
13 December 2022

Climate Emergency Policy and Scrutiny Committee

Report of the Head of Carbon Reduction
Portfolio of the Executive Member for Environment and Climate Change

City of York Council: Annual Carbon Emissions Report 2021/22

Summary

1. City of York Council (CYC) has set a target to reduce carbon emissions from corporate activity to net zero by 2030. An Annual Carbon Emissions Report will be produced every year to monitor progress against this target and identify areas of improvement.
2. The data collected covers the council's scope 1 and 2 (direct) emissions for 2021/22. The council's corporate emissions account for roughly 4% of city-wide greenhouse gas emissions (based on SCATTER data from 2019).
3. This represents the second year of reporting carbon emissions from our own buildings and operations¹. In some areas we have data going back to 2015/16 which has been used for historical comparison and identifying the impact of the Covid-19 pandemic which saw significant changes in the way we work.
4. Total emissions experienced a small decrease between 2020/21 (3,658tCO₂e) and 2021/22 (3.633tCO₂e). This is despite an increase in staff returning to the office and increased staff and business travel.
5. Emissions associated with the council's fleet continues to reduce as a result of our electrification programme.

¹ <https://www.york.gov.uk/climate-change-governance/ClimateChangeGovernance/2>

6. Based on the current available data, our fleet and gas consumption account for the majority (99%) of corporate emissions.
7. Since April 2020, we now purchase 100% renewable electricity, reducing our emissions by 4,652tCO₂e over the last 2 years. Electricity consumption still accounts for a significant cost, and opportunities to reduce demand should still be considered for financial benefits.

Recommendations

8. Scrutiny Committee is asked to:
 - i. Review the content of this report and provide any recommendations to the Executive Member for Environment and Climate Change

Reason

To support the accelerated delivery of decarbonisation to achieve the council ambition for York to be net zero by 2030.

Annual Emissions 2021/2022

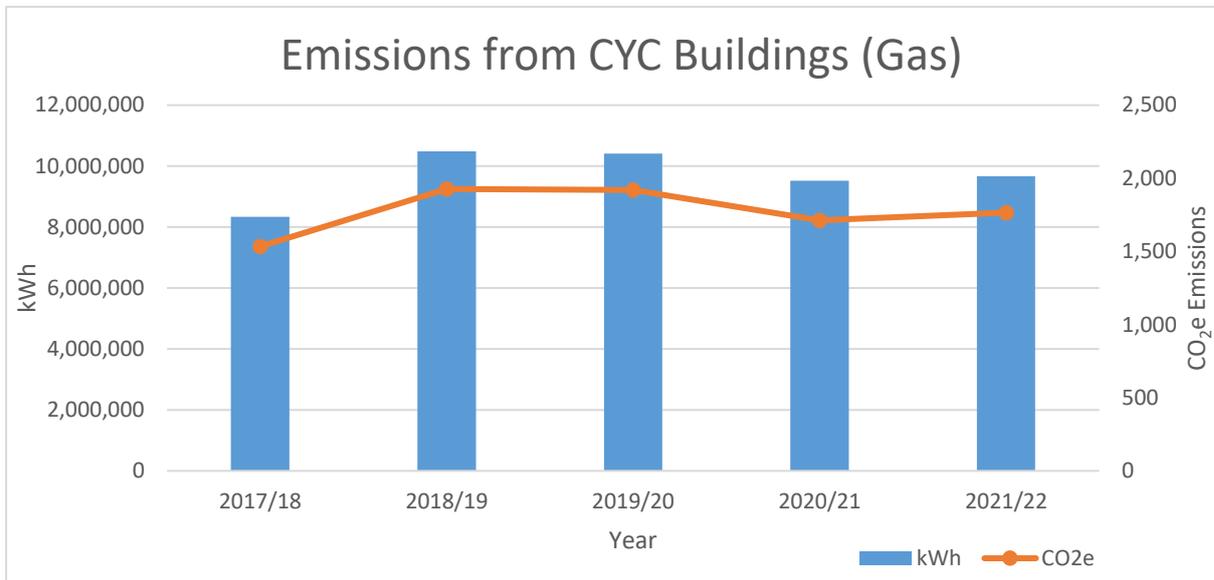
Source	Unit	Total	tCO ₂ e	Change
CYC buildings (Electricity)	kWh	5,962,141	-	→ 0%
Street lighting (Electricity)	kWh	5,557,711	-	→ 0%
CYC buildings (Gas)	kWh	9,665,792	1,764	↑ 3%
CYC buildings (Water) ²	m ³	-	-	-
Corporate Waste	tonnes	343	5.9	↑ 55%
Recycling		63	1.4	
CYC Fleet	ltrs			↓ 4%
Petrol		13,040	30	
Diesel		680,785	1,797	
<u>Business travel</u>				
Flights		-	-	↑ 204%
Trains		NA	6.7	
Hotels		NA	1.5	
<u>Car Club</u>				
Diesel	miles	3,775	1	↑ 170%
Unleaded		80,682	22	
Hybrid		16,709	3	
Electric		2,404	0	
Land use	Trees	2,068		
Total			3,633	→ 0%

² We were unable to access water consumption data and as a result are unable to calculate emissions for 2021/22.

Corporate Buildings

Gas

- Gas use from corporate buildings is responsible for almost half (49%) of total CO₂e emissions.

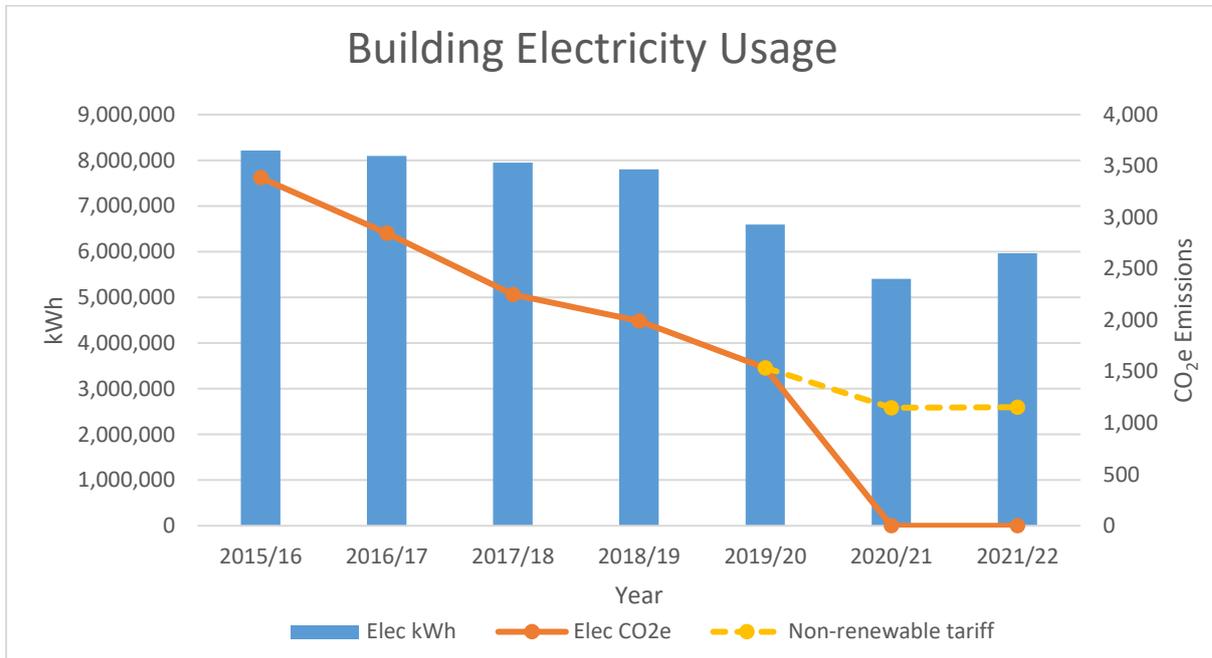


- West Offices was responsible for 22% of total gas usage in 2021/22; a doubling of usage on 2020/21. This reflects the higher building occupancy levels following the pandemic and is a return to pre-pandemic usage.
- Gas usage and associated emissions and cost can be reduced through building efficiency improvements and transitioning to electrical heating. Decarbonisation plans for 7 of our highest consuming sites (accounting for 44% of gas usage) have been carried out to assess low carbon solutions and identify opportunities to reduce emissions.
- Public funding has also been secured through the Low Carbon Skills Fund to develop decarbonisation plans for 21 schools and 5 leisure centres across York. These plans will be complete by March 2023.

Electricity

- Since 2020, electricity purchased by City of York Council is from 100% renewable sources and therefore does not contribute to our

annual emissions. However, electricity usage in our buildings still contributes significant cost and opportunities to reduce consumption will have a financial benefit.

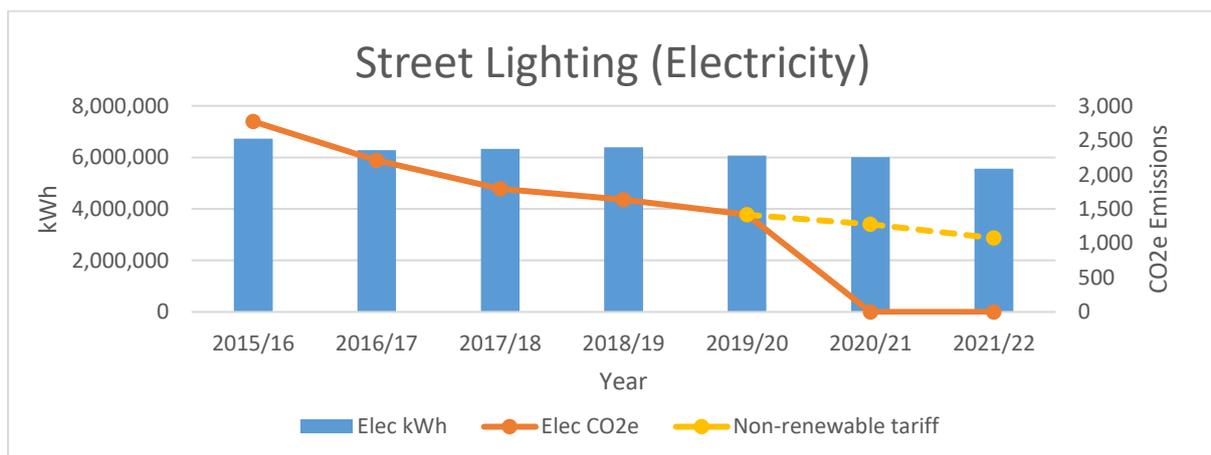


14. West Offices accounts for the highest share of our building electricity usage (26%). In 2021/22, electricity consumption at West Offices increased by 9% compared to the previous year, likely due to an increased number of staff in the building as a result of Covid-19 restrictions easing and more people working from the office. However, electricity consumption in 2021/22 is still lower than pre-pandemic levels. The overall decrease from 2015/16 is 27.5%.
15. West Offices occupancy pre-pandemic was between 950 and 1,210 people daily. For the period 2021/22, this was between 275 and 400 people.
16. Efficiency improvements to our buildings will not impact our CO₂e emissions for electricity; however, the potential for cost savings are significant. We will continue to investigate solutions such as LED lighting, voltage optimisation, renewable generation and efficient appliances in our largest consuming sites.

- 17. If we were not on a renewable energy tariff for electricity, CO₂e emissions for our buildings would have been 1,153 tCO₂e for 2021/22.
- 18. Building figures do not include schools or museums.

Street Lighting

- 19. Street lighting accounted for 48% of total electricity use in 2021/22. The nature of street lighting means this consumption is unmetered and is estimated by our supplier based on the total number of street-lamps in use.
- 20. Since 2015/16 estimated consumption has decreased by 17%.
- 21. Emissions associated with street lighting reduced to zero in 2020 when we switched our electricity supply to purchase 100% renewable. If we were still paying a non-renewable tariff street lighting would have accounted for 1,075 tCO₂e in 2021/22.
- 22. Over the last 8 years, CYC has been working on upgrading street lighting to more efficient LED lighting. 2020/21 to 2021/22 saw a 7% reduction in kWh used for street lighting.



Water

- 23. In 2020/21, emissions from water usage accounted for just 0.6% of our corporate emissions. We have been unable to confirm consumption levels in 2021/22.

Fleet

24. Emissions associated with our fleet reduced by 4% in 2021/22 and reflects the impact of the 4-year fleet replacement programme. As part of this plan, all combustion engine vehicles up to 3.5t will be replaced by electric vehicles. Currently 1.5% of the CYC fleet are electric vehicles. Once complete, emissions associated with our fleet are expected to reduce by around 800tCO₂e.
25. The corporate fleet accounted for half all emissions recorded in 2021/2022. This is a slight reduction from the previous year, in which it accounted for 52% of corporate emissions.
26. As part of the replacement programme, CYC recently obtained a new fleet for waste collection, which included 2 electric vehicles and 10 vehicles with Euro 6 standard engines. Fully electric vehicles cut emissions entirely while Euro 6 standard engines will lower emissions by around 16% a year.
27. We are also reducing emissions and fuel costs by increasing vehicle efficiency through route planning and driver training.

Business Travel

28. Business travel data measures emissions linked to the council's use of hotels, flights, and trains. Emissions associated with business travel have experienced an increase on last year (8.2 tCO₂); however, 2020/21 was exceptional due to Covid restrictions.
29. The continuation of remote working and meeting attendance means that emissions from business travel in 2021/22 are 75% lower than pre-pandemic levels (32.6tCO₂/yr).
30. While flights were uncommon for business travel pre-pandemic, they significantly increase corporate emissions. During the Covid-19 pandemic there were no flights recorded for business travel purposes and this has continued into 2021/22.



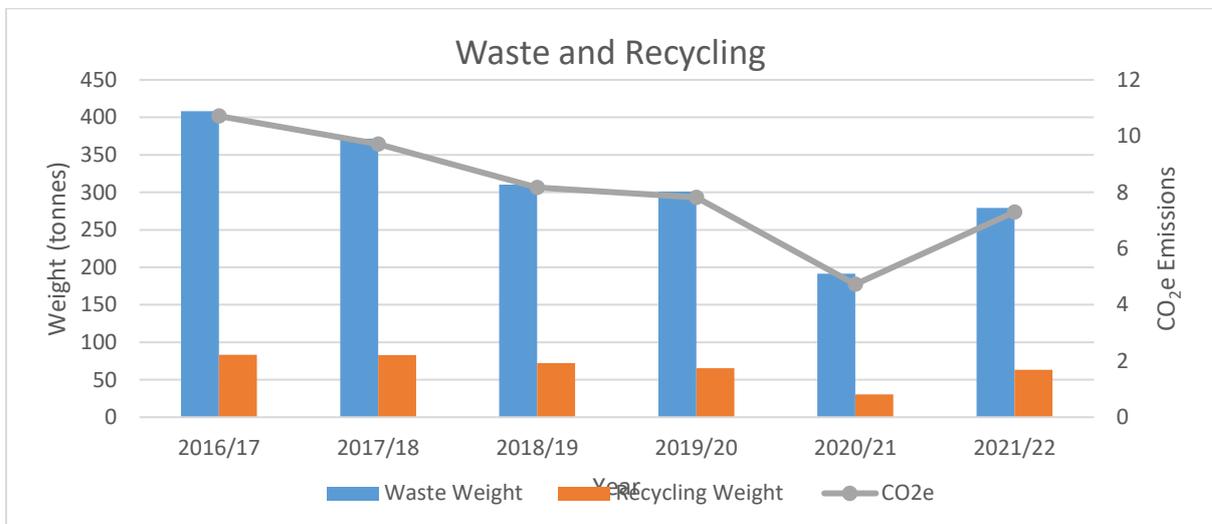
Car Club

31. From 2017, the council began using Enterprise Car Club pool vehicles. The fleet consists of vehicles that run on unleaded petrol, diesel, hybrid electric and full electric. Currently over 50% of the vehicles run on unleaded petrol, around a quarter are hybrid electric and there are less than 10% each of diesel and full electric vehicles.
32. Short journeys that were 5 miles or less accounted for just over 2,000 miles. The council will continue to encourage shorter journeys that do not require a vehicle to be walked, cycled or commuted via public transport instead, if possible. The council's bike sharing will be promoted.
33. To reduce emissions from the Car Club, we are looking into the proportion of hybrid and electric vehicles and will encourage staff to use electric and hybrid vehicles rather than petrol or diesel. Enterprise use a preventative maintenance scheme which may help to keep vehicles running more efficiently.

Waste/Recycling

34. Waste from our corporate buildings accounted for 7.3tCO₂e in 2021/22. This is a 65% increase on 2020/21 due to more people

being in the office. However, levels of waste are still lower than pre-pandemic levels.



35. Pre-pandemic, recycling rates averaged 18%, reaching its lowest level of 14% in 2020/21. In 2021/22, the recycling rate has returned to pre-pandemic levels at 18.5%. The latest figures show waste and recycling weights continue to reduce.
36. Additional recyclable materials and food waste may be removed from the general waste during processing at Allerton Waste Recovery Park. Electricity is created from the general waste through burning it rather than being deposited in landfill.
37. In the short term, promoting recycling is important but auditing the type of waste that is produced over the long term can help the council reduce waste and emissions associated with waste.

Procurement

38. Emissions associated with procured goods and services are not included in this report. However, we are working with the York & North Yorkshire LEP to calculate our Scope 3 emissions.
39. As part of this work, a template sustainable procurement policy has been produced. This template will be considered in the next review of our procurement policy.

Actions

40. The City of York Council: Annual Carbon Emissions Report 2020/21 provided several actions for reducing our corporate emissions. Since then, we have worked to:
- Produce decarbonisation plans for our largest emitting sites to identify improvements in heat generation, building fabric and energy efficiency and renewable generation – these are currently being finalised for 7 council buildings.
 - Adopt a policy to consider low carbon heating solutions for all system replacements – a Low Carbon Assessment Tool has been created.
 - Develop and promote a behaviour change campaign to reduce emissions associated with staff activity – A Carbon Literacy training module has been created for staff.
 - Promote remote event attendance where possible – IT allows this through the devices it provides to staff.
41. Other actions identified to reduce corporate emissions include:
- Increase the proportion of hybrid and electric vehicles in the car club fleet and encourage staff to use electric and hybrid vehicles
 - Update the Business Travel Policy with more information about carbon reduction, including prioritising sustainable travel including trains over flights, wherever possible
 - Incorporate sustainable procurement and circular economy principles into our purchasing decisions
 - Work with YNY LEP to develop a methodology to calculate Scope 3 emissions associated with council activity
 - Review the corporate waste contract and undertake a waste audit

Council Plan

42. This report satisfies the commitment within The Council Plan to record data on CO₂ emissions from council buildings and operations as part of the “greener and cleaner city” priority outcome.

Implications

- **Financial** – The report identifies a number of actions that the carbon reduction team propose to undertake over the coming year. The majority require officer time and can be contained within agreed budgets. Projects that also provide revenue savings should be prioritised while there be occasions where costs become prohibitive. For example the cost of low carbon heating systems tend to be more expensive than traditional systems. It will be important to consider whole life costing to ensure that savings in running costs are included in the evaluation but it is likely that initial capital costs will be higher. This would need to be incorporated into capital budget setting.
- **Human Resources (HR)** - no HR implications have been identified
- **Equalities** – no equalities implications have been identified
- **Legal** – no Legal implications have been identified
- **Crime and Disorder** - no crime and disorder implications have been identified
- **Information Technology (IT)** - our server estate is subject the impacts of rationalisation where possible. Our move, like most, to use cloud based services where we can, will reduce our local rates of consumption
- **Property** - reduction of carbon emissions will have significant implications for the Council's property portfolio. Some of them are outlined in this report. Consideration of carbon emission data will be a significant factor when it comes to future rationalisation of property assets. Carbon reduction is already in the process of being considered where items of plant and machinery are coming up for replacement in our operational and commercial properties, particularly in respect of gas fired boilers, where consideration is being given to their replacement with, biomass, electric or heat source pumps where it is practical to do so.

Contact Details

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Report **Date** 05/12/2022
Approved

Wards Affected:

All

For further information please contact the author of the report

Background papers

Corporate Emissions Report 2020/21

https://modgov.york.gov.uk/documents/s153499/EMDS_Corporate%20Emissions%20Report_2021.pdf