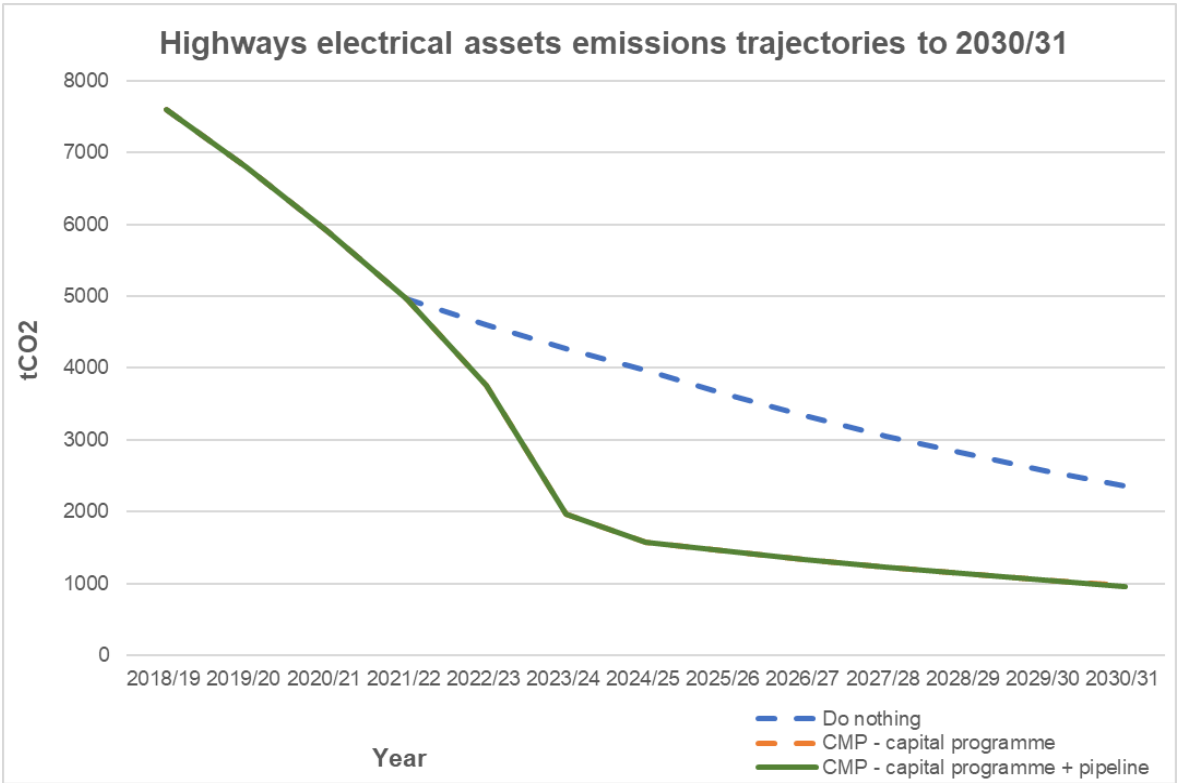


Figure 5: OCC’s highways electrical assets emissions trajectories to 2030/31
(CMP = Carbon Management Plan)

4.2.3. Fleet

OCC's fleet includes 402 vehicles⁵, with the largest fleets in the Fire and Rescue Service (OFRS), Supported Transport, Facilities Management, and Highways.

| Type of vehicle | Total Main Fleet | Number of which EV | Total Fire & Rescue | Number of which EV |
|-------------------------|------------------|--------------------|---------------------|--------------------|
| 4x4/SUV | 7 | - | 10 | - |
| Car | 23 | 5 | 68 | 10 |
| Minibus | 109 | 2 | - | - |
| Motorbike | - | - | 1 | - |
| Van | 102 | 8 | 28 | 9 |
| Fire appliance | | | 48 | - |
| Other (plant/ platform) | 3 | | 3 | - |

The approach to fleet decarbonisation will prioritise avoidance of emissions by rationalising the fleet, encouraging sharing of resources, and replacing fossil fuels with zero tailpipe emissions alternatives.

The first step will be putting in place an integrated fleet management system and a dedicated team to centralise all fleet information. The 'One Fleet' system, which will be up and running during 2023, will rationalise fleet usage and support the development of a fleet replacement plan.

The Council has an 'electric by default' ⁶policy that stipulates that we will work to phase out petrol and diesel vehicles in our own fleet, ensuring where operationally feasible all new vehicle acquisitions are zero-tailpipe emissions by default. We will consider other ultra-low emission alternatives where zero-tailpipe emissions are not feasible. To minimise the cost on the public purse we will undertake this transition as vehicles come up for renewal.

Electric alternatives for different vehicle types are at a variety of stages of maturity. Currently, the upfront costs of most electric cars and vans are compensated by lower lifetime running and maintenance costs, making electric the preferred option. For larger vehicles, such as heavy goods vehicles and specialist vehicles such as fire engines, there is still an innovation and/or a viability gap. We will actively explore alternatives and innovative solutions, bringing forward business cases as they become financially and operationally viable.

⁵ Figures based on 11.04.23 data

⁶ Ultra-Low Emission Vehicle (ULEV) Policy Statement 2019

Fleet electrification

OCC has already begun transitioning to a zero-tailpipe emissions fleet and increasing its charging infrastructure, with 34 EVs and 46 charge points currently in place.

A fleet replacement capital request business case for £18m over 3 years was submitted in October 2022 to enable the most cost-effective transition of the Council's fleet of vehicles (excluding OFRS) to electric.

Following approval of the capital request, the fleet replacement plan will commence with the first years procurement of c.124 electric vehicles, split between cars, vans and minibuses. Due to present industry lead times (ranging from 3 to 12 months) some vehicles will not be delivered until the next financial year.

Work is underway between teams within the Council to expand the Council's EV charging infrastructure in line with the increase in electric vehicles. This will involve additional charging equipment within Council premises, home chargers where feasible provided by the Council for staff that regularly keep fleet vehicles at their homes overnight and increased access to public charging where practical and for resilience in the case of issues with other equipment.

The Oxfordshire Fire and Rescue Service has already started replacing end-of-lease/life vehicles with electric cars and vans. There are plans to replace a further 10 diesel cars and vans with electric vehicles by March 2024. The service's fleet replacement programme for 2024/25 onwards is currently being reviewed and a timeline for replacement with estimated carbon savings being developed.

We aim to electrify the majority of cars and vans by 2028.

Figure 6 shows the emissions trajectories for our fleet based on the estimated carbon emission savings from the actions set out in the tables of chapters 6, 7 and 8. Both trajectories reflect the assumed need for an increase in services due to a projected increase in population size. The actions set out in this plan are likely to result in an 26% reduction from our 2010/11 fleet baseline by 2026/27.

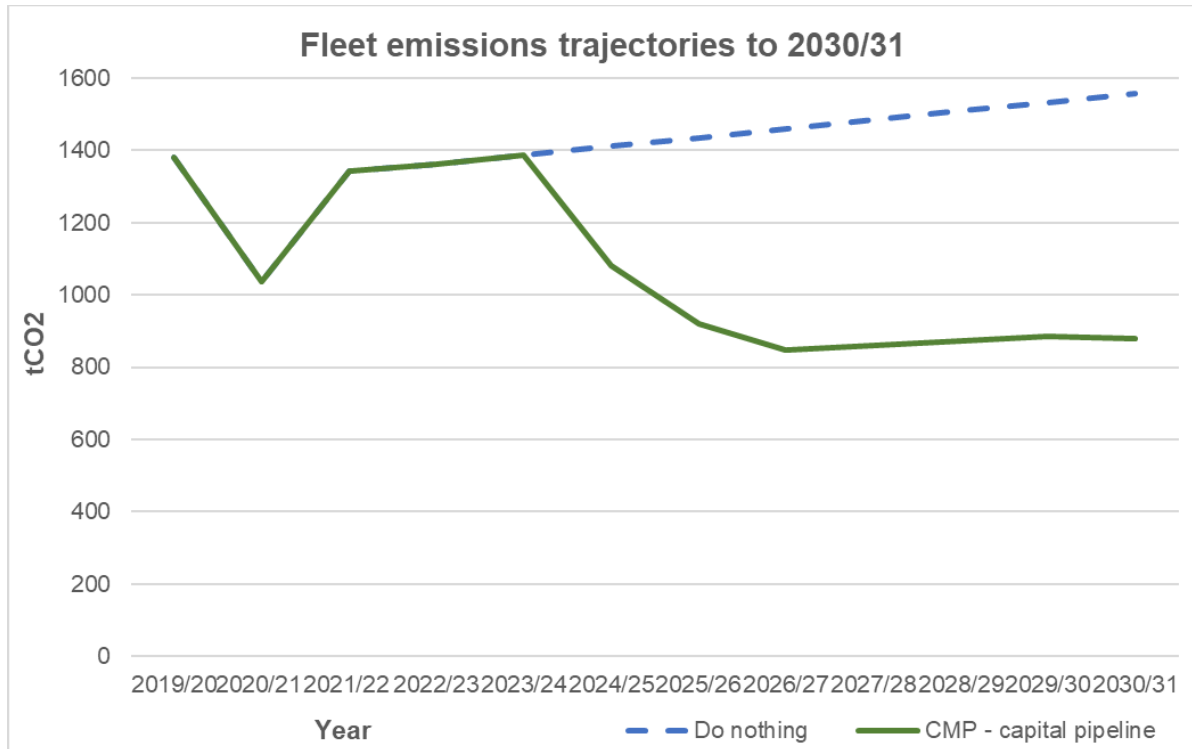


Figure 6: OCC's fleet emissions trajectories to 2030/31 (CMP = Carbon Management Plan)

Fleet innovations

The Council's specialist vehicles fleet, such as fire engines, are a challenging area to decarbonise by 2030. Working with partners to explore options for decarbonising these challenging assets is an important step on our journey to net-zero.

An example is the Innovate UK-funded project HySPERT (Hydrogen Special Purpose Electric Vehicle Platform for Refuse Collection and Fire Trucks). Oxfordshire County Council worked with technology partner ULEMCo on a feasibility study for a hydrogen fuel cell fire engine. The first phase of the project, completed 31st March 2022, created a full specification and detailed engineered design for a prototype vehicle.

Additional funding for the second phase of the project (HYER), to physically build a prototype hydrogen fuel cell range extender fire engine, was successfully sought in 2022/23. Work to build the prototype will begin in 2023/24.

This is an example of how we are open to exploring new technologies and innovative opportunities available for decarbonising our estate and operations. Whilst this may be one possible solution for decarbonising specialist vehicles, we will continue to explore all potential options available to identify the most suitable alternative.

4.2.4. Staff business travel

Staff business travel is travel undertaken by staff for work purposes and includes journeys undertaken by agency workers. The emissions from staff business travel which are part of our net-zero target are from staff travelling in their own personal internal combustion engine (petrol/diesel) vehicles.

The decarbonisation approach for staff business travel prioritises avoiding travel (e.g. by meeting online when possible); reducing miles (e.g. by optimising routes); and replacing travel in cars with either active travel i.e. walking and cycling (e.g. using one of the pool e-bikes available) or public transport (e.g. using buses and trains). When needing to use a car, staff will be encouraged to use electric pool vehicles and to car share. An electric car salary sacrifice scheme is also available for staff looking to drive a new electric or plug-in hybrid car, with payments deducted from gross salary and consequently savings in income tax and national insurance contributions.

The approach involves retaining some of the mileage-saving initiatives put in place due to COVID restrictions and new ways of working. In 2020/21, staff business travel mileage and associated carbon emissions decreased by almost 70% compared to 2019/20 (from over 4.5 million miles to 1.6 million miles). This was due to the COVID lockdowns and associated restrictions. The continuation of virtual meetings and agile working meant that whilst the mileage bounced back in 2021/22 to 3.1 million miles, it did not return to the pre-COVID level.

To maintain a lower level of travel-related emissions while ensuring service provision, the following CO₂e reduction targets (from a 2019/20 baseline) were agreed in March 2022:

- Environment and Place: 10% reduction by 2022/23 and 40% by 2024/25.
- Property & Services (formerly CDAI): 10% reduction by 2022/23 and 30% by 2024/25.
- Cultural Services: 10% reduction by 2022/23 and 30% by 2024/25.

The targets are reductions in carbon emissions associated with business travel, not necessarily reductions in the number of miles. This way, services are not restricted in their ability to travel, but encouraged to use low-carbon modes of transport. The agreed targets allowed for a further post-COVID bounce back in 2022/23 as it was acknowledged that COVID restrictions were still in place until July 2021.

In 2022/23 a staff business travel programme was instigated with the aim of reducing emissions from staff business travel through encouraging active travel and promoting the travel hierarchy; a digital by default approach for training and internal meetings; exploring electric cars for high mileage staff; and promoting the electric car benefit scheme. In June 2023 Strategic Leadership Team committed to develop a programme of work to assess opportunities to improve the staff business travel process and reduce carbon emissions from business travel. This will directly contribute to our goal of net-zero by 2030.

Continued implementation of the 2022/23 staff business travel activities and initiation of the programme of work to assess opportunities to reduce carbon emissions with smarter, lower-carbon solutions will support directorates and services to reduce emissions from staff business travel:

| Year | Staff business travel programme activities |
|---------|---|
| 2022/23 | <ul style="list-style-type: none"> • Promoted uptake of electric car benefit scheme. • Continued 'digital by default' policy for training and internal meetings. • Promoted the travel hierarchy and encouraged active travel. • Explored opportunities for service/team specific electric vehicles. • Outline capital request business case submitted for 25 "essential user" cars for high mileage staff. |
| 2023/24 | <ul style="list-style-type: none"> • Continue to promote 'digital by default', the travel hierarchy and the electric car benefit scheme. • Continue to explore opportunities for service/team specific electric vehicles and develop business cases. • Identify journey start location "hot spots" to support business case for location-based electric pool cars and/or car clubs. • Encourage better route planning |
| 2024/25 | <ul style="list-style-type: none"> • Promote car sharing • Offer driver training |

Figure 7 shows the emissions trajectories for our staff business travel based on the estimated carbon emission savings from the actions set out in the tables of chapters 6, 7 and 8. Both trajectories reflect the assumed need for an increase in services due to a projected increase in population size.

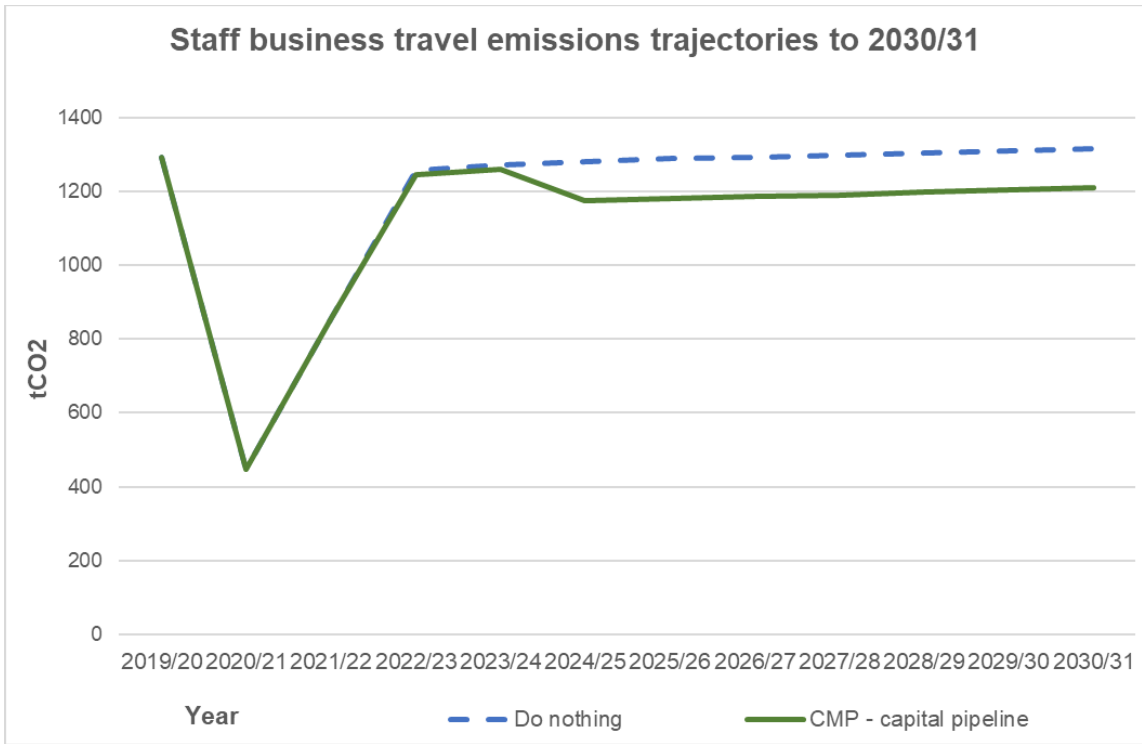


Figure 7: OCC's staff business travel emissions trajectories to 2030/31
 (CMP = Carbon Management Plan)

4.3. Estimated emissions reduction

The actions set out in this plan, combined with the decarbonisation of the electricity supply, are likely to put the Council emissions on a trajectory to reduce emissions to about 5,600 t CO₂ by 2025/26, which is equivalent to a 79% reduction from our 2010/11 baseline. An estimated 7,800 t CO₂ from a 2019/20 baseline will be saved over this period, equivalent to 4,699 return economy flights from London to New York or the amount of CO₂ absorbed by 936,000 trees over the 3-year period.

The annual carbon savings from each action will only be realised in full in the following year and reflected in that year's Greenhouse Gas report.

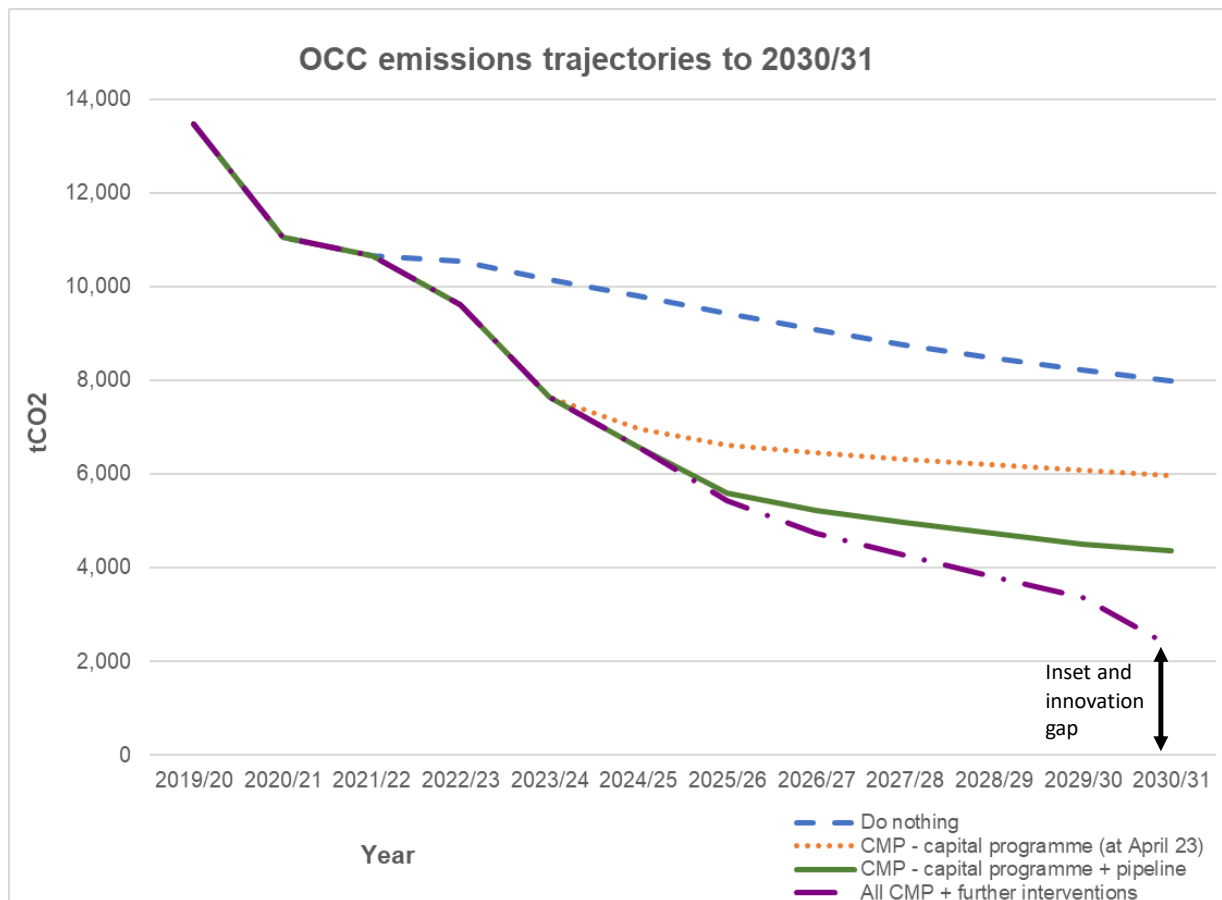


Figure 8: OCC emissions trajectories to 2030/31 (CMP = Carbon Management Plan)

There are a number of areas of action, some of which are identified within this plan, that could further reduce our carbon emissions. These are modelled in the “All CMP + further interventions” line based on a range of assumptions and further development of these business cases is needed to provide more accurate estimated carbon savings.

The further interventions identified include:

- Implementation of the new Street Lighting and Illuminated Assets policy.

- LED conversion of heritage street lighting columns; LED conversion of the residual 77 traffic signal; and LED conversion or de-illumination of the remaining halogen illuminated bollards & signs.
- Delivery of property rationalisation and linked investment decisions to inform the actions for the properties currently not included in the phase 2 energy efficiency work programme.
- Electrification of the remaining diesel fleet vehicles not including in the current three-year programme due to long-term leases.
- Reduction in emissions from business travel through for example, the introduction of better route planning, car sharing, service-specific electric vehicles and location-based electric pool vehicles.

Work and activities planned to take place between 2023/25 will provide the necessary data to calculate the estimated carbon savings from these actions.

Whilst all the trajectories include grid decarbonisation, electricity supply becoming net-zero either through supply from a renewable electricity source or self-generation, is currently not included.

4.4. Innovation and Carbon Insetting

We have already acknowledged that the Council's specialist fleet vehicles, including fire engines, are a challenging area to decarbonise by 2030 and work has already started to explore options for decarbonising these challenging assets. We remain open to exploring new technologies and innovative opportunities for decarbonising our estate, fleet and operations. As yet unknown innovative opportunities would help further reduce our carbon emissions.

We acknowledge that after reducing energy demand, carrying out energy saving activities and implementing suitable innovative opportunities, there will be a residual amount of carbon that will need to be offset. A piece of work will be undertaken in 2023/24 to further understand the quantity of emissions which will need to be offset, to identify our approach towards offsetting and to explore potential insetting opportunities. We also recognise that there will be a cost associated with offsetting and therefore the work will also look to start quantifying the potential cost.

The Pathways to a Zero Carbon Oxfordshire (PaZCO) report, published in 2021, includes a note on offsetting and a chapter on land use and carbon sequestration. Two definitions of carbon offsetting are described in the report:

1. "carbon mitigation or sequestration measures taking place outside a defined boundary (ie outside of Oxfordshire County) that would not have occurred without investment"
2. "negative emissions technologies and nature-based solutions for sequestering carbon remaining from difficult to decarbonise activities".⁷

Whilst the focus of tackling climate change is to reduce demand, the report highlighted that “well designed “nature-based solutions” can contribute to both climate mitigation and adaptation”⁷. Afforestation, regenerative agriculture, urban green infrastructure, and ecosystem restoration, such as restoration of native woodland; chalk grassland; and wetland & ponds, would enhance a range of ecosystem services including carbon sequestration, flood protection, air quality improvement and enhance biodiversity⁷. We will therefore, as part of our work to define our approach towards offsetting, also explore the opportunities for offsetting our carbon emissions from activities within Oxfordshire.

4.5. Financing the transition

Some elements of the transition to net-zero are likely to deliver financial savings. For example, the ongoing replacement of street lighting with LEDs. Based on an investment of £40.8m, the original business case, developed before the programme started in 2018/19, estimated a payback period of 9.7 years and that the programme would deliver £77m in savings over 20 years. The estimated financial savings are currently being remodelled due to the current volatility of the energy market. The programme is still expected to reduce street lighting energy consumption by 70% and carbon emissions by 80% (from 2018/19 baseline).

On the other hand, retrofitting our buildings and replacing specialist vehicles will require significant investment that is unlikely to generate a financial return within the Council’s normal payback period.

Activities undertaken in 2022/23 provided the necessary data to start to determine the level of investment required to transition our buildings and fleet to net-zero. Further activities such as completing energy audits of all sites and fleet tracking will provide additional information. An invest-to-save programme will be developed, and business cases will be put forward for funding.

Capital requests (for which we are awaiting the outcome) were submitted for property, fleet and grey fleet in 2022/23. Funding was also sought from the Public Sector Decarbonisation Scheme round 3b for heat decarbonisation in 20 properties. We were unsuccessful for this round but have been asked to move the application to 2024/25 and are therefore still awaiting the outcome from the funder.

Alongside developing our position on and approach to insetting our residual emissions, we will also begin a piece of work in 2032/24 to understand our approach to financing our transition to net-zero and to develop a financial strategy. We will continue to apply for funding from grant sources as opportunities become available. We will also explore green financing, including green bonds and income generation opportunities associated with carbon reduction and offsetting approaches.

⁷ *Pathways to a zero carbon Oxfordshire report, Environmental Change Institute 2021*

5. Carbon Management Plan 2022-30

Types of actions

The Carbon Management Plan includes **direct actions** that generate measurable emissions reductions – e.g. replacing lighting with LEDs – and **enabling actions** that create the conditions for future reductions – e.g. putting in place a fleet management system.

Monitoring and reporting

A Delivery Group formed by the Officer Leads (identified in the table in Section 6) will be accountable for delivery of the Carbon Management Plan to the Climate Action Programme Board.

When possible, progress will be monitored using the Council's Carbon Neutrality dashboard, which displays the latest data on energy and fuel consumption, carbon emissions, and progress on key projects, along with KPIs and targets agreed with services.

Progress on the actions will be reported to:

- Climate Action Programme Board quarterly
- SLT and Members six-monthly via Corporate Performance report
- Cabinet annually.

6. Actions undertaken and completed in 2022/23

| Action | Type | Estimated investment | Status and source of funding | KPI | Estimated annual CO2e saving ⁸ | Officer Lead | Cabinet Lead |
|--|----------|---------------------------|--|--|---|-----------------------------|--|
| Highway assets | | | | | | | |
| Continued conversion of street lighting to LED | Direct | £40.8m total (£17m 22/23) | Approved funding – capital programme | % streetlights converted to LED | 1,522 t CO2e | Head of Highway Maintenance | Cabinet Member for Highways Management |
| Converted 8 traffic signals to LED | Direct | £575k | Approved funding – annual BAU capital budget (£160k) and DfT funding (£415k) | Energy or carbon intensity (kWh or CO2e per asset) | 3 t CO2e | Head of Highway Maintenance | Cabinet Member for Highways Management |
| De-illuminated 32 bollards to either reflective or solar | Direct | -- | Part of ongoing BAU maintenance works | -- | 0.4 t CO2e | Head of Highway Maintenance | Cabinet Member for Highways Management |
| Developed and adopted a renewed Street Lighting and Illuminated Assets Policy - includes dimming & reduction in burn hours to support Dark Skies | Enabling | -- | Policy adopted | -- | -- | Head of Highway Maintenance | Cabinet Member for Highways Management |
| Buildings | | | | | | | |

⁸ The full year carbon savings for actions implemented in 2022/23 will be realised in 2023/24 & reported in the 2023/24 GHG report

| Action | Type | Estimated investment | Status and source of funding | KPI | Estimated annual CO2e saving ⁸ | Officer Lead | Cabinet Lead |
|---|----------|--------------------------|--|---|---|-------------------------------|----------------------------|
| Completed, subject to grid connection at 1 site, Delivery of PSDS ⁹ Phase 1 projects | Direct | £1.3m | Approved funding – Public Sector Decarbonisation Scheme grant | % CO2e reduction | 187 t CO2e | Director of Property Services | Cabinet Member for Finance |
| Developed and adopted an Agile Working Framework and a Property Strategy | Enabling | -- | Staff time | -- | -- | Director of Property Services | Cabinet Member for Finance |
| Decarbonisation Manager recruited | Enabling | £60k | Fully funded – revenue budget | -- | -- | Director of Property Services | Cabinet Member for Finance |
| Agreement in principle with ICT to implement active building energy management | Enabling | -- | Staff time | -- | -- | Director of Property Services | Cabinet Member for Finance |
| Sought PSDS 3b funding for 20 sites | Direct | £2.5m | Unsuccessful. We are looking to improve and enhance the bid for future PSDS funding round (Expected autumn 2023) | Energy or carbon intensity (kWh or CO2e per m2) | -- | Director of Property Services | Cabinet Member for Finance |
| Submitted capital request to ensure fully costed decarbonisation programme Phase 1 for 28 sites | Enabling | Phase 1 total cost £8.7m | Part funded and part pending outcome - capital request, Salix, PSDS, internal secured capital funds | Energy or carbon intensity (kWh or CO2e per m2) | 562 t CO2e ¹⁰ | Director of Property Services | Cabinet Member for Finance |

⁹ [Public Sector Decarbonisation Scheme](#)

¹⁰ Capital request submitted 2022/23, funding available for 8 sites from 2023/24 and from 2024/25 for 20 sites. First full year carbon savings will be realised in 2024/25 and 2025/26 respectively.

| Action | Type | Estimated investment | Status and source of funding | KPI | Estimated annual CO2e saving ⁸ | Officer Lead | Cabinet Lead |
|--|----------|------------------------------|--|------------------|--|--------------------------------|----------------------------|
| | | (request from Capital £4.3m) | | | | | |
| Carried out energy audits & condition surveys at 46 sites (awaiting details on another 4) | Enabling | £76k awarded | Successfully awarded Phase 3 Low Carbon Skills Fund (LCSF) funding for audits. | -- | -- | Director of Property Services | Cabinet Member for Finance |
| Released 1 building (estate rationalisation) | Direct | -- | Revenue saving | % CO2e reduction | 9 t CO2e ¹¹ | Director of Property Services | Cabinet Member for Finance |
| Delivered heat decarbonisation measures at Hook Norton Fire Station | Direct | £16k | Funding approved – Public Sector Decarbonisation Scheme round 3a | % CO2e reduction | 11 t CO2e | Director of Property Services | Cabinet Member for Finance |
| Fleet | | | | | | | |
| One Fleet Project – Fleet Management IT System Sub-project Fleet management system – Jaama Key2- procured. Set up ongoing during 23/24 | Enabling | c. £250k | Fully funded – ICT and Property | -- | 0 - IT system enabling efficient fleet management no direct CO2e saving other than transition to paperless working | Director of Property Services | Cabinet Member for Finance |
| Evaluated EV lease vs ownership model | Enabling | -- | Completed as part of Fleet Replacement Capital Request Business Case | -- | 0 - Cost reduction enabling increased speed of transition | Director of Property Services/ | Cabinet Member for Finance |

¹¹ One building released end 2022.

| Action | Type | Estimated investment | Status and source of funding | KPI | Estimated annual CO2e saving ⁸ | Officer Lead | Cabinet Lead |
|---|----------|----------------------|-------------------------------------|---|--|-------------------------------|---------------------------------------|
| | | | | | as opposed to direct reduction | Head of Procurement | |
| Procure temporary hire electric vehicles to replace end-of-life/lease vehicles in Hard FM and Highways – 6 electric vans received 2022/23 | Direct | TBD | Service revenue budgets | % fleet electrification | Further temp hire EVs may be utilised dependant on delivery of new owned vehicles vs lease expiries during 23/23 | Head of Procurement | Cabinet Member for Finance |
| Fleet replacement capital request business case submitted | Enabling | £18m over 3 years | Pending funding - capital programme | % fleet electrification | 578 t CO2e over 3 years from 2024/25 | Director of Property Services | Cabinet Member for Finance |
| Applied for funding for HYER (Phase 2 of HySPERT) - building of a prototype hydrogen range extender fire engine | Enabling | TBC | Fully funded – Innovate UK | -- | -- | Head of iHub | Cabinet Member for Corporate Services |
| Staff travel | | | | | | | |
| Implemented staff business travel programme | Direct | -- | Staff time only | % CO2e reduction % staff green miles | 12 t CO2e ¹² | Director of Property Services | Cabinet Member for Finance |

¹² Based on the 10% carbon reduction targets agreed by CDAI, E&P and Customer Services. Actions to support this reduction include a 'digital by default' approach to meetings, engagement with high-mileage users, enforcement of the travel hierarchy, take up of the electric car benefit scheme, explore opportunities for electric pool cars and vans, and encouraging better route planning.

| Action | Type | Estimated investment | Status and source of funding | KPI | Estimated annual CO2e saving ⁸ | Officer Lead | Cabinet Lead |
|--|----------|----------------------|-------------------------------------|---|---|-------------------------------|----------------------------|
| Capital request outline business case submitted for 25 essential user vehicles | Enabling | £750k | Pending funding - Capital programme | c. 8% reduction in staff travel emissions | 61 t CO2e ¹³ | Director of Property Services | Cabinet Member for Finance |

¹³ Vehicles to be purchased in 2023/24 and delivery 2024/25. First full year carbon savings realised in 2024/25.

7. Actions for 2023-25

| Action | Year of works/delivery | Type | Estimated investment | Status and source of funding | Estimated annual CO2e saving ¹⁴ | Officer Lead | Cabinet Lead |
|--|----------------------------------|--------|----------------------------|---|--|-----------------------------|--|
| Highway assets | | | | | | | |
| Complete conversion of street lighting to LED | 2023/24 | Direct | £40.8m total (£6.8m 23/24) | Fully funded – capital programme | 269 t CO2e | Head of Highway Maintenance | Cabinet Member for Highways Management |
| Convert 40 traffic signals to LED | 2023/24 | Direct | £110k | Fully funding – capital programme | 16 t CO2e | Head of Highway Maintenance | Cabinet Member for Highways Management |
| Convert 16 traffic signals to LED | 8 in 2023/24 8 in 2024/25 | Direct | £500k | Fully funded – capital budget | 4 t CO2e | Head of Highway Maintenance | Cabinet Member for Highways Management |
| Convert 438 bollards to solar power or de-illuminate | Ongoing across 2023/24 & 2024/25 | Direct | -- | As part of ongoing BAU maintenance works /other projects | 5 t CO2e | Head of Highway Maintenance | Cabinet Member for Highways Management |
| Implement new Street Lighting and Illuminated Assets Policy including engaging with the market and exploring a new Central Management System | Ongoing | Direct | TBD ¹⁵ | Unfunded – business case for funding to be developed following engagement with the market | TBD ¹⁴ | Head of Highway Maintenance | Cabinet Member for Highways Management |

¹⁴ The full year carbon savings for actions implemented between 2023-25 will be realised in either 2024/25 or 2025/26 & reported in the 2024/25 and 2025/26 GHG reports.

¹⁵ Engagement with the market will provide the estimated investment and carbon savings and enable the business case for funding to be developed.

| Action | Year of works/delivery | Type | Estimated investment | Status and source of funding | Estimated annual CO2e saving ¹⁴ | Officer Lead | Cabinet Lead |
|---|------------------------|----------|--|--|--|-------------------------------|----------------------------|
| Buildings | | | | | | | |
| Deliver funded phase 1 energy efficiency projects at 8 sites | 2023/24 | Direct | £1.8 m (part of the £8.7 m total phase 1 cost) | Fully funded – Salix & existing internal capital programme | 127 t CO2e (part of the 562 t CO2e total phase 1 saving) | Director of Property Services | Cabinet Member for Finance |
| Deliver funded phase 1 energy efficiency projects via Capital Programme and Public Sector Decarbonisation Scheme funding (20 sites) | 2024/25 | Direct | £6.9 m (part of the £8.7 m total phase 1 cost) | Pending funding – in capital pipeline for 2024/25; pending funding from PSDS | 435 t CO2e (part of the 562 t CO2e total phase 1 saving) | Director of Property Services | Cabinet Member for Finance |
| Implement active building management | 2024/25 | Direct | c. £50k | Recycling fund – pending parameter setting | 98 t CO2e | Director of Property Services | Cabinet Member for Finance |
| Carry out energy audits on remaining estate | | Enabling | c. £3k per site | Existing funding – revenue budget, capital programme, potentially LCSF | -- | Director of Property Services | Cabinet Member for Finance |
| Submit Low Carbon Skills Fund application for energy audits and grant funding applications for heat decarbonisation works | | Enabling | -- | Staff time | -- | Director of Property Services | Cabinet Member for Finance |
| Release buildings (estate rationalisation) | | Direct | -- | Revenue saving | 147 t CO2e ¹⁶ | Director of Property Services | Cabinet Member for Finance |

¹⁶ Assumed release of buildings in either 2023/24 or 2024/25

| Action | Year of works/ delivery | Type | Estimated investment | Status and source of funding | Estimated annual CO2e saving ¹⁴ | Officer Lead | Cabinet Lead |
|--|---|----------|--|---|---|---|--|
| Fleet | | | | | | | |
| Analyse fuel usage data collated via the new One Fleet management system to identify vehicles suitable for replacement with EV | | Enabling | TBD | Staff time | -- | Director of Property Services | Cabinet Member for Finance |
| Replace c. 124 end-of-life/lease cars, vans and minibuses with electric vehicles – c. 10 would replace temporary hire EVs already in fleet | EVs ordered in 2023/24, delivered in 24/25 | Direct | £6 m (from the total £18 m request) | Pending funding – awaiting outcome of capital programme request | 318 t CO2e ¹⁷ (part of the 578 t CO2e total saving) | Head of Procurement/ Director of Property Services | Cabinet Member for Finance |
| Replace 10 end-of-life/ lease cars and vans in Fire & Rescue with electric vehicles | EVs ordered in 2023/24, delivered by March 2024 | Direct | TBD | First year fully funded – service revenue budget, OFRS budget | 11 t CO2e ¹⁸ | FRS Business Manager | Cabinet Member for Community Services and Safety |
| Expand EV charging infrastructure | | Enabling | TBD | Partly funded – c. £375k available | -- | Director of Property Services | Cabinet Member for Finance |
| Work with Highways colleagues to identify the pre-requisites and to develop the business case to | | Enabling | -- | Staff time | -- | Director of Property Services/ Head | Cabinet Member for Finance |

¹⁷ Assumed 114 diesel vehicles to be converted to electric, as per capital request business case submitted in October 2022, and an average fuel use, based on the 2021/22 main fleet total litres of fuel, was used to calculate the estimated carbon saving. Once the One Fleet management system has been in 12 months and more accurate fuel data is received, the estimated carbon saving will be updated.

¹⁸ Assumed 10 diesel cars to be converted to electric and an average fuel use was used to calculate the estimated carbon saving. Once the OFRS fleet replacement plan has been updated, the emissions saving will be updated to reflect more accurate fuel use.

| Action | Year of works/delivery | Type | Estimated investment | Status and source of funding | Estimated annual CO2e saving ¹⁴ | Officer Lead | Cabinet Lead |
|---|---|----------|---------------------------|-------------------------------------|--|-------------------------------|--|
| make our highways depots compatible with EV charging | | | | | | of Highway Maintenance | |
| Work alongside Property colleagues to identify suitable sites for EV charging | | Enabling | -- | Staff time | -- | Director of Property Services | Cabinet Member for Finance |
| Carry out a feasibility study and environmental impact assessment to shift diesel fire fleet to HVO | | Direct | TBD | Feasibility – staff time only | TBD | FRS Business Manager | Cabinet Member for Community Services and Safety |
| Launch HYER (HySPERT phase 2) – building of a prototype hydrogen range extender fire engine | | Enabling | TBD | Fully funded – Innovate UK | TBD | Head of iHub | Cabinet Member for Corporate Services |
| Staff travel | | | | | | | |
| Implement low carbon staff travel programme | | Direct | -- | Staff time | 45 t CO2e ¹⁹ | Director of Property Services | Cabinet Member for Finance |
| Purchase essential user vehicles and work alongside HR to identify eligible staff | EVs ordered in 2023/24, delivered 2024/25 | Direct | £750k (requested 2022/23) | Pending funding - capital programme | 61 t CO2e | Director of Property Services | Cabinet Member for Finance |

¹⁹ Based on the carbon reduction targets agreed by CDAI, E&P and Customer Services. Actions to support this reduction include continuation of a 'digital by default' approached to meetings, continued enforcement of the travel hierarchy, continued take up of the electric car benefit scheme, continued take up of electric pool cars and continued better route planning and from 2024/25 offer driver training and promote car sharing.

| Action | Year of works/ delivery | Type | Estimated investment | Status and source of funding | Estimated annual CO2e saving ¹⁴ | Officer Lead | Cabinet Lead |
|---|----------------------------|----------|----------------------|------------------------------|--|--------------|----------------------------|
| Insetting & Financing | | | | | | | |
| Develop our internal insetting strategy – clarify our approach to insetting and identify offsetting options available | | Enabling | TBD | Staff time | TBD | ??? | Cabinet Member for Finance |
| Develop our net-zero finance strategy | | Enabling | TBD | Staff time | TBD | ??? | Cabinet Member for Finance |

8. Actions for 2025-30

| Action | Type | Estimated investment | Status and source of funding | Estimated annual CO2e saving ²⁰ | Officer Lead | Cabinet Lead |
|--|----------|---|---|---|-------------------------------|--|
| Highway assets | | | | | | |
| Subject to funding & resources, convert 8 traffic signals per year to LED | Direct | TBD | Unfunded | 1-2 t CO2e per annum (7 t CO2e over the 5 years) | Head of Highway Maintenance | Cabinet Member for Highways Management |
| Buildings | | | | | | |
| Deliver funded energy efficiency projects | Direct | TBD (pending audit results) | Pending funding – PSDS, recycling fund, capital programme | TBD (pending audit results) | Director of Property Services | Cabinet Member for Finance |
| Continued delivery of remote access BMS system across whole estate | Direct | -- | Staff time only | TBD | Director of Property Services | Cabinet Member for Finance |
| Complete final energy audits once property portfolio is finalised | Enabling | c. £3k per site | Existing funding – revenue budget, capital programme | -- | Director of Property Services | Cabinet Member for Finance |
| Submit phase 2 capital programme request for c. 50 sites ²⁰ (Works starting 2025/26 for 4 years) | Direct | c. £20 m (over 4 years starting 2025/26) ²¹ | Pending funding - capital programme (already in capital pipeline), PSDS | 106.9 t CO2e per annum 427 t CO2e over the 4 years ²⁰ | Director of Property Services | Cabinet Member for Finance |

²⁰ The full year carbon savings for actions implemented between 2025-2030 will be realised in the year following the implementation and reported in the relevant GHG report.

²¹ The final site list will be determined following delivery of the Property Strategy and decisions on property rationalisation are made. Completion of energy audits will provide more accurate cost and carbon savings. Carbon savings currently assume transition to heat pumps and the Coefficient of Performance used to calculate the estimated carbon saving from 2021/22 gas usage data.

| Action | Type | Estimated investment | Status and source of funding | Estimated annual CO2e saving ²⁰ | Officer Lead | Cabinet Lead |
|--|----------|---|---|--|---|--|
| Submit grant funding applications as suitable funds become available | Enabling | -- | Staff time | -- | Director of Property Services | Cabinet Member for Finance |
| Release buildings (estate rationalisation) | Direct | -- | Revenue saving | TBD | Director of Property Services | Cabinet Member for Finance |
| Fleet | | | | | | |
| Replace 93 end-of-life/lease cars, vans and minibuses with electric vehicles ²² (62 EVs ordered in 2024/25, delivered 2025/26; and 31 EVs ordered in 2025/26, delivered 2026/27) | Direct | £12 m (from the total £18 m request) | Pending funding - capital programme request | 173 t CO2e in 2025/26 87 t CO2e in 2026/27 (part of the 578 t CO2e total saving) | Head of Procurement/ Director of Property Services | Cabinet Member for Finance |
| Continue to replace outstanding end-of-life/lease cars and vans with electric vehicles when suitable for service needs | | | | | | |
| Continue to replace end-of-life/lease cars and vans in Fire & Rescue with electric vehicles | Direct | TBD | Pending funding – capital business case to be developed | c. 88 t CO2e spread over 6 years ²³ | FRS Business Manager | Cabinet Member for Community Services & Safety |

²² Assumed 93 diesel vehicles to be converted to electric, as per capital request business case submitted in October 2022, and an average fuel use, based on the 2021/22 main fleet total litres of fuel, was used to calculate the estimated carbon saving. Once the One Fleet management system has been in place for 12 months and more accurate fuel data is received, the estimated carbon saving will be updated.

²³ An average fuel use of the remaining Fire & Rescue diesel cars and vans was used to estimate the total carbon. Approval of the capital business case will confirm the fleet replacement programme and the estimated carbon saving will be updated.

| Action | Type | Estimated investment | Status and source of funding | Estimated annual CO2e saving ²⁰ | Officer Lead | Cabinet Lead |
|--|----------|----------------------|---|--|------------------------------------|--|
| Continue to work with Innovation colleagues to identify the most suitable alternative solution to diesel fire appliances | Enabling | TBD | Staff time | TBD | FRS Business Manager/ Head of iHub | Cabinet Member for Community Services & Safety |
| Expand EV charging infrastructure | Enabling | TBD | Unfunded - further funding will be required subject to assessment work completed in 2023/24 | -- | Director of Property Services | Cabinet Member for Finance |
| Staff travel | | | | | | |
| Implement low carbon staff travel programme | Direct | TBD | Staff time | TBD | Director of Property Services | Cabinet Member for Finance |

9. Supply chain and schools

9.1. Tackling our supply chain emissions

Due to data availability, we currently report on a limited subset of our supply chain emissions, which fall under scope 3 emissions. However, we are aware of their importance – it is estimated that OCC's supply chain emissions represent more than 90 per cent of the Council's total carbon footprint²⁴. Consequently, we have committed to consider the climate and carbon implications of our key investment decisions and to work with suppliers to reduce the emissions associated with the delivery of Council contracts.

To gain an understanding of the breadth of our supply chain emissions, a scope 3 GHG emissions assessment of OCC's procurement activity was undertaken, using the Council's procurement expenditure data for 2020/21. This provided a high-level estimate of our scope 3 supply chain emissions and identified emission hotspots to prioritise; including the contribution of the Council's major suppliers to our scope 3 emissions.

The scope 3 emissions assessment helped to inform the development of a wider approach to align scope 3 emissions with science-based targets. A subsequent Policy Position on reducing our supply chain emissions has been developed and was approved by Cabinet in June 2023. The proposed policy builds on our existing commitment to work collaboratively with suppliers to address our supply chain emissions and to ensure they are increasingly aligned with the science-based emissions reduction trajectory for 1.5°C.

To align our supply chain emissions with science-based targets, we aim to:

- Engage with our key suppliers on their carbon emissions and expand supply chain emission reporting, using emissions data provided by suppliers.
 - All new Council contracts of a value of over £1 million per annum will also include a requirement for reporting of scope 1 and 2 emissions to the Council.
- Collaborate with our suppliers and purchasing organisations on decarbonisation opportunities.
- Implement low carbon principles and specifications in future Council contracts.
- Maximise the effectiveness of Oxfordshire County Council's Social Value Policy to realise further supply chain emission reduction opportunities
- Increase our ambitions for a low carbon supply chain over the next 5 years.

In 2023/24 we aim to focus on engaging our major suppliers, the top 40 suppliers represented around 40 per cent of procurement expenditure in 2020, to understand if

²⁴ Source – 2022 Oxfordshire County Council Scope 3 Emissions Report

they are currently reporting on their own carbon emissions and what plans they have to become net-zero.

Whilst supply chain emissions are not part of our operating at net-zero by 2030 target, we recognise their importance and the strong influence we can have which will contribute towards a zero carbon Oxfordshire by 2050.

For further information, please see the Supply Chain Emissions Policy Position agenda [item](#).

9.1.1. Scope 3 - highways maintenance

We have already started working with our highways maintenance contractor, Milestone, to understand the scope 3 emissions associated with the maintenance of Oxfordshire's highways. Milestone are one of the 40 major suppliers identified in the scope 3 emissions assessment.

Milestone themselves have a net-zero by 2040 target and are currently working towards PAS 2080 accreditation, a global standard for managing carbon in infrastructure. Milestone are therefore working to understand the carbon emissions associated with each of their maintenance contracts; to develop a trajectory to net-zero; and to explore options for decarbonisation around four key areas associated with highways maintenance – design, materials, plant & fleet and depots.

As part of the final two-year highways maintenance contract extension, we have agreed with Milestone annual carbon reduction targets from 2022/23 to 2024/25:

| Year | Minimum CO2 saving |
|---------|--------------------|
| 2022/23 | 973 |
| 2023/24 | 1045 |
| 2024/25 | 1117 |

Our work to date with Milestone includes starting to quantify the estimated carbon emissions for the last five years in order to develop a baseline and to set up the mechanism for receiving quarterly carbon emission reports from 2022/23. The current estimated 2021/22 baseline is 13,509 tCO₂. This baseline figure is evolving as work continues to quantify the historic carbon emissions and further distilling of information and data will allow for improved emissions modelling capability.

Milestone have identified five specific activities or areas where carbon reduction can be measured for each of the four focus areas (design, materials, plant & fleet and depot). The carbon reduction for these activities is already being measured and as more measurable activities are identified, these will be included in the reporting.

Going forward, we are keen to work together to explore the options for decarbonising the depots and the opportunities for electric vehicle charging infrastructure at each

depot to support the transition to electric for the less than 7.5 tonne highways maintenance vehicles.

Activities/actions taken to date/ due to complete by end-March 2023:

- Analytical analysis and development work to enable carbon emissions reporting from 2022/23 via an app.
- Introduction of Hydrotreated Vegetable Oil (HVO) into 80% of fleet (all gritters and small tools operating on HVO).

Future activities/actions planned (2023 onwards):

- Quarterly carbon emissions data.
- Work with OCC Property colleagues to identify viable options for decarbonising depots and installing EV charging infrastructure.

9.2. Schools

We report on emissions from our maintained schools in our annual Greenhouse Gas report. However, as maintained schools are responsible for their own operations and energy and maintenance budget, emissions from schools are not part of our net-zero by 2030 target. The decarbonisation of schools is however part of the zero carbon Oxfordshire by 2050 target, and we have therefore committed to support our currently 126 maintained schools to take action on energy efficiency.

Our work to date to support schools:

- Action on Carbon and Energy in Schools ([ACES](#)) programme – ACES is funded by us. It is an energy efficiency support service to help schools in Oxfordshire to carry out energy saving measures that will:
 - cut carbon emissions
 - save money on energy bills
 - make buildings more comfortable and healthier for staff and student

ACES support includes for example:

- free energy assessments to identify the changes that would benefit the school
 - thermal imaging assessments
 - one to one advice to schools on energy efficiency opportunities via the ACES helpline
 - information and awareness raising through a social media engagement campaign and webinars hosted by a dedicated website
 - creating bespoke energy efficiency plans for schools
 - funding to cover simple measures such as boiler room insulation
- Condition surveys and energy audits – condition surveys are currently being carried out on all OCC maintained schools (excluding Voluntary Aided schools), along with energy audits for 50 OCC maintained schools. These surveys will

identify structural & maintenance works which need to be carried out as well as the potential energy efficiency retrofitting works. Once complete, the information from these surveys can be used to develop business cases for applying for funding.

- Grant funding – we supported nine schools to apply for Public Sector Decarbonisation Scheme (PSDS) funding. £1.6m of funding was successfully awarded under PSDS rounds 1 and 3a for insulation measures, solar PV and low carbon heating which is estimated to save over 150 tCO₂e.

Our support going forward:

We have committed in both our Climate Action Framework and the newly adopted Property Strategy to support and invest in our maintained schools. We therefore plan to build on the support provided to date:

- Energy audits - we plan to complete energy audits on a further 50 schools in 2023/24 and the remaining schools in 2024/25. Once the audits are complete, we aim to support schools in understanding the results of the surveys; in identifying the pathway for decarbonising the school building; and in developing the business cases for applying to central government for funding to complete the works.
- Grant funding - we will also use the results of the energy audits to create a forward plan and to identify the associated resource needed to support schools in applying for grant funding when appropriate opportunities arise.
- ACES – we will continue to fund the ACES programme. This support service will support schools in understanding and evaluating the quotes received for energy efficiency measures and selecting appropriate contractors.
- Financing – following approval of a £800k Capital Request, we will launch in 2023 an energy efficiency loan pilot scheme, providing OCC maintained schools with low-cost finance to install energy efficiency measures. Initially the pilot scheme will be focussed on funding LED lighting and solar PV. It is envisioned that the scheme will expand to include additional energy efficiency measures upon proof of concept.