CARBON ACTION PLAN

The Pathway to Achieving Carbon Neutral by 2030

Presented to Full Council: 28th October 2020

WEST OXFORDSHIRE DISTRICT COUNCIL

CLIMATE ACTION for West Oxfordshire

Contents

1.0 Introduction

1.1. Why develop a Carbon Action Plan?

West Oxfordshire District Council (the Council) declared a climate and ecological emergency making its pledge to become a carbon-neutral Council by 2030. The decision was taken at a meeting of Full Council on 26 June 2019.

1.2. What will the Plan set out?

The Carbon Action Plan now sets out the Council's pathway for how it will achieve its target of carbon neutral. It will:

- Present a Greenhouse Gas (GHG) emissions account as a baseline and measure of the Council's current impact on climate change so that it can measure the success of actions taken to reduce and remove emissions;
- Define a set of Guiding Principles for planning all future research and projects implemented by the Council towards its target of carbon neutral;
- Identify a Pathway and Priorities for Action as the trajectory for achieving carbon neutral;
- Set out a process for the monitoring and review of action in progress and new action planned so that the Plan remains live and responsive to external influences, technological changes and innovation within the low-carbon and renewable energy sector;
- Lead by example, establishing as a Council an assessment methodology and set of Guiding Principles that partners working across the District may apply to their own projects planned in response to the climate emergency.

The Carbon Action Plan is not intended as an overly technical document. It is written for reference by multiple stakeholders within the Council and across functions. Detailed technical and specialist projects will fall from this Plan as standalone pieces of work which will be developed and implemented, where necessary, in support of the Council's plans for carbon neutral.

1.3. How will the Council prioritise action?

The Council sets out its Priorities for Action under three headings:

- Council offices, property and sites
- Leisure centres and facilities
- Council vehicle fleet, machinery and transport

Guiding Principles have been developed within this Plan as a common and consistent reference point for all individual projects specifically designed to contribute towards a carbon neutral target – these are described in detail in Section 3.0.

The timing of projects will be prioritised to align with a Pathway that has been developed as a trajectory for the Council achieving its carbon-neutral target, referred to in Figure 4, Section 4.0. This Pathway highlights where there is greatest opportunity to influence change and reduce climate impact. As aforementioned, a number of projects will flow from this Plan at key stages of the Pathway. Each of these should be developed with reference to the Plan's Guiding Principles. This will be done to ensure that emissions and climate change impact is central to decision-making by the Council, and is particularly important when those decisions relate to the Council's highest-emitting locations and services. This Pathway aims to assist in the planning and prioritisation of those projects.

Projects will be designed as work packages. It is recognised that a work package will, to a greater or lesser degree depending on the project, require an element of research and development - which may also be referred to as a viability assessment stage. This is to facilitate well-informed decision making.

Delivering carbon neutral is an iterative process so projects will need to evolve as the landscape for clean energy and technology evolves. This Plan is structured to allow a flexible approach to project planning as part of the trajectory to carbon neutral. This also allows for the lessons learned and experiences taken from one project to feed into and benefit the next.

Clean energy technologies are referred to as an important element of the UK's plans for an economic and green recovery following the Covid-19 pandemic. This is one very recent example of how emphasis and investment towards clean energy technology has changed within a fairly short timeframe and has the potential to influence the landscape in the future. With additional Government stimulus and investment, we can expect to see technology evolving and green energy technology becoming more accessible. And as demand increases for new and innovative solutions, new technologies can be expected to come forward.

The Council may be able to participate in piloting some of the more innovative approaches and will create and/or take those opportunities when they arise.

Developing projects at different stages of a Pathway to carbon neutral allows the Council to maximise the benefits of these technological advancements as they occur.

The detailed scope of individual work packages will need to be developed in stages. How they are prioritised will also be guided by other factors, for example:

- Where there are opportunities for working across Councils, at both local and regional levels, and with external partners and stakeholders, a collaborative approach will be taken.

- Where UK Government funding comes forward as a stimulus for a priority within this Plan, action will be taken.

1.4. How will the Council monitor the Plan?

The Carbon Action Plan will be monitored and reported on as part of the Council's current commitment to reporting its annual Greenhouse Gas (GHG) emissions. This is in line with Government guidance. Monitoring and reporting is also carried out with the objective of meeting the Council's commitment to deliver action in response to its declaration of a climate and ecological emergency.

The impact of actions taken as part of this Plan will be monitored through a time-series analysis to enable year on year comparisons being made and monitoring of changes in Council's climate change impact over time.

The Annual Monitoring Report will also be used to report on progress being made towards this Plan's objectives and Council's target of carbon neutral. This will complement processes being put in place to monitor the Council Plan and Covid-19 Recovery Plan. Steps will be taken to streamline reporting wherever possible as there will be cross over between each of the Plans.

1.5. What resources will be required?

The resource and finance required, both revenue and capital, will be considered for each individual work package and project developed. A decision would need to be taken on each as to whether research and viability followed by delivery can be implemented through either existing internal resource or is more appropriately sought through external and specialist experts, or a combination of the two. Individual Council decisions, on the allocation of funding, will need to be taken for the implementation of targets contained within this Plan. That will be understood in more detail at the scoping stage of each project.

2.0 Council emissions

2.1. What does the Council measure?

There are no fixed guidelines on what the Council should include in its account of Greenhouse Gas (GHG) emissions. This is why the Council commissioned an expert, peer review of its existing methodology[1] to ensure that the highest standards of GHG accounting and reporting are adopted.

The GHG emissions, now included in the Council's account, are categorised by Scope and summarised here in Table 1.

Table 1: GHG Emissions Scope.

SCOPE	Type	Description
One	Gas	Gas used for heat and power to offices, property and sites owned and operated by the Council.
	Liquid fuel	Diesel, petrol and oil used to power all vehicles and machinery owned by the Council.
Two	Electricity	Electricity used to power offices, property and sites owned and operated by the Council.
Three	Business travel	Travel undertaken by staff and Councillors for business purposes including bus, car, taxi, rail, London Underground and plane.
	Water	Water consumed in offices, property and sites owned and operated by the Council.

Guidance from the *Greenhouse Gas Protocol for a Corporate Accounting and Reporting Standard*[2] has been used to ensure the Council has developed a fair and accurate account of its GHG emissions by including datasets that are:

1) Relevant
2) Complete
3) Consistent
4) Transparent
5) Accurate

[1] Aether's WODC Baseline Review – Recommendations and Guidance
[2] See https://ghgprotocol.org/corporate-standard for further information and the Protocol in full

2.2. How does the Council measure emissions?

The Council accounts for its GHG emissions as CO2e. This term stands for carbon dioxide equivalents and is a measure of how much global warming is given by a particular GHG as a function of the amount or concentration of carbon dioxide gas. CO2e is the common unit used within this Plan to express the contribution of the Council's GHG emissions on global warming and subsequent impact on climate change.

Data from a number of different sources, from across the Council, are used. These source data are quantified using different units of measure. For example, some data obtained are expressed as litres of liquid fuel, either petrol or diesel; some as kWh of gas or electricity; some as distance travelled by car; some as fares incurred on journeys taken by train, bus or plane. In each case, these data are converted into a single measure of CO2e. To express the Council's total GHG emissions in terms of CO2e, conversion factors defined and published by the Government[3] have been used. These conversion factors are reviewed by Government each year to maintain up-to-date and accurate reporting.

2.3. What is the emission baseline?

The Council has completed its GHG emissions account for year ending 2019/2020 which is referred to within this Plan as the Council's baseline.

During 2019/2020, emissions totalled **3,022,199 kg CO2e**.

If the Council's most recent annual emissions are converted to a purely electricity equivalent, 3,022 t.CO2e is equal to 12,963,022 kWh of electricity. According to Department of Business, Energy and Industrial Strategy (BEIS) figures, the average household consumes 3,860 kWh of electricity a year[4]. The Council's CO2e is therefore equivalent to the electricity consumed by 3,358 homes using BEIS figures. Census data for 2018/2019 records 49,000 households in West Oxfordshire so Council total emissions can be compared to approximately 7% of total households within the District.

For a detailed summary of the 2019/2020 GHG account, refer to Annex 1.

2.4. What does the data tell us?

The data tells us that the Council is currently dependent on non-renewable, fossil fuels and consumption of gas, diesel, petrol, oil and electricity from the National Grid are dominant energy sources. The data also highlights where Council emissions are concentrated according to Scope and Location.

[3] Government conversion factors for company reporting of greenhouse gas emissions, last updated 9th June 2020: https://www.gov.uk/government/collections/government-conversion-factors-for-company-reporting
[4] https://www.gov.uk/government/statistics/energy-consumption-in-the-uk

2.4.1. By scope

Table 2: Total Emissions by Scope.

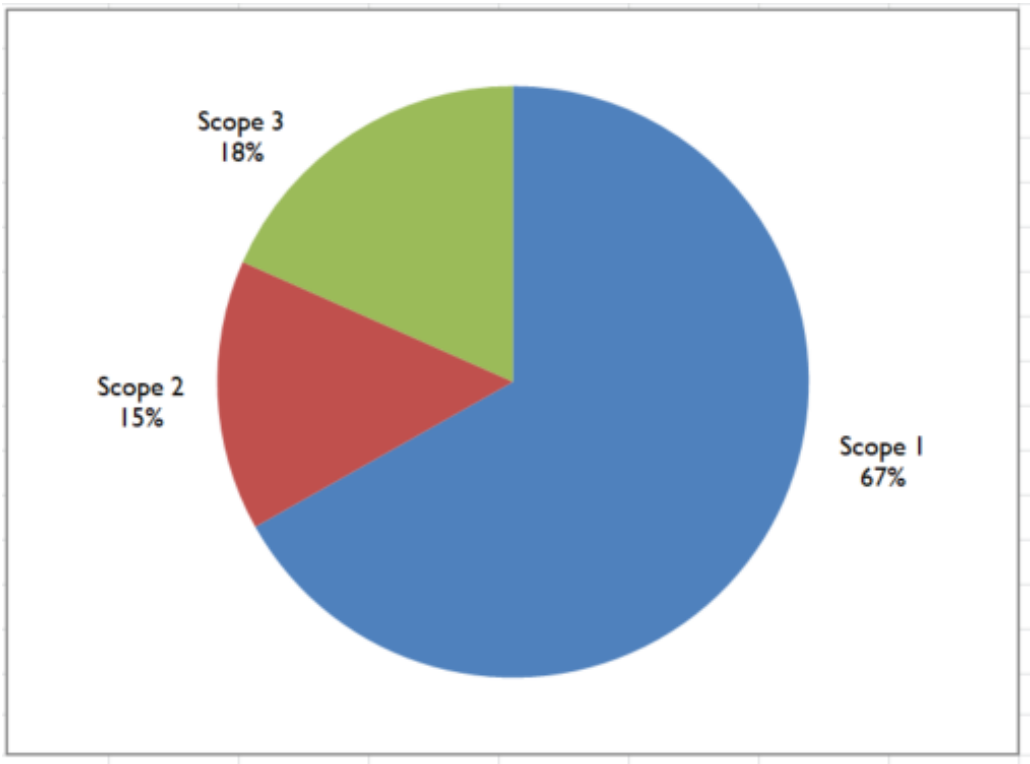
01 April 2019 to 31 March 2020	Kg CO2e
Scope 1	2,020,220
Scope 2	447,126
Scope 3	554,853
TOTAL	**3,022,199**

Scope 1 emissions are the largest source for the Council. Emissions associated with gas and liquid fuel account for 67%, two thirds of Council emissions.

Scope 2 emissions associated with the purchase of electricity from the National Grid account for a further 15% of Council emissions.

Scope 3 emissions associated with the transport of gas, electricity and liquid fuel (referred to as T&D, Transport & Distribution and WTT, Well to Tank), water consumption and transport miles for staff and Councillors account for the final 18% of Council emissions.

Figure 1: Total Emissions by Scope.



2.4.2. By location

Table 3: Total Emissions by Location.

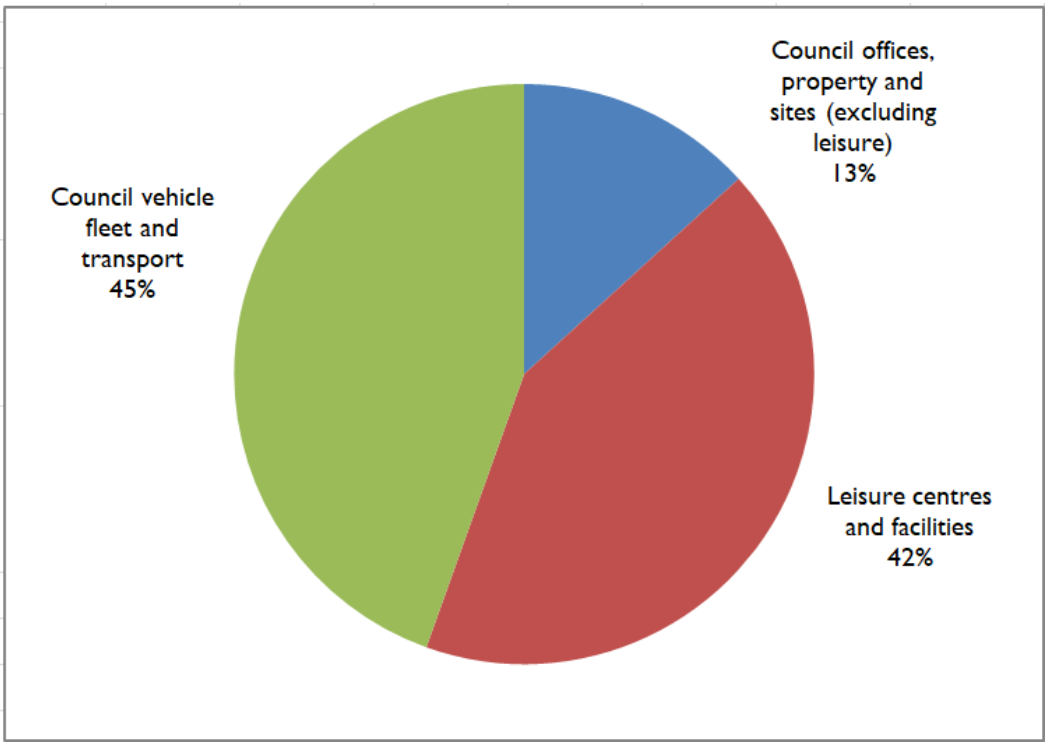
01 April 2019 to 31 March 2020	Kg CO2e
Council offices, property and sites (excluding leisure)	400,418
Leisure centres and facilities	1,276,260
Council vehicle fleet, machinery and transport	1,345,521
TOTAL	**3,022,199**

Council offices, property and sites represent 13% of total emissions across Scopes 1, 2 and 3.

Leisure centres and facilities account for 42% of Council emissions, across Scopes 1, 2 and 3.

Council vehicle fleet, machinery and transport including Council-owned waste trucks currently operated by UBICO as part of a contract to deliver the Council's waste, street cleansing and grounds maintenance contract, accounts for another 45% of Council emissions.

Figure 2: Total Emissions by Location.



3.0 Guiding principles

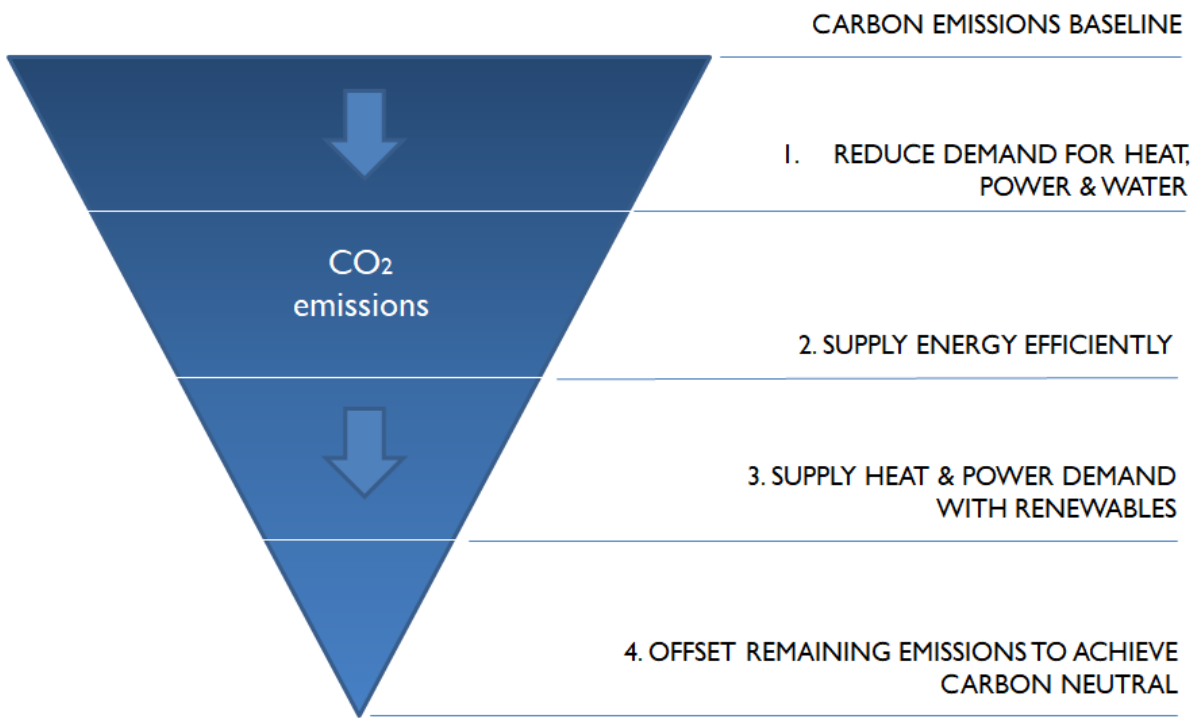
The Council has developed Guiding Principles within this Plan as a common reference for all projects planned as part of its trajectory for reaching carbon neutral.

Table 4: Guiding Principles.

PRINCIPLE	DESCRIPTION
GP1	Target energy-efficiency and resource-efficiency measures as a first step to reducing heat, energy, fuel and water demand
GP2	Transition away from fossil fuels including gas and liquid fuel, and move to electricity-based and other low-carbon energy technologies
GP3	Direct supply electricity using renewables either on-site or from another local energy source
GP4	All remaining CO2e that can not be reduced or removed in their entirety, to be offset using an agreed offsetting mechanism

These principles align with the energy-hierarchy approach, illustrated in Figure 3, and will be applied as a consistent point of reference in the planning of work packages, projects and activities being taken forward to deliver this Plan.

Figure 3: The Energy Hierarchy.



3.1. GP1: Reduce demand for heat, power and water

The first step taken in the hierarchy focuses on the management of resources and measures planned to reduce the demand for that resource. Within the context of this Plan, the resource refers to the Council's demand for energy and water.
Reducing the Council's demand for these resources can be done by, for example:

- Creating well-insulated buildings so that less heat is required to achieve a comfortable temperature;
- Employing technologies that manage a building's energy demand so that optimum performance can be achieved;
- Installing water-efficiency measures to reduce flow rates, recycle water and manage consumption levels;
- Reducing demand for office space through agile and remote working policies;
- Reducing transport miles for business by meeting through alternative, virtual means;
- Reducing the fuel consumption of vehicle fleet through driver-awareness training.

These measures, amongst others, can be taken to reduce the Council's requirement for heat, power and water. A reduction in the demand for resources will result in, not only a reduction in climate change impact, but also a reduction in cost. In prioritising steps towards resource efficiencies, financial savings can therefore also be made.

3.2. GP2: Supply energy efficiently

Energy for heat and power can be supplied through non-renewable fossil fuels such as gas, liquid fuel (diesel, petrol, oil) or alternatively, can be supplied through low- and zero-carbon (LZC) energy technologies that harness the power of wind, solar, air, soil or water. These technologies produce electricity. In the future, hydrogen is also expected to play an increasingly important role in total energy mix.
A transition away from fossil fuels to principally electricity-based systems is therefore an essential step towards carbon neutral.
All systems, whether they are designed to heat buildings, swimming pools or power the Council vehicle fleet, should also be carefully and efficiently designed to maximise energy performance. For example, heating systems modelled and designed to meet the predicted levels of demand operate efficiently and can have a large impact in terms of further reducing energy demand. The better the performance and efficiency of a system, the lower the subsequent demand for energy.
Moving to highly-efficient, electricity-based systems is essential in the Council's transition away from fossil fuels to cleaner and more sustainable solutions for the future.
In making that shift towards principally electricity-based systems and other low-carbon energy technologies, there will be an increase in the Council's demand for electricity. The current annual demand for gas, within Scope 1, is 980,616 kg CO2e. A key performance indicator for this Plan focuses on gas consumption reducing over time, offset by a forecast increase in demand for electricity.

Guidance on how the total, resulting electricity demand should then be supplied is discussed in more detail under Guiding Principle 3.

3.3. GP3: Supply heat and power using clean energy

Measures to reduce demand and design efficient and predominantly electricity-based systems are important first steps in the Council's Pathway to achieving carbon neutral. The Council's next step will be to assess options to supply the heat and power it requires through clean, zero-carbon energy.

Opportunities for clean energy should first be assessed on-site within the envelope of the Council building. This is because it can provide an immediate and direct supply of electricity and further reduce total electricity demand from another source. This is already the case at Carterton Leisure Centre and Elmfield where roof-mounted Solar PV provides a direct source of electricity. Any unused electricity is returned to the grid. Battery storage will need to be an important component of future installations considered by the Council in order to ensure the benefits of generating clean energy are retained on site.

Where the Council generates and exports renewable electricity to the grid, it might be expected that a credit is provided back to the organisation. However, the decarbonisation effect of supplying renewable electricity to the grid is accounted for within the national average grid factor. Once on the grid, renewable electricity is not distinguishable from non-renewable electricity. The resulting grid electricity is therefore a mix of all primary energy sources (renewable and non-renewable) and a single emission factor that accounts for this mix is used for grid electricity. This average grid factor decreases as more renewable sources connect in to the grid, resulting in the long-term reduction in Scope 2 emissions for all grid electricity users.

In the medium to longer-term, opportunities to direct-source clean, zero-carbon energy will be investigated by the Council to maximise its reach for carbon neutral in operation. Corporate Power Purchase Agreements (cPPAs) are fast evolving and will be investigated for their contribution towards the Council's future strategy for clean energy supply. In brief, a cPPA is a contract for the direct purchase of renewable energy from a renewable energy generator. Sleeved or 'Physical' cPPAs facilitate the supply of renewable energy from generator to multiple sites for the buyer, e.g. Council, via an energy supplier so that whilst total energy comes from the national grid, it can be quantified via renewable credits from the generator making it demonstrably, zero carbon.

This would be a contrary strategy to the Council's current procurement of energy. The Council purchases its energy from an energy supplier and, although its electricity tariff is green, the GHG emissions associated with it are accounted for using the average grid factor. GLL, current sports leisure contractor for the Council, also source their energy from an energy supplier which is, in turn, is subject to the same average grid factor.

The Council's aim for carbon accounting of renewable electricity will therefore need to ensure:

i. Renewable energy generation produced through the Council's investment, used directly by the Council with the carbon benefit of generation clearly traced by applying a zero-emission factor to the renewable electricity generated. Emission savings will therefore occur as electricity used is zero carbon and assumed to directly displace the requirement for grid electricity, meaning Scope 2 emissions are reduced.

ii. No double-counting of the benefit of renewable generation. Double counting occurs when renewable electricity is either exported directly to another organisation or exported to the grid.

Clean, renewable energy will not only be considered as a potential future supply to the Council's multiple buildings, but also as a wider investment opportunity.

3. 4. GP4: Offset remaining emissions to achieve carbon neutral

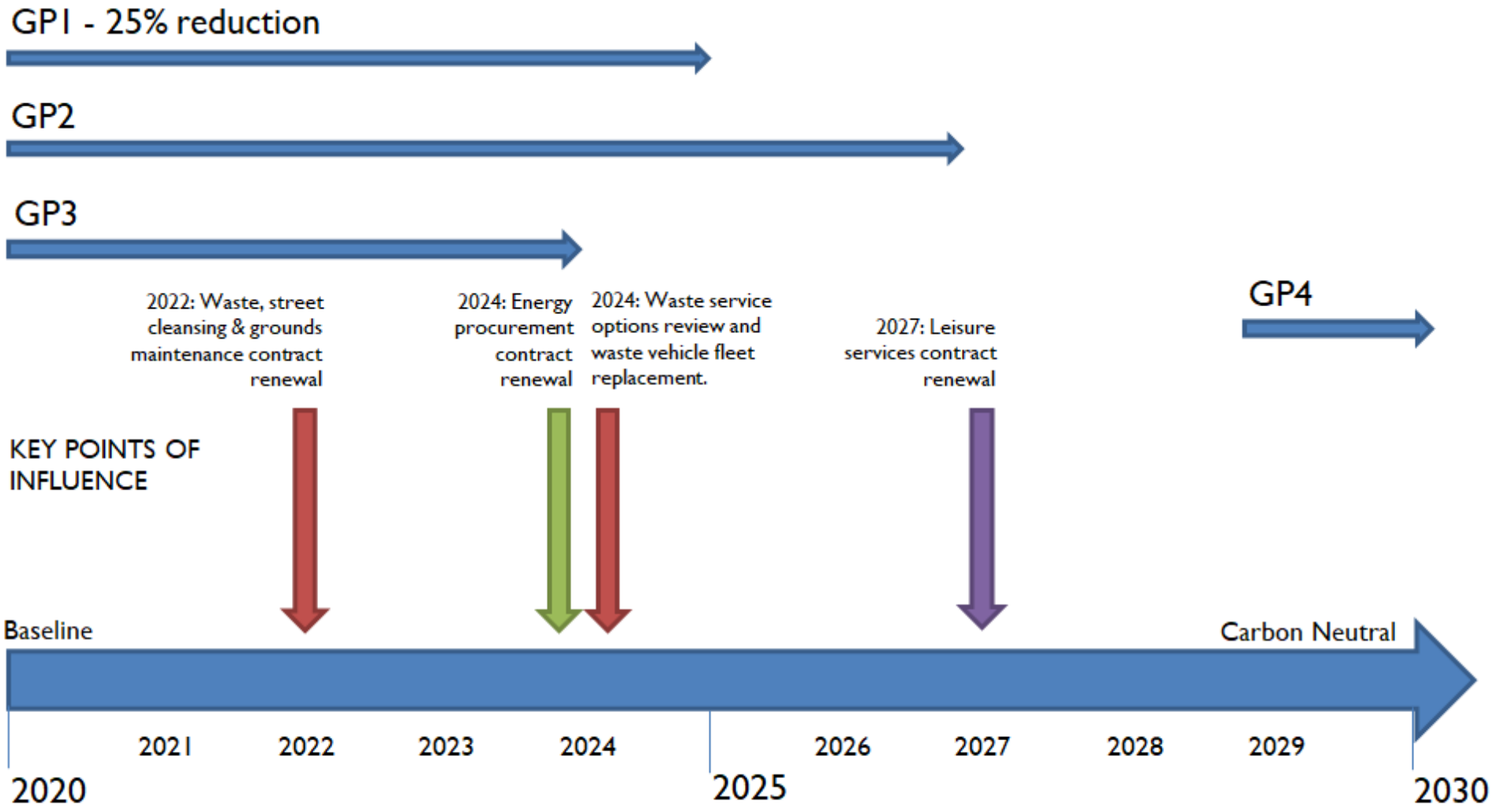
The emissions that cannot be removed entirely within the 2030 Pathway will be offset through a mechanism endorsed within this Plan, but only once all other steps have been taken and Guiding Principles fully explored and/or implemented.

Carbon offsetting will enable the Council to reach its carbon neutral target in full by paying for a carbon credit, i.e. to pay for an equivalent amount of emissions to be reduced or removed elsewhere. The Council will focus on carbon offsetting that derives local benefit as a priority over investing in carbon offset schemes further afield.

Table 5: Recognised Carbon Offsetting Schemes.

Name	Where are the offsets made	Notes
Council energy-efficiency retrofit fund	West Oxfordshire	Equivalent CO2e savings derived from investment into a deep retrofit programme for existing housing stock within the District.
Woodland carbon code	West Oxfordshire and UK	Developed through support of UK Government, the Environmental Reporting Guidance allows these domestic units to be used like international offsets, so organisations can use these in their emission reporting. Supporting local projects for tree and woodland management will be a priority for the Council.
Peatland carbon code	UK	Generates carbon offsets from emissions removed from the atmosphere through peat restoration in the UK. Developed through support of UK Government, the Environmental Reporting Guidance allows these domestic units to be used like international offsets, meaning that companies can use them as an alternative to international offsets in their emission reporting.
World Land Trust carbon offsetting scheme	International	World Land Trust's Carbon Balanced project enables individuals and organizations to offset their residual greenhouse gas emissions through the protection and restoration of carbon-rich wildlife habitats in the tropics.

4.0 Pathway to carbon neutral



5.0 Priorities for action

The Council sets out its Priorities for Action under three headings:

- Council offices, property and sites
- Leisure centres and facilities
- Council vehicle fleet, machinery and transport

To achieve carbon neutral, the Council will aim to:

- Deliver action to reduce, remove or offset the CO2e impact of current Council activities and services.

- Plan new activities and services coming on stream with consideration to their climate change impact so that any associated emissions can be successfully mitigated and/or offset.

5.1. Council offices, property and sites

Guiding Principle	HEAT & POWER	Easy		Hard	
		Impact		Impact	
		High	Low	High	Low
GP1	• Define the Council's office footprint as staff need. Keep under review.	√			
	• Embed principles of an agile working strategy for Council staff.	√			
	• Reduce staff business miles between offices in a permanent move to meetings via remote access unless a critical business need requires face-to-face.	√			
	• Raise awareness to how staff can reduce energy demand both in the office and when working from home.		√		
	• Reduce energy demand in Council offices through energy-efficiency retrofit. Develop a work package to first complete energy modelling, energy audits, M&E design, to assess and model the most suitable energy-efficiency measures and building management systems for consideration. Review details on energy performance alongside other property management issues identified, such as those highlighted in building condition surveys.			√	
	• Consider internal air quality and sources of natural, cross ventilation vs mechanical options to prevent overheating and maintain levels of thermal comfort within office spaces.			√	
	• Consider whole-life cost and embodied carbon when assessing options.			√	
GP2	• Supply energy to Council offices efficiently, using predominantly electricity-based, low-carbon energy systems. Within an energy modelling work package, assess the suitability and effectiveness of different systems. Consider these alongside other property management issues.			√	
	• Consider whole-life cost and embodied carbon of different systems when assessing options.			√	
GP3	• Within an energy modelling work package, assess the suitability of clean, zero-emission, energy technologies on-site.			√	
	• Consider whole-life cost and embodied carbon when assessing options.			√	
	• Remaining heat and power demand to be met via supply of renewable energy.			√	
GP4	• Any residual emissions that can not be entirely removed, offset by 2030 through a mechanism endorsed within this Plan.				

Guiding Principle	WATER	Easy		Hard	
		Impact		Impact	
		High	Low	High	Low
GP1	• Reduce water demand in Council offices by assessing both water-efficiency and greywater recycling retrofit measures as part of an energy modelling work package. • Where greywater recycling can be demonstrated as effective and financially viable, review wider application in Council-owned public conveniences.		√	√	
GP2	• Install water-efficiency and greywater-recycling systems in Council offices and public conveniences where appropriate.			√	
GP3					
GP4	• Any residual emissions that can not be entirely removed, offset by 2030 through a mechanism endorsed within this Plan.				

Guiding Principle	WASTE	Easy		Hard	
		Impact		Impact	
		High	Low	High	Low
GP1	• Establish a method for measuring and recording the Council's total volume of waste each year so that the associated emissions can be accounted for in future reporting. • Ensure clear and accessible recycling bins are provided in Council offices to encourage staff to recycle at work. • Reduce paper consumption, transition to a paperless Council and provide all publications through, principally, electronic means. Develop an Environmental Policy for the Council to signpost the Carbon Action Plan promoting the steps being taken by the Council towards a paperless transition. • If paper is required for printing, this should be done using sustainable, FSC-accredited sources to minimise the Council's environmental impact.	√ √	 √ 	 √ 	
GP2					
GP3					
GP4	• Any residual emissions that can not be entirely removed, offset by 2030 through a mechanism endorsed within this Plan.				

Guiding Principle	GREEN & ACTIVE TRAVEL	Easy		Hard	
		Impact		Impact	
		High	Low	High	Low
GP1	• Assess need for sheltered, secure, accessible and well-lit cycle storage and shower facilities in Council offices to encourage staff and Councillors to cycle to work. • Assess the viability of installing electric vehicle charging points (EVCP) at Council offices for staff and Councillors to support a transition away from fossil fuels to alternatively-powered vehicles. • Install EVCP in line with Oxfordshire EV strategy and standards. • Promote cycle voucher scheme available to staff to encourage cycling to work. • Promote employee leased car scheme available to staff to encourage wider take up of EV (both cars and bicycles) offering significant tax benefits.	√ √	 √ 	 √ √ 	
GP2					
GP3	• For staff and Councillor EV to be considered fully zero-emission, electric vehicle charging points installed at Council offices should be supplied using a source of clean energy.				
GP4	• These priorities for action do not relate to audited emissions within the Council's carbon account and therefore do not need to be the focus of carbon offset.				

5.2. Leisure centres and facilities

Guiding Principle	HEAT & POWER	Easy		Hard	
		Impact		Impact	
		High	Low	High	Low
GP1	• Develop a ***Demand Reduction Plan*** through work in partnership with GLL, identifying new ways to reduce energy demand in operation, link with Performance Indicators for energy within the annual contract review process. Focus on high-energy consuming activities e.g. gym equipment.	√			
	• Reduce energy demand in leisure centres through energy-efficiency retrofit. Develop a work package to first complete energy modelling, energy audits, M&E design, to assess and model the most suitable energy-efficiency measures and building management systems for consideration. Review energy performance alongside other building management issues identified, such as those highlighted in building condition surveys.			√	
	• Consider internal air quality and sources of natural, cross ventilation vs mechanical options for cooling to reduce energy demand and prevent overheating.			√	
	• Consider whole-life cost and embodied carbon when assessing options.			√	
	• Consider energy performance indicators as part of an annual review of the current leisure services contract, as a way of managing energy demand.	√			
GP2	• Supply energy to leisure centres efficiently, transitioning across to principally electricity-based, low-carbon energy systems within the timeframes of a Council trajectory to carbon neutral. M&E strategies developed on a site-by-site basis to coincide with end-of-life heating and cooling systems.			√	
	• Consider whole-life cost and embodied carbon of different systems when assessing options.			√	
GP3	• Within an energy modelling work package, assess the suitability of additional clean, zero-emission, energy technologies on-site.			√	
	• Consider whole-life cost and embodied carbon when assessing options.			√	
	• All new leisure facilities should be designed to the highest possible standards, aspiring to net-zero carbon in operation, in order to mitigate for future impact on climate change.			√	
	• Remaining heat and power demand to be met via a direct supply of renewable energy.			√	
GP4	• Any residual emissions that can not be entirely removed, offset by 2030 through a mechanism endorsed within this Plan.				

Guiding Principle	WATER	Easy		Hard	
		Impact		Impact	
		High	Low	High	Low
GP1	• Develop a ***Demand Reduction Plan*** through work in partnership with GLL, identifying new ways to reduce water demand in operation, link with Performance Indicators for water within the annual contract review process. Focus on high water-consuming activities e.g. swimming pool maintenance regimes. • Reduce water demand in leisure centres and facilities by assessing suitability of water-saving fixtures and fittings (e.g. showers), greywater recycling systems (e.g. in toilets) and water filtration systems (e.g. for swimming pool maintenance). • Consider rainwater harvesting tanks for maintaining existing grass football pitches and consider the benefits of hybrid football pitches (part grass/part artificial) as a less water-intensive option for the future. • Consider water monitoring performance indicators as part of an annual review of the current leisure services contract as a way of managing water demand.	√ √		 √ √	
GP2	• Install water-efficiency measures, greywater recycling systems, water filtration systems and management practices in order to make more efficient use of water.			√	
GP3					
GP4	• Any residual emissions that can not be entirely removed, offset by 2030 through a mechanism endorsed within this Plan.				

Guiding Principle	WASTE	Easy		Hard	
		Impact		Impact	
		High	Low	High	Low
GP1	• Employ existing measuring and recording of GLL's total volume of waste each year so that the associated emissions can be accounted for in future reporting. • Develop a ***Demand Reduction Plan*** through work in partnership with GLL, identifying new ways to reduce waste in operation, link with Performance Indicators for waste within the annual contract review process. Ensure clear and accessible recycling bins are provided in all Leisure Centres and at all facilities to encourage visitors to recycle. • Invite GLL, Leisure Services Contractor, to work with the Council to reduce waste by signing up to a Council Environmental Policy and principally paperless approach in its operations. If paper is required for printing, this should be done using sustainable, FSC-accredited sources to minimise the Council's environmental impact.	√ √ √			
GP2					
GP3					
GP4	• Any residual emissions that can not be entirely removed, offset by 2030 through a mechanism endorsed within this Plan.				

Guiding Principle	GREEN & ACTIVE TRAVEL	Easy		Hard	
		Impact		Impact	
		High	Low	High	Low
GP1	• Develop a ***Demand Reduction Plan*** through work in partnership with GLL, identifying new ways to promote active travel, link with annual contract review process. • Assess need for sheltered, secure, accessible and well-lit cycle storage encouraging staff and visitors to cycle to leisure centres and facilities. • Develop a consistent strategy and set of standards for installing electric vehicle charging points (EVCP) at existing and new leisure facilities to support a transition away from fossil fuels to alternatively-powered vehicles. • Install EVCP in line with Oxfordshire EV strategy and standards.	√ √		 √ √	
GP2					
GP3					
GP4	• These priorities for action do not relate to audited emissions within the Council's carbon account and therefore do not need to be the focus of carbon offset.				

5.3. Council vehicle fleet, machinery and transport

Guiding Principle	WASTE, STREET CLEANSING & GROUNDS MAINTENANCE CONTRACT	Easy		Hard	
		Impact		Impact	
		High	Low	High	Low
GP1	• Incorporate the Council's ambitions and targets within this Carbon Action Plan in the waste contract renewal in 2022.	√			
	• Reduce GHG emissions and climate change impact associated with the Council's waste service, street cleansing and grounds maintenance contract by completed a detailed resource-efficiency review. Develop a work package to complete an assessment of these services which depend heavily on vehicle fleet and machinery in their delivery. Complete the work package ahead of a 2024 waste service options review to ensure results and recommendations inform Council decision making.			√	
	• An assessment would need to first focus on identifying need via an ***Options Appraisal*** for all waste streams covering required waste services (domestic refuse, recycling and potentially, soon-to-be food waste) and additional waste services (garden, commercial, bulky). Review total cost in the running of each service, total income generated, associated impact on climate change, alongside other factors relating to, for example, health and wellbeing of waste operatives. Evaluate whole-life cost of carbon, and end-to-end impact, of waste services with consideration to both collection and processing of waste. Employ national models of assessment where these are available. Recommendations put forward on resource-efficiency measures.			√	
	• Review building, depot and bulking station need in West Oxfordshire for the 2024 waste service options review so that space requirement and infrastructure is planned as part of a longer-term strategy to i) reduce transport fuel demand and ii) facilitate a transition to vehicle fleet powered by alternative sources of low-carbon energy. Informed by ***Options Appraisal*** and interlinked with ***Green Vehicle Fleet Transition Plan***.			√	
	• Any new depot/s should be designed to the highest possible standards, aspiring to net-zero carbon in operation, in order to mitigate for future impact on climate change.			√	
	• Acknowledge the demand-reduction benefits of ecologically-sensitive land management practices such as relaxed mowing regimes and the positive impacts of these in terms of reducing fuel demand of machinery used in grounds maintenance. Interlink with Land Management Plans.		√		

Guiding Principle	WASTE, STREET CLEANSING & GROUNDS MAINTENANCE CONTRACT	Easy		Hard	
		Impact		Impact	
		High	Low	High	Low
GP2	• Work in partnership with UBICO to produce and present a ***Green Vehicle Fleet Transition Plan*** for the electrification of vehicle fleet over the course of a carbon-neutral trajectory. A transition plan would need to include details of the current lifetime of vehicles within the Council's fleet and also reflect need as determined by decisions taken following an ***Options Appraisal***. Note: whilst electrification may play a leading role for vehicle fleet up to 3 tonnes, there is potential for alternative low-carbon fuel such as hydrogen becoming a more viable option in the future for heavier, waste collection vehicles. • Electrification of machinery, for example battery-operated lawnmowers and chainsaws made a stipulation of future waste, street cleansing and grounds maintenance contract delivery.		√	√	
GP3	• For electric vehicle fleet associated with a waste, street cleansing and grounds maintenance contract to be considered fully zero-emission, electric vehicle charging points should be supplied using a source of clean energy. Increased demand for power will need to be met via supply of renewable energy.			√	
GP4	• Any residual emissions that can not be entirely removed, offset by 2030 through a mechanism endorsed within this Plan.				

Guiding Principle	STAFF & COUNCILLOR BUSINESS TRAVEL	Easy		Hard	
		Impact		Impact	
		High	Low	High	Low
GP1	• Establish a method for measuring and recording Councillors' business miles travelled in order to increase the accuracy of reporting of CO2e in future years. Use data to review the positive impacts of holding virtual Council meetings.	√			
	• Reduce staff business miles between offices in a permanent move to meetings via remote access unless a critical business need requires face-to-face.	√			
	• Assess the viability of installing electric vehicle charging points (EVCP) at Council offices for staff and Councillors to support a transition away from fossil fuels to alternatively-powered vehicles.			√	
	• Install EVCP in line with Oxfordshire EV strategy and standards.			√	
	• Promote employee leased car scheme available to staff to encourage wider take up of Electric Vehicles offering significant tax benefits.	√			
	• Promote with staff and Councillors the benefits of using public transport for business purposes.	√			
GP2					
GP3	• For electric vehicles associated with staff and Councillor business travel to be considered fully zero-emission, EVCP should be supplied using a source of clean energy. Increased demand for power will need to be met via supply of renewable energy.			√	
GP4	• Any residual emissions that can not be entirely removed, offset by 2030 through a mechanism endorsed within this Plan.				

Guiding Principle	COUNCIL VEHICLE FLEET FOR STAFF	Easy		Hard	
		Impact		Impact	
		High	Low	High	Low
GP1	• Assess the viability of installing electric vehicle charging points (EVCP) at Council offices for staff and Councillors to support a transition away from fossil fuels to alternatively-powered vehicles. • Install EVCP in line with Oxfordshire EV strategy and standards. • Review existing demand for vehicle fleet – 'pool cars' – and plan for their replacement with EV vehicles once EVCP are installed at Council offices.		√	√ √	
GP2					
GP3	• EVCP should be supplied using a source of clean energy. Increased demand for power will need to be met via supply of renewable energy.			√	
GP4	• Any residual emissions that can not be entirely removed, offset by 2030 through a mechanism endorsed within this Plan.				

Annex 1: Greenhouse Gas (GHG) Accounts 2019/2020.

2019/2020 Total Emissions by Scope.

Annual 2019/20			
Scope	**Source**	**CO_2e (kg)**	**CO_2 (kg)**
One	Gas	980,616	978,749
	Liquid fuel	1,039,604	1,025,359
	Total Scope 1	**2,020,220**	**2,004,108**
Two	Electricity	447,126	443,099
	Total Scope 2	**447,126**	**443,099**
Three	WTT Gas	127,517	
	WTT Liquid fuel	248,346	
	Business travel	45,787	45,472
	WTT Business travel	11,785	
	Electricity T&D	38,453	38,108
	WTT Electricity	61,697	
	WTT Electricity T&D	5,312	
	Water consumption	15,957	
	Total Scope 3	**554,853**	**83,579**
	Total emissions	**3,022,199**	**2,530,786**

2019/2020 Total Emissions by Location.

Year	2019/20
Row Labels	**Sum of CO2 emissions (kg CO2 e)**
Depots	29,305
Leisure centres	1,276,260
Office buildings	234,315
Other buildings	123,246
Public conveniences	13,551
Council fleet & machinery liquid fuel	1,277,051
Sub-contractor liquid fuel	10,898
Staff business travel	51,633
Councillor business travel	5,939
Grand Total	**3,022,199**

2019/2020 Total Emissions by Category.

Year	2019/20
Source category	(All)

Row Labels	Sum of CO2 emissions (kg CO2 e)
Liquid Fuel	**1,277,051**
Diesel	940,313
Diesel - WTT	225,344
Gas Oil	87,428
Gas Oil - WTT	20,053
Petrol	3,073
Petrol - WTT	841
Leisure centres	**1,276,260**
Carterton Leisure Centre	550,162
Windrush Leisure Centre	464,341
Chipping Norton Leisure Centre	261,757
Office buildings	**234,315**
Woodgreen	122,236
Elmfield	96,914
Witney TCS	15,165
Other buildings	**123,246**
Woodstock Pool	51,365
Witney ATP	26,736
Monahan Pavilion	23,262
Bartholomew Pool	12,489
Temporary car park	3,759
The Guildhall	2,926
Marriots Close	1,516
Carterton ATP	779
Car Parks	284
Swain/Newman Court Industrial Estate	54
CCTV Camera 42	41
Welch Way, Witney	23
Greystones Industrial Estate	15
The Weavers, Farm Hill, Witney	1
WODC staff business travel	**51,633**
Publica vehicle mileage - Divided for WODC	37,507
Publica vehicle mileage - Divided for WODC - WTT	9,749
Publica (WODC Only) Rail Travel	1,124
WODC ONLY staff - Petrol	1,088
Publica (WODC Only) Bus travel	543
WODC ONLY staff - Diesel	497
WODC ONLY staff - Petrol - WTT	298
Publica (WODC Only) UK air travel	249
Publica (WODC Only) Rail Travel - WTT	220
Publica (WODC Only) Bus travel - WTT	130
WODC ONLY staff - Diesel - WTT	120
Publica (WODC Only) London underground	38
Publica (WODC Only) Taxi travel	31
Publica (WODC Only) UK air travel - WTT	27
Publica (WODC Only) Taxi travel - WTT	7
Publica (WODC Only) London underground - WTT	5
Depots	**29,305**
Depot (Ubico) - Station Lane (2) (Meter #: 2000008977235)	20,447
Depot (Ubico) - Station Lane (Meter #: 2000008977226)	8,739
Depot (Ubico) - Station Lane	119
Public conveniences	**13,551**
P. Con: Langdale Gate	1,677
P. Con: Spendlove Centre	1,579
P. Con: Burford High Street	1,541
P. Con: Browns Lane	1,361
Public conveniences (All)	1,300
P. Con: Hensington Road	1,181
P. Con: New Street Car Park	1,165
P. Con: The Leys	1,134
P. Con: Town Hall, Chipping Norton	998
P. Con: Guildenford	727
P. Con: Bampton (Market Square)	397
P. Con: Black Bourton Road	260
P. Con: Back Lane, Eynsham	231
Sub-contractor Fuel	**10,898**
Diesel	8,751
Petrol - WTT	2,097
Petrol	39
Diesel - WTT	11
WODC councillors business travel	**5,939**
WODC councillor vehicle mileage	4,746
WODC councillor vehicle mileage - WTT	1,193
Grand Total	**3,022,199**