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Rother District Council

Annual Operational Emissions Report 2022/23

Executive Summary

Rother District Council's Gross operational emissions for all currently reported activities have fallen by 15.4% since the baseline year of 2019/20, with Net emissions reduced by 20.8%.

Scopes 1 and 2 include the activities over which the Council has direct influence. In 2022/23, Net emissions for these activities were 86.7% lower than 2019/20. This is due to a significant reduction in consumption of electricity, particularly within our administrative buildings, coupled with the switch to a 100% renewable energy tariff in November 2021.

Over 90% of the Council's 2022/23 emissions arose from Scope 3, which includes operational activities that produce indirect emissions over which the Council has little control, such as those arising from water supply & treatment, commuting and business travel, as well as services outsourced to other providers. The largest single contributor to 2022/23 emissions is the fleet of the waste contract, at 821.45 TCO_{2e}, followed by Leisure Centres at 298.18 TCO_{2e}.

Introduction

In September 2019, Rother District Council declared a climate emergency and pledged to do what is within our power to become carbon neutral by 2030. This report sets out the Council's annual operational emissions for 2022/23, to monitor progress against this pledge. (District-wide emissions are reported separately.)

Methodology

The Council measures its emissions in line with DEFRA protocols, taking an operational control approach. A summary of the activities which contribute to the 2022/23 data is as follows:

Scope 1 (Direct emissions)	<ul style="list-style-type: none">• Gas (supplied to operational assets)• Fleet
Scope 2 (Indirect Emissions)	<ul style="list-style-type: none">• Electricity (supplied to operational assets)
Internal Scope 3	<ul style="list-style-type: none">• Electricity losses from transmission and distribution (supplied to operational assets)• Non-operational assets (gas and electricity supplied to any other asset where the Council pays the bill)• Water supply and treatment (to operational assets)• Business travel and commuting (by Council officers and elected Members)
Outsourced Scope 3	<ul style="list-style-type: none">• Waste Contract Fleet• Leisure Centres (gas and electricity)
Deductions	<ul style="list-style-type: none">• Green Tariff (100% renewable electricity tariff)• Solar energy exported to the grid

The baseline for all activities is 2019/20, except for activities where data from that year is unavailable. For these activities, the earliest annual dataset available is used as the baseline. It is expected that as reporting procedures advance, the range of Scope 3 activities included in the Council's annual emissions reporting will expand.

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

Baseline year data (and that of subsequent years) was recalculated in 2023 to reflect the framework of activities outlined above, and therefore figures reported here may differ to those previously published.

Emissions Summary

Table 1: RDC GHG Emissions in Tonnes CO₂e	BASELINE (2019/20)	Previous Year 2021/22	2022/23
Scope 1 - Gas (Operational)	48.03	44.09	38.31
Scope 1 - Fleet	16.44	16.25	19.05
Scope 2 - Electricity (Operational)	141.87	76.36	60.62
Scope 3 - Gas (non-operational)	9.58	14.67	17.31
Scope 3 - Electricity (non-operational)	57.55	41.98	46.95
Scope 3 - T&D Losses (on Scope 2 Electricity)	12.04	6.76	5.55
Scope 3 - Water (Operational)	15.16	6.50	6.75
Scope 3 - Business Miles	73.85	41.04	Not yet available
Scope 3 - Commuting	45.70*	Unavailable	45.70
Scope 3 - Waste Contract	699.87*	849.64	821.45
Scope 3 - Leisure Centres	486.80	385.05	298.18
Total Gross Emissions	1606.90	1482.33	1359.86
Green tariff	0.00	45.52	88.11
Solar Energy exported to grid	4.08	3.27	2.99
Total Net Emissions	1602.82	1433.54	1268.76

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

Gross Emissions have fallen by 15.4%

Net emissions have fallen by 20.8%

Scope 1 and 2 Emissions Activities under the Council's direct influence

Scopes 1 & 2 make up 8.7% of the Council's gross emissions.

Fig 1: 2022/23 Gross Emissions Activity (Scope)

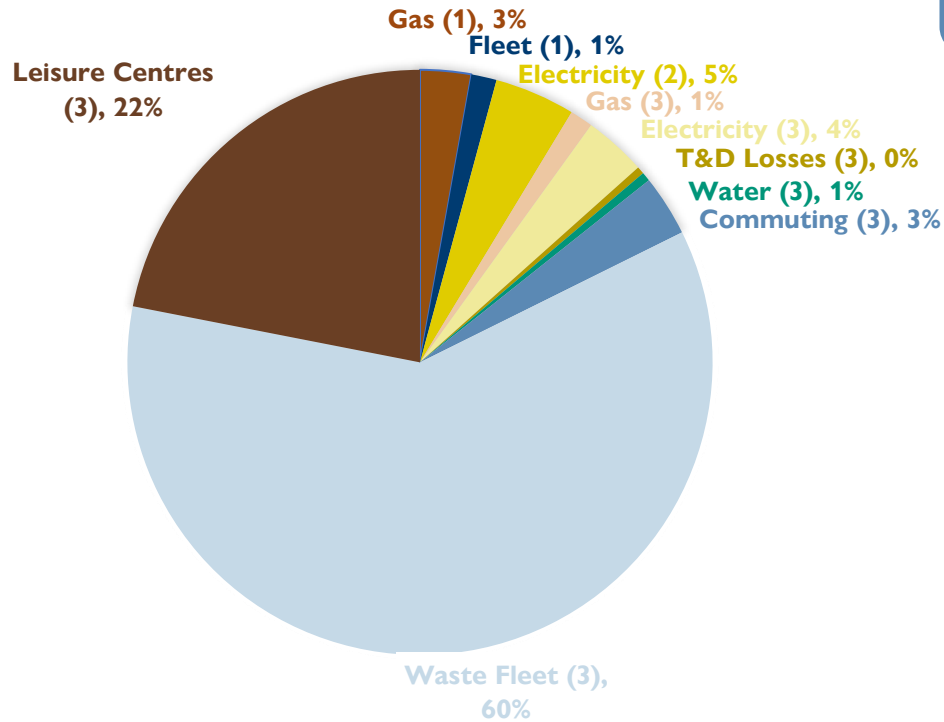
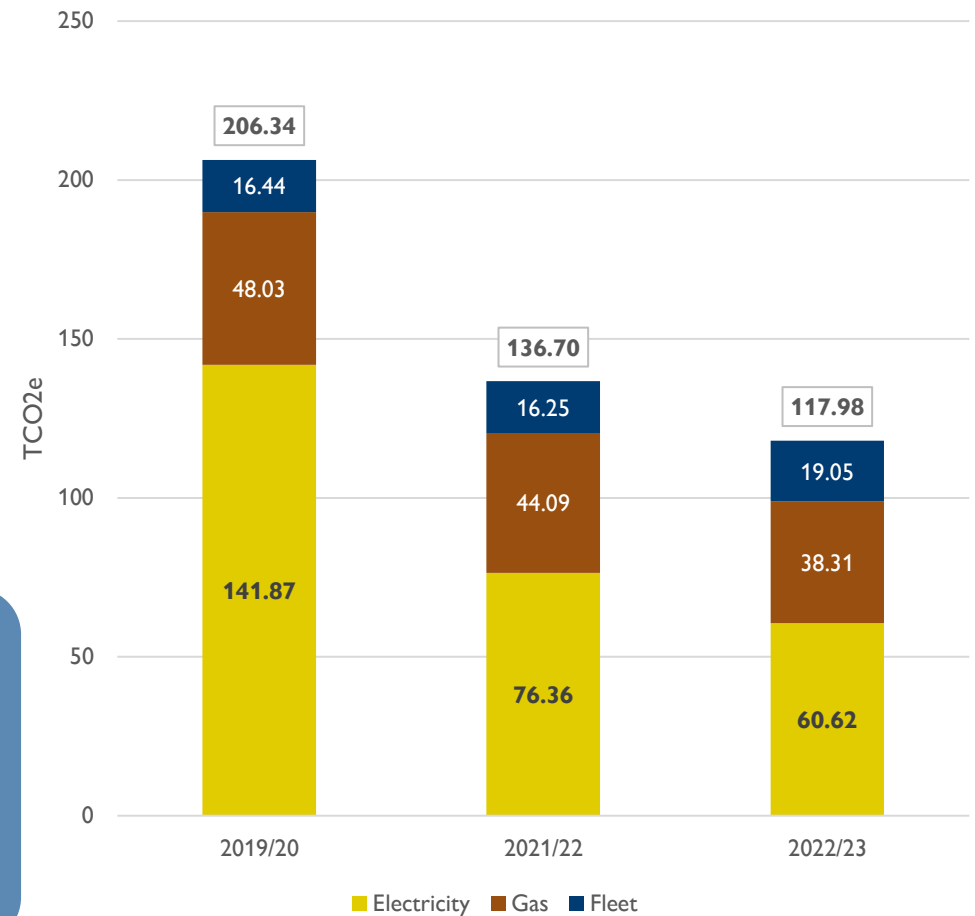


Fig 2: Scope 1 & 2 Gross Emissions



Scope 1 & 2 Gross emissions have reduced by 42.8%.
 After solar and renewable tariff deductions,
 Scope 1 and 2 Net emissions have reduced by 86.7%.

The Path to Net Zero

A 50% reduction year on year from 2019/20 will result in 0.0% emissions by 2030.

Fig. 3: Scope 1 and 2 Net Emissions against annual 50% reduction trajectory

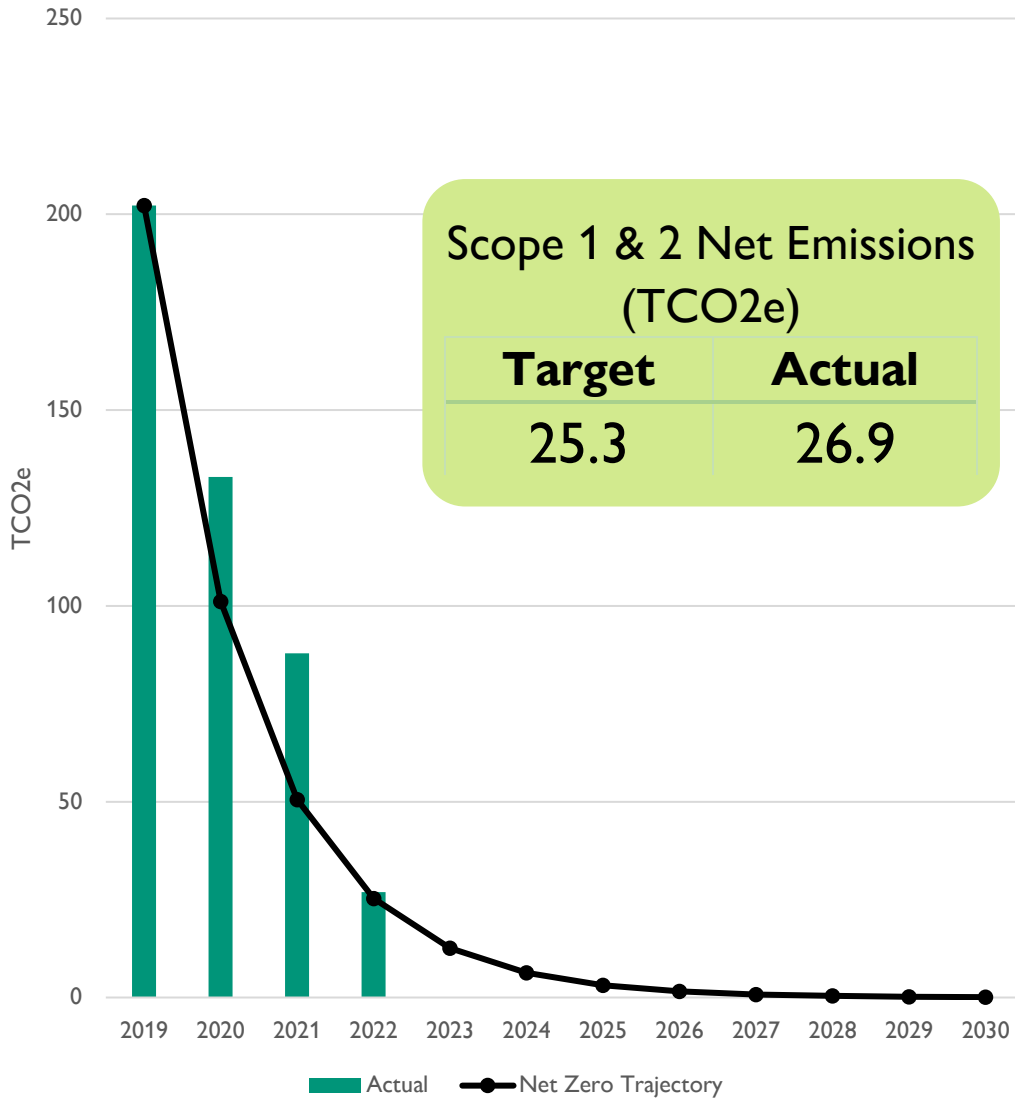
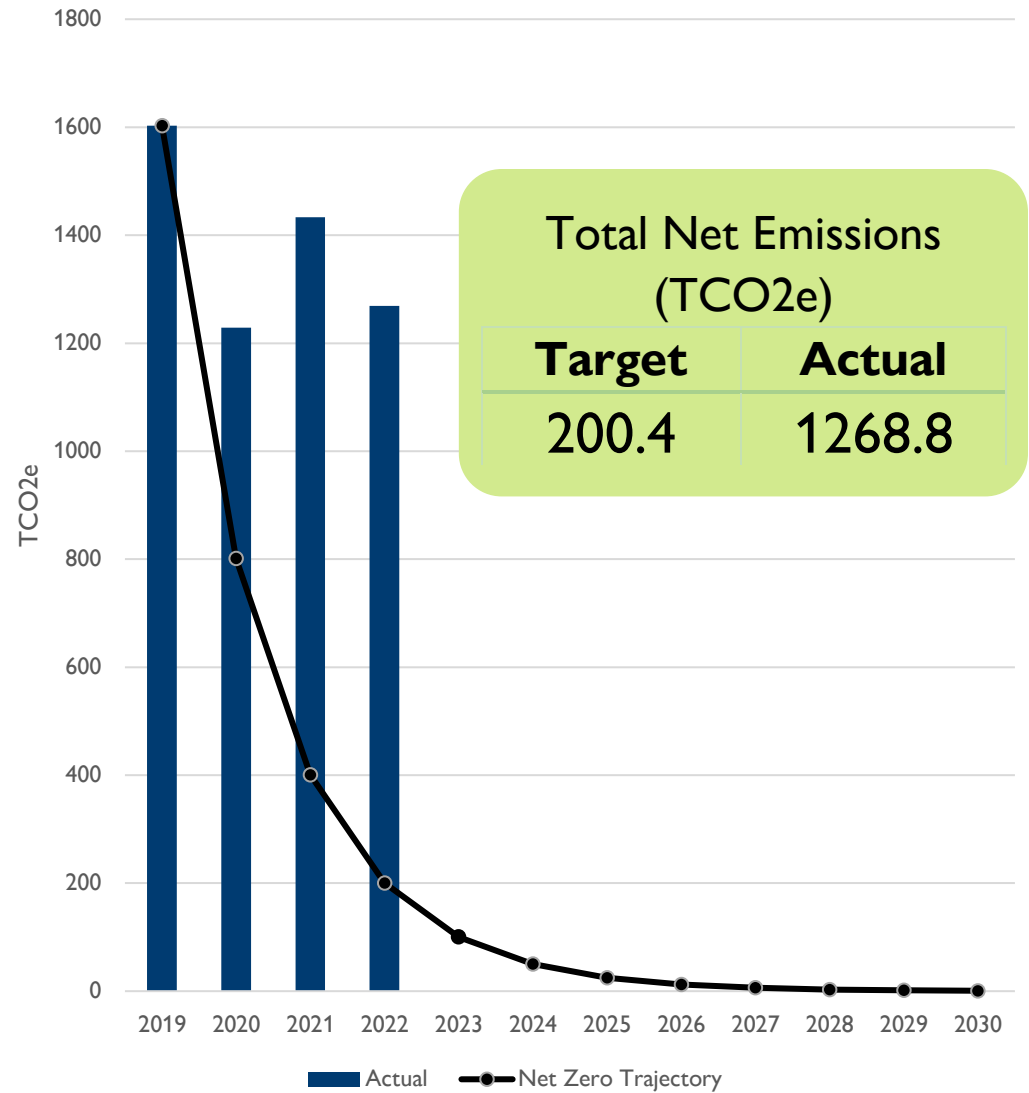


Fig. 4: Net Emissions against annual 50% reduction trajectory



Gas (operational)

3 sites contribute to this data, which are all administrative Council buildings, namely Town Hall, Treasury and Print Room. Town Hall accounts for 83.7% of operational gas use.

Operational gas emissions in 2022/23 were 38.3 TCO₂e, which is 20.2% lower than baseline year.

Gas consumption is affected by external temperature and boiler efficiency. The exact date boilers are switched on and off will also differ year to year impacting total usage. Generally, they are operational from September/October – April/May.

No significant fabric changes have been made to any of these buildings since baseline year.

Occupancy of the Treasury and Town Hall by RDC staff has varied, which has impacted on operational gas usage at these sites; In 2019/20, two floors of the Treasury building were occupied by RDC staff but were vacated during the pandemic of 2020 to make space for other public service staff. No further operational emissions are therefore reported at the Treasury until January 2023, when staff returned to occupy the first floor, due to the Villas of Town Hall being closed.

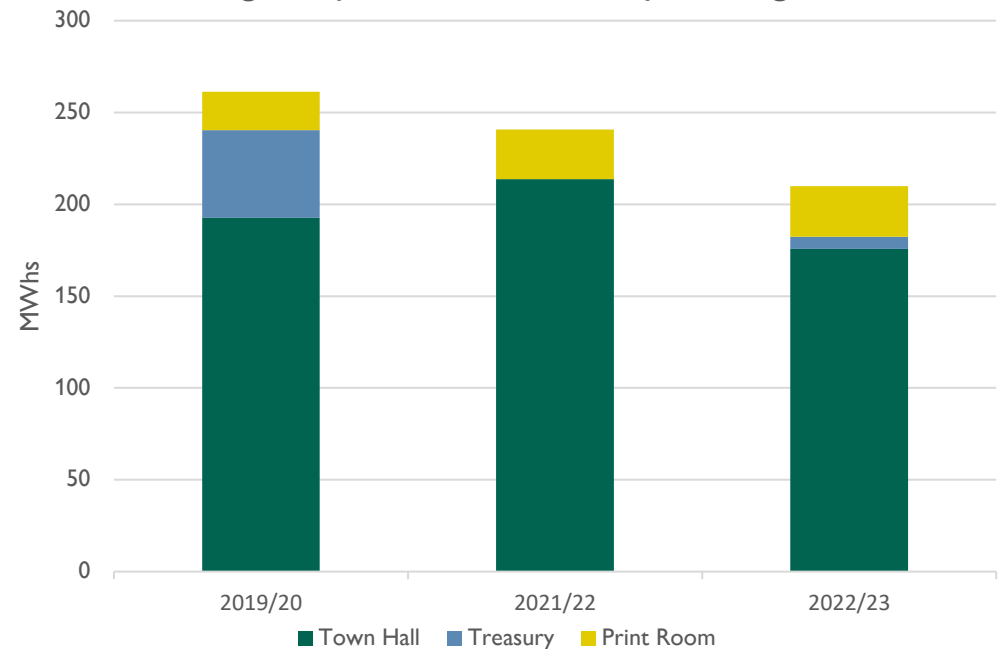
Despite radiators in the Villas being switched off on closing, hot water continued to circulate through the heating system in this part of Town Hall as it was not segregated from the operational side of the building. The un-used part of the system has since been isolated and therefore a reduction in gas consumption at Town Hall is expected to be evident in future years.

In September 2023, the Treasury's gas boilers reached the end of their operational life and were replaced with more efficient condensing gas boilers. The boilers at Town Hall are also due for replacement before Winter 2023. These replacements should result in a tangible reduction in gas consumption going forward.

Fleet

Fleet emissions have increased by 15.9%, in line with increased fuel consumption. In 2021/22 fuel consumption was almost the same as 2019/20 (+1.6%) however due to improved fuel efficiency, the resulting emissions were just over 1% lower than baseline level. The number of fleet vehicles has remained constant. The vehicles are generally replaced every 3 -5 years, therefore the exact vehicles contributing to data annually will change. Engine size, driving style, distance travelled, and weight/load of vehicles will affect fuel use. Regular replacement of the vehicles ensures the highest performance and efficiency possible.

Fig 5: Operational Gas use by building

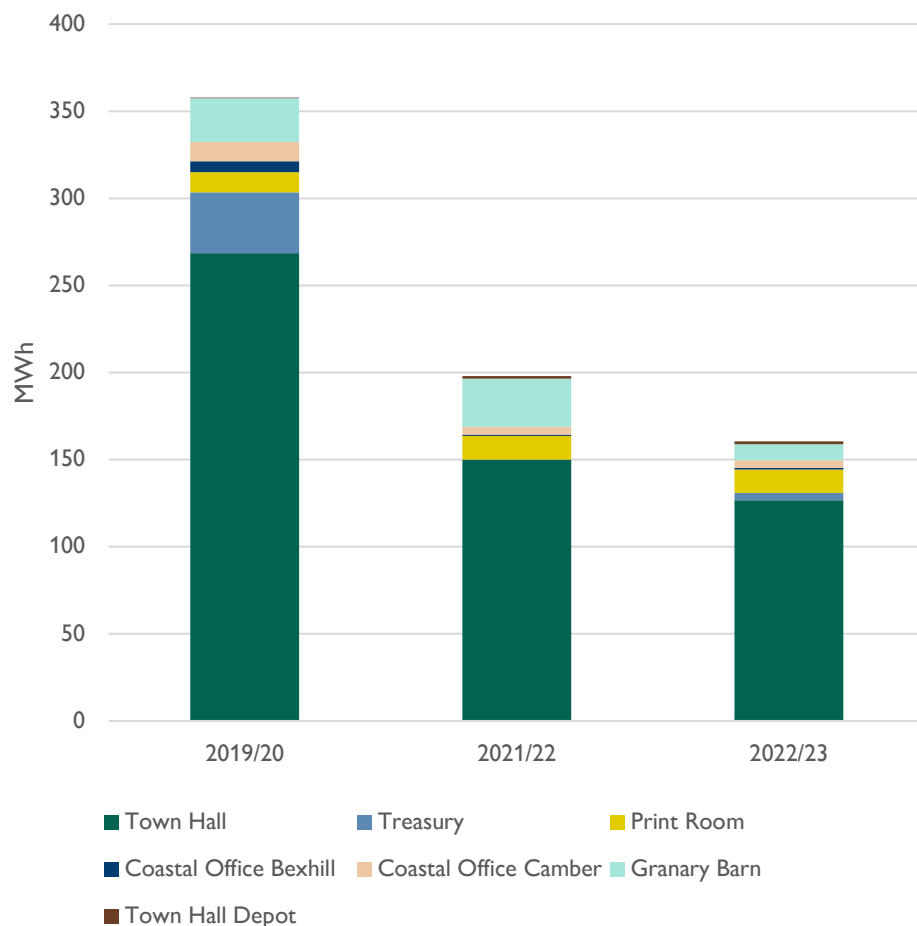


Electricity (Operational)

The National Grid has decarbonised by around 25% since 2019/20. Combined with a 241.6 MWh reduction in electricity consumption, the Council's operational electricity emissions have reduced by 57.3%. The greatest reduction has been within administrative buildings, where emissions have dropped by 66.1%.

Table 2: Electricity Emissions by asset type (TCO2e)	2019/20	2022/23	%age change
Administrative Buildings (7)	91.48	31.02	-66.09
Public Conveniences (26)	17.19	11.20	-34.83
Other Operational (30/23)	33.21	18.40	-44.51
TOTAL	141.88	60.62	-57.27

Fig. 6: Electricity use by administrative buildings



Administrative Buildings

Most administrative sites have seen emissions fall by between 64% and 88%, with the exceptions of the Print Room, which has seen only a modest reduction of 13%, and Town Hall Depot, where emissions, albeit still very low, rose from 0.11 TCO2e to 0.3 TCO2e.

Overall, electricity consumed for administrative purposes has decreased by 55.18% since 2019/20, from 357.9 MWh to 160.4 MWh.

The reduction can largely be attributed to staff working from home since the pandemic of 2020. According to a recent staff survey, on an average day in 2022/23, 46% of staff worked from home, whereas all staff were office based in the baseline year. The outsourcing of some energy intensive IT systems will have also contributed to reductions at Town Hall. These activities will still be producing emissions, but they are now defined as indirect and therefore not included in the council's Scope 2 activities. They cannot currently be quantified for inclusion in our Scope 3 reporting, but this may become possible in the future.

As detailed above, occupancy levels of the Treasury and Town Hall by RDC staff has varied over the reporting period, affecting the proportion of emissions arising from those sites annually.

Additionally, more efficient LED lighting was installed in the Treasury building prior to staff returning in January 2023, and a programme of behavioural change has recently been implemented by the maintenance team at Granary Barn to reduce energy costs and emissions.

Public Conveniences (PCs)

Since 2019/20, water heating equipment has been removed from some PCs as general maintenance is carried out, which will have contributed to the 13.9% reduction in electricity consumption.

In the baseline year PCs accounted for 12.1% of the Council's operational electricity use. Although electricity used by PCs has decreased, this has occurred at a lesser rate than other assets. As a result, PCs now account for 19% of the Council's electricity use and emissions.

Other Operational

For the purpose of this report 'Other Operational' assets are defined as any Council controlled assets not assigned as Administrative Buildings or Public Conveniences, i.e. car parks, parks, gardens and open spaces including the street lighting, sports pavilions, pumping apparatus etc. therein.

The Council's portfolio of such assets changes over time. 30 assets contributed to the 2019/20 data and 26 in 2022/23.

After Town Hall, the Compressor Station at Fairlight consumed more electricity than any other asset in the baseline year, making up 7.56% of total electricity usage (42 MWh). In 2021/22, this had reduced by 39.92% (to 25MWh), and in 2022/23 was 63.03% lower than the baseline (15.5 MWh).

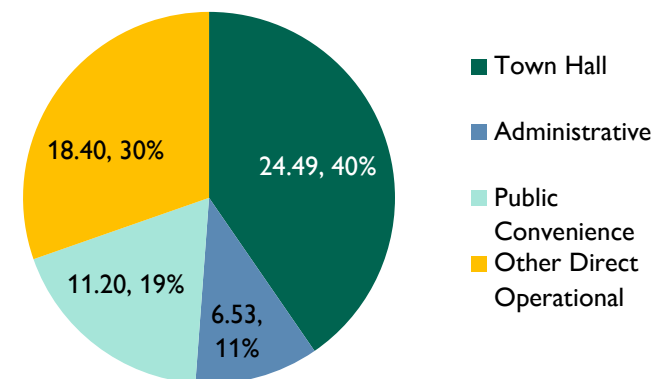
The reduction could be due to both a water leak (which has now been fixed) and recent droughts, which will have reduced demand on the pump. As such, it is likely usage could return to baseline levels; 42 MWh in 2022/23 would add 12% to operational electricity use and over 5 TCO_{2e}.

The other high consumer of electricity in this category is Bexhill Museum, for which the electricity meter also covers the Egerton Park toilets and the kiosk. In 2019/20, this group of assets made up 6% of total operational electricity usage (33MW). Due to some gaps in available meter readings (where the account was transferred to the museum for a time), data spanning a two-year period was averaged to give annual estimates for 2021/22 and 2022/23, coming to 48.6 MWh per year. This makes it the second highest asset contributing to operational electricity emissions after Town Hall, at 15.5% of the total.

The museum has developed a forward plan which includes making sustainability improvements to the main building. To help them to achieve these ambitions, the electricity account is due to be transferred back into the ownership of the museum. This will take the main building out of the Council's Scope 2 emissions in the future. The museum will recharge the Council for electricity used by the toilets and kiosk, therefore these aspects will remain within the Scope 2 portfolio.

Electricity use by car parks was low in baseline year at around 3.5 MWh and has reduced by 30%. This may be due to streetlights in car parks being replaced with low-energy LED alternatives at end of life and the number of visitors who pay to park via the RingGo app having doubled from roughly 20% in 2019/20 to 40%. (Pay machines are dormant until activated by a user to make a payment, with card payments using more electricity than cash payments).

Fig. 7: 2022/23 Scope 2 Emissions by asset type (TCO_{2e})



Deductions

A 100% renewable energy tariff was adopted in November 2021, supplying both operational and non-operational assets. In its first full year, this has saved 88.11 TCO₂e.

Annual solar generation by the Treasury and Bexhill Museum arrays has been consistent, yet as the national grid decarbonises emissions savings from exported energy decreases. The 15.96 MW exported to the grid in 2019/20 resulted in a carbon saving of 4.08 TCO₂e, whereas the 15.48 MW exported in 2022/23 saved only 2.99 TCO₂e.

Gas (non-operational)

Treasury's leased office space is almost solely (99.7%) responsible for non-operational gas use, which has almost doubled since 2019/20. This is due to the building not being previously fully occupied as it was throughout 2022/23. As stated above, the boilers were replaced in September 2023, so future reductions in emissions are expected.

Electricity (non-operational)

The Council's portfolio of assets that contribute to non-operational electricity emissions fluctuates. There were 14 assets included in the baseline data, of which 5 have been removed (as they've either been disposed of or accounts transferred from the Council to the tenant), and 8 have been added (either newly acquired assets or accounts transferred from tenant to the Council).

Non-operational electricity usage has increased by 7.8%, however due to the decarbonisation of the grid, the resulting emissions are 18.4% lower.

Water

The total amount of water consumed by the Council has stayed relatively constant, however emissions arising from water use have significantly decreased, resulting in an overall 55.5% reduction in emissions.

	2019/20		2022/23	
	Consumption (M ³)	Emissions (TCO ₂ e)	Consumption (M ³)	Emissions (TCO ₂ e)
Supply	18, 833	6.5	17, 640	2.6
Treatment	12, 262	8.7	15, 160	4.1
Total	31, 095	15.2	32, 800	6.7

Waste Contract

The baseline figure of 699.87 TCO₂e (2020/21) was provided by Biffa as a complete figure, whereas emissions for later years have been calculated from raw data. It is possible a different methodology was used for this first year, which may account for the +21.4% difference in 2021/22, yet only 3.3% difference the following year when reporting methodologies were certainly comparable.

Leisure Centres

Emissions reductions have been realised by all three of Rother's Leisure Centres. Closure of the pool in 2022 has resulted in Rye achieving the greatest percentage reduction in emissions, yet Bexhill Leisure Pool has reduced its emissions by 83 TCO₂e, compared to Rye's saving of 75.5 TCO₂e.

	2019/20	2022/23	%age change
Bexhill Leisure Centre	68.31	38.39	-43.8
Bexhill Leisure Pool	270.61	187.65	-30.6
Rye Sports Centre & Pool	147.87	72.15	-51.2
TOTAL	141.88	60.62	-57.27