Moray Council Annual Climate Change Summary

Reporting period 2023-24

Key Takeaways

Total Council emissions for 2023-24
18470.4 tCO_2e

Decrease in emissions since 2022-23
30.3%

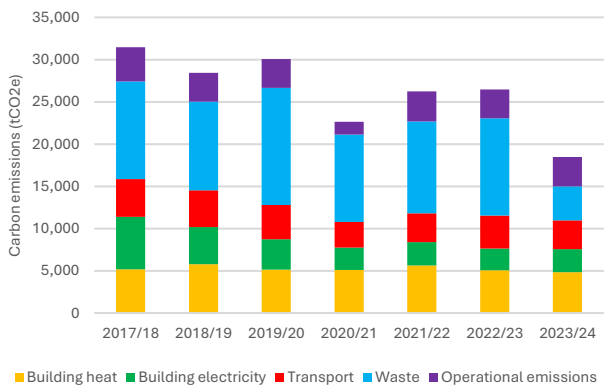
Largest area of emissions: Building heat
4852.5 tCO_2e (26.3% of total)

Decrease in emissions since baseline (2017-18)
41.3%

Emissions reduced by diverting landfill to NESS EFW facility
7526.0 tCO_2e

Electricity generated from solar photovoltaic panels
51,466 kWh (up by 24%)

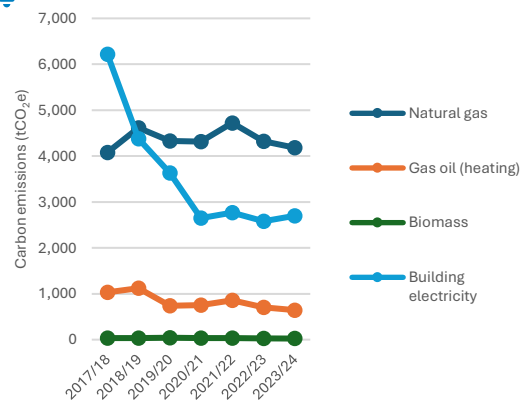
Emissions reduction progress to date



- The Council's emissions have fallen by 41.3% since the 2017-18 baseline, with the most significant annual decrease of 30.3% recorded in the latest reporting period.
- Some emissions categories – such as staff commuting emissions - have only been recorded in recent reporting periods. To ensure a consistent scope for the purpose of this report, estimated historical emissions for these categories have been added.
- Most of the emissions reductions have come from improvements in the disposal of non-recyclable waste, which was previously sent to landfill but is now cleanly combusted to produce energy (see Case Study 1).
- The areas of transport, building electricity and operational emissions have slightly reduced, however building heat – now the largest emissions sector – has seen little significant change since baseline.

Sectoral Analysis

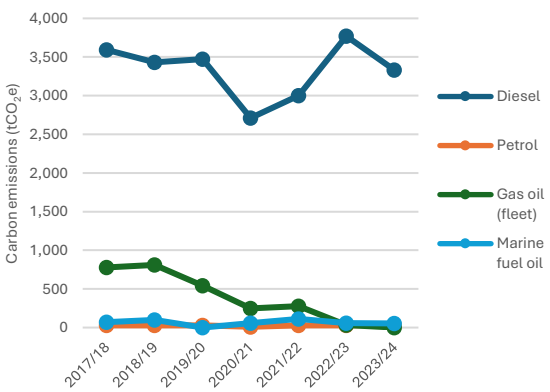
Building Heat and Electricity



- The Council's current largest emission source is providing heat to our buildings, contributing to 26% of total emissions. While gas oil emissions have fallen by 38% since the 2017/18 baseline, the Council remains dependent on natural gas boilers for most building heat. Emissions from natural gas heating has shown no decrease over the past seven annual reporting periods, with gas boilers continuing to be installed and replaced on cost grounds.
- Emissions from our electricity usage have fallen by 60% since baseline. This is the combined result of the decarbonisation of the national grid, along with energy savings from efficiency improvements such as through LED lighting replacements (see Case Study 2).
- Despite electricity consumption falling slightly in the reporting year 2023/24, emissions from this usage increased by 172tCo2e. This was due to an unexpected increase in the national emission factor of grid electricity, largely because of an anomalous reduction in on-shore and off-shore wind farm electricity generation.

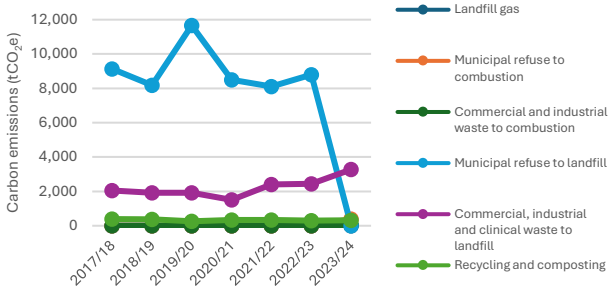
Transport

- The use of diesel in Council vehicles makes up 97% of our transport emissions, and 18% of our total emissions.
- There has been no significant decrease in diesel consumption compared to the baseline, with a small reduction in the last reporting year largely due to a milder winter leading to less road gritter milage.
- Progress has been made in eliminating emissions from gas oil in our fleet, reaching zero in the last reporting period as it is no longer permitted as road fuel.
- Small quantities of petrol are used in Open Spaces machinery, and marine fuel in Council vessels.
- Emissions from the charging of the Council's EV pool cars are included in building electricity as this is not separately metred.



Waste

- Significant investment in the joint NESS Energy from Waste facility has resulted in a 65% reduction in emissions from the Council's waste operations over the past reporting year (see Case Study 1).
- An increase in emissions from the landfilling of commercial and industrial waste was experienced during the past reporting year, due to waste diverted back to Nether Dallachy landfill during a maintenance shutdown of the NESS facility in August 2023.
- Other emissions from waste management include those incurred from recycling and composting, now making up 8% of waste emissions.

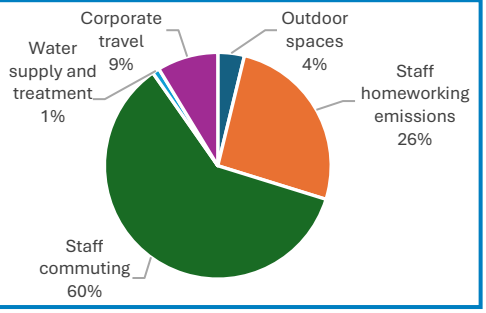


Case Study 1 – NESS Energy from Waste Facility

- Despite the Council's efforts to reduce residual waste through minimisation campaigns, recycling, composting and use of other treatments, a substantial quantity of residual waste that is generated will still need to be collected and cannot be landfilled anymore.
- The NESS Energy from Waste facility, a collaboration between Aberdeen City, Aberdeenshire and Moray Councils, began full operation in December 2023 and diverts non-recyclable waste from landfill, transforming it into clean energy.
- This state-of-the-art plant can process 150,000 tonnes of waste annually, generating electricity for the national grid and heat for a local district heating network.
- The combustion of the residual waste at this facility produces approximately 96% less CO_2e emissions per tonne of waste compared to landfill.

Operating Emissions

- Operating emissions have fallen by about 15% since the baseline in 2017/18. This is mostly due to less staff commuting with the wide uptake of hybrid working models.
- Emissions from staff working at home have also been recorded since the pandemic, accounting for the resulting additional heating and electricity usage outwith Council facilities.
- Emissions from corporate travel – which includes flights, rail journeys and grey fleet milage (personal cars used for business purposes) – have increased following a return to "business as usual" practices since the COVID pandemic.



Case Study 2 – LED Lighting Improvements

- The majority of the Council's building stock is currently illuminated by fluorescent lighting. In many cases this lighting is aged, yellowed and provides a poor quality of light for work while consuming more electricity than readily available alternatives.
- A lighting upgrade program is currently underway to replace inefficient fluorescent fixtures with modern LED bulbs. LED lighting can reduce electricity consumption by between 40% to 60% compared to fluorescent, while also cutting maintenance costs with LEDs lasting a lot longer than other bulbs.
- All buildings within the Council portfolio are being considered in this program, with replacement going ahead in five major sites. Reductions in carbon emissions for the first three sites is approximately 140 tCO_2e annually, paired with substantial long-term financial savings.

Sustainability

- Sustainable development means meeting the needs of the present without compromising the ability of future generations to meet their own needs.
- All Public Sector Bodies must demonstrate how they are progressing sustainable development as part of their Best Value duties
- The Council has developed a Sustainable Development Statement which identified six short-to-medium term actions to ensure sustainability is embedded within the Council's plans and decision-making processes. This includes guidance on how officers can include sustainable development in the Implications Section of Committee Reports.

Procurement and Investment

- The Council continues to deliver and record non-cash benefits such as sustainability, climate change and community wealth building through its procurement process.
- In 2023/24 it was reported that 5.68% of procurement contracts commenced during the period had a sustainable target, with the Council aiming to achieve 20%.
- Of the contracts with identified environmental non-cash benefits, 11 related to greenhouse gas reduction, 6 for waste, 3 around energy and 2 specifically support sustainable construction.

Climate Adaptation

- The Council's first report on climate adaptation was produced, highlighting existing adaptation activity and areas for improvement.
- There is still limited understanding of the future costs of climate impacts, but greater awareness of some of the Council's vulnerabilities.
- Moray Coastal Change and Adaptation Plans enable the council to plan for, and react to, different scenarios as they are triggered.
- Climate risk and nature-based solutions mapping is in progress for larger towns.
- Eight Community Resilience Plans are now in place.

Biodiversity

- A draft Biodiversity Strategy has been produced and will be reported to Council in August 2025. This draws together local and national priorities that will guide how the Council can address the biodiversity crisis.
- The Nature Restoration Fund continues to support nature conservation at the Wards, Millbuies and Elgin Oakwood, with increased focus on engaging community volunteers and schools to bring wider benefits. Small grants were distributed through a collaboration with Moray CAN to help communities take action for biodiversity.
- The development of a Moray Nature Network is now in progress. Resources still have to be identified to deliver most of the actions for this.