

Agenda

Climate and Environment Panel (Panel of the Scrutiny Committee)

This meeting will be held on:

Date: **Thursday 9 March 2023**

Time: **6.00 pm**

Place: **Zoom - Remote meeting**

For further information please contact:

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The meeting will be livestreamed and available to view on the Council's youtube channel.

Please contact the Scrutiny Officer to register to speak or with any other queries.

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All public papers are available from the calendar link to this meeting once published

Membership

Councillor Jemima Hunt (Chair)

Councillor Paula Dunne

Councillor Emily Kerr

Councillor Katherine Miles

Agenda

		Pages
1	Apologies	
2	Declarations of interest	
3	Chair's announcements	
4	Public addresses	
	All public addresses will be directed through the Chair. Public addresses will be limited to five minutes each.	
5	Development of a Biodiversity Strategy for Oxford	9 - 14
	Cabinet will, at its meeting on 15 March 2023, consider a report on the Development of a Biodiversity Strategy for Oxford. Cllr Anna Railton, Cabinet Member for Zero Carbon Oxford and Climate Justice, Mish Tullar, Head of Corporate Strategy, and Mai Jarvis, Environmental Sustainability Lead, have been invited to present the report and to answer questions.	
	The Panel is asked to consider the report and to agree any recommendations it wishes to make to Cabinet.	
6	Net Zero Master Plan	15 - 28
	The Head of Corporate Strategy has submitted a copy of the Net Zero Master Plan 2023-2025 which sets out Oxford City Council's actions over the next two years to achieve its two carbon targets: a Net Zero Estate and Operations by 2030 and a Net Zero City by 2040.	
	Cllr Anna Railton, Cabinet Member for Zero Carbon Oxford and Climate Justice, Mish Tullar, Head of Corporate Strategy, and Rose Dickinson, Carbon Reduction Team Manager, have been invited to present the Master Plan and to answer questions.	
	The Panel is asked to note the Master Plan and to agree any recommendations it might wish to make to Cabinet.	
7	Zero Carbon Oxford Partnership	29 - 40
	The Head of Corporate Strategy has submitted a report on the work of	

Zero Carbon Oxford Partnership ('ZCOP').

Cllr Anna Railton, Cabinet Member for Zero Carbon Oxford and Climate Justice, Mish Tullar, Head of Corporate Strategy, and Rose Dickinson, Carbon Reduction Team Manager, have been invited to present the report and to answer questions.

The Panel is asked to note the report and to consider any recommendations it might wish to make to Cabinet.

8 Fleet Decarbonisation

41 - 46

The Head of Corporate Strategy has submitted a report updating the Panel on fleet decarbonisation.

Cllr Anna Railton, Cabinet Member for Zero Carbon Oxford and Climate Justice, and Mish Tullar, Head of Corporate Strategy, have been invited to present the report and to answer questions.

The Panel is asked to note the report and to consider any recommendations it wishes to make to Cabinet.

9 Work Plan

The Panel is asked to identify items it wishes to place on its work plan.

10 Date of next meeting

The Panel is asked to identify a suitable date for its next meeting before the close of the municipal year.

Notes and Information for those attending

Councillors declaring interests

General duty

You must declare any disclosable pecuniary interests when the meeting reaches the item on the agenda headed “Declarations of Interest” or as soon as it becomes apparent to you.

What is a disclosable pecuniary interest?

Disclosable pecuniary interests relate to your* employment; sponsorship (ie payment for expenses incurred by you in carrying out your duties as a councillor or towards your election expenses); contracts; land in the Council’s area; licenses for land in the Council’s area; corporate tenancies; and securities. These declarations must be recorded in each councillor’s Register of Interests which is publicly available on the Council’s website.

Declaring an interest

Where any matter disclosed in your Register of Interests is being considered at a meeting, you must declare that you have an interest. You should also disclose the nature as well as the existence of the interest. If you have a disclosable pecuniary interest, after having declared it at the meeting you must not participate in discussion or voting on the item and must withdraw from the meeting whilst the matter is discussed.

Members’ Code of Conduct and public perception

Even if you do not have a disclosable pecuniary interest in a matter, the Members’ Code of Conduct says that a member “must serve only the public interest and must never improperly confer an advantage or disadvantage on any person including yourself” and that “you must not place yourself in situations where your honesty and integrity may be questioned”. The matter of interests must be viewed within the context of the Code as a whole and regard should continue to be paid to the perception of the public.

Members Code – Other Registrable Interests

Where a matter arises at a meeting which directly relates to the financial interest or wellbeing** of one of your Other Registerable Interests*** then you must declare an interest. You must not participate in discussion or voting on the item and you must withdraw from the meeting whilst the matter is discussed.

Members Code – Non Registrable Interests

Where a matter arises at a meeting which **directly relates** to your financial interest or wellbeing (and does not fall under disclosable pecuniary interests), or the financial interest or wellbeing of a relative or close associate, you must declare the interest.

Where a matter arises at a meeting which affects your own financial interest or wellbeing, a financial interest or wellbeing of a relative or close associate or a financial interest or wellbeing of a body included under Other Registrable Interests, then you must declare the interest.

You must not take part in any discussion or vote on the matter and must not remain in the room, if you answer in the affirmative to this test:

“Where a matter affects the financial interest or well-being:

- a. to a greater extent than it affects the financial interests of the majority of inhabitants of the ward affected by the decision and;

b. a reasonable member of the public knowing all the facts would believe that it would affect your view of the wider public interest You may speak on the matter only if members of the public are also allowed to speak at the meeting.”

Otherwise, you may stay in the room, take part in the discussion and vote.

*Disclosable pecuniary interests that must be declared are not only those of the member her or himself but also those member’s spouse, civil partner or person they are living with as husband or wife or as if they were civil partners.

** Wellbeing can be described as a condition of contentedness, healthiness and happiness; anything that could be said to affect a person’s quality of life, either positively or negatively, is likely to affect their wellbeing.

*** Other Registrable Interests: a) any unpaid directorships b) any Body of which you are a member or are in a position of general control or management and to which you are nominated or appointed by your authority c) any Body (i) exercising functions of a public nature (ii) directed to charitable purposes or (iii) one of whose principal purposes includes the influence of public opinion or policy (including any political party or trade union) of which you are a member or in a position of general control or management.

To: Cabinet
Date: 15 March 2023
Report of: Head of Corporate Strategy
Title of Report: Development of a Biodiversity Strategy for Oxford

Summary and recommendations	
Purpose of report:	To present Cabinet with a proposed approach to the development of a Biodiversity Strategy for the City of Oxford.
Key decision:	Yes
Cabinet Member:	Councillor Anna Railton, Cabinet Member for Zero Carbon Oxford and Climate Justice
Corporate Priority:	Pursue a zero carbon Oxford
Policy Framework:	Council Strategy 2020-24

Recommendation: That Cabinet resolves to:

1. **Note** the report and the proposed establishment of steering group in connection with the preparation of the Biodiversity Strategy.

Appendices

None.

Introduction and background

1. On 3rd October 2022, the Council adopted a motion addressing the ecological emergency. The Council resolved to:

“Request that the Head of Corporate Strategy submits a report to Cabinet setting out options to develop and agree on an evidence-based strategy and action plan to tackle the ecological emergency and report on the progress made...”

2. Previously, Oxford City Council produced the Biodiversity Action Plan 2015-2020, which set objectives focused on the Council’s roles as landowner, regulator, and facilitator. However, to address the ecological emergency any biodiversity strategy

needs to consider a citywide approach, rather than just actions the Council can take itself. It will need to look more widely at any contributing factors to the ecological emergency, understand the current state of nature, and identify actions across all sectors to help address the issues.

3. At present, multiple teams within Oxford City Council and across organisations inside and outside the city undertake work related to conserving and enhancing ecology at the organisation, city, and county levels. A dedicated strategy and action plan would need to coordinate and support this work in pursuit of a defined set of shared objectives.
4. The City Council itself convenes groups that work to conserve and enhance nature, such as the Green and Blue Spaces Network, while also being a member of countywide partnerships including the Oxfordshire Local Nature Partnership.
5. The Environment Act 2021 requires that a Local Nature Recovery Strategy (LNRS) will be produced for Oxfordshire as whole, for which Oxfordshire County Council will likely be the responsible authority. Any city-focused strategy needs to be mindful of the fact that nature operates across district and county boundaries, and should seek to work effectively alongside the LNRS.
6. In order to formulate a Biodiversity Strategy we first need to identify the specific problems it should aim to solve – the key objectives and targets. This should be followed by work with key stakeholders to identify ways to meet the objectives and finally agreement through an action plan of how the objectives will be pursued.
7. It is recommended that a Steering Group is set up to help develop the work, including stakeholder representing those engaged in or with the influence to enhance and conserve nature. It is expected that the steering group will include representatives from the Local Nature Partnership, health, universities, businesses, wildlife groups, planning and community groups. The City Council would expect to chair the steering group and lead the development of the strategy with input from all sectors. Below is an overview of the recommended steps a steering group could take to develop a strategy.

Baseline Exercise

8. The first task in formulating the strategy is to identify the specific problems it should aim to solve. This should begin with an exercise to pull together the various disparate sources of data and information related to biodiversity to generate a baseline understanding of the state of nature in Oxford.
9. This would include compiling and analysing data from the Thames Valley Environmental Records Centre (TVERC) and Natural England, the Green Infrastructure Study and Urban Forest Strategy commissioned by the Oxford City Council, as well as work undertaken in support of the Conservation Target Areas and draft Nature Recovery Network, among other sources.
10. A Steering Group would then need to evaluate the baseline and identify what the most pressing issues in the areas of ecology and biodiversity are, what solutions may exist to address these, and – crucially – what is in the scope of the partners to influence through the production of a Biodiversity Strategy and Action Plan.

Key Areas of Focus

11. There are a number of areas of focus a Biodiversity Strategy could cover. Some of these are outlined below to provide an overview of what a future strategy might contain:
- Ensuring the numerous designated sites in Oxford are appropriately managed while exploring the potential to make them bigger, better and more joined up.
 - Maximising the ecological and biodiversity value of land under the control of the Oxford City Council wherever possible and ensuring it contributes to the wider nature recovery network. Ensuring land is managed in a sustainable manner considering the appropriateness of the use of pesticides including glyphosates.
 - Supporting other organisations and individuals to maximise the ecological and biodiversity value of their land within Oxford by promoting best practice and knowledge sharing.
 - Promoting urban greening within Oxford City as a means of maintaining and increasing its permeability to nature and connectivity between the most ecologically valuable areas.
 - Improving public access to nature, potentially through greening public rights of way and creating wilder and more natural public spaces.
12. However, any decision on where to focus work should be informed by the Steering Group and by the state of nature assessment.

Designated Sites

13. There are eight Sites of Special Scientific Interest (SSSI) selected for their nature conservation value within the city. The largest is the Port Meadow with Wolvercote Common & Green SSSI at 167.14ha, which forms part of the internationally important Oxford Meadows Special Area of Conservation. The smallest is the Lye Valley SSSI at 2.34ha, which supports nationally rare and threatened calcareous valley fen, making it the jewel in the crown of Oxford's wetland habitats.
14. The SSSIs are actively managed and Natural England considers much of the land to be in favourable condition. An audit could be undertaken to better understand how favourable condition can be retained/achieved across these sites, in addition to exploring the potential to make them bigger, better and more joined up.
15. Oxford also includes 66 sites protected by various local designations (e.g. Local Wildlife Sites). Many of these are under private ownership and little is known about their current condition. The Council has commissioned the Thames Valley Environmental Records Centre (TVERC) to undertake a data review to establish the existing knowledge base for these sites, which could form the basis for additional work to assess, protect and improve their ecological value.

Land owned by Oxford City Council

16. The City Council manages and owns large areas of land in the city and has a long record of delivering biodiversity improvements. It will be essential to ensure that any land which the City Council has direct control over maximises its benefits for nature.
17. Ensuring that land managed by the City Council has plans in place for effective habitat management could be a key feature of a strategy. This would require a baseline understanding of the current state of the land and management practices, including the use of pesticides.
18. The strategy could also help ensure all service areas within the Council consider ecology and biodiversity within their work, including project planning and procurement decisions.

Land owned by other individuals and organisations

19. It is essential that the strategy engages landowners across Oxford and actions supporting landowners to enhance biodiversity must be included. This may entail the provision of advice or resources regarding best practice for nature conservation, or by connecting landowners with other organisations with the relevant expertise and interests. The first step would be to establish what the opportunities may be and what the needs of those landowners are.

Urban greening and connectivity

20. Valuable work has been undertaken mapping green spaces in Oxford, including in the Urban Forest Strategy and the Green Infrastructure (GI) Study¹. The study concluded that: *“A key issue for the city is reducing fragmentation and improving habitat connectivity to improve ecological resilience”*.
21. The existing mapping work could be built on to develop a better understanding of how the main areas of ecological value are linked and how certain faunal groups (e.g. birds, bats and invertebrates) move through the city. This would entail relating the mapping undertaken to knowledge of where protected species are most prevalent, informed by the baseline exercise described above.
22. The concept of green corridors could be formalised and the scope for enhancing them explored. This could aim to achieve beneficial management of a range of urban features (roadside verges, hedgerows, private gardens, etc.). The concept of green corridors already forms part of planning policies and recent work has been undertaken to develop a Nature Recovery Network for Oxfordshire which covers Oxford as well, which seeks to link up areas of value for nature.

¹ Oxford City Council Green Infrastructure Study, available at:
https://www.oxford.gov.uk/downloads/file/8112/occ_green_infrastructure_study_2022

Public access to nature

23. The GI Study found there is “generally good access” to natural green spaces within 15 minutes’ walking time for most of the City but with some gaps – for example in the Cowley/Temple Cowley area. In addition, most public open spaces were evaluated as being of excellent or good quality (84%) but issues including low biodiversity value were identified in others.
24. The Biodiversity Strategy could contribute to efforts to improve both access and open space quality. Potential areas of investigation include the greening of public rights of way and increasing habitat diversity in public spaces. Initially, the findings of the GI Study could be used as the foundation for further assessment of the specific challenges and prioritisation of potential actions.

Financial implications

25. Until the full scope of the strategy is decided with stakeholders it is not possible to estimate costs. The Council holds £10,000 awarded by DEFRA, some of which can be utilised in the development of the strategy.

Legal issues

26. Under the Natural Environment and Rural Communities Act 2006 (as amended by the Environment Act 2021), Oxford City Council has a duty to conserve and enhance biodiversity. Section 40(1) of the 2006 Act now states:

“A public authority which has any functions exercisable in relation to England must from time to time consider what action the authority can properly take, consistently with the proper exercise of its functions, to further the general biodiversity objective”.

This initial consideration must be completed by the authority within one year of the amended subsection taking effect which will be by 1 January 2024.

27. Oxford City Council needs to meet the additional reporting requirements under the Act, relating both to actions taken in relation to the enhanced biodiversity duty, and actions taken in relation to biodiversity net gain.

Level of risk

28. A full risk assessment will be developed as part of the Strategy Development.

Equalities impact

29. Access to nature is expected to be a key theme of the Biodiversity Strategy. The improved environmental quality that the Biodiversity Strategy will aim to deliver can lead to better physical and mental health amongst all our citizens, thus helping

to tackle some of the inequalities in the city. Further equalities impacts will be considered as part of strategy development.

Carbon and Environmental Considerations

30. The purpose of the development of the Biodiversity Strategy is to enhance and improve nature. This proposed strategy will comply with Oxford City Council's policies and commitments relating to carbon reduction and safeguarding the environment.

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Background Papers: None

NET ZERO MASTER PLAN

2023 - 2025

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Introduction

The purpose of this document is to capture Oxford City Council's actions over the next two years (2023 – 2025) to achieve its two carbon targets: a Net Zero Estate and Operations by 2030 and a Net Zero City by 2040. The focus is on short term (to 2025), time-bound actions that are planned or in delivery. This is to facilitate tracking and monitoring by the Net Zero Steering Group of officers, the Corporate Management Team (CMT) and the Climate and Environment Panel. Longer term activity is captured within other documents, including (but not limited to) the 4th Carbon Management Plan and the Zero Carbon Oxford Roadmap and Action Plan. The plan is broken down into three sections.

1. Section 1 addresses the Council's target to achieve Net Zero by 2030. This target is inclusive of Scope 1 (direct emissions e.g. from fuel combustion in boilers and fleet vehicles) and Scope 2 (indirect emissions from purchased energy) emissions. Scope 3 includes emissions not produced by the City Council but resulting from its activities including let buildings, purchased goods and services. The Council currently includes selected Scope 3 emissions in its 2030 target, as set out in the 4th Carbon Management Plan¹ (transmission and distribution of standard grid electricity, business travel and water use). Other Scope 3 emissions, notably council housing and commercial buildings (where the Council does not pay the bill and has limited control) are excluded from the 2030 target and covered instead by the city-wide 2040 goal. The Council is committed to taking steps to better understand, tackle and measure Scope 3 emissions recognising the significance of this emission source. Offsetting will only be considered as a last resort – and not until 2030 - by which point all carbon reduction measures should have been exhausted, with residual emissions primarily limited to grid supplied electricity until 2035, when the grid is due to fully decarbonise.
2. Section 2 addresses the Council's target to achieve city-wide Net Zero by 2040. This target is based on the Carbon Trust's definition of a net zero City or Region: "A net zero city or region will set and pursue an ambitious 1.5°C-aligned science-based target for all emissions sources covered within the BASIC+ reporting level of the Global Protocol for Community-Scale Greenhouse Gas Emission Inventories (GPC). Any remaining hard-to-decarbonise emissions can be compensated with certified greenhouse gas removal (GGR)."² Basic+ emissions include all Scope 1 (emissions from sources located within the city boundary) and Scope 2 (occurring as a consequence of the use of grid-supplied electricity, heat, steam and / or cooling within the city boundary) emissions, plus selected Scope 3 emissions (including exported waste, Transmission and Distribution, and transportation).³ Although other Scope 3 emissions are excluded from the target (e.g., embodied in investments, water, food and construction materials), efforts will be made to influence and reduce these emission sources through the work of the ZCOP.
3. Section 3 summarises completed actions for the previous two years.

Officers are working to improve this document by:

- Incorporating greenhouse gas reporting against each target and sector to show progress to date;
- Adding financial information where this is known, including grant funding received and more clearly highlighting any budget/ resource gaps
- More comprehensively logging completed actions.
- Clarifying outputs for each action so it is clear when an action is 'done'.
- Identifying max of 5 benefits for each action including a 'strong' or 'weak' relationship to each

Interpreting the action table:

Action area	Actions [and action origin]	Resources	Intermediary milestones if relevant	Outcome	Due date (financial quarter)	Status
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¹ https://www.oxford.gov.uk/download/downloads/id/7518/zero_carbon_plan_2030.pdf Appendix 1 and Appendix 2

² <https://www.carbontrust.com/cy/node/1275>

³ Scope 3 emissions include all other GHG emissions that occur outside the city boundary as a result of activities taking place within the city boundary https://ghgprotocol.org/sites/default/files/standards/GPC_Full_MASTER_RW_v7.pdf

Actions grouped together by theme e.g. “Internal Governance” includes all actions to improve City Council governance processes on Net Zero.	Time-bound actions and their origin (where they have been agreed) e.g., the relevant Cabinet meeting.	The budget or staff resource needed to deliver the action. Colour-coded as advised by the BDO audit (see key at the top of the table).	E.g. internal or other governance processes	The outcome of the action.		Indicates whether the action is planned or in progress. Completed actions can be found in section 3.
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2023/ 24 Actions

Resources secured (source)	Costs known (potential source)	Costs unknown (potential source)
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Action area	Actions [and action origin]	Resources	Intermediary milestones if relevant	Outcome	Due date (financial quarter)	Status
Internal governance	1. Produce detail costings for commitments made in the Carbon Management Plan and Zero Carbon Oxford Action plan including resourcing, costs (known and unknown), and current/ future funding streams. Include a log of funding applied for. [Environment Audit response 2022]	Staff time (ES, finance)	N/A	Understand funding received and potential gaps	Q1	Planned
	2. Integrate Net Zero and biodiversity goals into corporate governance documents (PID, business cases). [Environment Audit response 2022]	Staff time (ES and regen)	NA	Consistent consideration of net zero in corporate decision making	Q1	In progress
Energy demand reduction projects	3. Progress Salix pipeline project priorities including Leys lighting and low emissivity ceiling for the Ice Rink [Carbon Management Plan; Leaders briefing April '22]	Staff time (Carbon Reduction Team, leisure, Corporate Property)	Leys lighting project to Development Board in March Low emissivity ceiling structural works being developed & then will return again to Asset Review Group for final approvals.	Delivery of priority energy and carbon reduction projects.	Q1 (Leys) Q2 (Ice Rink)	In progress
Renewables/ low carbon tech on Council land	4. Commission feasibility study to assess land assets for potential renewables/ low carbon tech opportunities. [Carbon Management Plan; Leaders briefing April '22]	£TBC (Net Zero Transition Fund)	Agree scope and methodology with property and Asset Review Group.	Business cases for potential projects that will reduce energy bills/ generate income and reduce carbon	Q1	Planned
	5. Develop detailed business cases for immediately viable rooftop solar on-site generation options at Barton leisure centre and Ferry for decision by Council. Include need for feasibility. Question roof structure (Ferry). [Carbon Management Plan; Leaders briefing April '22]	Staff time (Property Services and Environment Sustainability)	Establish condition of buildings for suitability. Establish viability Business case signed off by ARG	Energy savings and carbon reduction	Q2	Planned
	6. Completion of scoping exercise across all Council corporate roof-tops for solar to determine suitability and who will benefit if installed [Carbon Management Plan; Leaders briefing April '22]	Staff time and consultancy	Agree scope with property services and Asset Review Group.	Clarity about potential for rooftop solar on Council-owned buildings and who will benefit from electricity	TBC	Planned

Action area	Actions [and action origin]	Resources	Intermediary milestones if relevant	Outcome	Due date (financial quarter)	Status
	7. Complete detailed feasibility work and wider engagement on Hinksey Lake PV [Carbon Management Plan; Leaders briefing April '22]	£TBC (Net Zero Transition Fund)	Input from planning, leisure, environmental quality, community groups and property H&S Engage with the Low Carbon Hub Agree with ARG	Reduce operating costs of heat pump at Hinksey + carbon reduction	Q3	Planned
Energy and water procurement	8. Scope options/ opportunities for Power Purchase Agreements with the Low Carbon Hub and ZCOP Partners [Carbon Management Plan; Leaders briefing April '22]	Staff time (Environment Sustainability)	Discuss with LCH Assess energy consumption patterns to establish potential for maximising local PPA	Clarity of potential opportunities to pursue to mitigate impact of energy price rises and increase local renewables	Q2	In progress
	9. Cabinet Report to update energy and water procurement strategy (the new strategy commences in Oct 2024, to coincide with ending of LASER contract). [New / amended action]	Staff time (Carbon Reduction Team and finance)	TBC	Energy and water procurement strategy is updated to reflect current market conditions and deliver best value for money to the Council.	Q4	Planned
Skills and training	10. Develop and schedule delivery of Carbon Literacy training, including key areas such as procurement. [Carbon Management Plan; Environment Audit]	£9k and staff time (Corporate Strategy)	Train the trainer training delivered Course materials produced	Improved awareness of the carbon impacts of corporate/ everyday activities, and the ability to reduce emissions, on an individual and organisational basis	Q2	In progress
Fleet	11. Develop an options paper setting out routes towards the full decarbonisation of fleet vehicles, with full sustainability impacts considered). [Carbon Management Plan]	Staff time (ODS and Environment Sustainability)	25% fleet EV by 2023	Plan setting out different technology options, timescales, impacts and costs to support full fleet decarbonisation.	Q1	In progress
Procurement	12. Implement new environmental impact assessment for large contracts and define best practice about how and when the impact assessment is used. [New / amended action]	Staff time (procurement and all contract managers; budget impact TBC)	TBC	Consistent consideration of environmental impacts in procurement	Q1	In progress

Action area	Actions [and action origin]	Resources	Intermediary milestones if relevant	Outcome	Due date (financial quarter)	Status
				decisions.		
Waste	13. Develop a new strategy for Oxford City Council waste to reflect new working from home arrangements and changes to City Council buildings (e.g., move from SAC to the Town Hall) [New / amended action]	Staff time (ODS and OCC)	New baseline data Discussion prior to the move to Town Hall to understand arrangements	Ensure an internal resource and recycling plan that aligns with Oxfordshire Resource and Waste Partnership objectives	Q3	In progress

2024/ 25 Actions

Resources secured (source)	Costs known (potential source)	Costs unknown (potential source)
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Action area	Actions [and action origin]	Resources	Intermediary milestones if relevant	Outcome	Due date (financial quarter)	Status
Internal governance	14. Scope opportunities for an internal shadow carbon price to improve the business case for decarbonisation including heating electrification. This will link to ongoing work via ZCOP on insetting. [Carbon Management Plan]	£TBC (Staff time and Net Zero Transition Fund)	Link with ongoing Area Based Insetting (ABI) ZCOP project.	Ensure environmental costs and risks are included in decision making by identifying the price of pollution in a transparent way	TBC	Planned
Energy demand reduction projects	15. Deep dive energy audits across highest emitting operational buildings/ where Council pays the bill [Carbon Management Plan]	c.£10k per building (Net Zero Transition Fund)	Heat Decarbonisation Plans delivered 2022	Detailed plans in place to support future funding bids to achieve Net Zero 2030 target.	Q1	Planned
Renewables on Council land	16. Detailed feasibility for key projects identified through initial survey (linked to 8 above). [New / amended action]	£TBC (Net Zero Transition Fund)	TBC	Full details of potential projects understood.	TBC	Planned

Section 2: Net Zero City by 2040

2023/ 24 Actions

Resources secured (source)	Costs known (potential source)	Costs unknown (potential source)
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Action area	Actions [and action origin]	Resources	Intermediary milestones if relevant	Outcome	Due date (financial quarter)	Status
Scope 3 emissions management, monitoring and reporting	17. Develop the Scope 3 baseline in order to produce a Scope 3 emissions reduction plan, working with ZCOP partners to draw on/ share best practice. [Carbon Management Plan]	Staff time (ES team)	Workshop with ZCOP 09/22	Better understanding of scope 3 emissions and approach to management, monitoring and reporting	Q4	Planned
UKRI Pioneer Places funding	18. Deliver feasibility for a FutureFit One Stop Shop to enable retrofit/ EV infrastructure uptake across the commercial, domestic and industrial sectors. [New/ amended action]	UKRI funded	April – June	Understand how to overcome multiple interrelated barriers to decarbonisation in the city	Q2	In progress
Residential buildings (existing)	19. OCC to develop a longer-term strategy and programme of decarbonisation works for own housing stock building on the condition survey report findings including delivery options through voids. [New / amended action]	Staff time (Property team)	Social Housing Decarbonisation Fund bid	Full strategy and programme in place for housing stock decarbonisation. Improved energy efficiency of council housing stock to achieve EPC C target by 2030	Q4	In progress
	20. Bring forward decarb projects for the housing stock, including bids for external funding e.g. SHDF and ECO to support Council target of 95% of its housing stock to be EPC level C or above by 2030. [New / amended action]	Planned maintenance programme with External funding	LAD1b project completed Dec 22. SHDF Wave 2.1 bid submitted Nov 22	Progress made against EPC C 2030 target	TBC	In progress
	21. Develop a communications and engagement plan to increase uptake of energy efficiency improvements in Council - owned properties, supporting tenants where appropriate. This will include retrofitting champions. This will inform bid and delivery of SHDF [New / amended action]	Staff time (landlord services)	Engagement plan developed as part of SHDF wave 2.1. bid	Uptake of retrofit measures is increased.	Q1	In progress
	22. Review and update the Council's welcome pack for new	Staff time (housing, Ox	Review current	Up to date advice on	Q1	In progress

Action area	Actions [and action origin]	Resources	Intermediary milestones if relevant	Outcome	Due date (financial quarter)	Status
	tenants and purchasers of OX Place built homes to ensure advice is available on energy and carbon reduction opportunities. [New / amended action]	Place and ES)	welcome pack	carbon and energy reduction opportunities.		
	23. Commence proactive enforcement of properties with EPCs of F and G [Cabinet decision March 2021]	Fully self-funded	Scheme start Sept 1 2022 Proactive enforcement from Jan 2023	Improve energy efficiency of private rented sector in Oxford, using EPC ratings of D to G to prioritise inspections	Ongoing from Q4 22-23	In progress
	24. Continue the additional licensing scheme for HMOs including proactive enforcement of F&G EPC properties [Cabinet decision March 2021]	Fully self-funded	Started 10 June 2021 with proactive, immediate enforcement.	Improve energy efficiency of HMOs in Oxford, using EPC ratings of D and G to prioritise inspections	Ongoing from 2021	In progress
Council owned community and commercial buildings	25. The City Council will work with ZCOP Partners to explore the principals and pro's and con's of 'Green Leases'. This will consider outcomes of the condition survey in order to future proof in advance of the 2023 date where the Council is planning repairs and maintenance projects. [Scrutiny response 2021]	Staff time (Corporate Property and Environment Sustainability)	Attend ZCOP-organised workshops	Collective understanding of pros, cons and practicalities of green leases between ZCOP partners.	Q3	Planned
Residential buildings (new build)	26. The Council has adopted an aspirational target that all private homes built through the Council's companies are electrically heated and built with a 'fabric -first' approach. OCHL and HRA new builds are currently working to a minimum carbon reduction target of 40% below the new 2021 Building Regulations; which will be exceeded where financially viable. A longer term target is to be zero carbon for regulated energy by 2030 as required by Planning. [New action]	Staff time (OX Place) Additional build costs where the statutory requirement is exceeded.	Started 1 June 2022. Some zero carbon buildings completed or in progress. Ability to exceed target is site cost dependant	Progression to net zero for operational regulated energy to 2030. Homes will be net zero for all operational energy once the electricity grid has decarbonised (estimated 2035).	Ongoing from June 2022	In progress
	27. OX Place will scope out approach to Embodied and/ or whole life carbon in new build homes. [New / amended action]	Staff time (OX Place)	HRG to agree approach and pricing mechanism	Clarify OX Place intermediary approach to embodied energy/whole life carbon prior to likely new Building Regulation in 2025	Q2	In progress
Low carbon skills	28. Work with partners including OxLEP, Ox Place and other developers to increase the number of apprenticeships available in energy efficient construction techniques,	Staff time (Economic Development)	N/A	Measurable increase in number of apprenticeships	TBC	In progress

Action area	Actions [and action origin]	Resources	Intermediary milestones if relevant	Outcome	Due date (financial quarter)	Status
	including ensuring these are prioritised in community employment plans (e.g. Oxford North, West End) and procurement related social value commitments. 29.[New / amended action]			offered		
	30. Use the Council's Shared Prosperity Funding to invest in skills provision and take up for building retrofit across council and subsidiary owned buildings. This will require engagement and potentially commissioning with local Training Providers, as well as work with main contractors and sub- contractors to ensure sufficient capacity and local labour market benefits. [New / amended action]	Staff time (Economic Development and Environment Sustainability)	Skills audit/feasibility study by December 2023 SPF Programme delivery 2024/25	Increased number of local people trained in energy efficient construction and retrofit methods and increased number of local companies offering these services	Q3	In progress
Planning	31. Test options on net zero buildings for future policies for the Local Plan 2040. [New / amended action]	Staff time (planning and ES)	Viability tested and agreed	Establish future policy direction	Q3	In progress
Transport	32. Delivery of electric infrastructure that could accelerate the uptake of electric boats and reduce their reliance on fossil fuel use for domestic heating. [New / amended action]	£193,000 (A bid proposal of £193,000 has been recently submitted to DEFRA, under DEFRA's AQ Grant scheme for the installation of eco-moorings at the towpath moorings of Aristotle Lane. Results of this bid will be known in March 2023)	DEFRA's Quarterly grant status reports – if the bid is successful	Introducing solutions for alternative fuel sources via the provision of electric infrastructure for the boating community living along Oxford's waterways will help unlock some of the behaviour change challenges associated with their reliance on diesel and solid fuels for heating and propulsion, and subsequent carbon emissions resulting therefrom	TBC	Planned
	33. Complete the drafting and approval of the implementation plan for the EV strategy [New / amended action]	Staff time (Environment Sustainability)	December 2022	Implementation plan to deliver the Strategy	Q1	In progress
Waste	34. Review and update the draft Oxford City Waste Strategy 21 – 23 that sets out ODS plans to meet Waste Partnership commitments.	Staff time (ODS and OCC)	N/a	Strategy updated until 2024 This will include, updated performance data following the	TBC	In progress

Action area	Actions [and action origin]	Resources	Intermediary milestones if relevant	Outcome	Due date (financial quarter)	Status
	[New / amended action]			pandemic. Review of aims and plans to achieve these. Residual waste reduction. Improve the quality and quantity of recycling. Increase Reuse		
Community action and engagement	35. Expand the Council's school outreach programme, currently focused on clean air, to include biodiversity and wider climate change issues. [New / amended action]	Staff time (comms)	N/A	Improve awareness of climate change and environmental issues.	TBC	In progress
	36. Work with external partners, including OxLEP, the Zero Carbon Oxford Partnership, and Oxfordshire Greentech to develop consensus on best approaches to work with SMEs to support the Net Zero transition. [New / amended action]	Staff Time (Economic Development, Environment Sustainability)	OxLEP Net-Zero SME week 1 st – 7 th July 2023 Oxfordshire Net Zero Business Charter launch July 2023	Agreed consensus on best approaches and growing network of 'accredited' SMEs	Q1	In progress
Biodiversity	37. Legislative duty to conserve and enhance biodiversity introduced by Environment Act. Review what this will mean and who it will impact. Plan for additional reporting requirements. [New / amended action]	Staff time (biodiversity officer plus all Council functions)	N/A	Report detailing how enhanced duty will be met and in which areas of the council. Establishing timetable for undertaking further actions and meeting reporting requirements.	TBC	Planned

2024/ 25 Actions

Resources secured (source)	Costs known (potential source)	Costs unknown (potential source)
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Action area	Actions [and action origin]	Resources	Intermediary milestones if relevant	Outcome	Due date (financial quarter)	Status
Waste	38. Agree longer term strategy to meet Government commitments as set out in the Waste Strategy [New / amended action]	Staff time (ODS)	Awaiting the implementation of the strategy.	Consideration of the infrastructure and financial arrangements under the new Strategy to meet new commitments and targets.	TBC	Planned
	39. Implementation of the interim OCC Waste Strategy 21-24. [New / amended action]	Staff time (ODS)	Quarterly reviews of progress	Progression towards the aims and objectives of the OCC waste strategy.	Q1	Planned
Council owned community and commercial buildings	40. We will consult with our commercial tenants via a tenant survey to understand interest and appetite to ascertain their 'buy -in' to Zero Carbon (i.e. via energy reduction) and what measures they are undertaking in their businesses to add to this agenda. [Scrutiny response 2021]	Staff time (Property Services and environment sustainability)	N/A	OCC has clear understanding of tenant interest in installing energy reduction measures.	Q1	Planned
Biodiversity	41. Develop and deliver a biodiversity strategy. [New / amended action]	Staff time and budget	Production of scoping document.	Production of an overarching strategy encapsulating biodiversity objectives for Oxford City as a whole. Must include specific and deliverable actions to be a worthwhile endeavour.	TBC	Planned
	42. Management plans for meadows owned by Oxford City Council. [New / amended action]	Staff time (ES)	N/A	Single approach adopted by City Council, with individual site needs accounted for in tailored management plans.	TBC	Planned

Section 3: Summary of completed actions (2021 – 2023)

- Delivery of the £10.9m grant funding from the Public Sector Decarbonisation Scheme (PSDS) to decarbonise four of its leisure centres.
- Investment in the Low Carbon Hub's solar farm at Ray Valley, enabling a high quality offset for the electricity demand across four of its leisure centres (Leys Pool & Leisure Centre, Barton Leisure Centre, Hinksey Outdoor Pool, Ferry Leisure Centre).
- ODS awarded PAS2030 installer accreditation enabling them to deliver grant funded Green Deal and ECO installation work under PAS & TrustMark accreditation.
- ODS are progressing MCS accreditation which will permit them to directly deliver air source heat pump and solar PV renewable energy installations.
- ODS are on track to electrify 25% of fleet by 2023
- Launch ZCOP, development of the Roadmap and Action Plan.
- Completion of stock EPC base data and has determined a pilot programme of retrofit for properties using a combination of grant and base budget funding,
- Completion of Project LEO
- Completion of Project ESO – open to the public in 2022.
- Publication of a city-wide EV strategy
- Launch of the Zero Emission Zone (ZEZ) Pilot will launch in February 2022, with a plan in place to launch the wider ZEZ in 2023.
- New Net Zero Transition Fund in place with terms of reference to support additional carbon reduction projects
- Completion of scoping exercise to test income generation opportunities from energy flexibility batteries and load shifting (part of project LEO)
- Publication of new Heritage and Carbon Reduction Retrofit Technical Advice Note (TAN).
- Delivery of an E Cargo bike pilot at the covered market, in partnership with Pedal & Post
- Secured funding for a feasibility study from UKRI's Pioneer Places fund, for a FutureFit One Stop Shop.

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To: Climate and Environment Panel

Date: 09 March 2023

Report of: Head of Corporate Strategy

Title of Report: Zero Carbon Oxford Partnership (ZCOP)

Summary and recommendations	
Purpose of report:	To update the Panel on the work of ZCOP.
Key decision:	Yes
Cabinet Member:	Councillor Anna Railton, Cabinet Member for Zero Carbon Oxford and Climate Justice
Corporate Priority:	Pursue a zero carbon Oxford
Policy Framework:	Council Strategy 2020-24

Recommendation: That the Panel resolves to:

- Note the report** and to consider any recommendations it wishes to make to Cabinet.

Appendices

Appendix 1 – ZCOP's two year forward plan

- The Zero Carbon Oxford Partnership (ZCOP)¹, brings together Oxford's most influential organisations including both universities, the health trusts, both City and County Councils and large businesses such as BMW, Lucy Group, LandSec, SEN and Unipart. The purpose of the partnership is to work together to support the city in its journey to net zero carbon emissions by 2040, ten years ahead of the UK's Government's legal targets.
- Following its formation, the partnership developed a science-based Roadmap and Action Plan with the Carbon Trust. It sets out a comprehensive and ambitious pathway to net zero carbon emissions for the city, with 5-yearly carbon budgets, sectoral roadmaps and 25 cross cutting actions required over the short and mid-term. This work follows on from the mandate established by the Oxford Citizens Assembly on Climate Change held in 2019².

¹ Oxford City Council, 'Zero Carbon Oxford Summit'. Available from:

https://www.oxford.gov.uk/info/20291/climate_emergency/1431/zero_carbon_oxford_summit

² https://www.oxford.gov.uk/info/20011/environment/1343/oxford_citizens_assembly_on_climate_change

3. Although Oxford aims to be a net zero carbon city in 2040, it is expected that there may be residual emissions, e.g. from hard to decarbonise sectors and the electricity grid. ZCOP's agreed approach is to minimise emissions as far as is possible before implementing a carbon offsetting strategy from 2030, focusing first on local inseting– with offsetting only coming in as a last resort.
4. ZCOP is an important and innovative delivery organisation in the city, building on decades of partnership on climate change, in particular Low Carbon Oxford. It is unique compared to many other City and regional climate change partnerships, in its 2040 ambition - around which all the city's major private and public organisations collaborate via "sprint groups". ZCOP's membership and action plan enables it to cut across multiple sectors and focus on projects that require cooperation and coordination between partners - unlocking key interventions that would otherwise be impossible.
5. ZCOP is working with Future Oxfordshire Partnership (FOP) to ensure alignment between ZCOP sprints and the emerging Pathways to Zero Carbon Oxfordshire (PaZCO) Route Map and Action Plan. This is being done on a case by case basis for sprints, to ensure their scope and timescales complement the work of FOP.

Progress to date

6. Since its launch, ZCOP has delivered across numerous action areas by focusing on collaborative projects that accelerate city wide mitigation across sectors, businesses and communities. Partners support progress in the city by championing and participating in a range of 'sprint groups' though contributions of time, expertise and funding.
7. For example, Lucy Group is championing a Sprint Group on tenure and archetype agnostic retrofit, with support from Oxford City Council officers. The understanding of local requirements for scaled retrofitting developed within this group set the ground work for two recent funding bids, enabling us to submit complex project concepts under tight funding deadlines. First, ZCOP was recently awarded funding of £75,000 (plus match contributions) from Innovate UK. The purpose of the project is to deliver a feasibility study to find a route to delivering building retrofit at scale in the city via a Future Fit One Stop Shop (FOSS). The study understand how to support the supply chain move towards a smart and flexible 'FutureFit' method. The project consortium (praised by Innovate UK assessors as 'enviable') involves five ZCOP partners and letters of support, required by the funding requirements, were submitted by several other partners.
8. Second, a separate award of £20,000 from the MCS Foundation and £20,000 match funding provided by ZCOP partners will translate findings to an area specific (e.g. Rose Hill) residential retrofit pilot project, to test the delivery model FOSS for future replication and expansion in Rose Hill and the rest of Oxford.
9. ZCOP sprint groups have also:
 - a) Established innovative 'area-based insetting' (ABI) trial in the city, which will aim to show that ABI can act as a mechanism for bridging funding gaps in local carbon reduction projects;

- Established buy-in from partners and other key private stakeholders (e.g. delivery companies) to participate in pilot freight consolidation project;
- b) Engaged partners in flexibility energy capacity trading trials;
- c) Scoped the potential for collaborative investment in onshore wind and solar PV across the County;
- d) Hosted a meeting with Lord Deben, former Environment Minister and Chair of the Committee on Climate Change;
- e) Consulted the RAF and Defence Infrastructure Organisation on onshore wind/radar issues
- f) Workshop to share best practice on corporate scope 3 emissions;
- g) Participated in successful funding bids (MCS; SIF; UKRI and others);
- h) Informed local activities and policy:
 - i. Contributed Oxford's 2040 Local Plan insights and experiences on embodied carbon and defining a Net Zero building;
 - ii. Responded to Oxfordshire County Council's core transport schemes consultation.

Current Activity and Future Priorities

10. Delivering net zero by 2040 requires ambitious approach. Therefore, the partnership is pursuing both innovative and established work streams to facilitate the delivery of cost effective carbon emissions reductions for Oxford. Therefore, ZCOP's two year forward plan (see full list of actions in appendix 1) includes plans to:

- a) Develop a climate change adaptation risk assessment and action plan;
- b) Further feasibility in Rose Hill to develop a costed and scalable retrofit plan;
- c) Consult with partners on Local Plan policies in next phase of the plan's development;
- d) Hosting working group and workshop series with energy managers from NHS Trusts, local councils and both Universities to develop quick win energy saving measures before prices increase in April;
- e) Designing campaign to increase number of SMEs to set net zero target by offering tailored support package;
- f) Hold an event to bring car sharing/ car club organisations to ZCOP members to run pilots;
- g) Develop advice for businesses on EV to simplify ability to private landowners/ landlords to deliver EV infrastructure;
- h) Work with live projects to explore best approach to assessing grid power capacity for EV charging;
- i) Potential collaboration with ZCOP Partners and FOP on asset mapping for low carbon projects;
- j) Monitor and scope further funding and lobbying opportunities, including on grid limitations and renewable energy policy.

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Phase 1: FY 2022/ 23 Actions

Resources secured (source)	Costs known (potential source)	Costs unknown (potential source)
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Work area/ relevant sprint group / action plan reference	Phase 1: FY 2022/23 Actions	Resources	Outcome	Delivery Champion	Status
1. Domestic retrofit <u>Action plan reference:</u> C1 bulk buying scheme R1 template retrofit buildings C3 programme to scale domestic retrofit across social and private housing	1a) Feasibility engagement study delivery domestic retrofit at scale (starting in Rose Hill)	Grant funded	Full feasibility study and project plan completed for pilot retrofit.	Lucy Group	Complete
2. Freight consolidation <u>Action plan reference:</u> C2 Greening last mile delivery	2a) Feasibility study and pilot project plan	Project funding	Full feasibility study and project plan completed	Oxfordshire County Council	In progress
3. Active travel (sprint 5) <u>Action plan reference:</u> G2 Active travel commitments	3a) Engaging ZCOP partners with core transport schemes.	Staff time (Oxford Brookes University and City Council)	List of priorities for ZCOP members	Oxford Brookes University	Completed
	3b) Collaborative project identification	Staff time (Oxford Brookes University and City Council)	List of potential projects that can support active travel	Oxford Brookes University	In progress

4. Low carbon skills (sprint 6) <u>Action plan reference:</u> S1 Collaboration with the education sector on low carbon skills	4a) Monitor and feedback progress from Oxford City Council (SPF bid and baseline research) OxLEP into ZCOP SG	£TBC (Shared Prosperity Fund)		OxLEP	In progress
5. Accelerating delivery of local renewables (sprint 9)	5a) Workshop with external consultants to examine opportunities to improve local planning policies for renewables.	Staff time (Oxford City Council)	Local Plans include positive policies to support renewable energy addressing community engagement/ sites etc.	Oxford City Council	In progress
	5b) Explore expanded opportunities for PPAs via workshop.	£TBC	Partners provided with information on opportunities and options for PPAs.	Oxford Brookes	Planned
	5c) Liaise DIO and Oxford Airport to understand radar constraints and report back to Partners.	Staff time (Oxford City Council)	Clarity about limitations and opportunities for wind re radar issue	Oxford City Council	Completed
	5d) Asset mapping ZCOP Partners to understand opportunities for collaborative renewables projects and potential feasibility work.	Staff time (Oxford City Council) £TBC for feasibility	New collaborative projects identified	Oxford City Council	Planned
6. Authority Based Insetting	6a) Area Based Insetting (ABI) Trial (working with	Staff time (Low Carbon Hub and	Carbon reduction project(s) funded (fully	Oxford City Council and	In progress

<u>Action plan reference:</u> C4 Combining SME sustainability support with low interest loans	Anthesis and Low Carbon Hub)	City Council)	or partly) through ABI methodology	Low Carbon Hub	
	6b) Establish a 'market/brokerage' for inseting in Oxford	Staff time (Oxford City Council and participants)	Agreed methodology for identifying and funding collaborative carbon reduction projects in city boundary	Oxford City Council, with Low Carbon Hub and University of Oxford	Planned
	7. EV infrastructure delivery <u>Action plan reference:</u> C6 deploying EV charging infrastructure	7a) Workshop with ZCOP Partners to discuss City Council's EV Strategy and opportunities for collaboration. 7b) Establish car sharing sprint group and organise car sharing events in the city	Staff time (Oxford City Council and participants) Staff time (Oxford City Council and participants)	Collaboration areas identified Oxford City Council Oxford City Council and Oxfordshire County Council	Complete In progress
	8. Scope 3 emissions <u>Action plan reference:</u> B1 Behaviour change, communication and education	8a) Workshop with ZCOP Partners to share best practice on scope 3 and identify areas of collaboration [for city-wide scope 3 emissions e.g. leased assets, food, waste]	Staff time (Oxford University and participants)	Shared approach / best practice on scope 3	Complete
	9. Engaging SMEs in ZCOP <u>Action plan reference:</u>	9a) Design approach with OxLEP to identify potential areas where ZCOP could share knowledge or unblock barriers (e.g., green leases	£TBC depending on scope	Agreed approach for SMEs and support provided (e.g. knowledge/ info) as appropriate to help	Oxford City Council In progress

G1 Knowledge transfer platform	or insetting funds) for SMEs, working with partners such as Oxfordshire Greentech.		their net zero transition		
10. Climate change adaptation	10a) Series of workshops to undertake climate change risk assessment for Oxford identifying goals and actions. Build on work started at Oxford City Council. 10b) Support Oxfordshire County Council's study into Climate adaptation risks	Staff time (Oxford City Council and partners)	Risks, goals and actions identified.	Oxford City Council and Oxfordshire County Council	Planned
11. Hydrogen <u>Action plan reference:</u> R4 Mini-hydrogen network feasibility study	11a) Workshops to organise funding bid building on County's feasibility work.	Staff time (Oxfordshire County Council and participants)	Full feasibility for hydrogen / pilot project	County Council	Pending relevant funding opportunity
12. Heritage and retrofit <u>Action plan reference:</u> P2 streamlining conscientious retrofit within conservation areas	12a) Meeting to discuss revised heritage Technical Advice Note	Staff time (Oxford City Council)		Oxford City Council	Complete

Phase 2: FY 2023/ 24 Actions

Resources secured (source)		Costs known (potential source)		Costs unknown (potential source)	
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Relevant sprint group / action plan reference	Phase 1: FY 2022/23 Actions	Resources	Outcome	Delivery Champion	Status
13. Domestic retrofit (sprint 2) <u>Action plan reference:</u> C1 bulk buying scheme R1 template retrofit buildings	14a) Bulk buy feasibility focusing on retrofit project.	£TBC	Full feasibility study completed	Lucy Group and OxLEP	Planned
	14b) Preparation for retrofit pilot launch (securing funding, establishing supporting structures, governance and partnerships, communications)	TBC (in feasibility)	TBC	Lucy Group/Oxford City Council	Planned
14. Climate resilience through the natural environment	15a) Implement climate resilience actions identified through climate risk assessment.	£TBC (depends on the actions identified).	TBC	TBC	Proposed
15. Lobbying <u>Action plan reference:</u> G3 Joint Lobbying Strategy	16a) Develop lobbying plan covering key areas of the roadmap.	Staff time (Oxford City Council and participants TBC)	Joint approach and lobbying opportunities identified	Oxford City Council	Proposed
16. Energy flexibility and Local Energy Mapping	17a) Energy mapping, working with SSEN to scope what is and isn't feasibility	£TBC (SIF Funding?)	TBC	TBC	Proposed

Relevant sprint group / action plan reference	Phase 1: FY 2022/23 Actions	Resources	Outcome	Delivery Champion	Status
<u>Action plan reference:</u> R3 Whole system network review CC1 strengthening domestic grid connections					
17. Non-domestic building retrofit <u>Action plan reference:</u> R2 Establishing building stock inventory and pipeline	18a) Scope areas of collaborative work which could include green leases, funding, bulk buy and other delivery approaches. Potential focus around preparation for MEES regulatory changes.	£TBC depends on agreed scope	TBC	TBC	Proposed
18. Monitoring and reporting <u>Action plan reference:</u> B2 Public dashboard for monitoring ZCOP progress	19a) Agree reporting framework including data and KPIs. Publish update on ZCOP progress on website with updated stats and report on sprint groups	£TBC depends on data inputs.	Clear progress reporting available	Oxford City Council	Planned
19. Accelerating delivery of local renewables	20a) Detailed feasibility for viable renewable energy sites	£TBC depending on number of sites	TBC	TBC	Proposed

Relevant sprint group / action plan reference	Phase 1: FY 2022/23 Actions	Resources	Outcome	Delivery Champion	Status
20. Partner mapping to support joint funding applications <u>Action plan reference:</u> G4 joint funding applications 21. CC2 exploring funding options	11a) Undertake partner mapping to understand key areas of interest and potential alignment with funding opportunities	Staff time (Oxford City Council and participants)	Potential funding bids identified	Oxford City Council	Planned
22. Freight consolidation <u>Action plan reference:</u> C2 Greening last mile delivery	22a) Engage and support living lab project development	Sprint group time	TBC	TBC	Proposed

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To: Climate and Environment Panel

Date: 09 March 2023

Report of: Head of Corporate Strategy

Title of Report: Fleet Decarbonisation

Summary and recommendations	
Purpose of report:	To update the Panel on the topic of fleet decarbonisation.
Key decision:	No
Cabinet Member:	Councillor Anna Railton, Cabinet Member for Zero Carbon Oxford and Climate Justice
Corporate Priority:	Pursue a zero carbon Oxford
Policy Framework:	Council Strategy 2020-24

Recommendation: That the Panel resolves to:

1. Note the report and to consider any recommendations it wishes to make to Cabinet.

Appendices
None

Next Steps for Fleet Decarbonisation

Background

1. ODS has been proactively replacing the diesel fleet with electric vehicles for the last decade, though with innovation grant the Council won for Energy Superhub Oxford in 2020 this allowed an acceleration in the replacement programme. Over the last two years ODS has continued to replace vehicles and will meet and potentially exceed a target of 25% of its fleet of c320 vehicles to be electric by the end of this year. Beyond that date there have been no official new targets set for decarbonising the fleet but Oxford City Council has a target of Net Zero Carbon by 2030, which would almost certainly require a net zero fleet. This paper outlines the rationale for not setting a new interim EV fleet target and options and challenges for decarbonising the rest of the fleet over the next 7 years.

Strategic approach to decarbonisation

2. In December 2021, [Oxford City Council clarified](#) its approach to Net Zero would focus on investment in long-term sustainable solutions, rather than short-term measures with long-term cost commitments and minimal co-benefits or cost-reductions to the Council (such as green gas purchase and offsetting). This approach was aligned to advice provided by Professor Nick Eyre. This included the prioritisation of expenditure according to the following hierarchy:
 - a. 'Additional' emissions reduction by the Council from its own activities
 - b. Insetting (i.e. support for emissions reduction by others in Oxford).
 - c. Offsetting actions outside the City, including the purchase of green gas credits
3. Fleet emissions account for 27% of the Council's emissions. The Council/ODS is on track to meet its current target to switch over 25% of the c.320 fleet vehicles to electric during 2023.

Fleet decarbonisation

4. Currently there are two main ways of fully decarbonising a fleet – by switching to EVs or hydrogen-powered vehicles. The other option, Hydro-treated Vegetable Oil (HVO) can be used to partially decarbonise a fleet. Nevertheless, there are significant risks associated with making a bet on any of these technologies today.

Hydrogen

5. Some in the automotive industry are backing hydrogen fuel cells as the optimal long term solution for zero carbon HGVs – as these would operate without batteries, which are heavy. However, hydrogen vehicle technology is still in early stages, and applied to a very limited vehicle pool. Currently it also has extremely high infrastructure costs. Therefore, while ODS is looking at opportunities to trial the use of a hydrogen vehicle, the technology does not offer current options for an ongoing vehicle replacement programme.

Electric Vehicles

6. EV vans and other LGVs are now commonplace and ODS has been using these to replace diesel equivalents that have reached the end of their useful lives. However, economically viable solutions are not readily available to electrify larger vehicles such as large vans, tippers, specialist municipal vehicles or HGVs (including refuse collection vehicles). ODS operates one EV dustcart, however this model is not considered suitable for multiple purchases.
7. EVs are no longer as economically attractive to operate as they previously were, even for the smaller vehicles. This is primarily due to the rising cost of electric resulting in a higher cost of charge per KW and the now reducing cost of diesel prices again. The result is a closing gap in fuel savings between diesel and electric. Also relevant is that ODS operates within a small boundary so its fleet

mileage is not high for many vehicles, whereas fuel savings become more relevant the higher the mileage. When considering this and the difference in initial costs of electric vs diesel vehicles of £5,000-20,000 then the reduced fuel savings from electric no longer offset this. The reduction in maintenance service costs is minimal per vehicle. Additionally, the government is removing subsidies for the purchase and operation of electric vehicles.

8. Lastly, ODS also faces challenges around EV charging capacity as it is nearing the limits of existing depot power capacities and installed additional charging units across Cowley Marsh, Horspath, Oxpens and other satellite locations; some additional EV charging units will be added to Cutteslowe Park. ODS is working with the Council Environmental Sustainability team to look at other options to boost charging capacity for the fleet, linked to wider work around an implementation plan for the Oxford Electric Vehicle Infrastructure Strategy.

HVO

9. The use of HVO has been considered as a 'drop-in' fuel to reduce the carbon emissions of remaining diesel fleet vehicles. HVO is a 'second generation' biofuel when made from used cooking oil (UCO) such as rapeseed, sunflower, soybean, and palm oil, as well as animal fats, following a chemical process involving hydrotreatment with hydrogen.¹
10. HVO can offer carbon savings compared to diesel of up to 90%. Dependent on the contract price, this would cost up to £150 - £200,000 per year on top of existing ODS' existing fuel costs.

Problems with HVO

11. The [Energy Saving Trust](https://energysavingtrust.org.uk/wp-content/uploads/2022/07/Energy-Saving-Trust-HVO-policy-position-Final-.pdf) has summarised the issues with HVO, which arise from its lifecycle biodiversity and climate change impacts. These include:

Carbon emissions

12. Indirect land use change often isn't accounted for (even for 'sustainably sourced' HVO) in the carbon calculations. A lot of the UCO is imported from SE Asia and Americas, where it is not a waste product because it would otherwise be used as an animal feed. The market for HVO is causing many farmers to replace UCO, which in turn is leading to the destruction of virgin forest to produce palm oil.
13. The hydrogen used to treat HVO can be derived from fossil fuel sources and still be considered 100% renewable under the Renewable Transport Fuels Obligation. EST has concerns about the sustainability protection provided by the scheme.

¹ <https://energysavingtrust.org.uk/wp-content/uploads/2022/07/Energy-Saving-Trust-HVO-policy-position-Final-.pdf>

14. The carbon emissions fluctuate year on year due to the source of HVO and the carbon factors used, sometimes by up to 14%. Means the future carbon saving claims may not be reliably counted on.

Cost

15. The HVO price is linked to the global food market. Recent shocks could mean the cost of HVO fuels likely to increase.

Air quality

16. There is mixed evidence on the impact on air quality, with no guarantee that reported reductions in NO_x will be achieved. Much depends on the engine injection control and the fuel quality (HVO blend).

Advice from Council's Scientific Advisor, Professor Nick Eyre:

17. We sought input from the Council's Scientific Adviser. He highlighted the following concerns with HVO:
- a. It's essentially a 'first generation - i.e. food-crop based - biofuel, which have relatively high carbon emissions in production*
 - b. The production process involves hydrogen, which is currently produced from fossil fuels*
 - c. There are serious doubts about the extent to which is genuinely a waste*
 - d. It's at best a niche market product – there is no realistic to it being a generalisable solution for heavy vehicles*
 - e. Any association with SE Asian palm oil has high risks of links to deforestation, and therefore potential reputational risks*

Next Steps

18. Currently, the Council has purchased fleet vehicles on behalf ODS, on which it levies a charge. ODS is in the process of carrying out a detailed market pricing exercise for leasing fleet vehicles, which might increase flexibility around continued transition to EVs. ODS is also seeking to mitigate the cost of the fleet through size reduction (vehicle sizes and overall fleet size), while managing operational risks in providing enough vehicles to meet future need and to compensate for downtime in light of supply chain lead times.
19. However it should be noted the vehicle production industry has been beset by continued problems (chip shortages, the continued knock on of factory closures during COVID, raw materials delays) which has extended lead times and increased prices in the leasing market as well as in purchasing vehicles.
20. ODS will continue to procure LGV EVs as appropriate to meet replacement needs and within the constraints of charging infrastructure it can utilise. Therefore, it is expected the overall proportion of EVs within the ODS/Council fleet will continue to expand.

21. The Pathways to a Zero Carbon Oxfordshire programme, being developed under the Future Oxfordshire Partnership and in which Oxford City Council is participating, will look at what hydrogen infrastructure may be needed to future proof HGV requirements. Where opportunities arise, ODS will also trial the use of hydrogen vehicles.

Conclusion

22. Given the limited availability of EVs to meet all ODS/Council fleet needs, the uncertainty over whether or not hydrogen or EV will become the optimum technology for HGVs and the current constraints on available EV charging infrastructure, officers and portfolio holders agree it would not make sense to set a new interim fleet EV target between now and 2030. That position may well change as technologies and markets develop and as Oxford's EV infrastructure network expands.
23. At the same time it is expected that the proportion of EVs in the fleet will nevertheless continue to increase and it is not proposed to change the longer term target of a net zero fleet by 2030.
24. HVO has been considered as a 'stepping stone' fuel to reduce fleet emissions however the Council Officers and Portfolio Holders have accepted the sustainability concerns raised by the Council's Scientific Adviser and have rejected this as a potential strategy for the time being.

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