

Presentation by Cllr Tom Hayes, Oxford City Council's Cabinet Member for a Zero Carbon Oxford at LCWO climate café, May 2019

- My council wants all Oxford residents to benefit from this knowledge-based economy. My council also wants to stave off our climate crisis. Climate change is not a theoretical future prospect; it is with us here and now, with wildfires, droughts and floods.
- The only credible answer of democratic politics in response to these challenges is to admit that we need to raise our game and show we can act. We know these truths to be self-evident because schoolchildren are teaching them to us.
- There are areas where my council needs Government support. Since 2010, zero-carbon homes have been scrapped by the coalition Government, although they are coming back. The Government's energy company obligation solid-wall programme lasted less than a year after it was announced. Tidal lagoons have been flirted with, and have gone nowhere. The carbon capture fund money was put up and then taken away. Onshore wind has been banned. The Green Investment Bank was set up, and has already been sold off. We need to make our electricity grid 100% carbon zero before 2050. But, there are also many areas where local councils can make progress by attracting millions of pounds of investment in low- or zero-carbon technologies, particularly from the private sector, trialling new technologies and approaches, and working with transportation, housing, energy and other providers to ensure our cities are striving for zero carbon.
- Oxford City Council is tackling our carbon emissions from our estate and operations, and uses our influence to work with partners across the city to reduce emissions further.
- Our city-wide carbon reduction initiatives include:
 - driving down energy costs,
 - reducing fuel poverty,
 - improving air quality,
 - enabling market uptake of new technologies,
 - driving innovation in the local energy sector,
 - And establishing Oxford as a leading city addressing climate change.

Carbon management in City council own estate and operations

- Oxford City Council has been managing carbon emissions from our estate and operations since 2008
- We are currently delivering our third carbon management plan which runs from 2017 to 2022 ...
- ... and this maps out how our 5% per year carbon reduction target will be achieved by continual improvement in energy management, driving down energy costs, fuel costs and water costs ...
- ... it focuses on developing **onsite generation**, increasing **energy efficiency** and **reducing fuel demand**.

Onsite generation

- The council has installed over 1 mega-watt of solar PV across our estate.
- This generates the equivalent of 10% of our annual electricity from onsite generation ...
- ... and avoids the use of over 800 mega-watt-hours of electricity being drawn from the national grid, reduces carbon dioxide emissions by 380 tonnes per year and saves over £100,000 of electricity spend per year.
- More solar PV installations are in development: with a large 100 kilo-watt-hour solar car port installation scheduled for completion in May 2019 at Leys Pools and Leisure centre.
- The council is also exploring scope for projects that combine large scale solar PV, battery storage, electric vehicle charging technologies in a “smart” system that maximises the economic and environmental benefits to Oxford.
- Knowledge learnt is being passed on to local organisations in the city and surrounding regions through our partnership networks and initiatives.

Demand reduction/energy efficiency

- The Council has implemented a range of energy efficiency projects in our buildings through our carbon management programme including:
 - boiler upgrades,

- insulation measures,
 - swimming pool covers,
 - motor efficiency improvements (VSDs),
 - LED lighting and controls and
 - smart metering/monitoring systems to target excess consumption issues quickly.
- The Council has established our Salix energy efficiency recycling loans fund: a 50/50 government-sponsored match fund for energy invest to save projects.
 - The council has used our Salix fund to deliver energy efficiency improvements estimated to reduce carbon dioxide emissions by over 1800 tonnes per year and reduce energy costs by over £400,000 per year.
 - The Council is currently developing energy management systems for our flagship buildings.

City-wide projects

- Oxford City Council has been leading the way in reducing carbon emissions. This Council is responsible for 1% of the city's CO2 emissions and we're making excellent progress against internal carbon reduction targets. But we have to work in partnership to achieve ambitious city-wide targets set in 2011 to reduce city-wide emissions by 40% by 2020 on a 2005 baseline.
- For me, that's not enough. We need to get to Zero Carbon and Zero Emissions. Just as we have a Zero Emission Zone to get polluting vehicles off our roads, improve public health, and end health inequalities in the city and county, so we're developing a plan to get to Zero Carbon. We're building on our strengths.
- In this context the Council is leading on several pioneering partnership projects.
- Ours is a celebration of values—doing more, achieving more, and all because we're working together, recognising that there isn't a single person in this room who has all the answers.

Low Carbon Oxford:

- The Council leads the coordination of the Low Carbon Oxford network – a local collaborative of over 40 organisations that are responsible for over half of Oxford's carbon dioxide emissions and which have committed to reduce their emissions by 3% each year.

- The City Council is proud to have been at the heart of Low Carbon Oxford, providing the core funding and resourcing.
- Connections made through that network sparked the story of how MINI Plant came to host one of the largest roof mounted solar panel installations in the UK.
- The launch of Low Carbon Oxford has been a call to action to reduce our carbon emissions, develop a low carbon economy, and to do it together. The growth of that partnership has connected more of us, made possible more learning, shared more knowledge, and given rise to more life-changing innovations than we could have achieved alone. It has helped to make possible launches such as the launch recently of Oxfordshire GreenTech.
- At it's very essence, GreenTech is about supporting Oxfordshire businesses and organisations to develop services and products that enable low-carbon, resilient, sustainable lifestyles. And, of course, promoting Oxfordshire as a centre for resilient growth and job creation.

OxFutures II Growing Oxfordshire's Low Carbon Economy:

- The Council is participating in a multi-stakeholder partnership to grow Oxfordshire's low carbon economy through assisting SMEs to reduce energy consumption and implement energy efficiency projects.
- The Council is able to pass on our expert knowledge in energy management best practice and via access to a range of expert networks to assist SMEs in driving down energy spend and associated carbon emissions.

Heat Networks:

- The City Council lead a master-planning exercise for heat networks in Oxford, funded by the Heat Networks Development Unit (HNDU) at BEIS,
- The Council is now working with The University of Oxford, Oxford Brookes University and other partners to generate feasibility studies for heat networks in potential locations such as the city centre University science area and the Headington hospital area.

Oxford Green Week:

- The Council organises the annual Oxford Green Week festival that uses culture, creativity and community to inspire local people to take action against climate change.
- In June 2017, it collaborated with 7 partner organisations to offer over 100 events across Oxford and engaged over 40,000 people at our many events, including the Big Green Day Out in Oxford city centre with over 25,000 attendees.

Accelerating electric vehicle adoption:

- The Council is proactively working to enable the electric vehicle market with a range of infrastructure improvement projects including:
- **Go Ultra Low Oxford: on-street:** an £800,000 on-street residential EV charging scheme which in the first phase during 2017/18 has delivered 5 different types of chargers, ranging from low technology pavement channels for safe stowage of cables during charging, slim-line charging pillars and lamp-column integrated charging sockets. A further 100 chargers will be installed by March 2021
- **Go Ultra Low Oxford: Taxi Scheme:** a £500,000 scheme to install 18 rapid and fast chargers for the exclusive or priority use by taxi drivers. Accompanied by business support measures for early-adopter taxi owners.
- **OxPops:** A technology development trial to install 6 “pop-up” chargers on a residential street in Oxford.
- **Local planning requirements** now require larger developments to provide 20% of total energy from on-site renewables and low carbon technology. More stringent requirements are being introduced via the new Local Plan currently under consultation.

Local Energy Oxfordshire

- Oxfordshire will receive funding for a £40 million project to trial a new smart local energy system – or ‘smart grid’.
- The system will explore how the growth in local renewables, electric vehicles, battery storage, and demand side response can be supported and help in reducing charges to consumers.

- The system will balance local demand with local supply in a real-world environment and will help to test markets, inform investment models and, assess the benefits of flexibility to the energy system.
- The project will demonstrate the potential for individuals and communities to become active participants in the energy systems of the future.
- Project LEO will enable Oxfordshire based social enterprise, the Low Carbon Hub, to grow its existing portfolio of 40+ energy projects bringing another £16 million of community energy projects to the County. The Low Carbon Hub's work over the past eight years has demonstrated a commitment to building renewable energy projects across Oxfordshire with schools, businesses and communities and they're excited for this project to take that work to the next level working with excellent project partners who are expert in their fields. Project LEO will enable the Hub to further grow community-owned renewable energy in Oxfordshire, provide new investment opportunities for local people, and allow our communities to have more say in their energy choices.
- By creating opportunities for local communities to trade the energy they generate, use and store at a local level, project LEO will show the potential for individuals, businesses and communities to collaborate in the creation of an energy system that's good for people and the planet.

Energy Superhub Oxford

- Oxford City Council has facilitated a £41m project to trial the world's largest hybrid energy storage system to support electric vehicle charging and low-carbon heat networking. This will provide the power infrastructure needed to kick-start an electric vehicle revolution in Oxford and support the city's ambitious plans to clean up its air and cut its carbon emissions to zero.
- Energy Superhub Oxford is a collaboration of partners to install a giant battery (the world's largest hybrid battery system (50 Mega Watts)) to store and re-supply power to electricity suppliers. Spare capacity can be used to supply energy for the charging of EVs in Oxford and enable cheaper power for residential properties by low-carbon ground-source heating. Direct cabling connection to a National Grid transmission substation will bypass usual electric distribution network constraints, allowing provision of high electrical capacity for ultra-fast and rapid EV charging.
- It will deliver a 20,000 tonnes of CO2 per year saving by 2021, rising to 44,000 tonnes per year by 2032.

- We will use some capital funding for the purchase of electric vehicles as part of our fleet replacement programme and to fund the associated chargers, which will offer the council earlier opportunities to trial and move to electrical vehicles.
- Funding will also be utilised to work with a partner organisation to offer a 'Trial before you Buy' programme to support the local Hackney Carriage fleet to accelerate the transition from fuel to electric (in line with licensing changes to emissions for electric taxis starting from 2020).
- The Council will produce carbon dioxide, nitrogen dioxide, and cost savings by enabling an electric fleet.
- Direct high capacity electrical cabling or upgraded electrical infrastructure will be provided to Council Depots (partner funded) to allow electric fleet to be charged.
- We'll be funding the creation of the first Electric Vehicle 'Superhub' in Oxford, at Redbridge P&R, providing 20+ ultra-rapid EV chargers (circa 10-30 min charge) for the public with low affordable tariffs for local residents, visitors, businesses and passers-by. We'll be encouraging drivers to choose environmentally friendly modes of transport over diesel or petrol cars will have a real impact on air quality, so it's essential that we provide the infrastructure to allow this.
- We'll be providing dedicated charging services to the council and key businesses such as the bus companies, potentially to accelerate their transition to Zero Emission.

Domestic energy efficiency and fuel poverty

- Using a combination of Energy Company Obligation and capital funding the Council has completed external wall insulation, loft insulation and efficient heating upgrades on over 400 properties.
- This has saved tenants around £38,000 per year and reducing CO2 emissions by 160 tonnes carbon dioxide per year in total
- Projects have also included installing Solar PV and batteries in 59 homes in Rose Hill as part of an Innovative UK research project (Project ERIC).
- The Council runs an energy advice programme which, by May 2018, will have has delivered:
 - 8269 energy and money saving recommendations to council tenants

- Advised 1,295 tenants to switch energy supplier to save money
- Found 837 cases of Warm Homes Discount eligibility – with estimated savings of £117,000.
- In total, savings to tenants from the service so far are estimated to be over £184,470

Air Quality

- Air quality is a particular issue of concern in Oxford and the City Council's Low Emissions Strategy sets out the connection between carbon and air quality.
- In a major development in 2017/18 the Council committed to the development and leadership of a world's first Zero Emissions Zone with the aim of eliminating emissions completely from transport in parts of central Oxford by 2020.
- This will also help to drive down unnecessary use of fossil fuels and the associated carbon emissions.
- Oxford City Council has secured £3.25m of Government funding in recent years to enable the practical introduction of the Zero Emission Zone, including £1.7m to upgrade buses to be ultra-low emission or fully electric, £800,000 to install electric vehicle charging points for residents with on-street parking, and £500,000 to install charging points for taxi owners and operators. Oxford has also received £474,000 of Government funding to introduce the world's first pop-up electric vehicle charging points. The City Council is hosting the second annual Electric Vehicle summit in June 2019 to encourage electromobility.
- Oxford City Council has just secured a further £700,000 to upgrade the city's buses and reduce toxic air pollution – bringing the total funding to improve Oxford's buses to £2.3m. The £671,550 will retrofit 37 buses from three providers – Oxford Bus Company, Stagecoach Oxford and Arriva—to Euro 6 standard. Euro 6 is currently the cleanest form of combustion engine. We said that our Zero Emission Zone has to be practical in order to be effective, and that means Oxford's bus fleet becoming one of the cleanest in the country.
- We know that cleaner buses means less polluted air - latest figures show a drop in harmful nitrogen dioxide levels by an average of 22.7% because of Oxford Bus Company and Stagecoach Oxford introducing ultra-low emission

buses. I look forward to the Zero Emission Zone becoming a practical reality, protecting the health of our city.

Oxford City Council's Role

- We need to mobilise people who at the moment may be concerned about climate but vote about it as a fourth-or fifth-order political priority rather than a first-order priority, judging politicians on the basis of their climate policy.
- It can feel bleak at the moment. The world's most powerful person is a climate change denier. When we exit the EU, there is a real need for environmental governance with independence and teeth to hold this Government to account. I don't want fear to be the only feeling that motivates people to make climate change an urgent priority. I want hope to be.
- Our drive for Zero Carbon must involve the transformation of our economies at the scale needed to stop the climate crisis. Ours is a plan to put social value and the right kind of economic growth right at the centre of our efforts. We can help to bring forward an age of prosperity and health and help to bring forward the people this country has left behind, all in the name of a fast transition. Such an approach will also bring people with us. The transition has to be just—not easy in a country as unequal as the one we have created.
- When the UN warns that we face a climate catastrophe if we don't accelerate the rate of carbon abatement in the next twelve years, we can't allow another thirty years to pass by without coming up with solutions. More of the same won't solve our problems. We have to break environmentalism out of the bubble of the traditional green community. And that's why I'm particularly pleased that the City Council will be holding the first citizens assembly in the country by a local authority to deal with climate change.
- Anyone looking at politics right now can see that new thinking is needed. We need deep constitutional reform nationally, but in the interim, our country's well-run cities can try out new forms of engagement. Setting up a Citizens Assembly could be the path to consensus on climate change here and, crucially, a much-needed model for doing politics better everywhere else.