

Annual carbon footprint report 2021-22

To: Environment and Green Investment Committee

Meeting Date: 1 December 2022

From: Steve Cox; Executive Director, Place and Sustainability

Electoral division(s): All

Key decision: No

Forward Plan ref: N/A

Outcome: That the Committee understand the main sources of greenhouse gas emissions from the County Council's activities in the financial year 2021-22, and the Council's progress against its climate targets.

Recommendation: a) To accept the annual carbon footprint report (attached as Appendix A) as a record of the Council's known greenhouse gas emissions for the financial year 2021-22.

b) To publish the 2021-22 annual carbon footprint report on the Council's website.

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Member contacts:

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1. Background

- 1.1 The Council's Climate Change and Environment Strategy, which was updated in 2022, contains a number of targets relating to reducing greenhouse gas emissions, including reducing the Council's own 'scopes 1 and 2' (direct) emissions to net zero by 2030, reducing 'scope 3' (indirect) emissions by 50.4% by 2030, and to deliver net zero for the county of Cambridgeshire by 2045. In order to monitor progress against these targets, it is necessary to measure the Council's carbon footprint each year.
- 1.2 Data has now been gathered on the Council's greenhouse gas (GHG) emissions for the financial year April 2021 to March 2022.
- 1.3 The full findings are presented in the attached report (Appendix A). As well as presenting the Council's own organisational carbon footprint, the report also looks, separately, at the carbon footprint of the whole county of Cambridgeshire.

2. Council's own greenhouse gas emissions

- 2.1 The vast majority (95%) of the Council's emissions fall under 'scope 3', which means these are indirect emissions from assets outside of the Council's direct control.
- 2.2 The Council's total GHG emissions in 2021-22 for all 3 scopes amounted to 131,610 tonnes CO₂e (gross). This is 3% higher than the previous year, but 44% lower than our baseline year of 2018-19. The slight increase in emissions for 2021-22 was expected, as we began the recovery from the impacts of the COVID-19 pandemic, following on from an exceptionally unusual year in 2020-21.
- 2.3 Net GHG emissions for all scopes, after deducting the emissions offset through our renewable electricity generation assets, including the 12MW solar farm in Soham and several rooftop solar PV installations across Council buildings, and for purchasing 100% renewable electricity, were 124,619 tonnes CO₂e.
- 2.4 The largest share of emissions was from waste, largely due to the Council's statutory duty as the Waste Disposal Authority.
- 2.5 The Council's scope 1 (direct) and scope 2 (purchased electricity) emissions amounted to 6,272 tonnes CO₂e (gross, before reductions) in 2021-22. The largest share was for purchased electricity. Our scope 1 and 2 emissions together were 1% higher than the previous year. However, the scope 1 and 2 (gross) emissions were 19% lower in 2021-22 than in our baseline reporting year of 2018-19.
- 2.6 Net GHG emissions for scopes 1 and 2, after taking into account purchasing of 100% renewable electricity, were reduced to 2,141 tonnes CO₂e. The largest share of this was for gas to heat our buildings.
- 2.7 Scope 1 emissions were higher in 2021-22 than in 2020-21, mainly because emissions in 2020-21 were unusually low due to the COVID-19 restrictions in place that year. As we recover from the impacts of the pandemic, increased transport created additional emissions compared to the previous year.
- 2.8 The Council's low carbon heating programme is expected to reduce gas usage by about one third by 2023, with further reductions in future years as more sites switch to using low carbon air source heat pumps. This will reduce our scope 1 emissions in future.

- 2.9 Scope 3 (indirect) emissions in 2021-22 were 125,339 tonnes CO₂e. The largest share of these emissions is for county household waste disposal.
- 2.10 Scope 3 emissions were slightly (4%) higher in 2021-22 than in 2020-21, but 45% lower than in our baseline year of 2018-19. The largest reduction compared to the baseline year is due to reduced construction work.
- 2.11 Overall, whilst we are seeing the recovery from the impacts of COVID-19 start to show in 2021-22, this was still an unusual year compared to 2018-19 and 2019-20.
- 2.12 Further details and a full breakdown of emissions sources are in the full report in Appendix A.

3. County-wide greenhouse gas emissions

- 3.1 This year, the Government Department for Business, Energy and Industrial Strategy (BEIS) dataset on GHG emissions by local authority area has been expanded to include emissions of methane (CH₄) and nitrous oxide (N₂O) as well as carbon dioxide (CO₂). This means that about 97% of all GHG emissions are now included. 2020 is the most recent year of data currently available.
- 3.2 In 2020, the total GHG emissions (CO₂, CH₄ and N₂O) for the geographical area of Cambridgeshire were 6.89 million tonnes carbon dioxide equivalent (CO₂e). This is a 5.9% reduction compared to 2019.
- 3.3 Land use, land use change and forestry (LULUCF) remains the highest emitting sector in the county, followed by transport. Further details are in the full report in Appendix A.

4. Alignment with corporate priorities

4.1 Environment and Sustainability

The report above sets out the implications for this priority in paragraphs 2.1 to 3.3.

4.2 Health and Care

There are no significant implications for this priority.

4.3 Places and Communities

The report above sets out the implications for this priority in paragraphs 3.1 to 3.3.

4.4 Children and Young People

There are no significant implications for this priority.

4.5 Transport

There are no significant implications for this priority.

5. Significant Implications

5.1 Resource Implications

The report above sets out the implications for this priority in paragraphs 2.1 to 3.3.

5.2 Procurement/Contractual/Council Contract Procedure Rules Implications

There are no significant implications within this category.

5.3 Statutory, Legal and Risk Implications

There are no significant implications within this category.

5.4 Equality and Diversity Implications

There are no significant implications within this category.

5.5 Engagement and Communications Implications

There are no significant implications within this category.

5.6 Localism and Local Member Involvement

There are no significant implications within this category.

5.7 Public Health Implications

There are no significant implications within this category.

5.8 Environment and Climate Change Implications on Priority Areas (See further guidance in Appendix 2):

5.8.1 Implication 1: Energy efficient, low carbon buildings.

Positive/neutral/negative Status: Positive

Explanation: Understanding the sources of GHG emissions will inform how best to reduce emissions further in future.

5.8.2 Implication 2: Low carbon transport.

Positive/neutral/negative Status: Positive

Explanation: Understanding the sources of GHG emissions will inform how best to reduce emissions further in future.

5.8.3 Implication 3: Green spaces, peatland, afforestation, habitats and land management.

Positive/neutral/negative Status: Neutral

Explanation: No impact

5.8.4 Implication 4: Waste Management and Tackling Plastic Pollution.

Positive/neutral/negative Status: Neutral

Explanation: No impact

5.8.5 Implication 5: Water use, availability and management:

Positive/neutral/negative Status: Neutral

Explanation: No impact

5.8.6 Implication 6: Air Pollution.

Positive/neutral/negative Status: Neutral

Explanation: No impact

5.8.7 Implication 7: Resilience of our services and infrastructure, and supporting vulnerable people to cope with climate change.

Positive/neutral/negative Status: Neutral

Explanation: No impact

Have the resource implications been cleared by Finance? Yes

Name of Financial Officer: Sarah Heywood

Have the procurement/contractual/ Council Contract Procedure Rules implications been cleared by the Head of Procurement? Yes

Name of Officer: Clare Ellis

Has the impact on statutory, legal and risk implications been cleared by the Council's Monitoring Officer or LGSS Law? Yes

Name of Legal Officer: Fiona McMillan

Have the equality and diversity implications been cleared by your EqIA Super User? Yes

Name of Officer: Elsa Evans

Have any engagement and communication implications been cleared by Communications? Yes

Name of Officer: Amanda Rose

Have any localism and Local Member involvement issues been cleared by your Service Contact? Yes

Name of Officer: Sheryl French

Have any Public Health implications been cleared by Public Health? Yes

Name of Officer: Iain Green

If a Key decision, have any Environment and Climate Change implications been cleared by the Climate Change Officer?

Not applicable

6. Source documents

5.1 Source documents

- BEIS UK local authority and regional greenhouse gas emissions national statistics
- Government conversion factors for company reporting of greenhouse gas emissions

5.2 Location

- <https://www.gov.uk/government/collections/uk-local-authority-and-regional-greenhouse-gas-emissions-national-statistics>

- <https://www.gov.uk/government/collections/government-conversion-factors-for-company-reporting>

Appendix A

Annual carbon footprint report 2021-22 (see separate document)