

2024/5 Quarter 4 Climate Report

Museums Galleries Scotland



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Introduction (unchanged quarter to quarter)

Museums Galleries Scotland recognises the need for immediate action on the climate and ecological crises. As a result, we put our name to the Call to Action at CoP28 as part of the Climate Heritage Network and have a public declaration on Culture Declares Emergency. Museums Galleries Scotland has also ensured our own actions are taken and that we support those of the sector by adding Climate as a strand of the Strategy for Scotland's Museums and Galleries. As part of these commitments, we lead by example in reporting our Carbon Dioxide Equivalent emissions quarterly and voluntarily submitting them to be published annually with the Sustainable Scotland Network. Museums Galleries Scotland also funds and supports a range of climate and ecological work across the sector. This work is focused both on reducing the emissions of museums and galleries but also on recognising the role they have to play in educating and positively influencing audiences across Scotland.

Climate action is commonly divided into two sections: Mitigation and Adaptation. Mitigation is the work to reduce emissions and the likelihood of exceeding the IPCC recommended 1.5°C of global warming. Adaptation focuses on education, ensuring people can thrive in the future and nature-based solutions including food security.

When recording Museum Galleries Scotland's emissions we use the internationally recognised unit KgCO₂e (Kilograms of Carbon Dioxide equivalent emissions). These figures are reached using the UK Government's annual conversion factors. KgCO₂e is divided up into 3 Scopes for measurement. For the first time, this financial year saw a carbon budget implemented within the organisation.

- Scope 1 emissions from office gas heating
- Scope 2 emissions from office electricity use
- Scope 3 emissions from commuting, business travel, waste, hotel stays and homeworking.

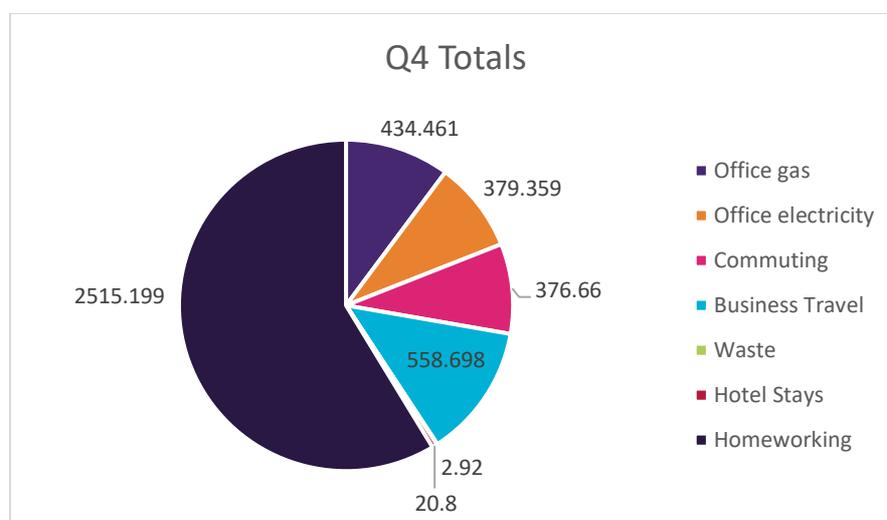
As well as our emissions this report will summarise the work for this quarter in supporting the sector in their climate and ecological work and our progress against the 2024/25 climate action goals of Museums Galleries Scotland.



2024/25 Quarter 4 totals

Scope 1	Office gas use: 434.46 kgCO ₂ e
Scope 2	Office electricity use: 379.36 kgCO ₂ e
Scope 3	Waste: 2.92 kgCO ₂ e
	Commuting travel: 376.66 kgCO ₂ e
	Business travel: 558.698 kgCO ₂ e
	Hotel stays: 20.8 kgCO ₂ e
	Homeworking: 2515.2 kgCO ₂ e

Q4 Total: 4288.097KgCO₂e



In February 2025 Museums Galleries Scotland switched our gas and electricity supply to Ecotricity's Green Tariffs. This ensures that the energy used by MGS, in both gas and electricity, is covered in the national grid systems by 100% renewable sources. The gas source is biomethane created through anaerobic breakdown of grass cuttings. The electricity is generated through solar and wind. January 2025 was still covered by our old energy tariff with SSE which was 100% renewable electricity and 25% renewable gas.

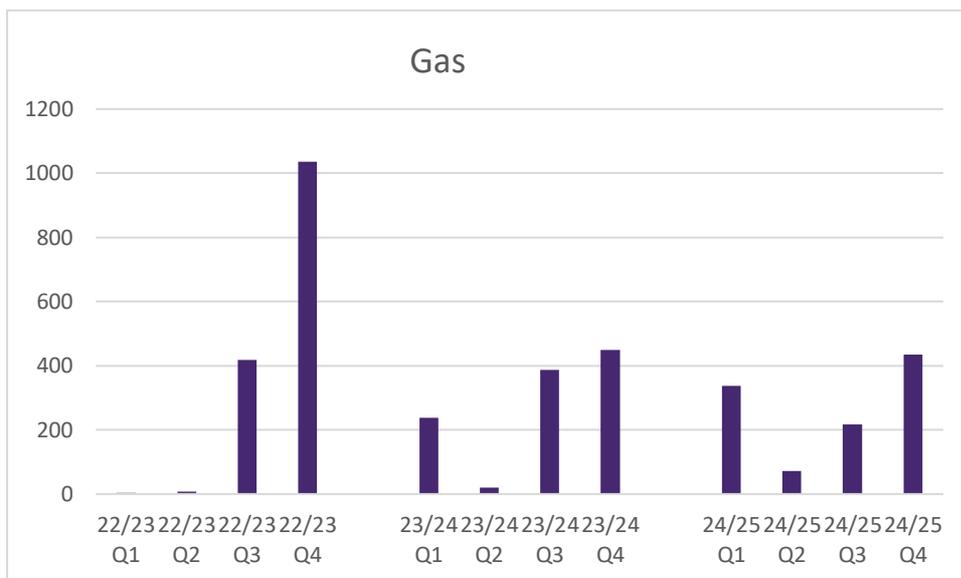
Our homeworking figures are based on UK averages which are accepted to be on the upper end of estimates. Having ensured the majority of our team have had Carbon Literacy Training we are also secure in the knowledge that Museums Galleries Scotland staff take steps to reduce their carbon emissions whilst homeworking, thus reducing the likely actual figure further. It is also worth noting that the average homeworking emissions for an MGS staff member (using UK Govt conversion factor) is 1.9Kg CO₂e per day. The average commuting emissions for an MGS staff member are 1.8Kg CO₂e per day. The switch to

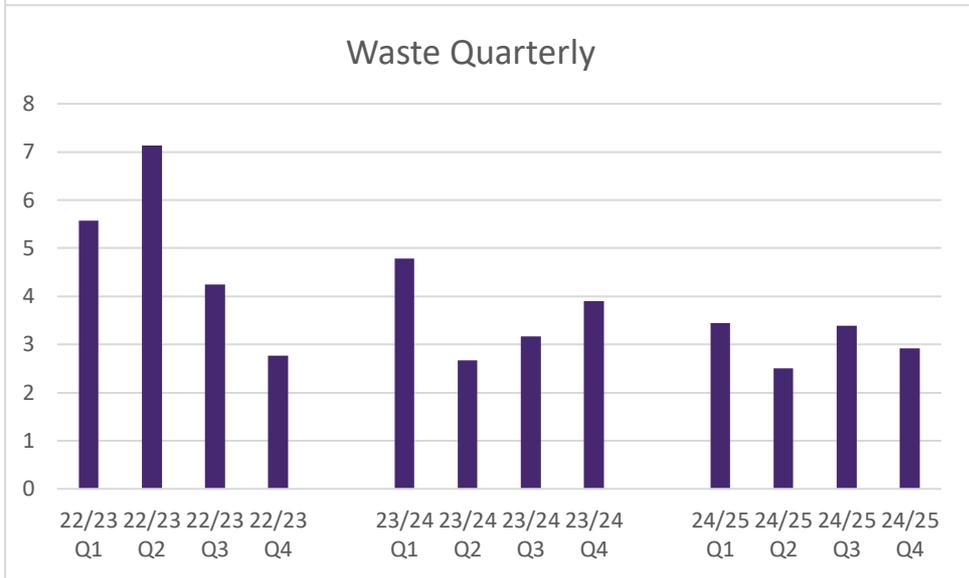
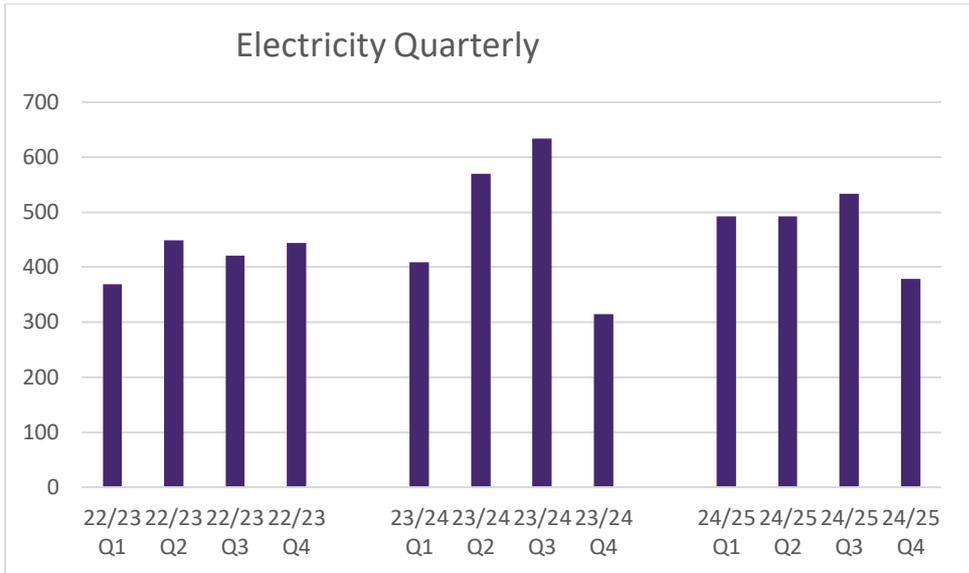


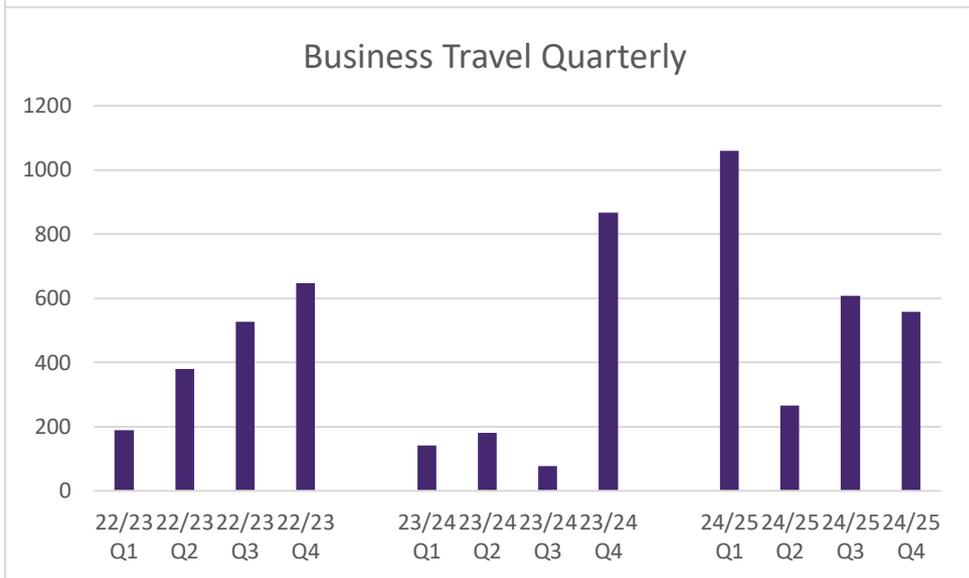
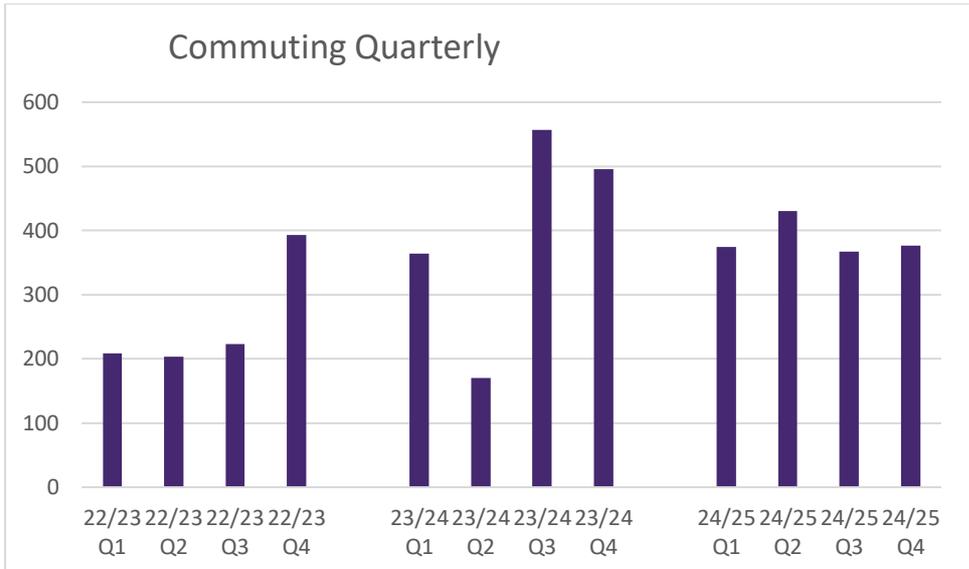
hybrid working can therefore be seen as negligible from a carbon perspective. This is particularly true as overall office emissions are reduced due to the switch to a smaller working space as a result of hybrid working. Q2, 3 and 4 homeworking is now calculated more accurately than any quarter previously due to utilisation of the deskbird hybrid work app.

Quarter 4 emissions yearly comparisons

MGS moved to a 100% certified green gas tariff with Ecotricity in Feb 2025. The green gas is made through the production of biomethane due to anerobic digestion of cut grass and is then fed into the gas grid. As office gas is extracted from the National Gas Grid system it must be calculated as Natural Gas average, however we can be reassured that our gas usage is covered in the grid by a renewable source. The same is true of our electricity which was on a renewable tariff with SSE and has now transferred to a renewable tariff with Ecotricity. Figures in previous 2024/25 reports were usage estimations due to delayed billing, these have now been updated with final readings from SSE before transferring to Ecotricity. This transfer was done both for improved billing options and because Ecotricity are known for their green credentials.

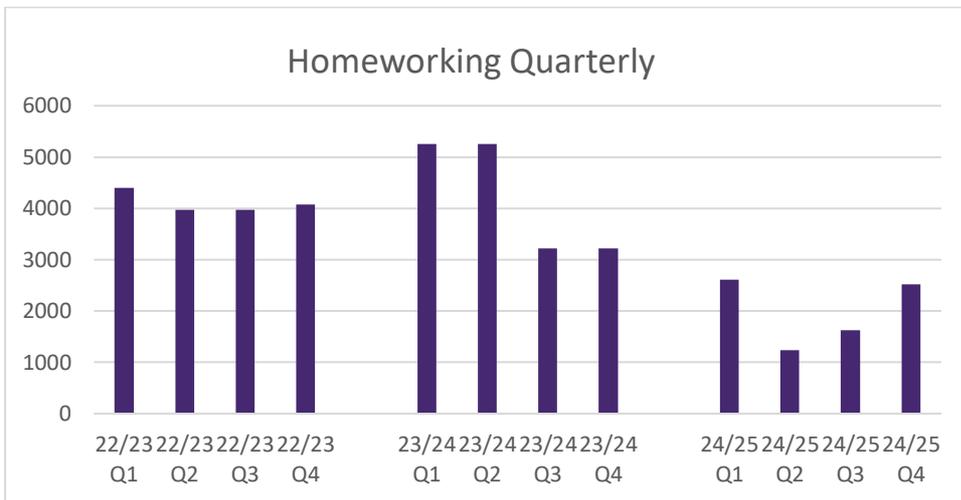
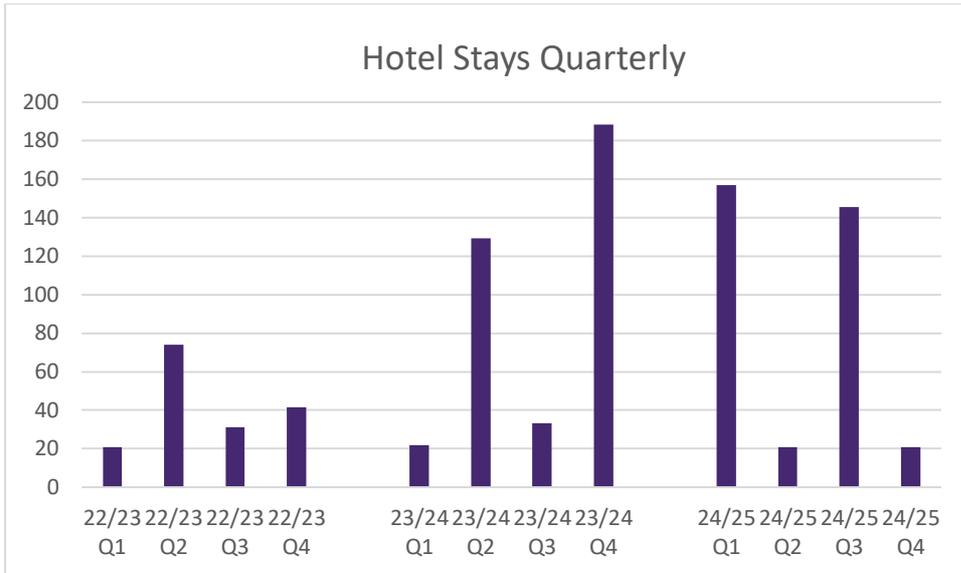






The Business Travel emissions for Q3 in this comparison are not including the Paraguay trip as that was optional reporting due to DCMS paying for the trip and the carbon therefore coming under their footprint not ours. Full emissions for that trip can be seen in the 2024/25 Q3 report.





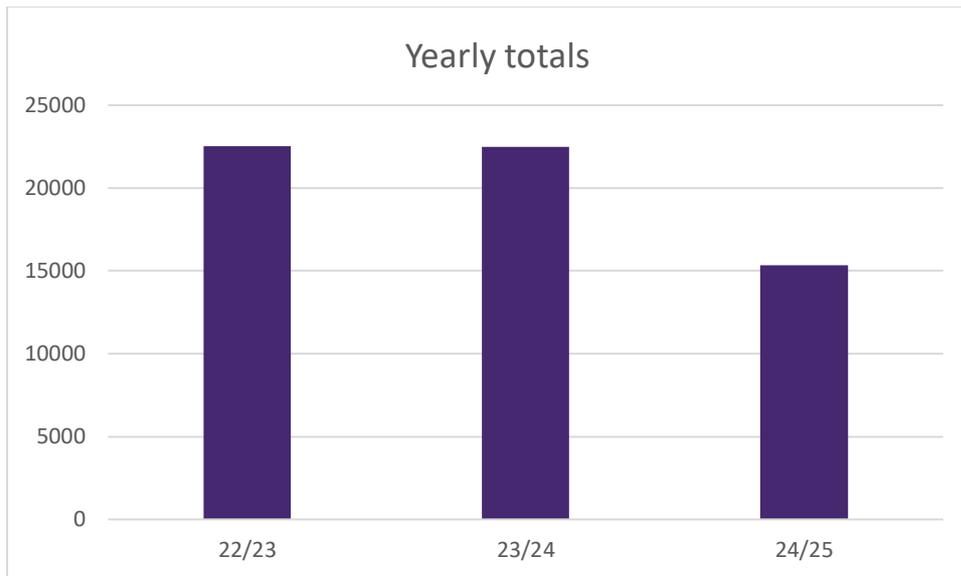
The drop in Homeworking emissions since Q2 is as a result of more accurate reporting due to Deskbird. We can expect this to rise slightly as staff numbers increase.

Annual Emissions Comparisons

The annual emissions total for 2024/25 was 15,341.55KgCO₂e.

This is considerably lower than previous years, as demonstrated in the quarterly breakdowns in the section above and explanation of the budget in the section below.





MGS Historic Emissions and 2024/25 budget

MGS has been collating its carbon emissions since 2022. This began after the office downsizing to Castle Street. Whilst we do not have carbon emissions prior to this we can make estimates based on the size of the Waverly Gate office, old energy bills and travel policies.

This 'historic baseline' figure is based on the following:

- All staff commuting to the office with no homeworking
- Larger office area to heat & light with more equipment being powered on site.
 - o The electricity emissions have been taken from old bills whilst the gas is the same as 2022 as we no longer have access to Waverly Gate gas bills. We can, however, assume it is higher than the figure calculated here due to a larger office space.
- No sustainable travel policy, assumption that 50% of current train journeys would be by car.

Taking this into account we can assume our pre 2020 CO2e emissions would have been above 29,600.815KgCO2e per annum. This puts us as having reduced our CO2e emissions as an organization by at least 23.9%. Whilst we must report electricity and gas as the standard grid emissions, due to our green energy tariff implemented at the end of 2023/24 (and improved in Feb 2025) we can be sure our energy emissions are in reality net zero. This takes our real current emissions per year to 19,662.7 KgCO2e giving a real terms decrease of at least 33.6%.



It is worth noting that the further reductions by MGS can only now be achieved through governmental change. These include the electrification of the public transport system, the ability to report on renewable emission tariffs as opposed to grid averages and the lowering of home working average emissions, again requiring the decarbonization of the national grid. The Climate and Resources team have begun investigating carbon offsetting however the reality of this is still a way off due to limited credits available within Scotland.

2024/25 Carbon Budget

Taking baselines, reduceable carbon emissions and the growth of the organization into account a carbon budget of 25,000 KgCO₂e has been set for 2024/25. The increase upon 2023/24 carbon emissions is as a direct result of the increase in staff numbers and the increase in museum visits as a result of the sector survey. All other emissions, as detailed above, are currently as low as is possible without governmental level change.

We have used 61.37% of our carbon budget for the financial year 2024/25. If we were to include the Paraguay trip (see report for Q3) we would have used 81.89%. This illustrates the importance of being very mindful when choosing to do overseas travel. It also demonstrates that the updated policies to embed sustainability are having an impact. The drop can also be partly attributed to us being able to calculate more accurately due to deskbird scheduling. We expect our footprint to rise slightly in 2025/26 due to an increase in staff and request for more visits from museums but we can still be more ambitious with our carbon budgeting.

Museums Galleries Scotland's Climate work across the sector

Museums Galleries Scotland recognises that our role in climate mitigation and adaptation goes further than just reducing our own emissions.

The **Scottish Museums Climate Network**, hosted by Museums Galleries Scotland, is a space for anyone working or volunteering in the sector to share experiences, challenges, opportunities and resources around climate and biodiversity action. We know that collaboration is key in this work. By the end of Quarter 4 2024/25 the network has 111 members and increase of 13 members this quarter. Members have stated:

“Thanks so much for all your support re: all things climate/sustainability this year – looking forward to working together again in 2025”



“Our museums are developing activities connected to the natural environment and the impact of climate change –this has been daunting for a small team without any background in this area. The Scottish Museum Climate Network has been an invaluable support at this crucial time for us, providing access to gentle guidance, specialised training opportunities and signposting like-minded individuals and organisations. I would strongly recommend all museums to join.”

The Museums Galleries Scotland Climate Officer also supports museums and galleries across the country in their climate work, regardless of if they are in receipt of MGS specific funding. This includes **site visits with tailored advice** around grounds and adaptations as well as programming and interpretation. Support is also provided through talks delivered across the sector. In Quarter 4 the Climate Officer visited 10 museums and galleries on climate related visits. This brings us to 37 climate related in person museum visits for the year to date.

At the start of March the Climate Officer delivered a bespoke session for Paisley Museum as part of their redevelopment. The session encouraged staff across the museum team to consider how they can take climate action within their role and what the future for Paisley Museum might look like with a shifting climate. Feedback from a number of their team was “that they really enjoyed it and I think it gave some very important food for thought as to how we need to progress and build sustainability into all aspects of the museum not just our public offer”.

Later that month the Climate Officer co-chaired the *Collecting Environmental Change* symposium with the contemporary collecting team at National Museums Scotland. This symposium put collections at the heart of discussions on the Climate Emergency. As well as chairing the Pecha Kucha sections of the day and welcomes, the MGS Climate Officer also gave a short presentation on the wide variety of climate work happening across the sector. This presentation was praised for its breadth and showcasing smaller museums who’s climate actions can often be overlooked due to their inability to attend such events.

Museums Galleries Scotland Funded projects

Museums Galleries Scotland expect organisations that we fund to be committed to certain principles in the way they operate and develop projects. One of these principles is that organisations are *taking action to meet net zero targets and tackle the biodiversity crisis*. Museums Galleries Scotland asks all grant applicants: ‘How have you planned your activity to reduce the environmental cost of its delivery and legacy as far as possible?’

Grants Officers use answers to this question to assess whether the funded organisation is appropriately committed to the environmental principle. Assessors also use this question as an opportunity to provide feedback on environmental considerations that may not have occurred to the applicant.



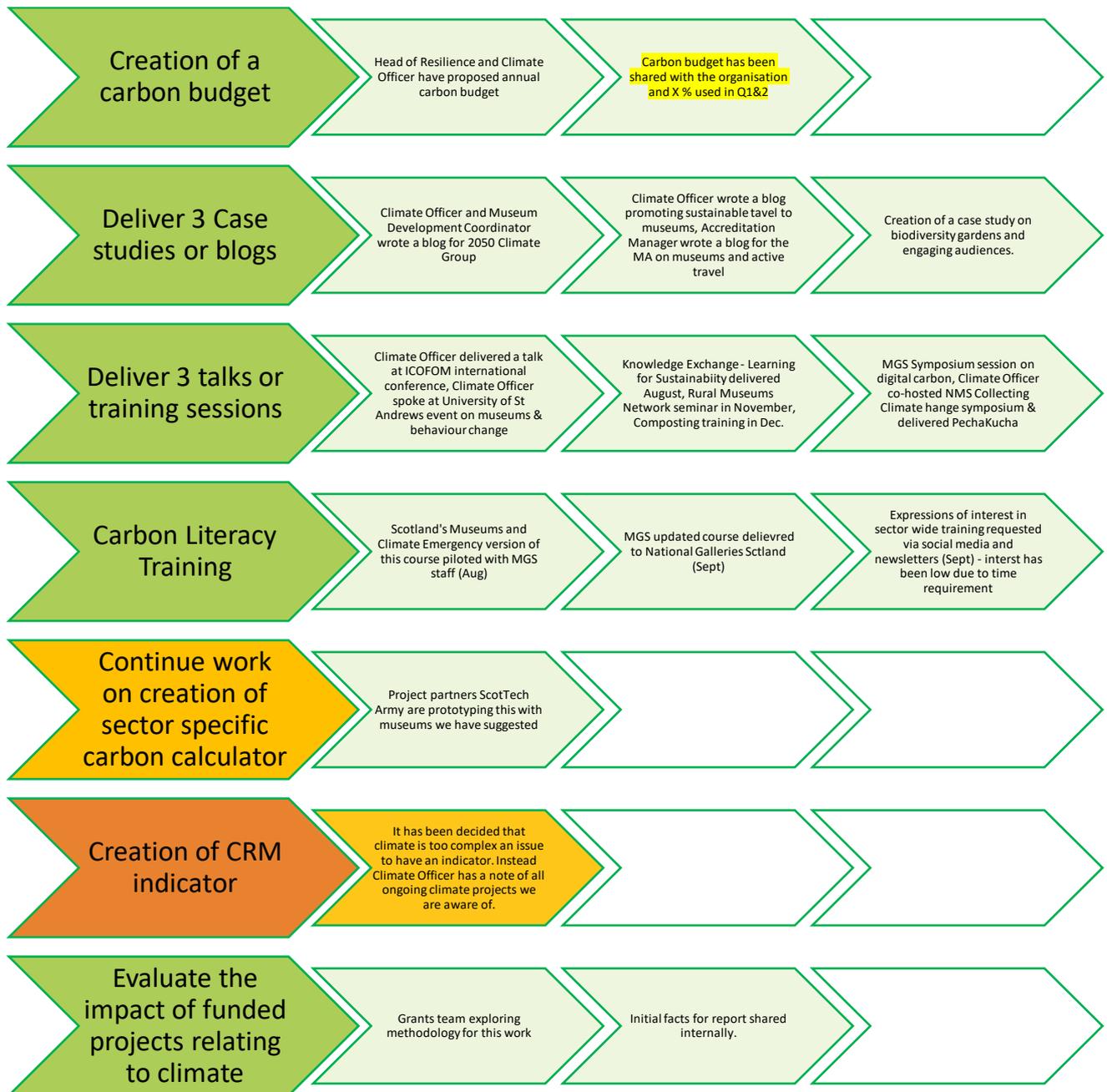
There were a few applications for climate engagement projects in Q4 however none of these were successful in receiving funding. This was due to the large oversubscription for this round of funding and the strength of the applications in relation to others received. We have offered support in the form of press and marketing for climate events (Scottish Maritime Museum) and advocacy and sector sharing (University of St Andrews). The Climate Officer and Grants team also ensured all those who were unsuccessful in receiving funding for climate projects were spoken to and given the chance to explore other opportunities for the work.

The projects awarded funding for climate projects earlier in the year continue to progress. Glenfinnan climate emergency exhibition in a snow plough having a roof extension built out of entirely recycled materials to extend the solar panel mounting space. This exhibition is due to open May 2025 and the Grants team and Climate Officer have been invited to attend. Burns Birthplace Museum has purchased the solar panels for their energy generation testing area and have an MSP visit to see the range of their climate action for early 2025/26. Many museums have also now reported their first energy bills since installation of renewable energy sources funded by MGS in the last few years. Planning permission delays mean many of these were installed late 2024, early 2025. Museum of Islay Life have seen a 45% drop in the equivalent month's energy bills since the installation of Photovoltaic Panels and Air Source Heat Pumps in January 2025. Gairloch Museum are now seeing steady income from selling energy to the National Grid since the installation of their photovoltaic panels in 2023 and engagement with visitors due to the live digital display showing energy generation.

The grants team has been collaborating with the Climate Officer to produce reporting on the impact of projects which meet the grants outcome 'funded organisations will be more environmentally sustainable. Initial work on this report shows that 81 of energy efficiency projects were awarded between 2020 and 2023. The total amount of funding awarded was £3,252,467. 17 of these projects (£1,358,945) were as part of the 2020 Resilience and Recovery Fund. 54 of the projects (£1,670,253) were funded through Capital Resilience Funding.



Progress against the climate strand of the operational plan



Conclusion

Museums Galleries Scotland 's carbon footprint is already very low with sustainable policies having been in place for many years. Moves to renewable energy tariffs lower the overall emissions of the UK but cannot be seen to directly lower ours, this is because they ensure more renewable is being fed into the grid but the grid is still mixed source.

Whilst our home working emissions may appear large they are taken from UK averages and have resulted in lower overall emissions compared to when we were in the larger office with increased energy usage and commuting.

Museum Galleries Scotland's carbon footprint for this quarter is the highest this year, however this can be easily attributed to the international flights and even with those we are still sitting well within our carbon budget for the year.

We can be proud of how low Museums Galleries Scotland's internal emissions have been for a number of years. We can be even more proud of the work we are doing across the sector to promote and develop sustainability as well as influencing visitors to understand and take action to protect the natural world.





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