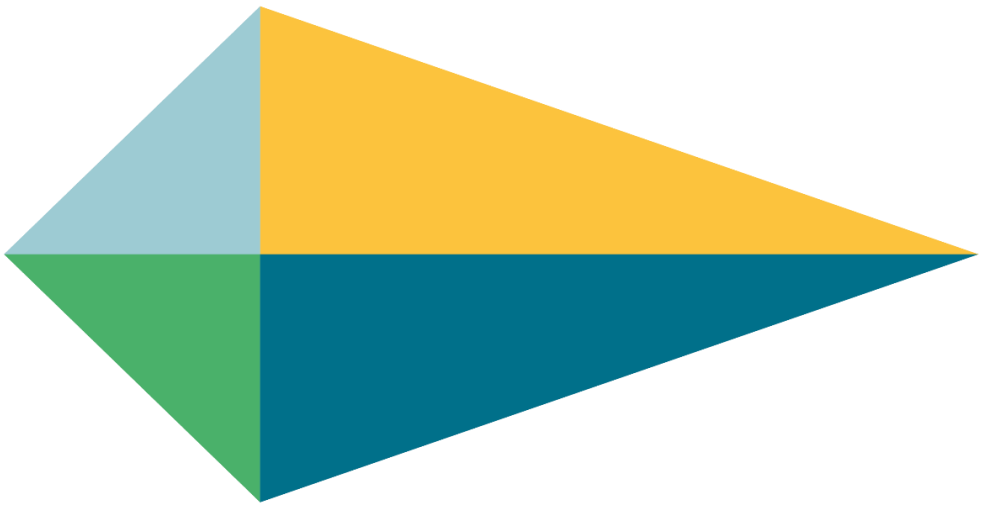
East Suffolk Council
Annual Greenhouse Gas Report
2022/23



EASTSUFFOLK

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Author of 2022/23 AGHG Report: Daniel Wareing, Environmental Sustainability Officer

Checked by: Paul Mackie, Lead Officer – Environment & Climate Change; and Nick Khan – Strategic Director

1. Introduction and strategic context

The annual greenhouse gas report is an annual account of the emissions arising from the estates and operations of East Suffolk Council (ESC). In 2022/23 total quantified emissions, at **6064 tCO_2e**, were **down by 660 tonnes of CO_2e, or a decrease of 9.9%, from the year previous**.

This report supports the Council's commitment to deliver "positive climate…and environmental impact through the decisions we make and the actions we take" and its "Continued commitment to net zero by 2030" as part of Our Direction 2028, the strategic plan of East Suffolk Council. [1]

It supports Point 7.4 of the East Suffolk Environmental Policy, to "Continue the Council's efforts to reduce greenhouse gas emissions" [2]. It enables the Council to understand and monitor the emissions arising through its own assets and operations over time, and to continually target actions to further reduce its emissions in accordance with its ambition stated under its Declaration of the Climate Emergency made on 24 July 2019 to make East Suffolk Council carbon neutral by 2030[3].

2. Methodology

The scope of this report is to account for the emissions arising as a consequence of the actions of ESC.

These emissions are recorded and categorised according to scope, which DEFRA defines as follows:

Scope 1 (Direct energy emissions): Emissions from activities owned or controlled by our organisation that release emissions into the atmosphere. They are direct emissions and in relation to ESC these include fuel (petrol and diesel) consumed by the Council's fleet, and natural gas consumed by the Council's built assets.

Scope 2 (Energy indirect emissions): Emissions released into the atmosphere associated with the consumption of purchased electricity, heat, steam and cooling. These are indirect emissions that are a consequence of the organisation's activities but which occur at sources we do not own or control and in relation to ESC this covers electricity purchased from the Grid to power our built assets.

Scope 3 (Other indirect emissions): Emissions that are a consequence of our actions, which occur at sources which we do not own or control and which are not classified as Scope 2 emissions. In relation to ESC these include losses (through transmission and distribution) of electricity consumed by the Council's built assets; emissions associated with business travel by staff and members using their own motor vehicles; the supply and treatment of water consumed by the Council's built assets; and so-called "Well-to-Tank" (WTT) emissions associated with the extraction, refinement and transportation of the fuels consumed by those sources listed under Scope 1 above.

This report is based on the Government's "Environmental Reporting Guidelines"[4] and accounts for emissions in terms of tonnes of Carbon Dioxide Equivalent (CO_2e), calculated using the 2022 conversion factors[5]. CO_2e is a universal unit of measurement to indicate the combined global warming potential (GWP) of all relevant Greenhouse Gases actually emitted, expressed in terms of the GWP of one unit of CO_2.

[1] Appendix A Our Direction 2028 FINAL - Flipbook - Page 1 (paperturn-view.com)
[2] East-Suffolk-Environmental-Policy.pdf (eastsuffolk.gov.uk)
[3] Our climate commitment » East Suffolk Council
[4] Environmental reporting guidelines: including Streamlined Energy and Carbon Reporting requirements - GOV.UK (www.gov.uk)
[5] Greenhouse gas reporting: conversion factors 2022 - GOV.UK (www.gov.uk)

3. Total emissions and analysis

Table 1 and Figure 1 show the council's total quantified emissions for each of the last six years, broken down by Scope. (For the years 2016/17 to 2018/19, the data for the former districts of Suffolk Coastal and Waveney, which merged to form East Suffolk Council in April 2019, are combined.)

Over the period from 2016/17 to 2022/23:

- The council's quantified emissions overall have reduced by **32.4%.**
- Emissions from diesel, HVO and petrol (Scopes 1 and 3 combined) reduced by **16.4%.**
- Emissions from heating gas and gas oil (Scopes 1 and 3 combined) reduced by **22.9%**
- Emissions associated with grid electricity (Scopes 2 and 3 combined) reduced by **55.2%**
- Emissions from business mileage (Scope 3) reduced by **26.7%**
- A comparison in the emissions associated with treatment and supply of water are not made due to lack of complete date for some years during the period covered.

Table 1. Annual total emissions quantified, by scope, arising from activities of the council 2016/17 to 2022/23

(Tonnes of CO_2e)

Emissions table (all values tCO_2e)	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23
Scope 1 (Fleet diesel, HVO and petrol power tools)	2535	2495	2456	2393	2240	2235	2033
Scope 1 (Natural Gas and Gas Oil)	2143	1872	1689	1616	1329	1950	1603
Scope 2 (Grid electricity)	2921	2697	1939	1817	1284	1451	1307
Scope 3 (Transmission & distribution of grid electricity)	264	252	165	154	110	128	120
Scope 3 (Business mileage)	258	237	277	237	73	99	189
Scope 3 (Supply and treatment of water)	30	25	20	77	72	13	14
Scope 3 (Diesel, HVO and petrol WTT)	524	584	572	558	522	520	525
Scope 3 (Natural Gas and Gas Oil WTT)	291	283	235	210	173	328	274
Grand total	***8965***	***8445***	***7352***	***7063***	***5803***	***6724***	***6064***

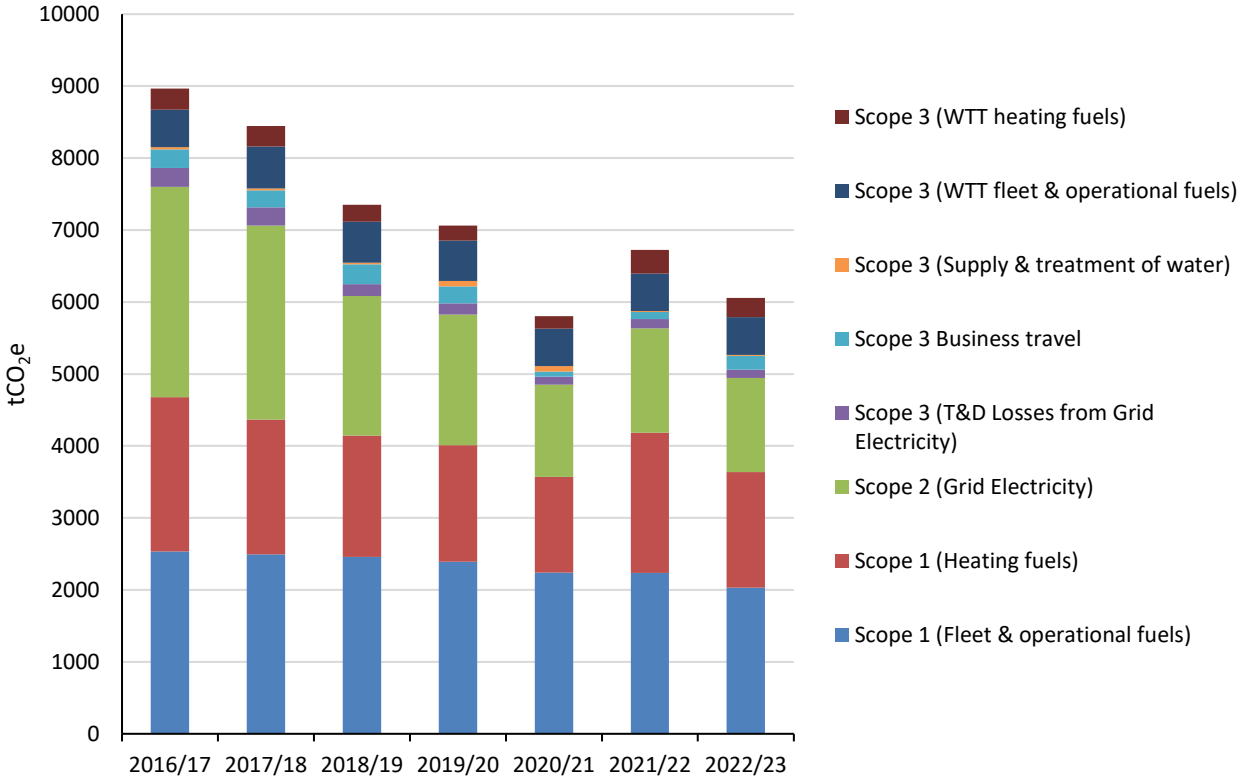
Direct Scope 1 emissions from the consumption of natural gas and fuels accounted for 60.0% of the Council's emissions, while emissions resulting from Scope 2 electricity consumption accounted for a further 21.6%. The remaining indirect Scope 3 emissions (WTT upstream emissions associated with the production of fuels consumed; losses from transmission and distribution of electricity; business travel; and supply and treatment of water) together accounted for the remaining 18.5% of emissions.

Analysis

The reduction in emissions over the period from 2016/17 to 2022/23 can be attributed to the following major factors:

- The continued decarbonisation of electricity through the UK National Grid which has been progressively producing more electricity from renewables, and also from gas-fired power stations, which have lower emissions than the coal fired power stations they have been replacing.
- An ongoing programme of refurbishment of the Council's leisure centres to reduce their reliance on energy from the grid.
- As well as improving the energy performance of facilities following completions of works, the refurbishments of the sites required their full or partial closure. The five main leisure centres are major consumers of energy, so any closure will lead to a significant decrease in the Council's emissions.
- It should be noted that much of the reduction in the Council's emissions in 2020/21 compared to 2019/20 can be attributed to the closure for 9 months of all 6 leisure centres (in compliance with Government instructions to control the spread of Covid-19). It was therefore anticipated that energy consumption and therefore emissions arising from our leisure centres would bounce back in 2021/22 following the resumption of normal operations as social distancing restrictions ease.
- Although there has been an increase following the removal of the Covid-19 restrictions, the transition to more home working and more meetings conducted virtually has contributed to a reduction in emissions attributable to business travel compared with years pre-pandemic.

Figure 1. Annual total emissions, by Scope, currently captured by the ESC Annual Greenhouse Gas Report, arising from activities of the Council 2016/17 to 2022/23 (Tonnes of CO_2e)

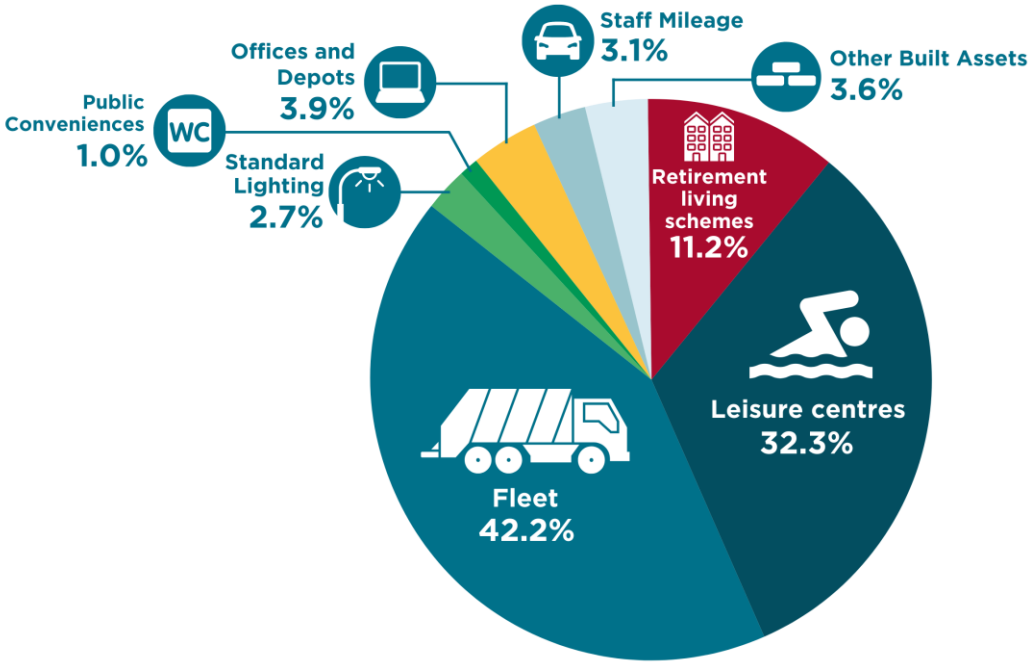


4. Proportion of 2022/23 Emissions by Source Activity

Figure 2 shows the proportion as a percentage of the grand total, of the council's emissions attributable to each type of source activity in 2022/23.

For each category of built assets, this includes the emissions arising from the use of Scope 1 (Natural Gas and Gas Oil), Scope 2 (Electricity), Scope 3 (Electricity T&D), and Scope 3 (Supply & Treatment of Water) and Scope 3 (WTT for Gas and Gas Oil) where applicable – for example, standard lighting; i.e. those street lamps that are owned by ESC, uses no gas or water, whilst none of our offices or depots use gas.

Figure 2. Proportion of all quantified CO_2e emissions by type of activity 2022/23



The fleet is the largest single type of source of the council's emissions, with the six main Leisure Centres second.

In 2022/23 the six Leisure Centres accounted for 59.1% of emissions from our built assets, with the other notable categories of assets being our relevant housing assets (20.4%), offices and depots (7.1%), standard lighting (5.0%), and public conveniences (1.8%). The category "other built assets" includes all those that do not fit into the other categories of built assets already mentioned and includes a wide range assets such as car parks, tool sheds, feeder pillars, cemeteries, kiosks, fountains and others.

Please note that the category for housing stock only includes housing stock within scope of our emissions reporting, i.e. those buildings for which the council pays the utility bills, primarily our retirement living schemes and communal facilities; it does not include the general Housing Revenue Account stock (i.e. "Council Houses").

Emissions Outside of Scope

These include biogenic CO_2 factors that should be used to account for the direct carbon dioxide (CO_2) impact of burning biomass and biofuels, including when reporting emissions from electricity consumption. Biogenic CO_2 emissions are one of several activities labelled 'outside of scopes' by the GHG Protocol Corporate Accounting and Reporting Standard because the Scope 1 impact of these fuels has been determined to be a net '0' (since the fuel source itself absorbs an equivalent amount of CO_2 during the growth phase as the amount of CO_2 released through combustion).

As such they are not included in the total emissions of the authority, but reported separately. These are expressed as units of "CO_2e of CO_2", which is different from emissions within scope (which are expressed as CO_2e).

Full reporting of any fuel from a biogenic source, including electricity, should have the biogenic CO_2 value documented, as shown in Table 2, to ensure complete accounting for the emissions created, although these are not included in the total emissions report of the council above.

Table 2. Annual emissions outside of scopes associated with relevant activities, East Suffolk Council 2022/23

Aspect of emissions outside of scopes	Tonnes CO_2e of CO_2
Diesel	82.3
Petrol	0.5
Hydrotreated Vegetable Oil (HVO)	365.7
Grid Electricity	777.8
Grand total	***1226.3***

Appendix 1. Caveats and Exclusions

Caveats

It should be noted that efforts to improve data capture and reporting are ongoing, and as additional sources of emissions are identified over the time the overall scope of the report has expanded and may expand further over time. Furthermore, factors such as the acquisition and disposal of assets, temporary closures of assets, improvements of assets, and changes to the usage of assets, add to the complexity of the overall picture.

A significant expansion in the data captured by our emissions reporting occurred in 2023 when Scope 3 (Well-to-Tank) emissions associated with the upstream impacts of fuels were included for the first time, and backdated as far as the availability of data and conversion factors permitted. This had a significant upward impact on the council's total quantified emissions for previous years back to 2016/17.

Any comparison made between the carbon footprint of the Council from year to year should therefore be made with awareness of these factors, particularly prior to 2016/17.

East Suffolk Council was formed from the merger of Suffolk Coastal District Council and Waveney District Council in April 2019. All known data collected by those councils in previous years has been combined wherever figures and charts show data for previous years.

Exclusions

This report is only concerned with emissions arising as a result of the activities of the council as a corporate organisation. By definition, it excludes emissions arising from the following external sectors that may be situated or operate within the geographical boundary of East Suffolk Council (this list should be viewed as indicative, not exhaustive):

- Domestic properties whose owners or occupants are responsible for paying their own utility bills;
- The disposal of domestic and commercial waste;
- Private and public transportation;
- The business sector (including construction, industry, commerce and agriculture);
- Other public sector organisations (e.g. schools and hospitals, town and parish councils, Suffolk County Council, the Environment Agency).

Emissions from the sectors listed above that occur within our district, but are beyond the control of this council, are accounted for separately by national statistics[6] covering territorial emissions of CO_2, methane (CH_4) and nitrous oxide (N_20) broken down by local authority areas.

To address these external areas, East Suffolk Council works with its partners across the Suffolk Climate Change Partnership in the course of developing and implementing actions in support of the Suffolk Climate Emergency Plan[7] and our shared ambition for a carbon neutral county of Suffolk by 2030.

[6] UK local authority and regional greenhouse gas emissions national statistics - GOV.UK (www.gov.uk)

[7] Suffolk-Climate-Emergency-Plan.pdf (greensuffolk.org)