Meeting:	Corporate Services, Climate Change and Scrutiny Management Committee
Meeting date:	16/10/2023
Report of:	Assistant Director Policy and Strategy
Portfolio of:	Executive Member for Environment and Climate Emergency

Scrutiny Report: Intermediate Carbon Reduction Targets

Subject of Report

1. This report sets out the approach to monitoring progress against the carbon reduction pathway within the Climate Change Strategy 2022-2032. The council currently reports annually against organisational emissions and area-wide emissions – with a Climate Change Scorecard in development.

2. It makes recommendations about the approach to setting intermediate carbon reduction targets which should, wherever possible, follow the science-based approach as outlined in the body of this report.

3. An options report will be provided to Executive for establishing intermediate carbon reduction targets, which Corporate and Climate Scrutiny Management Committee are invited to inform.

Policy Basis

4. This report provides information relevant to the Full Council motion (20/07/2023), “that the Executive develops a process that demonstrates clear commitment to a strengthened York 10-year Climate Change Strategy by exploring a series of intermediate carbon reduction targets, following exploration of the topic at

Corporate and Climate Scrutiny Committee and following receipt of an options report to Executive".

5. In March 2019, Full Council declared a climate emergency and set an ambition for York to be carbon neutral by 2030. Council resolved to:
   a) Declare a 'Climate Emergency'.
   b) Commit to a target of making York carbon neutral by 2030, taking into account both production and consumption emissions (scope 1, 2 and 3 of the Greenhouse Gas Protocol).

6. This ambition has been reflected in the York Climate Change Strategy, which uses Science-Based Targets (produced by the Tyndall Institute) to create an emissions reduction pathway for York.

Recommendation and Reasons

7. Scrutiny are invited to comment on the content in this report considering the challenges presented, and note additional topics for further discussion.

Background

Setting Carbon Reduction Targets

8. The Science Based Targets initiative (SBTi) defines and promotes best practice in emissions reductions and net-zero targets in line with climate science. Areas to consider within their Net Zero Standard Criteria (Annex 1) include:

   - **Boundary –** Organisations must include the emissions of all subsidiaries in their target submission, this would include all buildings that we have financial responsibility for energy use.
   - **Scope 1, 2 and 3 emissions –** The targets must cover organisation-wide scope 1 and scope 2 emissions; If an organisations relevant scope 3 emissions are 40% or more of total scope 1, 2, and 3 emissions, they must be included in near-term science-based targets.
   - **Accounting requirements –** Organisations must conform with the GHG reporting protocol and publicly disclose progress against the target every year.

- **Offsetting / Insetting –** Organisations shall remove carbon from the atmosphere and permanently store it to counterbalance the impact of any unabated emissions that remain once companies have achieved their long-term science-based target.
- **Timeframe** – Emission reduction near-term targets must cover a minimum of 5 years and a maximum of 10 years; the minimum forward-looking ambition of near-term targets is consistent with reaching net-zero by 2050 at the latest.

Current Reporting and Indicators

9. As part of the council's commitment to transparently report progress, two emissions reports are produced each year covering organisational and area-wide emissions (See background papers). In addition, a Climate Change Scorecard is under development (Draft provided as Annex 2). These indicators have been developed to align with tracking progress towards our net zero ambition and the priorities of the Council Plan.

10. In addition to the indicators included within the Draft Climate Change Scorecard, indicators for other areas may also be relevant for considering intermediate emissions reduction targets, including:

ID	Description
CAN038	The average of maximum annual mean Nitrogen Dioxide concentration recorded across three areas of technical breach (at points of relevant public exposure) (ug/m^3) (Calendar Year)
GCC02	Carbon emissions across the city (kilotonnes of carbon dioxide equivalent) - (Calendar Year)
GCC03	Level of CO_2 emissions from council buildings and operations (tonnes of carbon dioxide equivalent)
TAP30	% of Talkabout panel who think that the council are doing well at improving green spaces
OPC12T	Corporate Waste - Total - CO_2 (tonnes) (000's)
OPC15C	Business Travel - Rail - CO_2 (tonnes) (000's)
OPC16C	Fleet Transport - Diesel - CO_2 (tonnes) (000's)
OPC17C	Fleet Transport - Gas Oil - CO_2 (tonnes) (000's)
EPC02	CO_2 emissions per year in tonnes/year (properties on the EPC register) - (Snapshot)
	Potential CO_2 emissions per year in tonnes/year (properties on the EPC register) - (Snapshot)

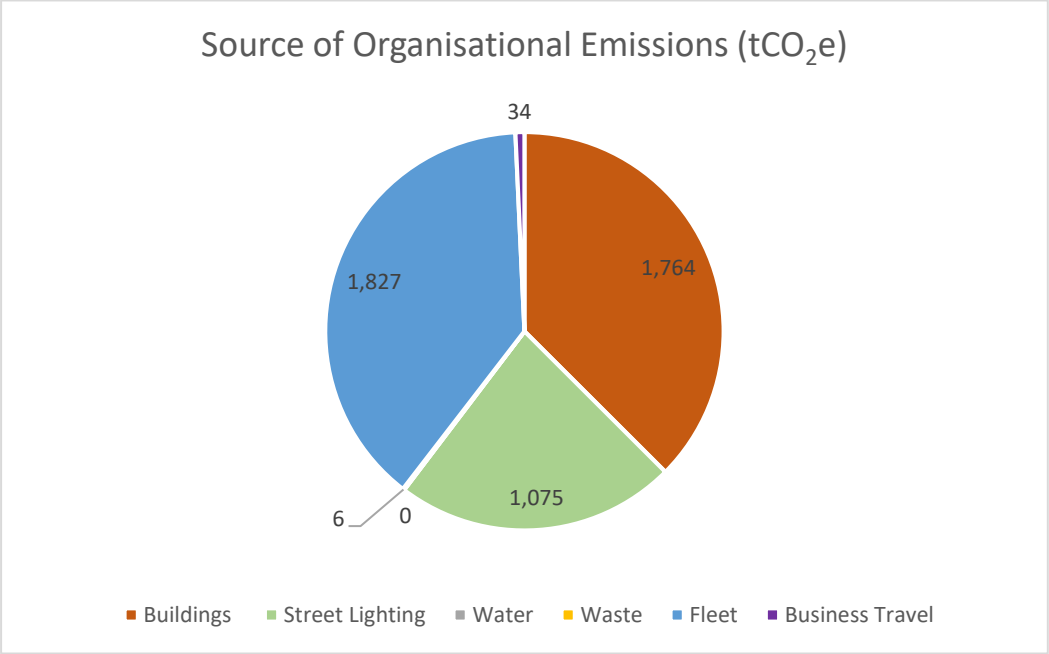
EPC03	Number of properties on the EPC Register with solar water heating - (Snapshot)
	% of properties on the EPC register with solar water heating - (Snapshot)
EPC04	Average environmental impact rating (EPC methodology, higher is better) - (Snapshot)
	Average potential environmental impact rating (EPC methodology, higher is better) - (Snapshot)
EPC05	Median efficiency of homes (EPC methodology, higher is better) - (Snapshot)
	Median potential efficiency of homes (EPC methodology, higher is better) - (Snapshot)
CAN029i	% of ultra-low emission Licensed Taxis operating in York (Electric and Hybrid)
CAN029ii	% of ultra-low emission Buses (ULEB) operating in York (Electric and Hybrid) - (low emission Buses before 2022/23)
TAP34	% of panel who think that the council and partners are doing well helping to reduce carbon footprint
	% of panel who think that the council and partners are not doing well helping to reduce carbon footprint

11. Setting intermediate targets for indicators which we do not currently collect can be challenging – data may not be available or could be prohibitively time consuming or costly to collect.

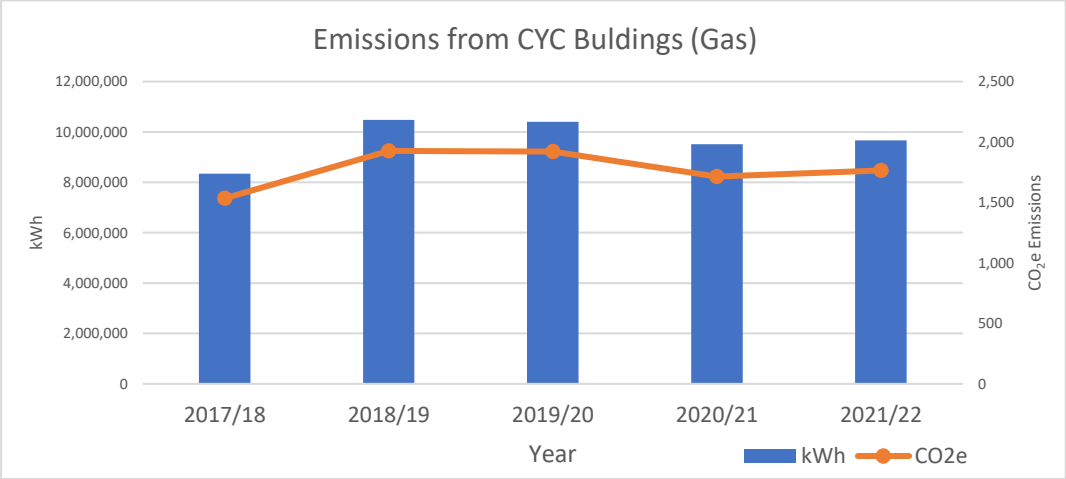
Organisational Emissions Reduction

12. Each year, the council reports organisational emissions for the following sources:
    a) CYC buildings (Electricity)
    b) Street lighting (Electricity)
    c) CYC buildings (Gas)
    d) CYC buildings (Water)
    e) Corporate Waste
    f) CYC Fleet
    g) Business travel

13. Total organisational emissions for City of York Council were 4,706tCO_2e in 2021/22. This covers our scope 1 and scope 2 emissions and excludes school energy usage. A breakdown of these emissions is provided below:



14. The council's buildings account for over a third of total emissions (37%). Since 2019, the council purchases 100% renewable electricity, therefore these emissions are all derived from the burning of fossil fuels to provide water and space heating.



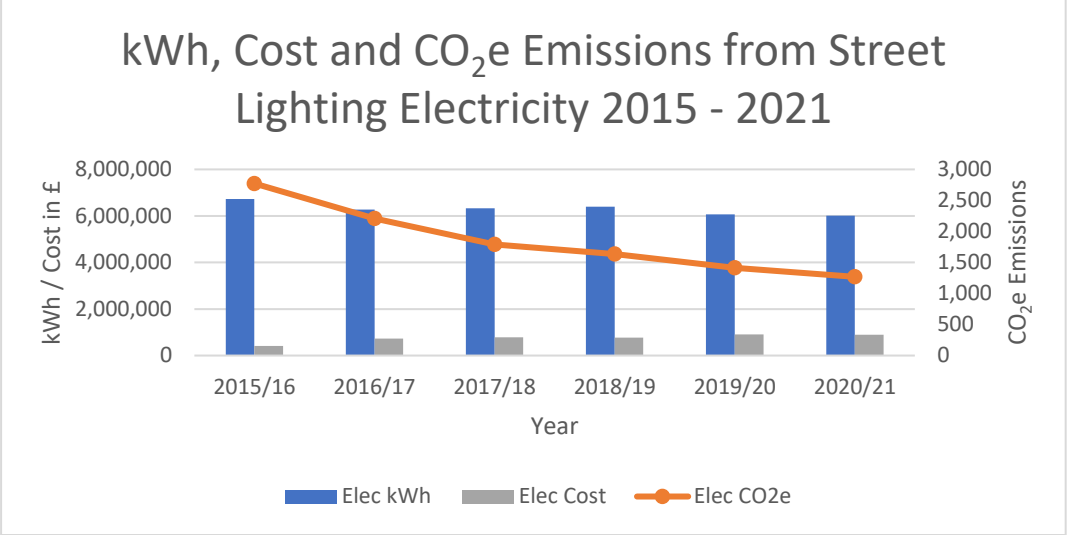
15. The council considers renewable heating solutions whenever an existing gas boiler reaches end-of-useful-life and needs to be replaced. Carbon emissions from council buildings can also be reduced through energy efficiency and fabric improvements.

16. Since the declaration of a climate emergency in 2019, emissions associated with gas for heating council buildings has reduced by 8%.

17. Heat decarbonisation plans have been completed for 28 corporate sites, identifying opportunities to reduce carbon emissions by 70%.

However, the capital cost associated with these measures are significant, with business cases to understand the benefit of reduction to consumption to be quantified.

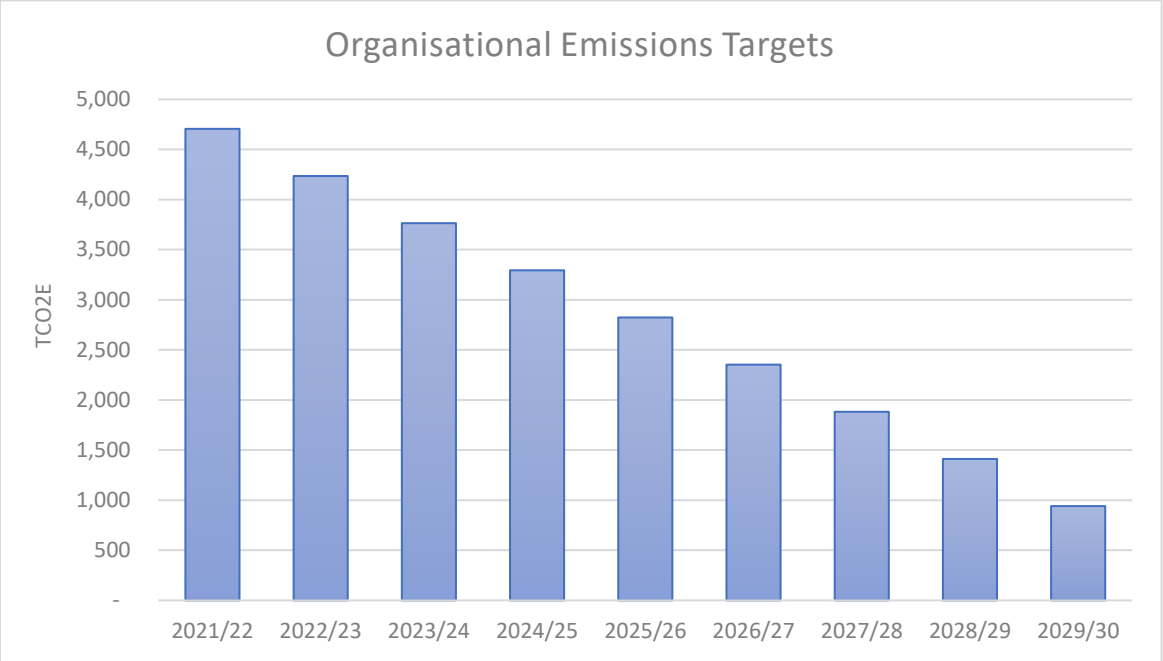
18. Street lighting is provided by as an unmetered supply from the Distribution Network Operator, due to the decarbonisation of grid electricity and an ongoing LED replacement programme, emissions associated with street lighting have fallen by 55% since 2015/16. As grid decarbonisation has slowed, further emissions reductions will result from continued LED replacement and improved controls.



19. An application has been submitted to the Mayoral Combined Authority Net Zero Fund, to complete LED replacements for a further 1,200 lamps – reducing carbon emissions by 74tCO_2e/yr.

20. The council fleet is the largest source of organisational emissions (38%). Data became available in 2020/21. Since then, emissions have reduced by 12.5% 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. Once complete, emissions associated with our fleet are expected to reduce by around 800tCO_2e. Work is underway to investigate alternative fuel technology for our larger vehicles.

21. Following SBTi guidance, achieving net zero for organisational emissions by 2030, would require a 10% annual reduction in emissions. Only 20% of emissions would remain in 2030 from a 2021/22 baseline with the remainder of emissions being offset/inset.



22. However, we continue to increase the data sources used for calculating organisational emissions. This year, for the first time, we will be able to include an element of our scope 3 emissions which relate to our building services and maintenance contract and have access to school energy data for the first time.

23. Whilst the increase in data availability improves the accuracy of reporting, it makes year-on-year comparison more difficult and creates challenges for setting intermediate carbon reduction targets.

24. Intermediate carbon reduction targets could be set for individual sources of emissions, for example a target for fleet or street lighting emissions reduction where data sources are standardised and unlikely to change.

25. Indicators could also be used as a proxy for progress towards net zero, examples of these are provided in the Climate Change Scorecard.

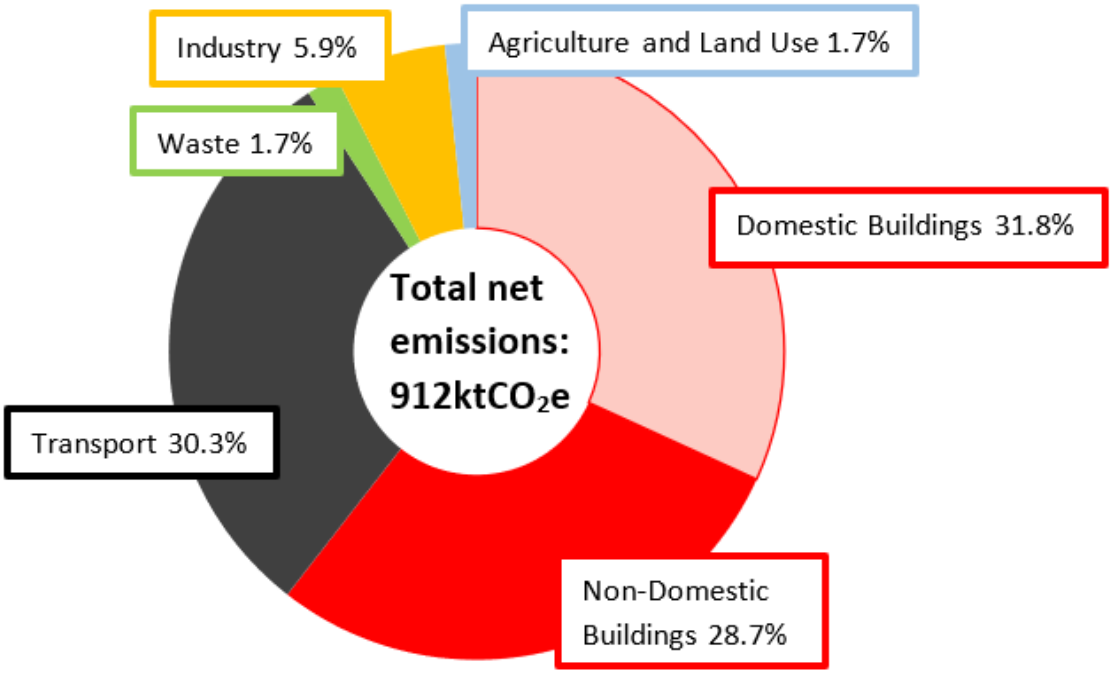
26. The council's organisational emissions account for roughly 4% of city-wide greenhouse gas emissions (based on SCATTER data from 2019).

Area-Wide Emissions

27. Area-wide emissions are those derived from within the local authority boundary of York.

28. These emissions are calculated using the SCATTER Tool, as approved at Executive Member Decision Session in November 2021. The strengths and weaknesses of using SCATTER for reporting area wide emissions are laid out in that report and summarised below.

29. In 2020/21, area-wide emissions for York (covering Scope 1 and 2) were 912kilotonnes Carbon Dioxide equivalent ($ktCO_2e$) – the availability of Scope 3 data is limited and will continue to improve data collection and accuracy for future reporting. A breakdown of these emissions sources is provided below:



30. The York Climate Change Strategy establishes an area-wide science-based emissions reduction pathway for York, requiring a 13% annual reduction.

31. While the SCATTER tool allows for a cost-effective assessment of York's total annual emissions, the time delay in data acquisition and the top-down approach to emissions apportionment mean that it does not provide an accurate reflection of emissions reduction measures taken across the city. Therefore, area-wide intermediate

carbon reduction targets that rely on SCATTER data may not accurately reflect the current real-world situation.

32. The report produced by University of Leeds in 2021 (Annex 3), suggests an area-wide science-based target of a 65% reduction in emissions by 2025 –using a baseline year of 2000. Using this as an intermediate target would require emissions to fall to 720,000KtCO_2e by 2025. The data used to establish this target is the same used by the SCATTER tool – allowing for direct comparison. However, as the data is subject to a two-year time-lag, evaluation against the 2025 target would only be possible in 2027.

33. Alternative metrics for indicating progress have been proposed and these are provided within the Climate Change Scorecard.

34. Area-wide emissions calculated using the SCATTER tool are reported annually to the Executive Member for Environment and Climate Emergency.

Recommendations for discussion

35. Following SBTi guidance, establishing net zero carbon reduction targets for our organisational emissions would need to include: all emissions sources that the council has financial responsibility for; include scope 1 and 2 emissions until more data is available on scope 3 emissions; comply with GHG reporting protocols; have a robust approach to offsetting/insetting; and cover a period of 5 – 10 years.

36. Intermediate targets for carbon reduction could be established to monitor progress against our 2030 net zero target; however, the challenges associated with this have been set out in the report.

37. Indicators are already being used to monitor progress, and these will be reported annually to Scrutiny through the Climate Change Scorecard.

38. Organisational emissions are reported annually to the Executive Member for Environment and Climate Emergency.

39. The area-wide 2030 net zero target and reduction pathway within the York Climate Change Strategy is a science-based target that

follows SBTi guidance. Progress against this target is monitored annually through reporting to the Executive Member for Environment and Climate Emergency.

40. Previous research has calculated a science-based emissions reduction target of 65% (based on a 2000 baseline) by 2025. This calculation is based on the same data used by the SCATTER tool.

41. Alternative indicators could be used as a more timely assessment of progress against a 2025 intermediate target and the 2030 net zero target. These are included within the Climate Change Scorecard.

Consultation Analysis

42. The Climate Change Strategy was developed following significant consultation with partners, businesses and residents.

43. The approach to annual published emissions reporting is one part of the evidence base provided to CDP for an independent assessment of York's progress to net zero and appetite for climate action. Last year, York achieved an A rating.

44. The approach to emissions reporting has been discussed with the internal Climate Change Programme Board, with this discussion with Scrutiny providing additional opportunity to refine the approach.

Wards Impacted

45. All

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Background papers

York Climate Change Strategy
https://www.york.gov.uk/downloads/file/8948/york-climate-change-strategy-2022-to-2032

York City-wide Emissions Inventory Reporting (2021)
https://modgov.york.gov.uk/documents/s153498/EMDS_York%20Emissions%20Inventory%20Report_2021.pdf

Corporate Emissions Report (2020/21)
https://modgov.york.gov.uk/documents/s153499/EMDS_Corporate%20Emissions%20Report_2021.pdf

Annual Carbon Emissions Report (2021/22)
https://modgov.york.gov.uk/documents/s164307/EMDS_Corporate%20Emissions_Dec%202022_.pdf

York Emissions Inventory Report (2022)
https://modgov.york.gov.uk/documents/s164308/EMDS%20City%20Emissions%20Dec%202022.pdf

York Emissions Reporting and Carbon Neutral Ambition
https://modgov.york.gov.uk/documents/s144432/Baseline%20Reporting%20Report.pdf

Annexes

Annex A: SBTi Net Zero Standard Criteria
Annex B: Draft Climate Change Scorecard
Annex C: Zero Carbon Roadmap for York – Leeds Uni