

Appendix B: Carbon budget savings and pressures

Emissions sources	Scope	Source	Priorities for carbon savings	Carbon budget “pressures”
Buildings (energy) Gas, electricity, oil - 64% of emissions. Of that: - gas 65% - electricity 33% - oil 1% District heating 8% of emissions	1, 2, 3	Gas (kWh) Electricity (kWh) Oil (litres) District heating (kWh)	<ul style="list-style-type: none"> - Energy efficiency improvements/ appliances - Installation of renewables - (regulations require new builds consented from April 2024 to use zero emissions heating) - Connections to district heating - Decarbonising district heating - Building retrofit - Estate optimisation - LED lighting replacement - Relevant plans ie Local Heat & Energy Efficiency Strategy - Energy efficient behaviour - Energy storage - Building Management Systems - Renewable surplus to grid 	<ul style="list-style-type: none"> - Additional/extended estate - Extended operating hours - Delays to project completion dates - Seasonal temperature fluctuations - Lack of funding mechanisms - Unmetered electric vehicle chargepoints (buildings) - Meeting changes to legislation/ standards
Fleet 14% of emissions Of that 98% is from diesel	1	Diesel, petrol, gas oil (litres)	<ul style="list-style-type: none"> - Transition from fossil fuels to electric/ hydrogen fleet - Supporting charging infrastructure - Fleet optimisation ie size/ weight - Route optimisation 	<ul style="list-style-type: none"> - Market availability/ supply chains for low and zero carbon alternatives - Manufacturer phase out of fossil fuel vehicles - Increased service demands - EV & hydrogen infrastructure needs to be in place. Carbon savings co-dependent on availability of charging/ vehicle infrastructure
Street lighting 8% of emissions	2	Electricity (kWh)	<ul style="list-style-type: none"> - Street lighting programmes. ie LED replacement programme (complete) reduced 6,038 tCO₂e, against the 15/16 baseline 	<ul style="list-style-type: none"> - Adoption of additional street lighting - Delays to work programmes
Staff travel 1% of emissions. Of that: - grey fleet 61% - air 10% - car hire 16% - car club 9% - other 4%	3	Mileage – km	<ul style="list-style-type: none"> - Avoiding travel ie online meetings - Apply sustainable travel hierarchy - Revisions to staff travel policy/ plans - Use of Car Club vehicles - Minimising air travel - Improved route planning 	<ul style="list-style-type: none"> - Increased staff travel - Increased demand for services requiring staff travel - Selection of carbon intensive modes of travel
Water < 1% of emissions	3	m ³	<ul style="list-style-type: none"> - Water efficiency measures - Water efficient behaviour - Reduced water consumption - Repairs to leaks/ dripping taps 	<ul style="list-style-type: none"> - Water leaks/ dripping taps - Increased water consumption ie additional premises/ changes to operations
Internal waste 1% of emissions	3	Tonnes	<ul style="list-style-type: none"> - Increase reuse/ recycling - Waste segregation - Resource efficiency - Circular economy practices 	<ul style="list-style-type: none"> - Increase in waste tonnage
Homeworking 4% of emissions	3	Hours FTE staff/ WfH	<ul style="list-style-type: none"> - Data improvements 	<ul style="list-style-type: none"> - Increase in staff numbers working from home - Changes in methodology

In addition, the Council has a role/ influence in contributing to city wide emission reductions. At this time are not included in the carbon budget. Current work is taking place through the [Scottish Climate Intelligence Service](#) to support local authorities with data on city wide emissions, when in place this will enhance monitoring of Council place-based climate actions:

- **Council Housing:** as the Council does not have operational control emissions are estimated at point of operation, and form part of city-wide domestic emissions. New build housing is an addition to city emissions but standards support the net zero transition. Over the medium to long term decarbonisation and retrofit of existing housing stock will be a significant impact on cost, carbon and capacity. Changes to standards and regulation continue to move at pace.
- **Land:** tree and wildflower planting can contribute to city wide net emissions, where part of an accredited scheme. Re-naturalised areas can reduce operational carbon from grounds maintenance.
- **Mobility:** city wide low carbon and active travel, infrastructure and plans.
- **Energy:** city wide energy infrastructure and plans.
- **Waste:** household waste management, reuse, recycling.
- **Awareness & behaviour change:** staff information, training.