

To: Future Oxfordshire Partnership

Title of Report: Oxfordshire Net Zero Route Map and Action Plan – update

Date: 28 November 2023

Report of: Inga Doherty, on behalf of the Environment Advisory Group Officer Group

Status: Open

Executive Summary and Purpose:

The Future Oxfordshire Partnership (FOP) endorsed the Oxfordshire Net Zero Route Map and Action Plan in March 2023, including a phased approach to the delivery of the identified joint actions.

This report updates the FOP on the steps taken to operationalise the actions agreed for inclusion in the first delivery phase:

- Scale up delivery of building retrofit
- Addressing the retrofit skills gap
- Develop a local area energy planning approach
- Accelerate roll out of electric vehicle charging infrastructure
- Explore innovative funding options
- Identify opportunities to enhance carbon sequestration

A brief progress report is provided for each action.

How this report contributes to the Oxfordshire Strategic Vision Outcomes:

This work supports the FOP Strategic Vision to be carbon neutral and accelerating toward a carbon negative future by 2050. Current and planned deliverables contribute to a number of additional outcomes, including:

- improving wellbeing, equality and inclusivity
- a globally competitive, sustainable, diverse and inclusive local economy
- energy efficient and affordable homes in the right number, location and tenure

Recommendations:

The Future Oxfordshire Partnership is asked to note the report and activity underway to implement the Oxfordshire Net Zero Route Map and Action Plan.

1. Introduction

- 1.1 To support the objective of a net zero Oxfordshire, the Future Oxfordshire Partnership commissioned the development of a route map and action plan for the county to identify areas for joint actions that the Oxfordshire local authorities can take together to accelerate progress to net zero.
- 1.2 The resulting Oxfordshire Net Zero Route Map and Action Plan (City Science, 2023¹) sets out sectoral pathways to net zero (with milestones at 2030, 2040 and 2050) in line with the 'Oxfordshire leading the way' scenario identified in the Pathways to Zero Carbon Oxfordshire (PAZCO) report², and recommends a series of 15 priority areas for joint action.
- 1.3 At its meeting in March 2023, FOP endorsed the Route Map and Action Plan and agreed a phased approach to the delivery of the identified joint actions, reflecting existing resources and funding.³
- 1.4 This report provides an update on the development and delivery of the phase 1 work programme.

2. Net Zero Route Map and Action Plan – Phase 1

- 2.1 Joint actions grouped together under five broad themes have been prioritised for delivery in the first phase of the work programme (Figure 1 below).

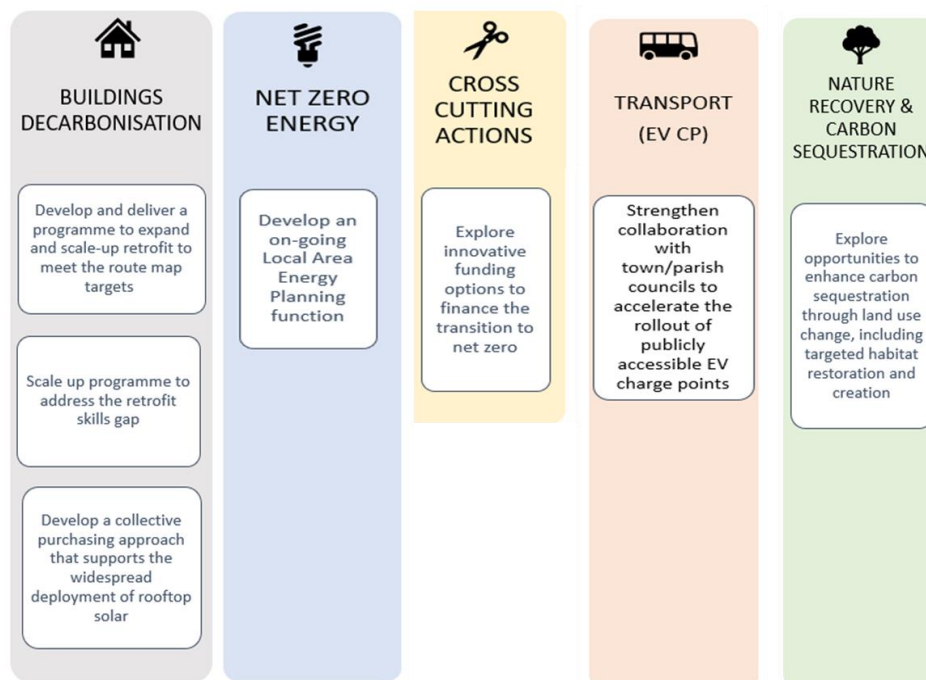


Figure 1: Joint actions for delivery in first phase of work programme

¹ [Net Zero Route Map and Action Plan](#) (City Science, 2023)

² [Pathways to a zero carbon Oxfordshire](#), Environmental Change Institute, 2021

³ The collaborative action plan does not replace individual organisation's net zero strategy and workplans, or statutory documents and activity such as Local Plans or Local Transport Plan.

2.2 Officers and convening leads have worked together to draw up a programme to implement each of the actions included in the first delivery phase (initially over an 18 month period from April 2023).

2.3 Initial activity focussed on:

- developing clear governance arrangements through FOP and individual work streams (building on existing structures)
- identifying convening leads across the partnership to coordinate and facilitate joint working groups to deliver each priority action
- establishing the working groups
- existing and future planned funding programmes to support the delivery of the actions and allocation of resources.

2.5 A summary of activity to date for each of the five areas in the first delivery phase is provided in the following sections.

3. Progress update, Phase 1 priority actions

Buildings decarbonisation

ACTION 1: EXPAND AND SCALE UP RETROFIT DELIVERY

Governance: Environment Advisory Group
Convening lead: Retrofit Manager, Oxfordshire County Council

Objectives:

- Build on existing local retrofit programmes and best practice (e.g. shared learning) to take advantage of funding opportunities
- Coordinate the scaled-up delivery of retrofit across all markets (e.g. low-income households, able-to-pay, unable to pay customers and renters)
- Improve engagement with hard-to-reach households (especially those in fuel poverty) and suppliers
- Reduce energy consumption and carbon emissions from existing domestic and commercial properties
- Ensure standard of works undertaken at each property with a range of appropriate measures ensuring its high efficiency and low reliance on fossil fuels post-works.

3.1 The Retrofit Delivery working group brings together officers with the expertise and experience gained from existing programmes (including Cosy Homes, the Sustainable Warmth and Home Upgrade Grant Schemes, Better Housing Better Health Programme, Energy Solutions Oxfordshire, and activities led through the ZCOP programme) to coordinate activity on retrofit across all customer groups.

Retrofit Delivery: progress to date

Delivery of grant funded retrofit

3.2 The County Council has led the delivery of two fully funded whole-house future-proofed retrofit of energy inefficient properties for low income, fuel poor residents:

- *Local Authority Delivered*, phase 3, (LAD3), has so far distributed over £1 million of funding, installing almost 200 measures in well over 100 properties where mains-gas is used for space-heating.
- The *Home Upgrade Grant*, phase 1, (HUG1), has also distributed in excess of £1 million of grant funding, with over 100 measures installed across 60+ properties:- these properties used fuels such as coal, oil, LPG and electricity for their heating provision.
- Delivery of the second phase of the *Home Upgrade Grant* commenced in July 2023 and will run to end March 2025, with a minimum of £5.5 million of capital funding for delivery across the four Oxfordshire Districts. Oxford City Council is also accessing HUG2 funding, separate to the County Council's allocation, via the Greater Southeast Net Zero Hub.
- Further support will be available to households through the national *Great British Insulation scheme* (formally ECO+) which launched this summer. The scheme is due to run until March 2026. Referrals to the Great British Insulation Scheme, and similar will be made as appropriate in order to lever in as much funding to Oxfordshire as possible and will be managed through *Better Housing Better Health*, a county-wide service supported by the county, district and city councils.

Building decarbonisation innovation programmes

3.3 Two projects have explored innovative cost-effective solutions to scale up building retrofit:

- A consortium of partners, led by Oxford City Council, delivered a 3 month Innovate UK-funded feasibility study, to address the barriers to scaling up retrofit through FutureFit One Stop Shops (FOSS). A bid has been submitted for a follow-on demonstrator project, FutureFit Oxfordshire, (decision expected early November, work on successful bids will commence February 2024) which if successful will address the non-technical barriers and deliver a framework for 'One Stop Shops' to thrive and will involve all Oxfordshire local authorities. Oxfordshire already has two such 'One Stop Shops', Cosy Homes Oxfordshire (delivering domestic retrofit) and Energy Solutions Oxfordshire (commercial retrofit), delivering a coordinated approach to whole-property deep retrofit. These models develop 'whole building plans' and help householders to tackle measures in phases seeking to get the best overall outcome for retrofitting a property. They also seek to quality check suppliers.
 - Separately, a 3 month discovery phase project funded through the Ofgem Strategic Innovation Fund, Project LEON (Local Energy Oxfordshire – Neighbourhoods), led by Scottish & Southern Electricity Networks, with Oxfordshire County Council, Oxford City Council, University of Oxford and Low Carbon Hub, builds on the success and learning from Project LEO to focus on how integrated energy planning can enable buildings decarbonisation at scale. Following a successful bid, funding has been awarded for delivery of a further six month feasibility study commencing 1 October 2023.
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Heat pump ready programme

- 3.4 Oxfordshire has two of just four innovative Heat Pump Ready projects across the UK funded by the Department for Energy Security and Net Zero. This programme supports the development and demonstration of air-source heat pump technologies, tools and solutions for optimised deployment *at scale* within a defined area.
- 3.5 One project, with City Science as the lead, is focussed on an area of Bicester (Cherwell District), with the other, “Clean Heat Streets” with Samsung as the lead focused on an area of Rose Hill (Oxford City). The current phase (2a) is pre-delivery, with a stage-gate needing to be passed to show that a minimum of 25% uptake has been achieved from residential properties from the defined areas in order for capital funds to be released under phase 2b. Show homes are currently being set up with ‘Heat Pump Champions’ as early adopters, in order to show the technology to generate additional interest and signups – in turn, this is helping testing the processes involved in delivering the project with refinement being made as part of a continual improvement loop.

ACTION 2: ADDRESS THE RETROFIT SKILLS GAP

Governance: Environment Advisory Group
Convening lead: OxLEP

Objectives:

- Increase the capacity of the local supply chain to enable scaled up delivery of homes retrofit to at least EPC B standard
- Establish a network of training courses to help increase the number of skilled installers, address barriers and meet the future uplift in demand
- Promote social value across all sectors through green skills training and employment opportunities
- Provide and build on existing local training and apprenticeship opportunities through collaborative working

- 3.6 Building on existing activity, a network of training courses will be established to help increase the number of people with retrofit experience, bridge the identified skills gap and ensure installers can meet the uplift in demand.

Retrofit skills gap: progress to date

- 3.7 £4 million funding via the government’s Capital Growth Fund and OxLEP has been invested in a new training and education centre (Abingdon & Witney College) for the sustainable construction sector. The programme will deliver 400 apprenticeships, serve 240 full time and 300 part time students over next five years.
- 3.8 The UK Shared Prosperity Fund is supporting a 3 year programme (2021-24) to support research and investment activities including infrastructure and skills across Oxfordshire, with green skills as priority.
- 3.9 £716,216 (West Oxfordshire), £528,000 (Vale of White Horse), £526,000 (Cherwell) and £733,241 (South Oxfordshire) of grant funding has been allocated via HM Government’s Rural England Prosperity Fund in 2022 to support green growth in
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Oxfordshire's rural communities, including targeting skills and training opportunities to support local employment and enterprise.

Develop a bulk purchasing approach to accelerate the roll out of rooftop solar PV

- 3.10 The third action under the buildings decarbonisation programme - to develop a collective purchasing approach across Oxfordshire to accelerate the roll out of rooftop PV - is currently on hold pending the development of the FutureFit Oxfordshire programme (section 3.3) if funding successful.

Net Zero Energy

ACTION 4: LOCAL AREA ENERGY PLANNING

Governance: FOP Infrastructure Advisory Group
Convening lead: Energy Systems and Investment Manager, Oxfordshire County Council.

Objectives:

- Identify optimal pathway for local energy system decarbonisation, including costed infrastructure and investment needs.
- Establish an energy planning approach which enables continuous review and implementation

- 3.11 A county-wide local area energy planning approach will aid identification of appropriate and cost-effective place-based measures to support the transition to a net zero energy system. It will provide a sound evidence base for Local Plan policies and Infrastructure Delivery Plans, and suitable projects will be included in the Oxfordshire Infrastructure Strategy.
- 3.12 The work will draw heavily on the data and energy mapping work led the County Council through Project LEO (Local Energy Oxfordshire) and will be done in partnership with the City and District councils, the electricity distribution network operators and key external stakeholders, including the Low Carbon Hub.

Local area energy planning: progress to date

- 3.13 Following the successful completion of Project LEO at the end of March 2023, project partners further delivered the 3 month discovery phase of Project LEON (Local Energy Oxfordshire – Neighbourhoods) as outlined in section 3.3.
- 3.14 Further development of the award-winning LEO energy mapping platform (LEO-LAEP+) has continued through related projects led by the distribution network operators SSN and UKPN. The LAEP+ platform (delivered by Advanced Infrastructure Technology Ltd) will be a key component of the local area energy planning work.
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- 3.15 Following engagement with key stakeholders, the first meeting of the Energy Planning Executive Steering Board was held on 13/9/2023 and the first working group meeting is scheduled for late October. The introductory meetings are intended to shape and agree the work programme needed to take forward the energy planning work. Both the Board and Working Group include representatives from each Oxfordshire local authority, OxLEP, the electricity and gas distribution operators, Low Carbon Hub and the Greater Southeast Net Zero Hub.

Net Zero Transport: EV charging infrastructure

ACTION 5: ACCELERATE THE ROLL OUT OF PUBLICLY ACCESSIBLE EV CHARGE POINTS.

Governance: Infrastructure Advisory Group

Convening lead: Zero Emissions Vehicle and Energy Integration Manager, Oxfordshire County Council

Objectives:

- Improve access to charging points especially in rural areas and urban residential streets without off-street parking to facilitate the uptake of electric vehicles
- Secure funding towards publicly accessible installation points in appropriate locations
- Support the delivery of the Oxfordshire Electric Vehicle Infrastructure Strategy, building on existing trial projects

- 3.16 This action aims to accelerate the roll out of EV charging infrastructure, supporting increased uptake of electric cars and small vans by improving access to public charge points, particularly in rural areas where gaps in the charging network remain. The work complements existing projects, such as the Park and Charge project, OxGul-e and DoorSTEP trials, and supports delivery of the Oxfordshire Electric Vehicle Infrastructure Strategy and the linked Oxford Electric Vehicle Infrastructure Strategy.

Roll out of EV charging infrastructure: progress to date

- 3.17 The Oxfordshire Electric Vehicle Infrastructure Strategy has been agreed and a cross authority stakeholder working group established (Oxfordshire EV Infrastructure Steering Group).
- 3.18 The Park and Charge project has successfully rolled out 20 fast charging hubs in publicly owned car parks across the county, providing 250 accessible charge points.
- 3.19 Following submission of an expression of interest in May 2023, the Office for Zero Emission Vehicles (OZEV) has notified Oxfordshire County Council of an allocation of £3.55M Capital and £529k revenue funding for delivery of EV Infrastructure, subject to approval of County's application to them with a detailed proposal which has to be submitted by 30th November 2023. The grant funding is known as the Local EV Infrastructure (LEVI) grant and the Oxfordshire project is known by the name OXLEVI. The application will be made with the support of all five of Oxfordshire's district councils, and it is anticipated that the districts will be key delivery partners in activities across the project workstreams.
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- 3.20 The OXLEVI project will use LEVI grant funding and private investment to meet predicted need for EV infrastructure and support decarbonisation of road transport, particularly for those that do not have access to off-street parking in deprived urban areas and in rural, car dependent communities.
- 3.21 Through the programme, OCC is developing a grant scheme to fund and deliver up to 1000 standard (7-22kW) EV charge points (EVCPs), in car parks and on-street and up to 100 EV Charging Micro-Hubs.
- 3.22 Subject to approval by OZEV, if successful a supplier to deliver the infrastructure would be appointed during the first quarter of 2024 with actual installations starting Q2/3 2024.
- 3.23 In addition, the County Council is also delivering several innovative EV infrastructure projects in partnership with OZEV:
- OxGul-e is piloting the roll out of dedicated pavement cable gullies to residents without off-street parking in both rural and urban locations
 - DoorSTEP is testing a different solution to allow residents without access to private off-street parking to install a home EV charger from their domestic electricity supply and has capability to share with neighbours.

Nature recovery and carbon sequestration

ACTION 6: EXPLORE OPPORTUNITIES FOR CARBON SEQUESTRATION THROUGH THE LAND-BASED CARBON SEQUESTRATION OFFSET MODEL, INCLUDING TARGETED HABITAT RESTORATION AND CREATION.

Governance: OLNP finance subgroup. Progress reports to Environment Advisory Group
 Convening Lead: Oxfordshire Local Nature Partnership Manager

Objectives:

- Support habitat protection, recovery and creation alongside a range of other co-benefits (e.g. flood risk and air quality management and green space) through the identification of suitable sites to store or capture carbon
- Support the development of Oxfordshire's nature recovery network and delivery of Oxfordshire's Local Nature Recovery Strategy
- Support the delivery of locally based carbon off-setting or in-setting solutions, based on robust financial models, where appropriate

- 3.24 This action is identified to explore opportunities to enhance carbon sequestration through land use change, including targeted habitat creation, restoration and protection projects which maximise co-benefits including around flood risk and air quality management and creating green spaces for recreation.

Nature recovery and carbon sequestration: progress to date

- 3.25 The Oxfordshire Local Nature Partnership (OLNP) is developing an innovative Oxfordshire-wide approach to deliver multi-functional nature-based solutions on a localised basis (as identified through the Oxfordshire Local Nature Recovery Strategy and Oxfordshire Infrastructure Strategy)
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- 3.26 The Oxfordshire Nature Finance Strategy has been produced by the OLN and endorsed by the Future Oxfordshire Partnership. The Strategy sets out the creation of a natural capital investment framework that will deliver environmental enhancement projects in alignment with the Oxfordshire Local Nature Recovery Strategy, using private funding to boost nature's role in mitigating and adapting to climate change, resulting in increased resilience of Oxfordshire's wildlife, people and economy.
- 3.27 £100k of funding has been allocated from the Oxfordshire Housing and Growth Deal Capacity Fund to take forward this work, with recruitment of a project manager currently in progress. The project is likely to be centred on an area-based inseting investment model, and an offset market, to finance nature-based solutions in Oxfordshire, based on a multi-habitat approach to carbon sequestration.
- 3.28 Ongoing engagement with stakeholders across the county indicates that large businesses are interested in spreading risk across multiple types of carbon offsetting projects in Oxfordshire, including nature-based projects, solar and retrofit.
- 3.29 OLN is exploring the delivery of a [Local Enterprise Networks](#) model, which would assess where businesses have material dependencies on farmland in Oxfordshire and develop a marketplace where these businesses could invest in land management practices that would improve the environmental performance of that land. This would increase carbon sequestration across large geographies without stopping food production, whilst delivering multiple additional benefits, including water quality enhancement, increased productivity and flood risk reduction.

Cross cutting actions

ACTION 7: EXPLORE INNOVATIVE GREEN FINANCE

Governance: reporting to Environment Advisory Group
 Convening lead: TBC

Objectives:

- Develop new innovative funding mechanisms (e.g. green bonds and inseting) to finance net zero actions at significant scale
- Promote local ownership of assets and local investment opportunities
- Support the provision of private finance into county programmes.

- 3.30 Recognising the scale of investment required to deliver net zero⁴, this action aims to develop innovative funding mechanisms, eg green bonds, area based inseting (Oxford City Council leading feasibility study through Zero Carbon Oxford Partnership) to finance delivery of net zero actions at scale and support the provision of private finance into county-wide net zero programmes. There are strong links between this action and the Local Nature Partnership's approach to investment in green carbon capture and the inseting model to achieve social value.

⁴ Investment of around £3.5 billion would be needed by 2030 to deliver the measures identified in the PAZCO report.

GREEN FINANCE - PROGRESS TO DATE

- 3.31 The Zero Carbon Oxford Partnership has an established workstream focussed on innovative area-based insetting, and is developing a trial project in Oxford (to start early 2024) to demonstrate the approach as a viable means of attracting funding to deliver local carbon reduction projects. Opportunities are being explored to extend this approach across the county.
- 3.32 The County Council is organising a green finance conference to be held early in 2024.

4. Wider context

- 4.1 Whilst this update focuses on the actions identified for inclusion in the first delivery phase of Net Zero Route Map and Action Plan, activity is also underway across other priority actions, as well as ongoing programmes led by the individual local authorities. In addition, work to develop a climate adaptation strategy is also progressing, led by the County Council in partnership with the Districts and City. The strategy will be informed by a climate vulnerability assessment which is nearing completion.
- 4.2 An update capturing wider delivery of net zero projects will be brought to the FOP during 2024 alongside a review of countywide emissions and progress to net zero.

5. Recommendations

- 5.1 The FOP is asked to note the content of this report and the work underway to implement the Oxfordshire Net Zero Route Map and Action Plan.
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