Annual Operational Emissions Report 2023/24

Introduction

In September 2019, Rother District Council declared a climate emergency and pledged to do what is within its power to become carbon neutral by 2030. The Climate Strategy sets out how the Council will use its powers and influence to reduce district-wide emissions as well as operational emissions, directed by The Climate Action Plan 2023 – 26.

This is the second annual report of the Council's operational emissions, or "carbon footprint", outlining progress towards becoming a Net Zero organisation. (District-wide emissions are reported separately.)

Methodology

The Council measures its emissions in line with DEFRA protocols, taking an operational control approach. The activities which contribute to the 2023/24 data are as follows:

Scope 1 (Direct emissions)	• Gas (supplied to operational assets) • Fleet
Scope 2 (Indirect emissions from the purchase of energy)	• Electricity (supplied to operational assets)
Scope 3 (All other indirect emissions)	• Electricity losses from transmission and distribution (supplied to operational assets) • Non-operational assets (gas and electricity, if the Council is the account holder) • Water supply and treatment (to operational assets) • Business travel and commuting (by officers and elected Members) • Waste Contract (fleet) • Leisure Centres (gas and electricity)
Deductions (applied to Scopes 1 and 2)	• Green Tariff (100% renewable electricity tariff to any asset) • Solar energy exported to the grid

The baseline for all activities is 2019/20, except where data from that year is unavailable, in which case the earliest dataset available is used as the baseline. As reporting procedures advance, the Scope 3 activities included in the Council's annual emissions reporting are expected to expand.

Deductions contribute to the offsetting of Scope 1 and 2 emissions only, as these are the activities over which the Council has direct influence.

Historic data may have been re-calculated to account for methodological changes, correct errors or to reflect updated data, therefore, figures relating to previous years may not be identical to those of previous reports.

All Activities

Table 1: RDC GHG Emissions in Tonnes CO2e	BASELINE (2019/20)	Previous Year 2022/23	2023/24
Scope 1 - Gas (Operational)	48.03	38.31	30.32
Scope 1 - Fleet	16.44	19.05	23.17
Scope 2 - Electricity (Operational)	141.87	61.31	57.64
Scope 3 - Gas (non-operational)	8.85	17.25	10.33
Scope 3 - Electricity (non-operational)	57.55	50.28	55.81
Scope 3 - T&D Losses (on Scope 2 Electricity)	12.04	5.61	4.99
Scope 3 - Water (Operational)	15.16	7.47	7.39
Scope 3 - Business Miles	73.85	48.33	39.82^
Scope 3 - Commuting	95.61*	95.61	90.20
Scope 3 - Waste Contract	699.87*	821.45	783.57
Scope 3 - Leisure Centres	486.80	298.18	320.36
Total Gross Emissions	**1656.08**	**1462.85**	**1423.59**
Green tariff	0.00	98.26	91.13
Solar Energy exported to grid	4.08	2.99	2.98
Total Net Emissions	**1652.00**	**1361.59**	**1329.48**

^Figure estimated based on partial data

**Baseline year for Commuting is 2022/23. Baseline year for Waste Contract is 2020/21*

Gross Emissions have fallen by 14.07% since 2019/20

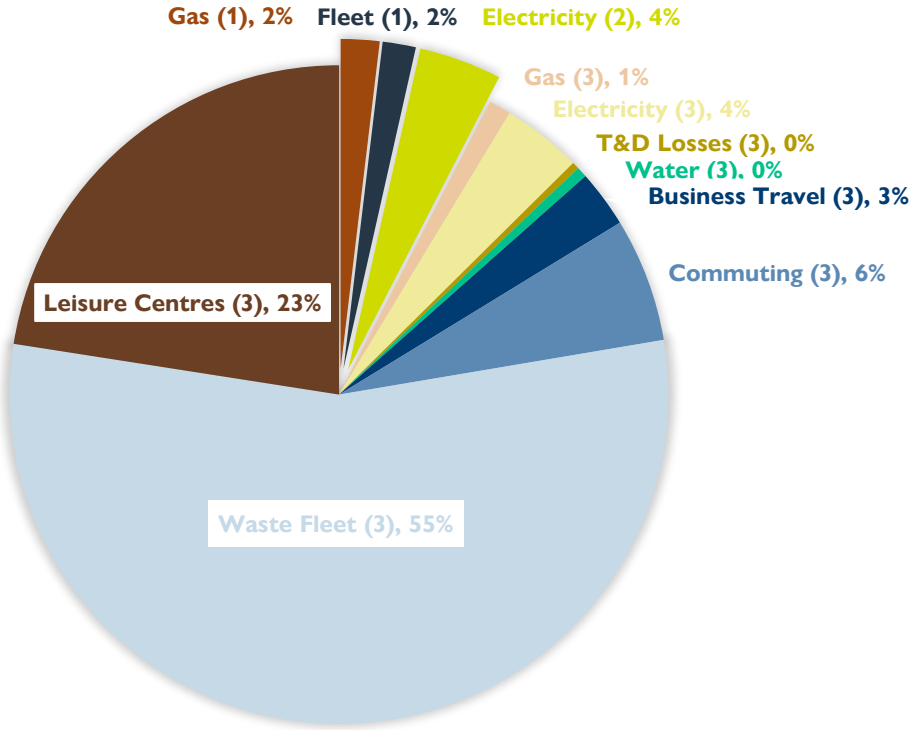
Net emissions have fallen by 19.52% since 2019/20

Scope 1 and 2 Emissions

Activities under the Council's direct influence

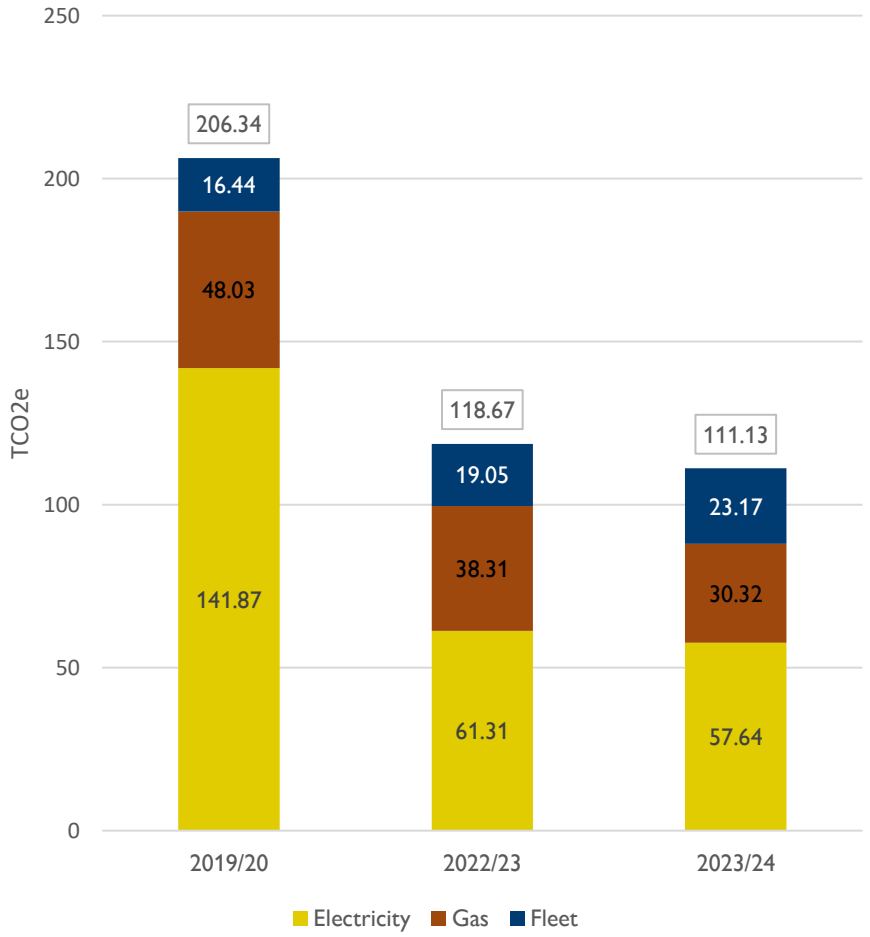
Fig.1: RDC Operational emissions 2023/24

Activity (Scope)



In 2023/24, scopes 1 & 2 made up 8% of the Council's emissions.

Fig 2: Scope 1 & 2 Gross Emissions



Since 2019/20, scopes 1 & 2 (gross) have reduced by 45%

After green tariff and solar deductions, scopes 1 & 2 (net) have reduced by 92%.

The Path to Net Zero

Fig. 3: Net Scope 1 and 2 emissions against an annual 50% reduction target

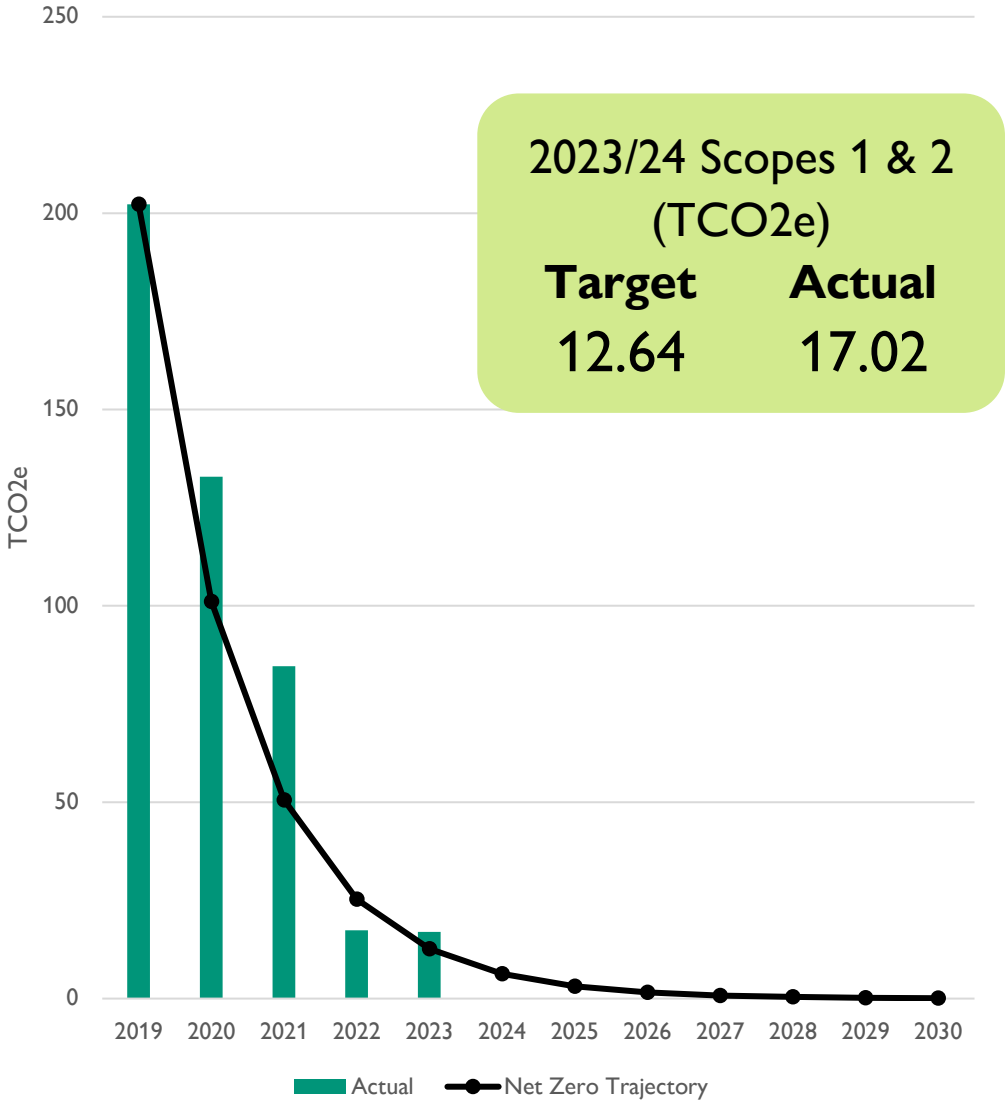
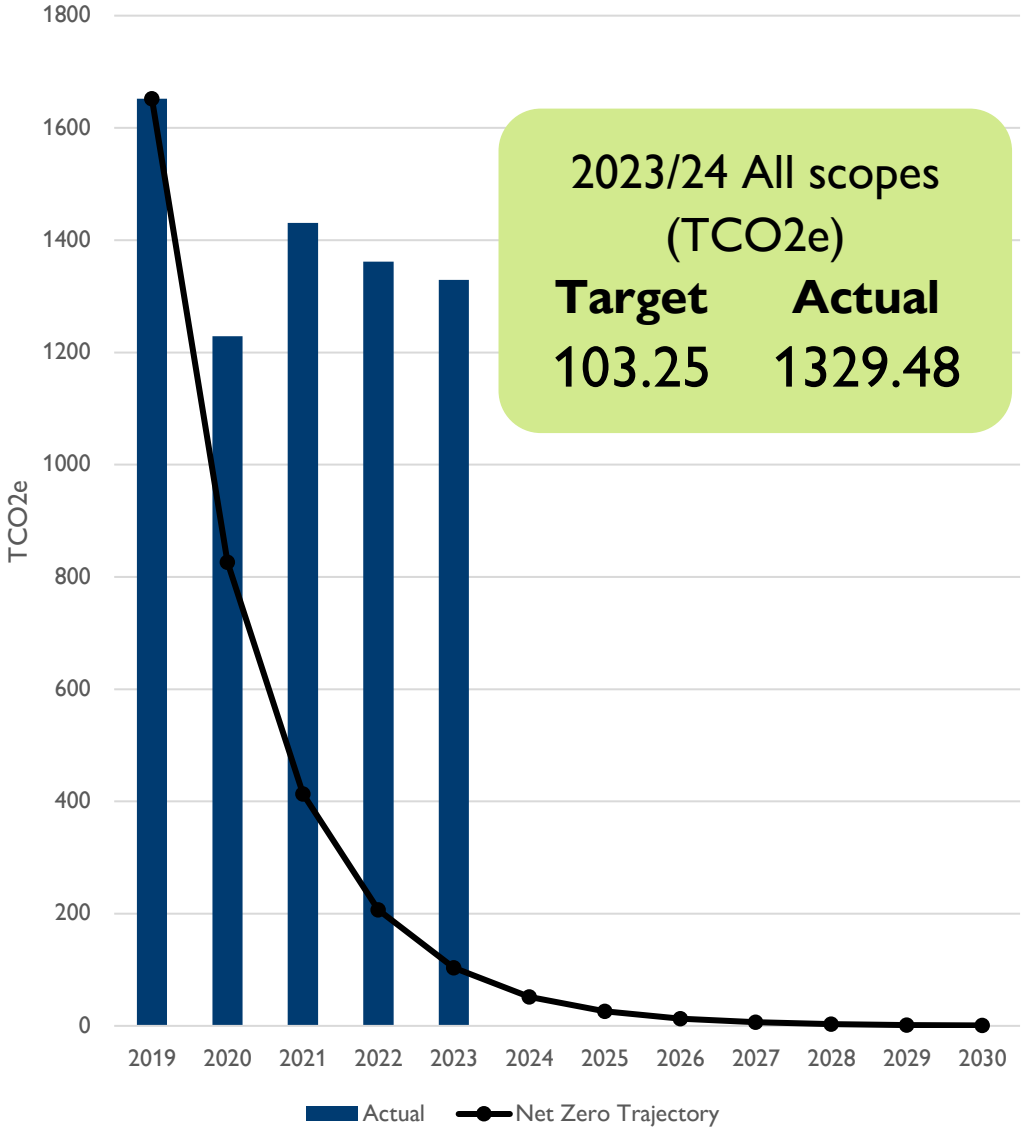


Fig. 4: Net Emissions against annual 50% reduction trajectory



Trends in Scope 1 and 2 Activities

Gas (operational)

Three sites contribute to this activity, namely Town Hall, Treasury and the Print Room.

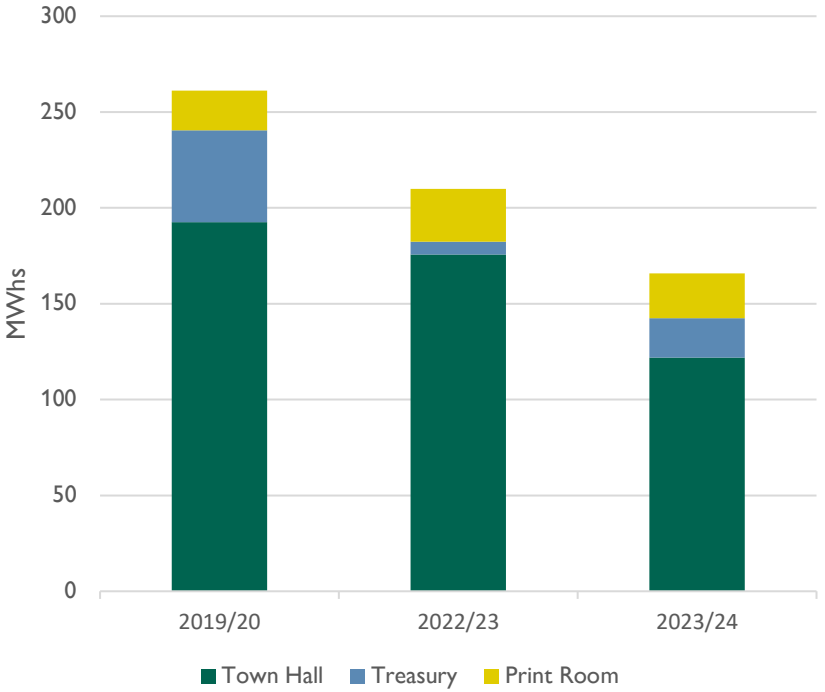
Figure 5 shows that Operational Gas consumption in 2023/24 was 37% lower than the baseline, and 21% lower than the previous year. Closing the Town Hall villas in January 2023 is likely the leading factor, however, the villa's heating was since been switched back on due to maintenance issues, therefore usage is likely to return closer to 2022/23 levels in future.

The Treasury is occupied by both Council staff and other services. In any given year, only the proportion of the building occupied by Council staff is included in Scope 1 (with the remaining emissions reported under Scope 3, non-operational gas emissions.) A higher occupation by Council staff in the past two years explains the higher emissions compared to the baseline year.

The gas boilers serving the Treasury and Town Hall were replaced with more efficient condensing gas boilers in September 2023. As gas consumption is affected by many variables, including external temperatures, and there have been limited actual meter readings since installed, it is too early to comment with certainty on what impact these new boilers have had on gas emissions.

The Print Room closed in 2024, which will likely impact on future Operational Gas use by -10 to -15%.

Fig 5: Operational Gas use by building



Fleet

The Council has a small fleet of leased vehicles used by the Maintenance, Environmental Health and Coastal teams. Fleet emissions have been increasing. They are 22% higher than 2022/23 and 41% higher than the baseline year. It is the only Scope 1 or 2 activity with an increasing trend in emissions.

Fleet vehicles are generally replaced every 3 -5 years to maintain optimum performance. Engine size, driving style, distance travelled, weight/load and the number of staff/vehicles in the fleet will affect fuel use.

The Climate Action Plan sets a target date to switch to an electric fleet by 2026/27 which would reduce fleet emissions by over 70%. This is reliant on the prior installation of adequate charging points at the Town Hall and other appropriate locations across the District. As staff may take fleet vehicles home overnight to negate the need to commute to Town Hall every day, plans for an EV fleet would need to consider home charging facilities for staff.

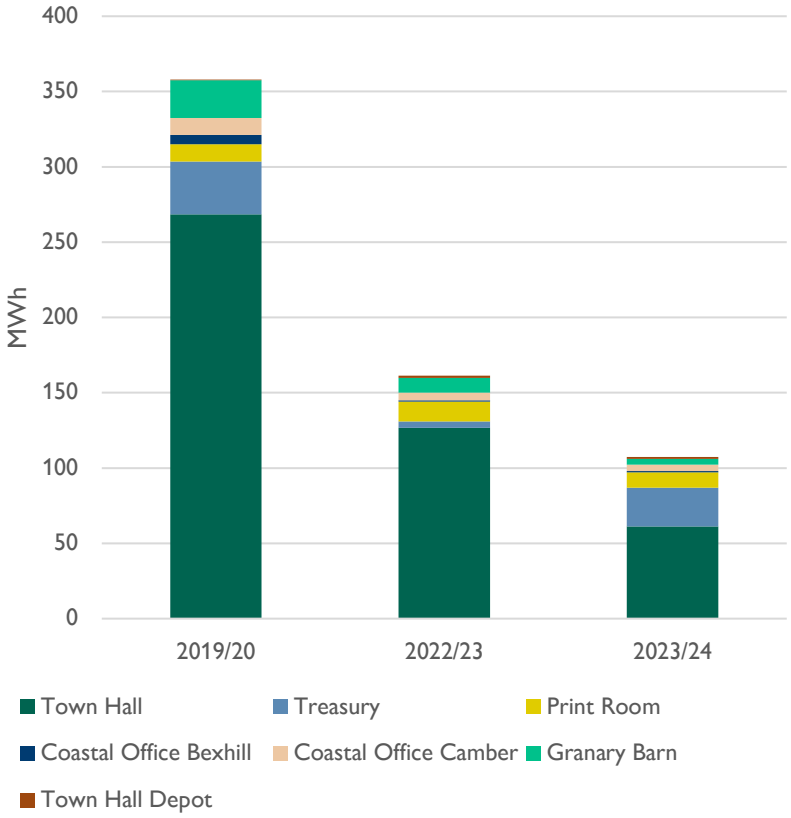
Electricity (Operational)

Table two shows Operational Electricity emissions have reduced by 59% since 2019/20, due to a mix of reasons including reduced electricity consumption, the ongoing decarbonisation of the National Grid and changes in asset portfolio.

Council assets with the highest electricity emissions in 2023/24 were Town Hall (12.68 TCO2e), Egerton Park (10.89 TCO2e), the Compressor Station at Fairlight (5.47 TCO2e) and the Treasury (5.33 TCO2e).

Table 2: Electricity Emissions by asset type (Tonnes CO2e)	2019/20 BASELINE	2023/24	%age change
Administrative Buildings	91.48	22.21	-75.72%
Public Conveniences	17.19	12.76	-25.77%
Other Operational	33.21	22.66	-31.77%
TOTAL	**141.88**	**57.63**	**-59.38**

Fig 6: Electricity use by Administrative Buildings



Electricity use in Administrative Buildings

Administrative Buildings are those from which Council staff operate, namely the Town Hall, Treasury, Print Room, Coastal Offices in Bexhill and Camber, Granary Barn and the Town Hall Depot.

Electricity use has decreased each year, with emissions in 2023/24 76% lower than in 2019/20, as seen in figure 6. This is largely due to the shift in favour of remote working practices since the pandemic of 2020.

Operational electricity usage at the Treasury and Town Hall has been affected by their varying levels of occupancy by Council staff over the reporting period. Following the transfer of staff from the Town Hall villas to the Treasury in January 2023, electricity use at Town Hall was halved. This was naturally offset somewhat by an increase in electricity use within the Treasury, however, this was limited by the more efficient shared office workspace and installation of LED lighting before staff moved in.

Although a very small contributor, electricity usage at Granary Barn was markedly reduced, down 60% on last year from 1.9 to 0.8 MWh. This followed focused efforts to reduce energy usage by the maintenance team. Electricity use at the Coastal Offices, Print Room and Town Hall depot have remained stable since last year.

By closing the Print Room, a 9% reduction in Administrative Building electricity emissions can be expected.

Electricity use in Public Conveniences (PCs)

Emissions from the 25 Council operated PCs were 26% lower in 2023/24 than in the baseline year, however, their consumption of electricity has been stable for the past three years. Water heating

equipment has been removed from some PCs as general maintenance has been carried out over recent years to make efficiencies, but variables such as occupancy and weather (affecting light) will impact on electricity use.

In the baseline year PCs accounted for 12.1% of Operational Electricity emissions, however, due to the larger reduction in other asset types, PCs now account for 22% of Operational Electricity emissions (12.76 TCO2e), as shown in figure 7.

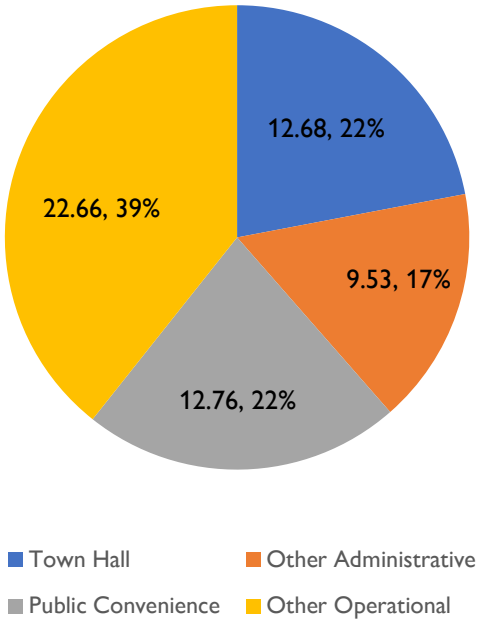
Electricity use in Other Operational assets

Other Operational assets are any Council controlled assets not assigned as Administrative Buildings or Public Conveniences, such as car parks, parks, gardens and open spaces, including their buildings, street lighting, pavilions and plant equipment. The Council's portfolio of such assets changes over time; 30 contributed to the baseline data but this reduced to 19 from 2021/22.

Whilst down 31.8% from baseline year, Other Operational emissions were up on last year, from 18.35 TCO2e to 22.66 TCO2e.

The asset producing the highest emissions in this category was Egerton Park (10.89 TCO2e), which encompasses Bexhill Museum, the PCs and the kiosk. (As the Egerton Park PCs are not separately metered, they are not included in the PC figures above.) The museum has solar panels and a forward plan which includes making sustainability improvements. The museum charity intends to re-take ownership of the electricity supply from the Council, and in doing so, the Council's Other Operational electricity emissions can be expected to halve.

Fig. 7: 2023/24 Operational Electricty Emissisons by asset type (TCO2e)



Deductions

The emissions calculations for electricity are based on a standard grid supply. The Council, however, adopted a 100% renewable energy tariff in November 2021, supplying most Operational and Non-Operational assets. In 2023/24 this avoided 91.13 TCO2e, and this saving is therefore deducted from the Council's Gross emissions. This green tariff deduction is slightly less than last year (98.26 TCO2e) due to an overall reduction in electricity consumed.

Whilst the Council has some additional commercial assets with solar arrays, data can only be accessed remotely from the arrays on the Treasury and Bexhill Museum, hence they are included in this report. Generation at these sites has been stable every year and, as per the feed-in tariff arrangement, it is deemed that 50% of generation is fed back into the grid. This energy is therefore also deducted from the Council's Gross Emissions total. 14.38 MW was exported in 2023/24, deducting 2.98 TCO2e.

Trends in Scope 3 Activities

Gas (Non-operational)

The Treasury's leased office space has been the sole contributor to the Council's non-operational gas emissions since 2020/21 (when one additional asset was disposed of). These emissions have increased by 34% since the baseline year, due to the increased occupancy of the building by Council staff.

Electricity (Non-operational)

14 commercially leased assets contributed to the Council's non-operational electricity emissions in the baseline year, with fluctuations in numbers over the years as assets were acquired and disposed of. In 2023/24 16 leased assets contributed to this activity.

Whilst Non-operational electricity use has increased by 20% since 2019/20, due to the decarbonisation of the grid, emissions are actually slightly down, from 57.55 TCO2e to 55.81 TCO2e. The top two contributors in this activity are responsible for 43% of emissions, being the Treasury (14.65 TCO2e) and Napier House (9.47 TCO2e).

Water (Operational)

Data from over 50 water meters contributes to this activity. PCs make up half of this number, yet are responsible for 89% of emissions.

Table 3 shows that water consumption has increased since the baseline year, however, the decarbonisation of water services has resulted in an overall 55.5% reduction in emissions.

Table 3: Emissions relating to water consumption	2019/20		2023/24	
	Consumption (M^3)	Emissions (TCO2e)	Consumption (M^3)	Emissions (TCO2e)
Supply	18,833	6.5	23,360	4.1
Treatment	12,262	8.7	16,177	3.3
Total	31,095	15.2	39,537	7.4

Business Travel and Commuting

Business Travel emissions have decreased 17.6% compared to last year, however, the annual total for 2023/24 was estimated based on the 4 months' worth of data available at the time of reporting. The 46.1% reduction in business travel emissions since the baseline year can be largely attributed to increased remote working since the pandemic.

Commuting emissions were first estimated via a staff survey in 2022/23 (at 95.61 TCO2e), followed by a Green Team campaign to highlight the benefits of sustainable travel. In 2023/24, estimated commuting emissions have fallen by 5.7%, with the number of staff reporting that they travel by electric or hybrid vehicle more than doubled, up from 10 to 25.

Waste Fleet

As seen in figure 1, Waste Fleet emissions continue to make up the bulk of the Council's overall carbon footprint (55%) and have remained stable for the past three years. Figures 3 and 4 highlight the drastic reduction in Scope 3 emissions that is required to keep the Council on track to achieve Net Zero by 2030. A switch to HVO (hydro-treated vegetable oil) fuel, which could reduce Waste Fleet emissions by up to 90%, is being incorporated into contract renewal negotiations, with the current contract expiring in 2026.

Leisure Centres

Table 4 shows that emissions reductions have been realised by all three Rother Leisure Centres since 2019/20, thanks to efforts to be more energy efficient. Gas emissions have reduced by around 30%, and electricity emissions by around 45%.

Table 4: Emissions by Leisure Centre (Tonnes CO2e)	2019/20 BASELINE	2023/24	%age change
Bexhill Leisure Centre	68.31	42.66	-37.55%
Bexhill Leisure Pool	270.61	183.93	-32.03%
Rye Sports Centre & Pool	147.87	93.77	-36.59%
TOTAL	**486.80**	**320.36**	**-34.19**