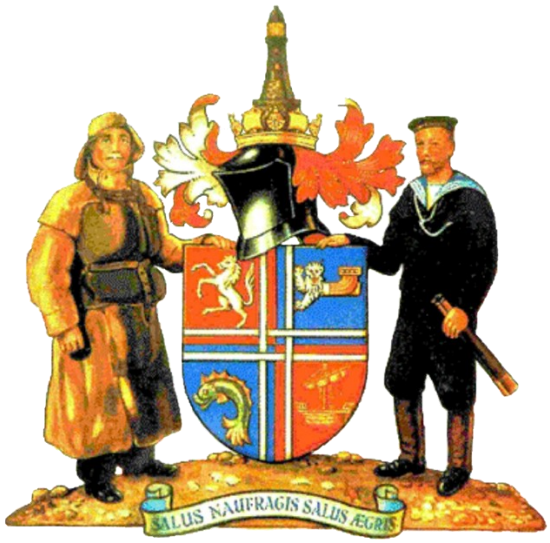

RAMSGATE TOWN COUNCIL

CARBON AUDIT

2017 - 2021

Ramsgate Town Council Carbon Audit 2017 – 2021
Author: Dean Williams, Digital Communications and Marketing Officer
Date Created: 18th February 2022
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***Checked by Dr Hannah Scott, Climate Change Officer at Thanet District Council**

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1. INTRODUCTION

Ramsgate Town Council was established in June 2009. The town is made up of seven wards: Central Harbour, Eastcliff, Nethercourt, Newington, Northwood, Pegwell and Sir Moses Montefiore and consists of sixteen members of council and twelve members of staff.

Ramsgate Town Council manages two buildings; Radford House (owned) and The Custom House (leased). There are five allotment sites in Ramsgate: Cecilia Road (Cemetery Gates), Chilton Lane East, Chilton Lane West, Margate Road and Stirling Way (Jackey Bakers). The Council manages Cecilia Road and Margate Road allotments on behalf of Thanet District Council.

In July 2019, the Planning and Environment Committee agreed to assess the carbon footprint of the Council.

In October 2019, a carbon breakdown was presented to the Planning and Environment Committee detailing the years for 2017 and 2018.

In May 2021, the carbon footprint breakdown was brought back, showing up-to-date comparisons and suggestions, this report was noted by the Planning and Infrastructure Committee.

In February 2022, the Council declared a Climate Change Emergency.

2. CARBON FOOTPRINT CONCEPT

In recent years, society has had an increasing interest about climate change and its consequences. Several initiatives and methodologies have emerged aimed at learning about its impact. Among them is the carbon footprint.

2.1. WHAT IS THE CARBON FOOTPRINT?

The carbon footprint is a parameter that represents the total emissions of Carbon Dioxide (CO_2) and other greenhouse gases (GHG), expressed in mass of CO_2 equivalent, caused directly or indirectly by a product, organisation, service or event throughout its life cycle.

The carbon footprint is important to try to quantify the main emission sources and to have a complete picture of the impact the Council has on climate change. It is also the first step to carry out a plan to reduce GHG emissions.

The carbon footprint of the Council intends to quantify the GHG emissions implied by the activity flows of a group of entities, which may be under its responsibility or on which it depends, over a period of one year with an expressed result in tonnes of CO_2 equivalent (CO_2e).

2.2. WHAT IS THE CARBON FOOTPRINT FOR?

The calculation of the carbon footprint is more than GHG emissions data, it allows to identify the main GHG emission sources of the Council and to have an image of its impact on climate change. Furthermore, it constitutes a necessary base to address and continue over time actions to reduce this impact.

Although the calculation of the carbon footprint by the Council is voluntary, its assessment has an important strategic aspect and involves a large number of environmental, economic and reputational benefits:

- Knowledge about the environmental impact of the Council and its contribution to climate change is enriched.
- It allows to know and identify the energy consumption and the main GHG emission sources of the Council, which is a point of reference to design strategies aimed at a better management of the energy used and to prioritise reduction actions with the application of more efficient techniques.
- It allows to identify the Council's activities with a greater potential for reducing GHG emissions and to set specific objectives for them.
- It facilitates the assessment of the choice of raw materials, selection of suppliers and production options according to their associated GHG emissions.
- It favours the application of more efficient techniques in different activities, thus assuming cost savings.
- It is an advance to future regulations and policies on climate change.
- It means more transparent communication about the Council's commitments to sustainable development and, more specifically, the reduction of GHG.

To achieve these objectives, it is necessary to work with the greatest accuracy, covering the maximum possible amount of emissions for which the Council is responsible. Additionally, verification by an independent entity is necessary to confirm that the methodology has been properly applied and that the results obtained are correct based on the data entered.

2.3. METHODOLOGY USED TO CALCULATE RAMSGATE TOWN COUNCIL'S CARBON FOOTPRINT

Currently there are several internationally recognised methodologies and standards for the calculation of carbon footprint according to their approach, scope and orientation.

The most widespread and internationally recognised standards for the calculation of an organisation's carbon footprint are briefly explained below:

GHG Protocol, Corporate Accounting and Reporting Standard

It is an internationally recognised standard developed by the World Resources Institute (WRI) and the World Business Council for Sustainable Development (WBCSD). The GHG Protocol offers standards and guidelines for companies and other organisations interested in calculating a basic carbon footprint (Scopes 1 and 2), with the possibility of broadening the carbon footprint approach (including Scope 3).

ISO 14064

This standard details the principles and requirements for the design, development and management of GHG inventories for companies and organisations, and for the reporting of these inventories. It also includes the requirements to determine the GHG emission limits, quantify the emissions and removals of the organisation's gases and identify the activities or specific actions of the company in order to improve the management of these gases.

ISO 14064, like the GHG Protocol, focuses mainly on the facilities and activities subject to the entire organisation, conducting a study of GHG emissions associated with the processes carried out by the company, leaving open the possibility of including scope 3 sources.

As mentioned previously, there are several methodologies available to calculate the carbon footprint of an organisation. In this case, the GHG Protocol has been chosen to carry out Ramsgate Town Council's carbon footprint. It offers the standards and guidelines needed to calculate the Council's carbon footprint.

For Ramsgate Town Council, the year 2017 has been established as the base or reference year. The Council was formed in 2009, but 2017 was the first year of calculation in which it was possible to access all billing information and data and that's the reason it was chosen as the base year. However, the carbon footprint obtained in a given year is compared with the emissions calculated for the previous year. A given year is from 1st January to 31st December.

3. DEFINITION OF THE LIMITS OF RAMSGATE TOWN COUNCIL'S CARBON FOOTPRINT

3.1. ORGANISATIONAL LIMIT

The first step in the development of the carbon footprint is the definition of organisational limits. It is based on the principle that the operations of companies vary not only in their legal structure, but also in their organisational structure and, in this way, include operations that are their property, alliances, subcontractors and many other modalities in which they act with greater or lesser involvement.

By setting organisational limits, the Council selects an approach to consolidate its GHG emissions. In other words, it determines the business units and operations that make up the company. These organisational limits are defined by the type of control exercised by the subject from whom the footprint is calculated on a business operation and organisation that can be done with several different approaches:

Approach to shareholding

Under this shareholding approach, a company quantifies GHG emissions according to the proportion it has in the shareholding structure. The distribution of the risks and economic benefits of an operation is aligned with the ownership percentages, which normally correspond to the shareholding. If the case is not so, the economic essence of the relationship that the company has with a certain operation will always weigh more than the legal property.

Control focus

According to the GHG Protocol, under this approach, a company quantifies 100% of its GHG emissions attributable to the operations over which it exercises control. They should not quantify emissions from operations of which the company owns any participation, but over which it has no control. Control can be defined in both financial and operational terms.

Financial control

A company has financial control over an operation if it has the power to direct its financial and operating policies in order to obtain economic benefits from its activities. A company is considered to exercise financial control over an operation if it is capable of capturing most of the risks and benefits inherent to ownership over the assets of the operation. It is possible for a company to have financial control over an operation even if it owns less than 50% of the shareholding structure.

Operational control

A company exercises operational control over an operation if said company or any of its subsidiaries has full authority to introduce and implement its operating policies in the year. Under this approach, the company that owns the control of an operation (this does not necessarily mean that a company is capable of making all the decisions concerning a particular operation), either directly or through one of its subsidiaries, must quantify as its own 100% of the emissions of the operation.

For the calculation of Ramsgate Town Council's carbon footprint, an operational control approach has been chosen:

- In the event that the execution of a contract has been subcontracted in its entirety, the consumption data referred to this contract have not been included in the data collection sheets.

Having chosen an approach that accounts for **100% of GHG emissions attributable to the operations over which the company exercises control**, the following items are left out of the calculations:

- Christmas Lights in the Town Centre.
- Charlotte Court Lights.
- Community Ad Magazine.
- Employee travel to and from work (For personal travel only).
- The Planning and Environment Committee agreed to separate the Café from any calculations in the carbon audit, so it solely focuses on Ramsgate Town Councils impact and not that of a separate business.
- Equipment used on Allotment Sites that is not owned or maintained by Ramsgate Town Council.
- Data of suppliers/subcontractors.

Table 1: Ramsgate Town Council organisational map

Organisation	Buildings / Sites		Type of Sector		
			Offices	Leisure	
			Mixed Room Sizes	Community Centre / Hub	Open Spaces
Ramsgate Town Council	Custom House		X		
	Radford House		X	X	
	Charlotte Court				X
	Allotments	Cecilia Road (Cemetery Gates)			X
		Chilton Lane East			X
		Chilton Lane West			X
		Margate Road			X
		Stirling Way (Jackey Bakers)			X

X The building has this type of sector associated.

In 2019, Ramsgate Town Council purchased Radford House (the Old Fire Station) in Effingham Street; the figures for this building were added to the calculation of Ramsgate Town Council's footprint. Not all the allotment sites have facilities such as electric. This has also been taken into account within the calculation.

Radford House is still in pre-development stages and the figures used for calculation are minimal compared to when the building will be fully operational. This could have a negative impact on the Councils carbon footprint in future years and will need further investigation of the energy sources used to heat and power the building.

Ramsgate Town Council's organisational limit is defined as a mixture of offices and open spaces.

Figure 1. Ramsgate Town Council process map

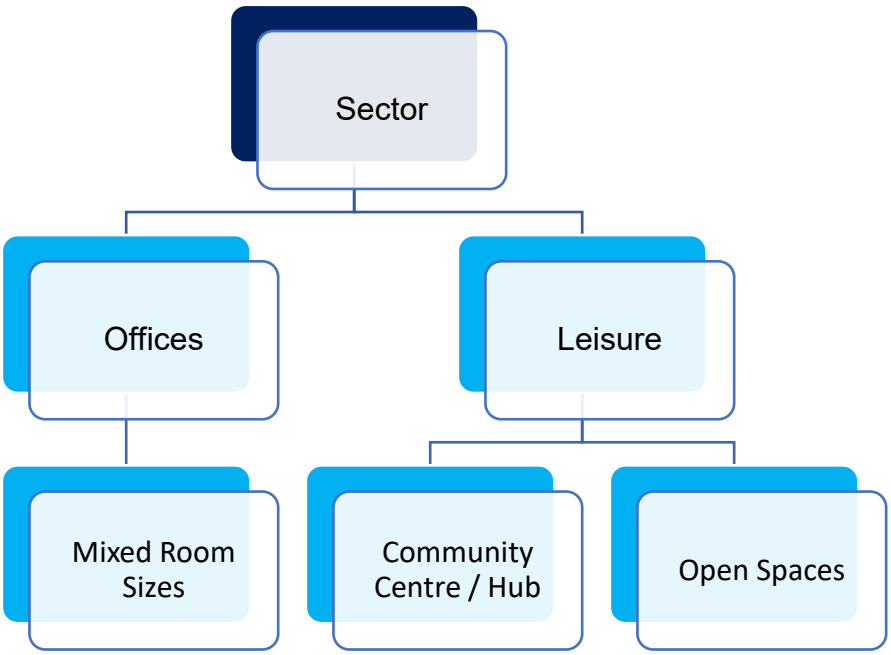
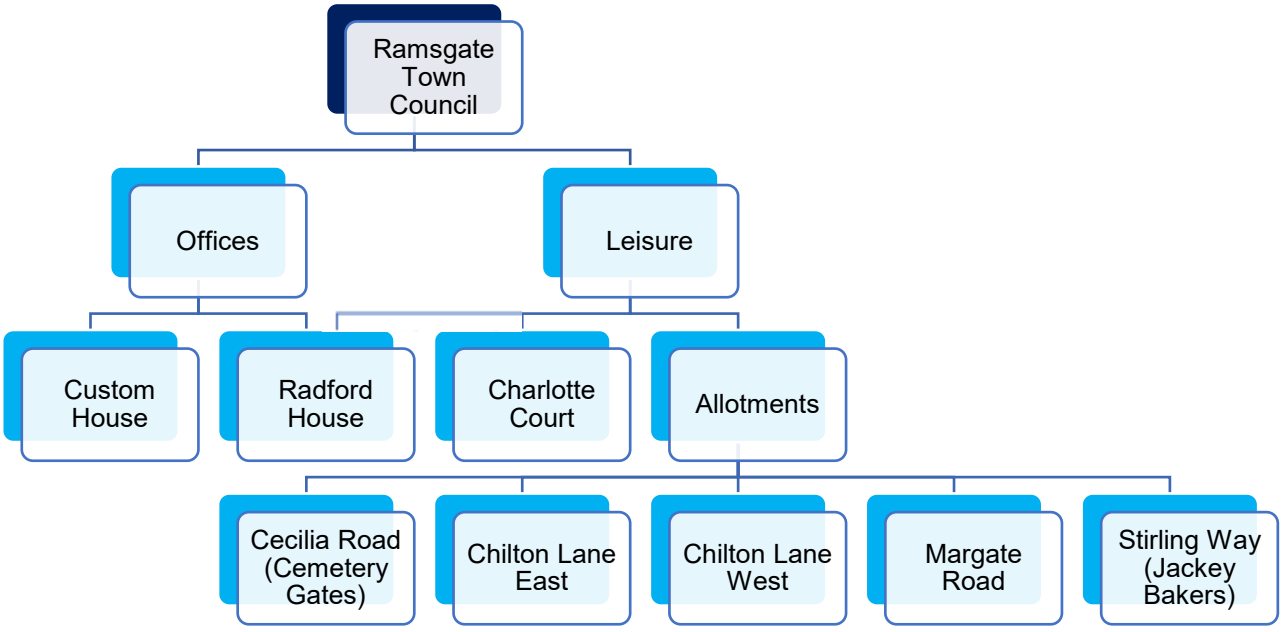


Figure 2. Ramsgate Town Council process map with buildings / sites



3.2. OPERATIONAL LIMIT

Based on the organisational limits, the operational limits are determined through the classification of emission sources in the three possible scopes of study.

Scope 1 emissions (direct emissions)

These are emissions that result from the activities that the organisation controls. Examples of the processes that can generate them:

- Combustion in fixed sources.
- Physical or chemical processes.
- Combustion in mobile sources.
- Fugitive emissions that result from intentional or unintentional releases such as refrigerants used in air conditioning and refrigeration equipment.

Scope 2 emissions (indirect emissions)

These are emissions of the organisation due to the use of electricity, heat or water vapour acquired from outside.

Scope 3 emissions (other indirect emissions)

These are emissions of the products and services of the organisation. They are induced by the activities of the company, but they occur in sources that are not owned or controlled by the company.

The purpose of this classification is to avoid the duplication of GHG emissions in the same scope of the inventory.

In the calculation of Ramsgate Town Council's carbon footprint, scope 1 direct emissions and scope 2 indirect emissions have been quantified, so that certain emissions have been taken into account or not, depending on the facilities and activities controlled by the company. Scope 3 other indirect emissions have been accounted for, but can only be assumed as correct, given we have no control over external companies.

Each building / site has its own data on electricity and fuel consumption[1].

Scope 3 other indirect emissions included in the calculation include Paper Consumption, Electric Transmission and Distribution and Water Supply and Treatment. These have been allocated under this scope as the Council does not have control over these factors.

In regard to Paper Consumption, Ramsgate Town Council does not have the control over its impact to the environment, but the Council does however have control on how much it uses and where it is sourced, i.e. using carbon neutral paper.

[1] Fuels are broken down into Natural Gas, Biomethane (100%), Petrol and Diesel. In 2021, Biomethane was used as a replacement for Natural Gas for The Custom House. Natural Gas is not used at Radford House as it is currently not needed. Between 2017 to 2019, the fuels used for the vehicles and equipment were Petrol and Diesel. After 2019, the Council replaced one of the Diesel vehicles with two Milk Floats to cutback on emissions.

The emission sources in the calculation consider each type of sector and building / site. These are below:

Figure 3. Ramsgate Town Council process map with emission sources

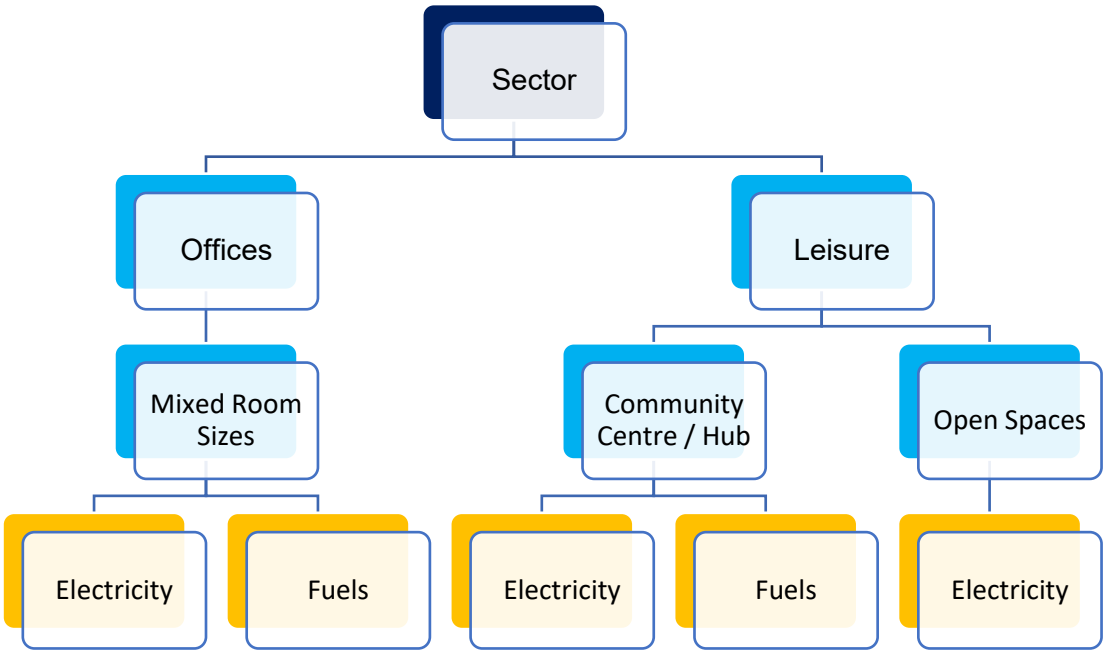
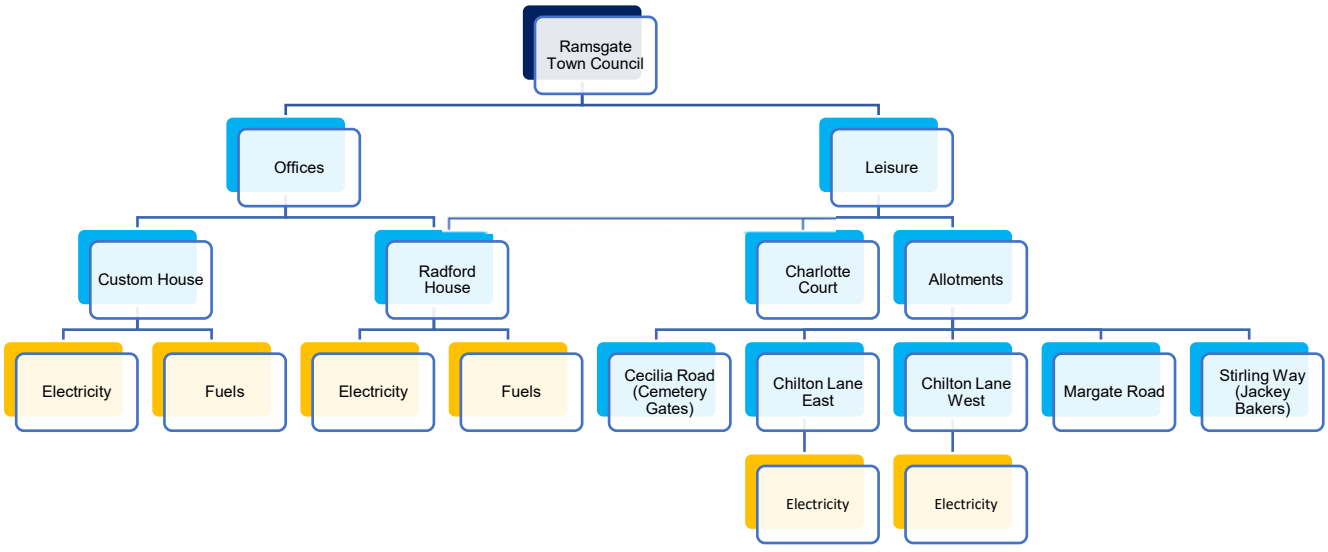


Figure 4. Ramsgate Town Council process map with buildings / sites and emission sources



4. DATA COLLECTION AND CALCULATION

Ramsgate Town Council's Digital Communication and Marketing Officer has created and designed a complex spreadsheet as a tool for calculating the Carbon Footprint (Carbon Footprint Spreadsheet). The data obtained from the invoices is used to calculate the GHG emissions associated with that type of energy consumption.

The Carbon Footprint Spreadsheet details each building / site and the type of energy consumption that is used by the Council, the extensive data has been formatted in a way that is easy-to-read. Each tab on the spreadsheet indicates a separate calculation for location and source. They each use the correct GHG conversion factors, that have been provided by the Government, to work out the emissions produced by the Council.

When the Carbon Footprint Spreadsheet is completed, the evidence associated with the invoices and the data used will contribute to a single file. This condenses all the information and data into one location, for ease of access.

4.1. ACTIVITY DATA

Activity data are those that are associated with the consumption of energy or consumables of the organisation. These must be precise, transparent, complete, reliable, accurate in terms of information, consistent and reproducible.

All the activity data has been collated from Ramsgate Town Council's accounts and input into the Carbon Footprint Spreadsheet. Fuel, Electricity and Water consumption have been considered for all buildings / sites.

The data that has been collated has been prioritised so it is of the highest possible quality, this should aim to reduce the uncertainty of the calculations. If this cannot be done, there has been an option to report them in another secondary way, allowing for the estimates to be made.

Electricity consumption

Electricity has been prioritised as kWh for all buildings / sites.

Fuel consumption

Fuels such as Natural Gas or Biomethane Gas are prioritised as kilowatts an hour (kWh).
Fuels such as Petrol and Diesel are prioritised as litres. (There is the possibility of reporting the miles travelled and type of fuel as a secondary option).

Paper consumption

Paper has been prioritised as reams (500 sheets of paper). (There is the possibility of reporting the sheets of paper used).

Water consumption

Water has been prioritised as metres cubed (m^3) for all buildings / sites. This is to calculate the water supply and treatment.

Table 2: Examples of data collection for Electricity, Fuel, Paper and Water consumption

Electricity (kWh)

Meter Serial Number	Allotment Site (Allotment Electric Only)	Previous Read Date	Previous Read	Current Read Date	Current Read	Total kWh
XXXX		XX/XX/XXXX		XX/XX/XXXX		

Fuel – Gas and Natural Gas (kWh)

Meter Serial Number	Previous Read Date	Previous Read	Current Read Date	Current Read	Metered Units (Step 1)	Gas Correction Factor (1.02264)	Calorific Value	Energy (Step 2 – 3)	Conversion from energy to kWh (3.6)	Total kWh (Step 4)
XXXX	XX/XX/XXXX		XX/XX/XXXX			1.02264	39		3.6	

Step 1 – Current Read - Previous Read = Metered Units
Step 2 - 3 – Metered Units x Correction Factor x Calorific Value = Energy
Step 4 – Energy / Conversion from energy to kWh = kWh

Fuel – Petrol and Diesel (Litres)

Date	Registration Plate	Fuel Type	Litres Used
XX/XX/XXXX	XXXX XXX		

Paper (Reams)

Date Purchased	Paper used in reams (500 sheets)	Sheets of Paper used
XX/XX/XXXX	XX	XX

Water (m^3)

Previous Read Date	Previous Read	Current Read Date	Current Read	Total m^3
XX/XX/XXXX		XX/XX/XXXX		

The distribution of the activity data between the years 2017 and 2021 is reported as follows:

Electricity consumption

100% of the consumption data was reported following the priority option, this was for kWh.

Fuel consumption

100% of the consumption data was reported following the priority option, this was for kWh and Litres.

Paper consumption

100% of the consumption data was reported following the priority option, this was for reams.

Water consumption

100% of the consumption data was reported following the priority option, this was for m^3.

Since 2021, measures have been taken to reduce the impact of the Council's emissions on the environment, this can be seen under the Avoided Emissions section. In this section we can report:

- Avoided emissions associated with the Gas supply can be generated to show the kWh saved by the Council.
- Avoided emissions through the management of paper use and ordering in the offices can be seen, using renewable and recyclable materials.

4.2. EMISSION FACTORS

The emission factors are representative values that relate to a quantity of gas emitted to the atmosphere with an activity associated with the emission of that gas. Normally, these factors are expressed as the weight of the gas divided by the weight, volume, distance or duration of the activity that generates the gas. Ramsgate Town Council have used the recommended UK Government GHG figures and conversion factors to produce an overall weight of kg CO_2e.

The emission factors used in the calculation of Ramsgate Town Council's footprint to transform energy consumptions or consumables into GHG emissions must be transparent and consistent. Therefore, the most suitable and reliable emission factors have been used from the UK Government, these can be found in the Appendix.

Table 3: Examples of Emission factors

GHG Conversion Factors	2017	2018	2019	2020	2021
Gross Natural Gas (kg CO_2e)	0.18417	0.18396	0.18385	0.18387	0.18317
kWh per Natural Gas Energy	3.60000	3.60000	3.60000	3.60000	3.60000
Electricity (kg CO_2e)	0.35156	0.28307	0.25560	0.23314	0.21233
kWh per Electricity	1.00000	1.00000	1.00000	1.00000	1.00000
Unleaded Petrol (kg CO_2e)	2.19836	2.20307	2.20904	2.31467	2.33970
kWh per Petrol Litre	13.10000	13.10000	9.61000	9.60000	9.69000
Diesel (kg CO_2e)	2.60017	2.62694	2.59411	2.68787	2.70553
kWh per Petrol Litre	12.69000	12.69000	10.63000	10.63000	10.68000
Transmission and Distribution Electricity (kg CO_2e)	0.03287	0.02413	0.02170	0.02005	0.01879
Water Supply (kg CO_2e)	0.34400	0.34400	0.34400	0.34400	0.14900
Water Treatment (kg CO_2e)	0.70800	0.70800	0.70800	0.70800	0.27200
Biomethane (kg CO_2e)	0.00538	0.00513	0.00511	0.00518	0.00521

4.3. CALCULATION OF THE CARBON FOOTPRINT

Based on the activity data that has been collected in the Carbon Footprint Spreadsheet and the Emission factors mentioned previously, the calculations associated with the electricity, fuel, paper and water have been completed for each year, between the years 2017 and 2021.

4.4. CALCULATION UNCERTAINTY

A qualitative analysis is made of the uncertainty associated with the calculation. This can be made by looking at the activity data and the emission factors used.

The activity data that can affect a calculation methodology with less uncertainty are prioritised:

- **Fuel consumption** – the report in litres and the fuel type has been prioritised.
- **Electricity consumption** – the report in kWh consumed has been prioritised.
- **Water consumption** – the report in m^3 consumed has been prioritised.

If each type of emission source is analysed, it can be affirmed that work has been carried out from lesser to greater uncertainty as follows:

- **Fuel consumption** – In all cases the activity data has been reported in litres.
- **Electricity consumption** – It has been reported based on invoices. (Some invoices may include estimates).
- **Water consumption** – It has been reported based on invoices. (Some invoices may include estimates).
- **Paper consumption** – It has been reported based on invoices of reams bought and not by sheets of paper used.

If we analyse the emission factors used, it can be stated that the uncertainty associated to them will be of ±5% in a generic way.

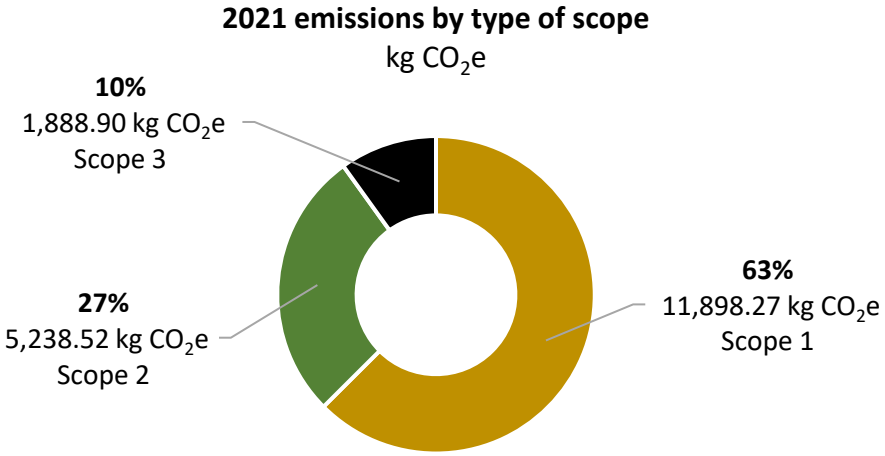
5. RESULTS: CARBON FOOTPRINT

In this section we present the results of Ramsgate Town Council's carbon footprint, analysed in different ways.

5.1. RAMSGATE TOWN COUNCIL'S CARBON FOOTPRINT OF 2021

Ramsgate Town Council's carbon footprint in 2021 was 19,025 kg CO_2e (19 tonnes of CO_2e), of which about 63% were Scope 1 emissions, that is, associated with fuel consumption such as Gas (Natural and Biomethane), Petrol and Diesel.

Figure 5: Contribution of emissions by scope to the total of Ramsgate Town Council's carbon footprint



Scope 1 emission are distributed by gases as follows:

- Kg of CO_2e of CO_2: 11,721.20
- Kg of CO_2e of CH_4: 10.70
- Kg of CO_2e of N_2O: 71.20
- Kg of CO_2e of Biomethane: 95.00

The following table shows the amounts of CO_2 equivalent emitted, listed by scope and emission source:

Table 4: Emissions by source type and scope.

Scope	Source	Emissions (kg CO_2e)	Percentage of Total
Scope 1	Fuels (Natural Gas, Biomethane Gas, Petrol and Diesel)	11,898.27	63%
Scope 2	Electricity	5,238.52	27%
Scope 3	Other indirect (Paper Used, Electric Transmission and Distribution and Water Supply and Treatment)	1,888.90	10%
TOTAL		**19,025.69**	

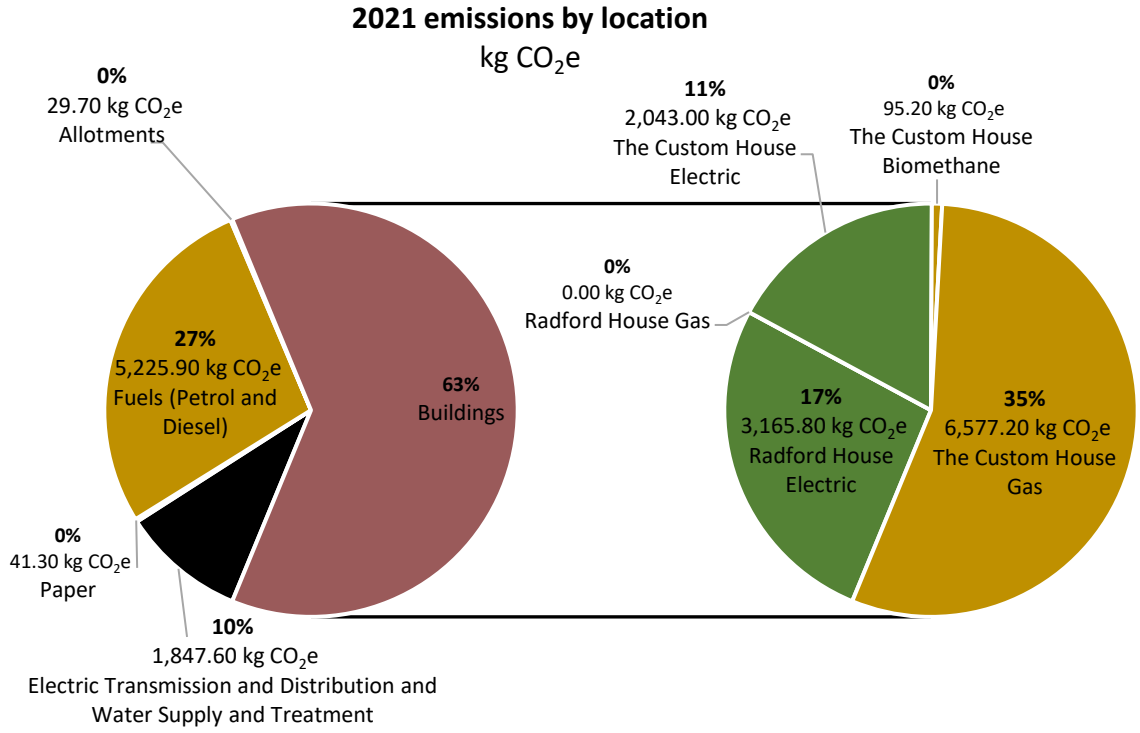
The emission scopes can be broken down further to show the exact location of each emission source:

Table 5: Emissions by source type and scope

Scope	Source	Emissions (kg CO_2e)	Percentage of Total
Scope 1	The Custom House Gas	6,577.16	34.57%
	Fuel (Diesel) Litres	4,838.33	25.43%
	Fuel (Unleaded) Litres	387.55	2.04%
	The Custom House Biomethane	95.23	0.50%
	Radford House Gas	0.00	0.00%
Scope 2	Radford House Electric	3,165.84	16.64%
	The Custom House Electric	2,043.95	10.74%
	Allotments (Chilton Lane West) Electric	29.73	0.16%
	Allotments (Chilton Lane East) Electric	0.00	0.00%
Scope 3	Water Supply and Treatment	1,384.01	7.27%
	Electric Transmission and Distribution	463.58	2.44%
	Paper (Reams) Used	41.31	0.22%
TOTAL		**19,025.69**	

If we analyse the emissions by location of where they have been generated, we can then identify which areas contribute the most to the Carbon Footprint. Buildings contribute to 63% of the total (Figure 6: breakdown on the right), followed by Fuels which generate 27% of emissions. The Electric Transmission and Distribution and Water Supply and Treatment accounts for 10%.

Figure 6: Contribution of emissions by location to the total of Ramsgate Town Council's carbon footprint.



5.1.1. AVOIDED EMISSIONS

Between 2017 and 2021, Ramsgate Town Council have made changes which have since reduced the impact of the emissions that have been generate by the Council. Such changes include:

- Changing of lightbulbs in The Custom House to Energy Efficient Lightbulbs and removing the Computer Server to a Cloud based system.
- Purchasing two Milk Floats
- Reducing the paper used for Agenda's at Council meetings
- Replacing Office Paper with Carbon Neutral Paper
- Changing the Gas Supply from Natural Gas to Biomethane Gas

The following table shows the emissions of GHG that were avoided, due to the changes mentioned above.

Table 6: Avoided Emissions over five years

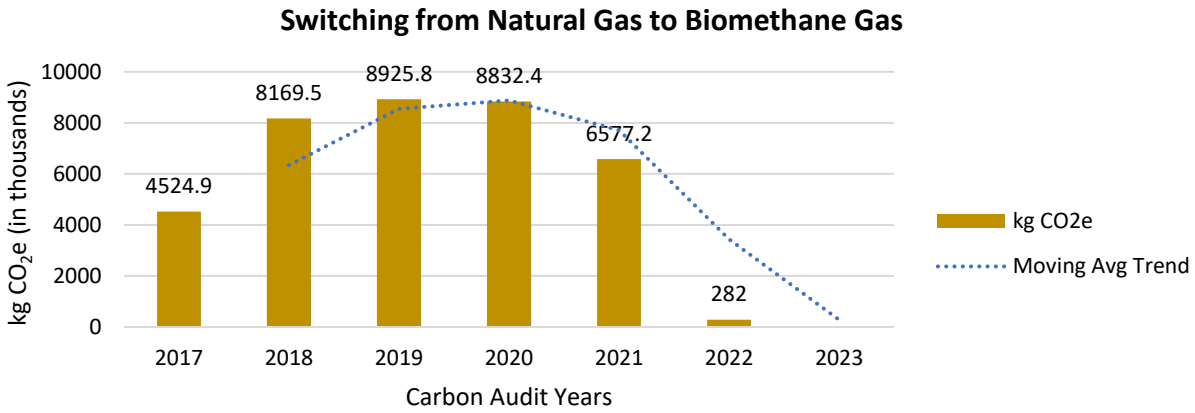
Changes	Avoided Emissions (kg CO_2e)
Changing Lightbulbs within The Custom House to Energy Efficient Lightbulbs and removing the Computer Server to a Cloud based system.	5,276
Purchasing two Milk Floats and removing a Diesel van.	1,153
Reducing the Paper used for Agenda's at Council Meetings	387
Replacing Office Paper with Carbon Neutral Paper	52
Changing the Gas Supply from Natural Gas to Biomethane Gas	3,253
TOTAL	10,121

In all five cases, the equivalence in kg CO_2e has been achieved by comparing the emissions avoided with a trend scenario, that is, had the changes not been made, what associated emissions would they have had.

Not only can we look at the emissions we have avoided, but we can look ahead to the ones that we hope to reduce over the coming years.

In September 2021, Ramsgate Town Council switched gas providers for a renewable energy supplier, to help reduce the emissions generated. Continuing with this renewable energy supplier and using Biomethane will help the Council to **reduce 6,390 kg CO_2e in 2022**. (Based on 2021 figures, if gas usage remains the same.)

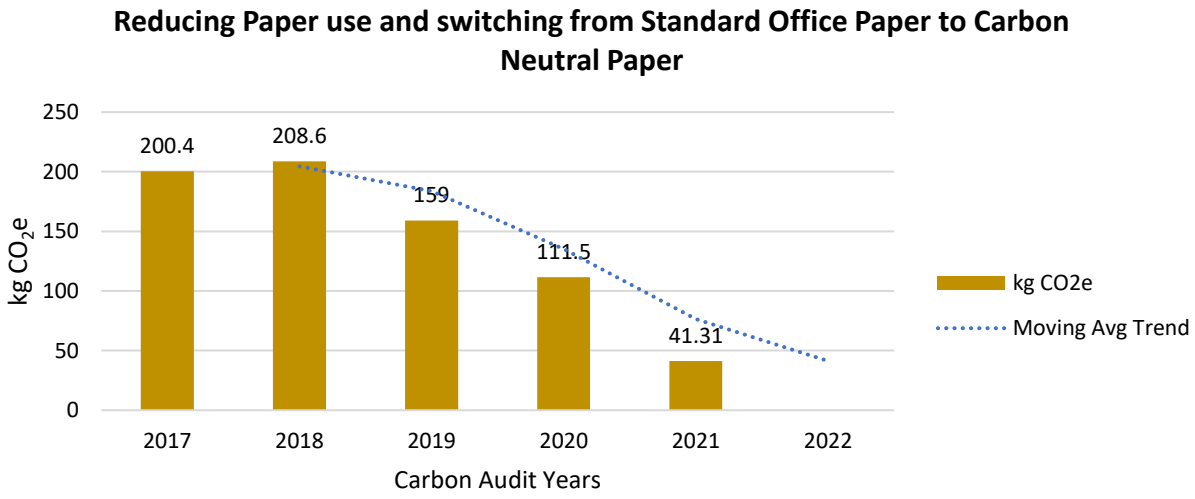
Figure 7: Trend showing the impact of switching from Natural Gas to Biomethane Gas



Ramsgate Town Council holds many meetings a year to discuss various business and make informed decisions. An aspect of this decision making is reading agendas and reports. This can accrue a large amount of paper for one meeting, if not several in the year. By applying two of the changes, reducing paper use for meetings and switching to Carbon Neutral Paper, we can look to reduce the emissions impact on the Council's carbon footprint.

Only five agendas are printed for meetings, reduced from the previous 16, this has been in place for the last couple of years. During 2021, the Council made the switch from standard office paper to carbon neutral paper, having a dramatic reduction in the emissions produced by the Council. These trends can be seen in the figure below.

Figure 8: Trend showing the impact of reducing paper and switching from Standard Office Paper to Carbon Neutral Paper



In 2018, the lease agreement for one of the Diesel vans ended and the Council agreed to purchase two milk floats. These were to be used by the Technicians for local journeys only. By changing from Diesel fuel to electricity, it has significantly reduced the emissions produce by the Technicians when working within the town.

In Ramsgate Town Council's calculations of the GHG emissions, the comparison of the carbon footprint obtained in a given year with the emissions calculated for the previous year is defined as a control and monitoring system.

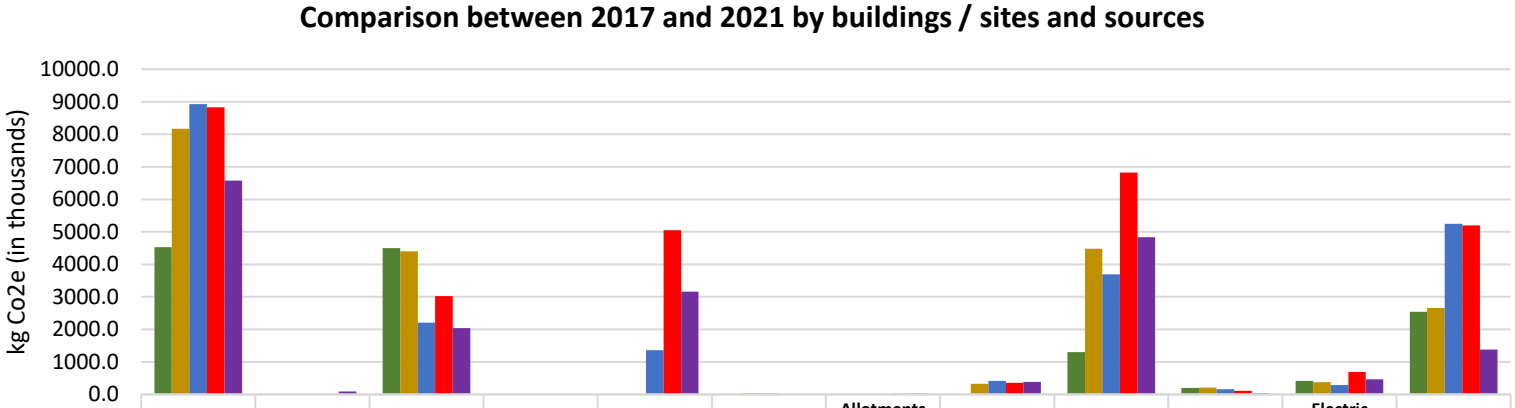
5.1.2. TRENDS BETWEEN 2017 AND 2021

Now comparisons have been made for the last five consecutive years, the Council can look at the trends that are starting to appear.

During this time, the Council has seen an increase in its carbon footprint. Although, as mentioned previously there are justified reasons for these increases.

The following table and graph show the differences in the behaviour of the different buildings / sites between the years 2017 and 2021.

Figure 9: Comparison between 2017 and 2021 by buildings / sites and sources



	The Custom House Gas	The Custom House Biomethane	The Custom House Electric	Radford House Gas	Radford House Electric	Allotments (Chilton Lane East) Electric	Allotments (Chilton Lane West) Electric	Fuel (Unleaded) Litres	Fuel (Diesel) Litres	Sheets of Paper Used	Electric Transmission and Distribution	Water Supply and Treatment
2017	4524.9	0.0	4495.1	0.0	0.0	0.0	0.0	0.0	1301.5	200.4	420.3	2546.1
2018	8169.5	0.0	4403.1	0.0	0.0	47.5	1.7	327.2	4476.7	208.6	379.5	2658.5
2019	8925.8	0.0	2209.1	0.0	1362.5	30.0	17.9	419.0	3688.3	159.0	291.8	5250.8
2020	8832.4	0.0	3020.3	0.0	5046.8	0.0	26.8	356.5	6820.8	111.5	696.1	5195.4
2021	6577.2	95.2	2043.0	0.0	3165.8	0.0	29.7	387.5	4838.3	41.3	463.6	1384.0

For every building / site and source, a downward trend can be seen. By managing these effectively and remaining vigilant on the energy used, the Council is expected to reduce its carbon footprint further in future years.

Under 5.1.1 Avoided Emissions, it has already been stated that the Council has switched gas providers for a renewable energy supplier. With this change, we will be able to see the massive impact this has by reducing the emissions generated. The estimated amount produced by Biomethane in 2022 is expected to be **282 kg CO_2e.** Whilst this is still producing emissions, it is far better than the previous emissions of **8,832 kg CO_2e** produced by Natural Gas.

5.2. COMPARISON BETWEEN 2017 AND 2018

In this way, based on the activity data for the years 2017 and 2018, a comparison was made of the GHG emissions generated for both years by the Council. This was in order to be able to analyse the evolution of the organisation's carbon footprint over time.

Ramsgate Town Council's carbon footprint increased by 7,184 kg CO_2e between 2017 (13,488.3 kg CO_2e generated) and 2018 (20,672.2 kg CO_2e), which represents an increase of 53%.

It should be noted that the increase in Ramsgate Town Council's carbon footprint is due to two factors:

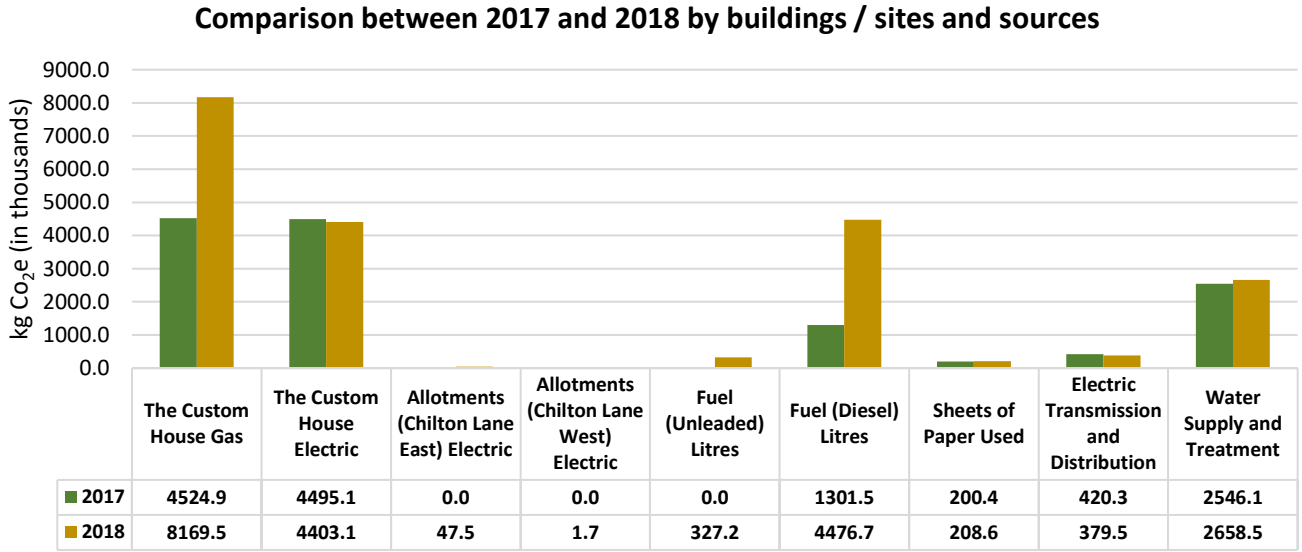
1. Increased use within The Custom House during the winter. (Required the heating to be on longer than would be necessary.)
2. Ramsgate Town Council doubled the outdoor staff and vehicles. (More Diesel Fuel was used undertaking additional outdoor work.)

The following table and graph show the differences in the behaviour of the different buildings / sites between the years 2017 and 2018.

Table 7: Comparison of the carbon footprint of 2017 and 2018 in kg CO_2e

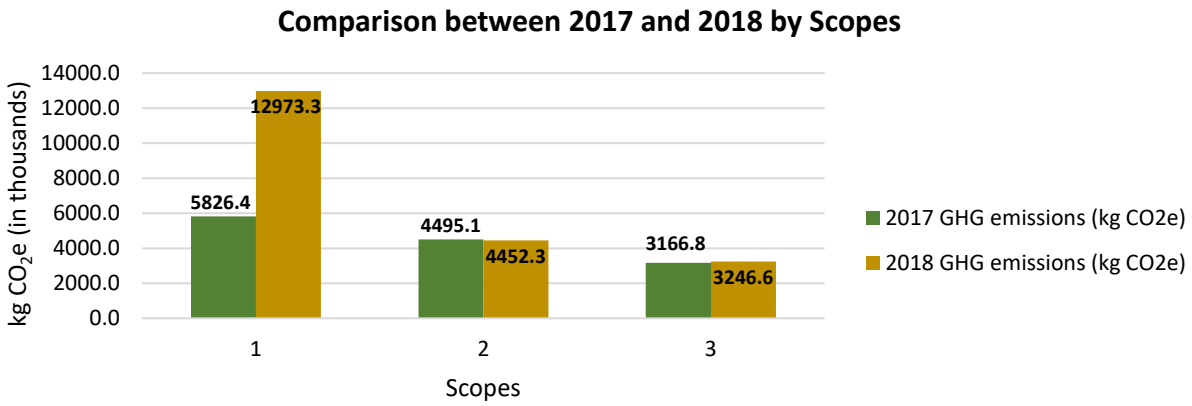
Source / Buildings / Sites	2017	2018	Difference	Variation %
The Custom House Gas	4,524.9	8,169.5	3,644.6	81
The Custom House Electric	4,495.1	4,403.1	-92.0	-2
Allotments (Chilton Lane East) Electric	0.0	47.5	47.4	N/A
Allotments (Chilton Lane West) Electric	0.0	1.7	1.7	N/A
Fuel (Unleaded) Litres	0.0	327.2	327.2	N/A
Fuel (Diesel) Litres	1,301.5	4,476.7	3,175.2	244
Paper (Reams) Used	200.4	208.6	8.2	4
Electric Transmission and Distribution	420.3	379.5	-40.8	-10
Water Supply and Treatment	2,546.1	2,658.5	112.4	4
TOTAL	13,488.3	20,672.2	7,184.0	53

Figure 10: Comparison between 2017 and 2018 by buildings / sites and sources



Finally, if we analyse the progression of Ramsgate Town Council's emissions by type of scope between 2017 and 2018, we can see how the emissions associated with Fuels (Scope 1) show an increase of 123%. On the other hand, Electricity (Scope 2) emissions decreased by 1%.

Figure 11: Comparison of Scopes between 2017 and 2018



In October 2019, a carbon breakdown was presented to the Planning and Environment Committee detailing the years for 2017 and 2018. From that meeting the following was agreed:

- Radford House – During refurbishment provision should be made for the installation of four charging points for electric vehicles; gas should be avoided when considering heating for the property.
- The Custom House – When the boiler needs to be replaced sustainable fuel should be considered.
- Any new or replacement vehicles for the Lengthsmen (now Technicians) should be electric powered.
- The Council's Carbon Footprint should be offset by tree planting and an assessment of the Montefiore Woodland should also be made for this purpose.

5.3. COMPARISON BETWEEN 2018 AND 2019

Based on the activity data for the years 2018 and 2019, a comparison was made of the GHG emissions generated for both years by the Council. This was in order to be able to analyse the evolution of the organisation's carbon footprint over time.

Ramsgate Town Council's carbon footprint increased by 1,682 kg CO_2e between 2018 (20,672.2 kg CO_2e generated) and 2019 (22,354.1 kg CO_2e), which represents an increase of 8%.

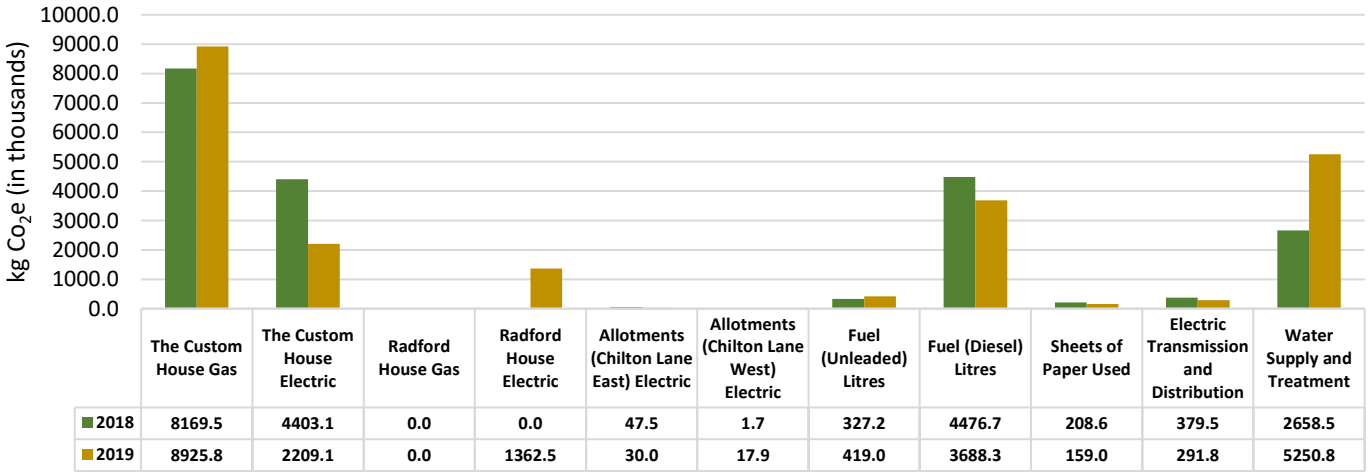
A major factor that has influenced the increase of Ramsgate Town Council's carbon footprint is the purchased of Radford House. This has had an impact on the electric and water emissions generated from this extra building.

The following table and graph show the differences in the behaviour of the different buildings / sites between the years 2018 and 2019.

Table 8: Comparison of the carbon footprint of 2018 and 2019 in kg CO_2e

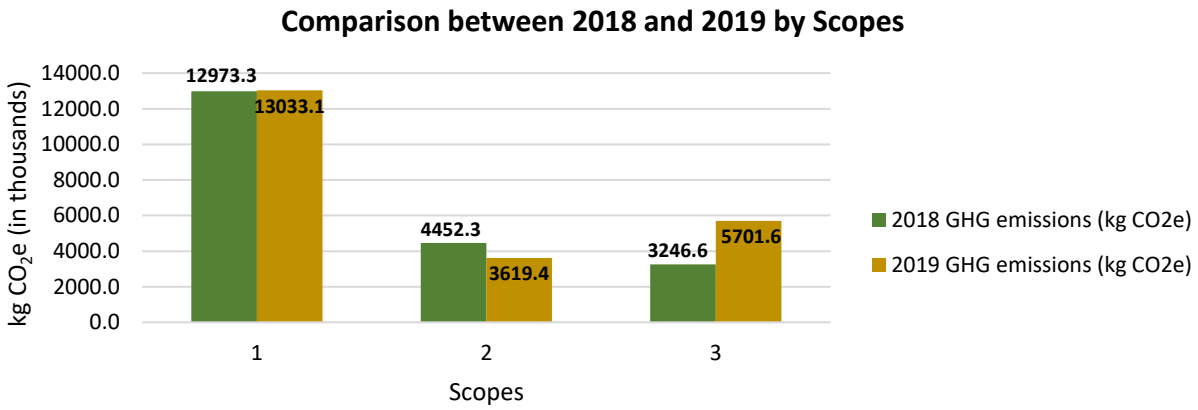
Source / Buildings / Sites	2018	2019	Difference	Variation %
The Custom House Gas	8,169.5	8,925.8	756.3	9
The Custom House Electric	4,403.1	2,209.1	-2,194.0	-50
Radford House Gas	0.0	0.0	0.0	0
Radford House Electric	0.0	1,362.5	1,362.5	N/A
Allotments (Chilton Lane East) Electric	47.5	30.0	-17.5	-37
Allotments (Chilton Lane West) Electric	1.7	17.9	16.2	953
Fuel (Unleaded) Litres	327.2	419.0	91.8	28
Fuel (Diesel) Litres	4,476.7	3,688.3	-788.4	-18
Paper (Reams) Used	208.6	159.0	-49.6	-24
Electric Transmission and Distribution	379.5	291.8	-87.7	-23
Water Supply and Treatment	2,658.5	5,250.8	2,592.3	98
TOTAL	20,672.2	22,354.1	1,681.9	8

Figure 12: Comparison between 2018 and 2019 by buildings / sites and sources



Finally, if we analyse the progression of Ramsgate Town Council's emissions by type of scope between 2018 and 2019, we can see how the emissions associated with Other Indirect (Scope 3) show an increase of 76%. On the other hand, Electricity (Scope 2) emissions decreased by 19%.

Figure 13: Comparison of Scopes between 2018 and 2019



Following from the previous year's comparison, the Council actioned some of the outcomes:

- Radford House – During refurbishment provision should be made for the installation of four charging points for electric vehicles; gas should be avoided when considering heating for the property.
  Charging points for electric vehicles were discussed and arrangements were put into motion to be installed. When refurbishments for Radford House start, the heating and energy provisions will be taken into consideration, looking to avoid gas. (Currently Radford House has not used any gas since its purchase).

- The Custom House – When the boiler needs to be replaced sustainable fuel should be considered.
  The existing boiler is still functioning, however, when the time comes, this is something the Council will need to consider for future maintenance of The Custom House, to move to sustainable fuel.

- Any new or replacement vehicles for the Lengthsmen (now Technicians) should be electric powered.
  The Diesel vehicle from Pierremonts was returned halfway through 2020 as it had come to the end of its lease. This was replaced by two electric milk floats which were bought by the Council.

- The Council's carbon footprint should be offset by tree planting and an assessment of the Montefiore Woodland should also be made for this purpose.
  Offsetting the carbon footprint of the Council is still an option. The Council awarded funding to The Ramsgate Society via the Ramsgate Fund to plant 50 trees within Ramsgate (of these 50 trees, Ramsgate Town Council's funding paid for 17 of these).

The Ramsgate Town Council's carbon footprint increased by 8% compared to the previous year. There are several reasons for this, and can be linked to The Custom House Electric, Fuel (Diesel) and Paper.

The Council has reviewed how the building and office functions and what can be saved in terms of energy consumption. Small steps have been put in place, such as turning off any standby machinery that does not need to be left on, turning lights off and allowing natural light into the building and migrating the server in the office to the cloud. This was performed towards the end of 2018, the full effect of this change can be seen by not having a machine on 24 hours a day, 365 days a year. Additionally, all light fittings within the building have been fitted with energy efficient lightbulbs.

These small changes have reduced the electric emissions generated by The Custom House by half between 2018 and 2019.

Just like The Custom House Electric, we have reviewed the Fuel (Diesel) used by the Technicians. This is fuel for the van. We looked at where they were driving and for what reason. We were able to advise the Technicians to walk between Radford House and The Custom House rather than drive between the two and have changed the number of trips to supply stores. They now buy bulk items that are needed in one go, as opposed to several individual trips.

These changes resulted in a reduction of 300 litres of Diesel used (788.4 kg Co_2e), which equates to an 18% reduction of the carbon footprint between 2018 and 2019 for Diesel Fuel.

The Council reviewed the paper usage at meetings and only print when it is absolutely necessary. Some items still require printing such as the accounts, allotment invoicing, mayoral invites, and agendas for meetings (although we have seen a shift to viewing these electronically).

Between 2018 and 2019 we managed to reduce the paper usage by 24%. This is equivalent to just under 5 boxes of paper or around 12,000 sheets of paper.

As well as the reductions to some aspects of the carbon footprint, we have had some areas where it has increased. These areas are The Custom House Gas and Fuel (Unleaded).

The Custom House has always had a problem with heating the property. The Custom House Gas accounts for up to 39% of the total carbon footprint produced by the council.

There was a considerable increase of 28% in Fuel (Unleaded) during 2019, compared to 2018 (an extra 40 litres). The Council started to maintain more areas, such as Romilly Gardens, Nelsons Crescent and Charlotte Court in 2019. Unleaded Fuel is only used for outdoor machinery such as strimmers and the sit-on mower.

5.4. COMPARISON BETWEEN 2019 AND 2020

A comparison was made of the GHG emissions generated for 2019 and 2020 by the Council. This was in order to be able to analyse the evolution of the organisation's carbon footprint over time.

Ramsgate Town Council's carbon footprint increased by 7,752 kg CO_2e between 2019 (22,354.1 kg CO_2e generated) and 2020 (30,106.6 kg CO_2e), which represents an increase of 35%.

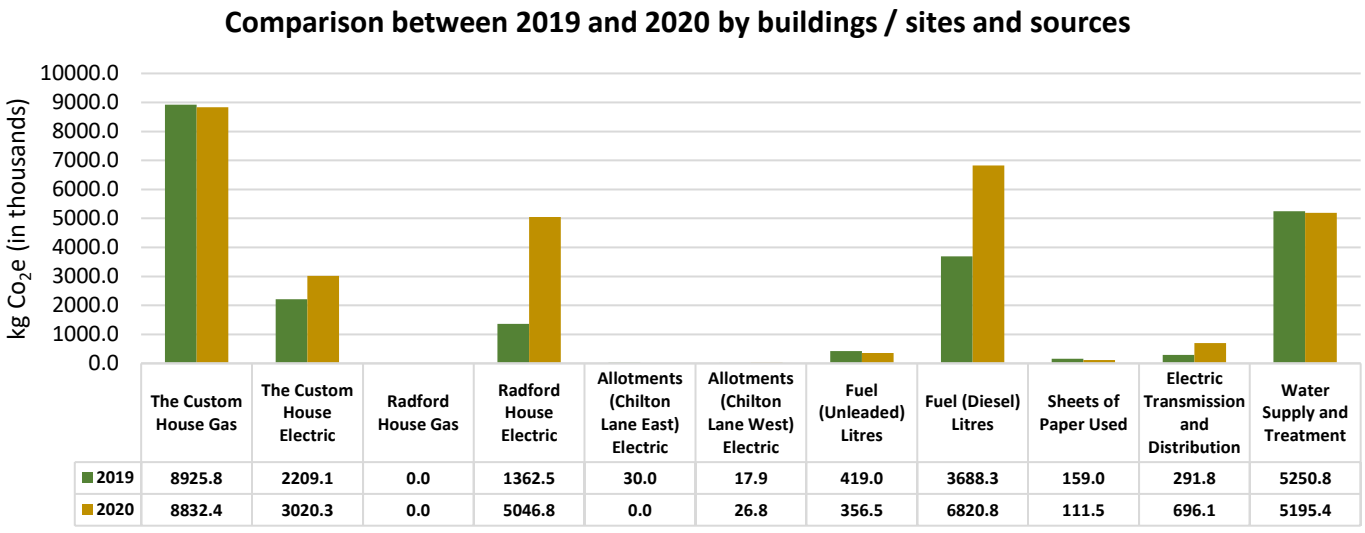
Some major factors that have influenced the increase of Ramsgate Town Council's carbon footprint is the use of Radford House and use of the Diesel van during the COVID-19 pandemic.

The following table and graph show the differences in the behaviour of the different buildings / sites between the years 2019 and 2020.

Table 9: Comparison of the carbon footprint of 2019 and 2020 in kg CO_2e

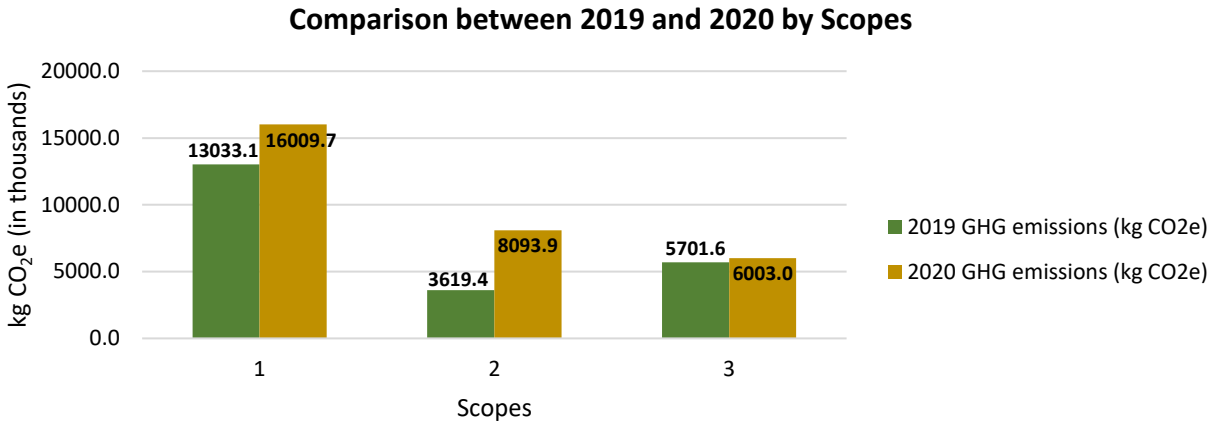
Source / Buildings / Sites	2019	2020	Difference	Variation %
The Custom House Gas	8,925.8	8,832.4	-93.4	-1
The Custom House Electric	2,209.1	3,020.3	811.2	37
Radford House Gas	0.0	0.0	0.0	0
Radford House Electric	1,362.5	5,046.8	3684.3	270
Allotments (Chilton Lane East) Electric	30.0	0.0	-30.0	-100
Allotments (Chilton Lane West) Electric	17.9	26.8	8.9	50
Fuel (Unleaded) Litres	419.0	356.5	-62.5	-15
Fuel (Diesel) Litres	3,688.3	6,820.8	3132.5	85
Paper (Reams) Used	159.0	111.5	-47.5	-30
Electric Transmission and Distribution	291.8	696.1	404.3	139
Water Supply and Treatment	5,250.8	5,195.4	-55.4	-1
TOTAL	22,354.1	30,106.6	7,752.5	35

Figure 14: Comparison between 2019 and 2020 by buildings / sites and sources



Finally, if we analyse the progression of Ramsgate Town Council's emissions by type of scope between 2019 and 2020, we can see how the emissions associated with Fuels (Scope 1) show an increase of 23%.

Figure 15: Comparison of Scopes between 2019 and 2020



2020 was a very unpredictable year and the details below cannot be properly judged against a normal year, as these have specific circumstances linked to them.

In 2020, the councils carbon footprint increased by 35% compared to the previous year. There are several reasons for this, and can be linked to The Custom House Electric, Radford House Electric and Fuel (Diesel).

Unfortunately, the pandemic changed how the Council worked. Schedules were abandoned due to restrictions; The Custom House Electric was one of these things. Each month the Council has the electric meter read and that calculates the bills. For a majority of 2020, The Custom House had been shut due to staff working from home, therefore the meter readings were not calculated and have been estimated by the energy provider for calculating the bills, this was based on the previous year's usage.

According to the energy provider, the Council used 37% more electric compared to the previous year, despite nobody being on premises. (Meter readings were taken when the building reopened, and the recalculations will be applied to the comparison of 2020 and 2021.)

During the pandemic Ramsgate Town Council used Radford House to store and help run a food bank for The Salvation Army. This required freezers and fridges to be used to keep some of the food fresh. In addition to this, the Council have been charging the electric milk floats, so the Technicians can use them around town.

This has had a significant impact on Radford House's Electric, using four times more electric compared to the previous year, 2019.

As well as the upkeep of the food bank, the Technicians were driving the van to Ashford's FareShare Food Centre where they were collecting the food to bring back for the food bank. These are obviously unique circumstances and distances that the Technicians were travelling, which would not normally be made.

The Fuel (Diesel) usage increased by 85% during 2020 (equivalent to an extra 1,100 litres of Diesel fuel used).

Despite the increases during 2020, we have decreased the carbon footprint in other areas, such as Fuel (Unleaded) and Paper.

Due to the extensive effort and focus on the food bank during the pandemic, it resulted in other areas having a limited service, such as grass cutting and maintenance around Ramsgate. Therefore, less outdoor machinery was used resulting in a reduced amount of Unleaded Fuel being used. The Technicians used 15% less Unleaded Fuel (equivalent to 40 litres of Unleaded Fuel).

The Paper used by the Council also saw a reduction by 30% as staff were working from home. The accounts still need printing and some allotment invoices. However, the Allotment Officer started the process of collecting email addresses of tenants and those on the waiting list to start sending plot offers and notices via email. A similar system was introduced for Mayoral invites.

5.5. COMPARISON BETWEEN 2020 AND 2021

A comparison was made of the GHG emissions generated for 2020 and 2021 by the Council. This was in order to be able to analyse the evolution of the organisation's carbon footprint over time.

Ramsgate Town Council's carbon footprint decreased by 11,080.9 kg CO_2e between 2020 (30,106.6 kg CO_2e generated) and 2021 (19,025.7 kg CO_2e), which represents a decrease of 37%.

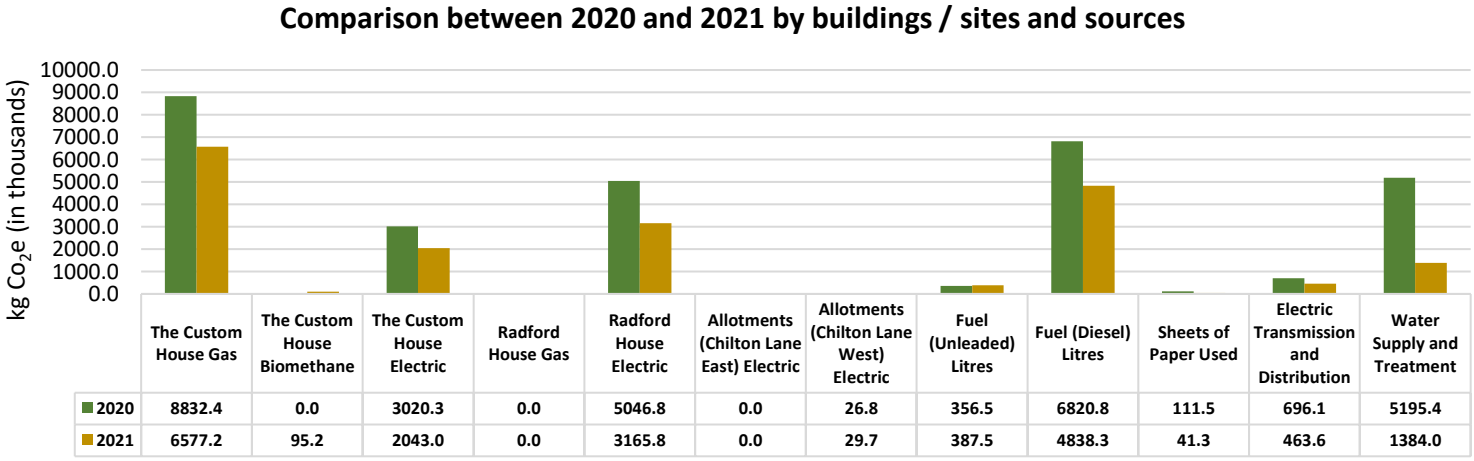
It should be noted that the decrease in Ramsgate Town Council's carbon footprint is due to four factors; The removal of fridges and freezers at Radford House (The food bank was no longer operational in 2021 from Radford House), The Custom House Electric bills were recalculated and were reflected between these years, the journeys were limited and kept local using the Diesel van and paper use was reduced for meetings and within the office.

The following table and graph show the differences in the behaviour of the different buildings / sites between the years 2020 and 2021.

Table 10: Comparison of the carbon footprint of 2020 and 2021 in kg CO_2e

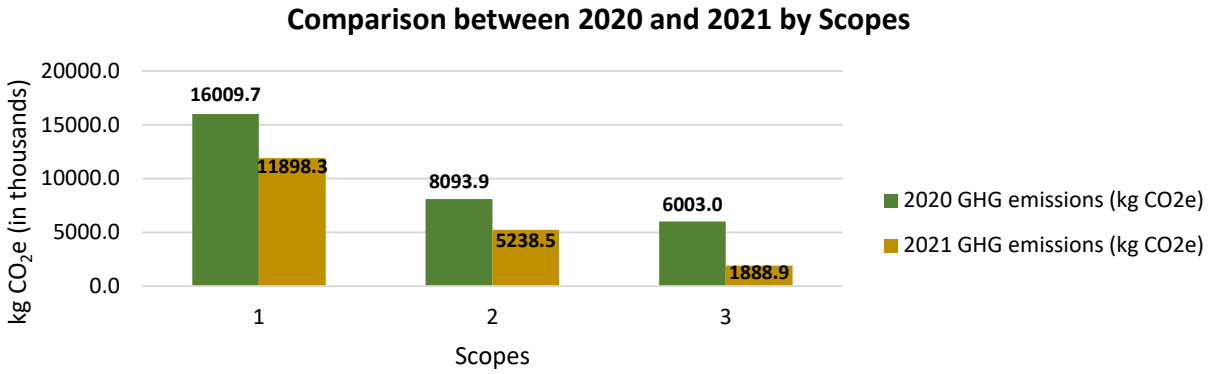
Source / Buildings / Sites	2020	2021	Difference	Variation %
The Custom House Gas	8,832.4	6,577.2	-2,255.2	-26
The Custom House Biomethane	0.0	95.2	95.2	N/A
The Custom House Electric	3,020.3	2,043.0	-977.3	-32
Radford House Gas	0.0	0.0	0.0	0
Radford House Electric	5,046.8	3165.8	-1,881.0	-37
Allotments (Chilton Lane East) Electric	0.0	0.0	0.0	0
Allotments (Chilton Lane West) Electric	26.8	29.7	2.9	11
Fuel (Unleaded) Litres	356.5	387.5	31.0	9
Fuel (Diesel) Litres	6,820.8	4838.3	-1,982.5	-29
Paper (Reams) Used	111.5	41.3	-70.2	-63
Electric Transmission and Distribution	696.1	463.6	-232.5	-33
Water Supply and Treatment	5,195.4	1384.0	-3,811.4	-73
TOTAL	30,106.6	19.025.7	-11,080.9	-37

Figure 16: Comparison between 2020 and 2021 by buildings / sites and sources



Finally, if we analyse the progression of Ramsgate Town Council's emissions by type of scope between 2020 and 2021, we can see how the emissions associated with Fuels (Scope 1) show a decrease of 26%, those associated with Electricity (Scope 2) decreased by 35% and those associated by Other Indirect (Scope 3) decreased 69%.

Figure 17: Comparison of Scopes between 2020 and 2021



In 2021, a series of changes were made by Ramsgate Town Council to significantly reduce its carbon footprint.

Radford House used 37% less electric in 2021 compared to the previous year, 2020.

COVID-19 restrictions started lifting in 2021 and with that, the demand for the Technicians to help distribute food from the food bank was no longer required. This resulted in the fridges and freezers being removed from Radford House and moved to The Salvation Army, where the food bank continued to operate. By removing these appliances (which were left on 24 hours a day) it has made a massive difference to the emissions generated at Radford House.

In 2020, The Custom House had estimated readings for its consumption of electric, this was corrected and recalculated for 2021. The emissions produced by The Custom House Electric were 32% less than the previous year.

Throughout 2021, the Council was cautious and mindful of the journeys the Technicians were taking in the Diesel van, these trips were kept local and were limited, depending on the job.

The Council managed to decrease the Fuel (Diesel) usage by 29% during 2021 (an equivalent saving of 800 litres of Diesel fuel used).

For the first half of 2021, all staff were working from home and meetings were conducted online, this has resulted in less paper being used in the office. When the staff returned to the office, it was made a priority to try and reduce the paper usage as much as possible, where necessary.

The paper used for the office and meetings was reduced by 63% (roughly 17,000 sheets of paper or 34 reams).

Despite the decreases during 2021, we have had a small increase in one area, Fuel (Unleaded). Due to the extensive effort and focus on the food bank during 2020, services such as grass cutting and maintenance were restricted. In 2021, the work resumed and the normal areas were maintained again, this resulted in the outdoor machinery being used more frequently.

Fuel (Unleaded) increased by 9% (equivalent to 11 litres of Unleaded Fuel).

6. DECLARING A CLIMATE CHANGE EMERGENCY

In February 2022, Ramsgate Town Council declared a Climate Change Emergency.

Aiming to be carbon neutral by 2030.

6.1. WHAT IS A CLIMATE CHANGE EMERGENCY?

A climate change emergency is an action taken by governments to acknowledge that humanity is in a climate emergency.

Once a government makes a declaration, the next step for the declaring government is to set priorities to mitigate climate change. By declaring a climate change emergency, a government admits that climate change exists and that the measures take up to this point are not enough to limit the changes brought by it. The decision stresses the need for the government and administration to devise measures that try to stop human-caused global warming.

The declarations can be made on different levels, for example, at a national or local government level, and they can differ in depth and detail in their guidelines. The term climate emergency does not only describe formal decisions, but also includes actions to avert climate breakdown. This is supposed to justify and focus the governing body towards climate action. The specific term emergency is used to assign priority to the topic, and to generate a mindset of urgency.

6.2. WHAT CAN YOUR LOCAL COUNCIL DO?

There are many steps to take once a council has declared a climate change emergency, below are a few suggestions from the National Association of Local Councils (NALC):

- Declare a Climate Change Emergency.
- Create a task force to establish a green agenda that includes developing a resilience policy and engaging in flood defence measures.
- Develop and promote green transport plans, including safe routes to school.
- Ensure that all council buildings are as energy efficient as possible and that energy is not wasted through unnecessary heating and lighting.
- Use green energy sources and environmentally friendly products.
- Plan for a green community in a neighbourhood plan.
- Limit the use of plastics, especially single-use plastics, in your council.
- Reduce waste and recycle as much as possible.
- Protect important open spaces and carbon sinks and consider creating a community orchard and/or wildflower meadow and/or allotments.
- Look at the existing powers of councils regarding climate change.

6.3. WHAT NEXT?

There are many routes that can be taken locally and DEFRA has made suggestions for local councils to consider:

Community Led Planning

Carrying out a Community Led Plan such as a Parish Plan can be an effective way of engaging the rest of your community in a debate about the practical actions that can be taken to adapt to climate change locally.

Community Led Plans are useful for identifying local risks; for example, those related to flooding or snowfall, traffic disruption and power cuts. Armed with this knowledge collected by the community, you will be in a strong position to create an action plan detailing how your community (sometimes with the support of external agencies) can implement and monitor actions that address climate change.

Contact your local Rural Community Council (RCC) for more information and support to undertake a Community Led Plan - www.communityledplanning.com.

Identify potential opportunities from Climate Change

Forward planning can help to ensure that any benefits of climate change can be fully taken advantage of, for example:

- **Parks and Open Spaces:**
  Demand for parks and open spaces is likely to increase with warmer winters and hotter drier summers. There are likely to be a number of social, health and environmental benefits in acting now to create well shaded green spaces and community woodland areas.
- **Tourism:**
  Research, support, encourage and invest in domestic tourism facilities and strategies as hotter, drier summers and warmer winters could boost local tourism and demand for outdoor leisure facilities.
- **Renewable energy production:**
  It may be possible to identify potential assets for energy production such as wind and waterpower.

Action Planning

Set up an action group to tackle local climate issues, share information and/or be a contact/information point for residents.

This team could also work to demonstrate many of the values of a Community Led Plan (self-help, empowerment, done by the community for the community).

Emergency Planning

Create a Parish Emergency Plan including a Flooding Action Plan to ensure that residents are aware of what they, and others, can do in the event of an emergency.

There is likely to be a significant increase in demand for emergency services as a result of extreme weather conditions and events, so provide advice to vulnerable groups, introduce better warning systems, ensure there is appropriate allocation of resources, and that equipment is updated to meet the increased risk.

Funding
Contact your local Rural Community Council (RCC) or Councils for Voluntary Service (CVS) to find out what grants are available in your area.

Planting
Manage land, verges and flower displays using drought-resistant plants and shrubs that look good and need less watering. These will be more resistant to extreme weather conditions caused by climate change such as droughts and floods. Also, use permeable surfacing in all public spaces to improve natural drainage and prevent flooding risks.

Sustainable Transport
Help to ensure that cycle paths, bus shelters, roadside seating and services are provided and well maintained to encourage community usage and reduce car dependency. Also, promote car sharing and offer incentives (allocate prime parking spaces or cheaper fees to car-sharers) to reduce air pollution, which may be exacerbated in increased summer temperatures.

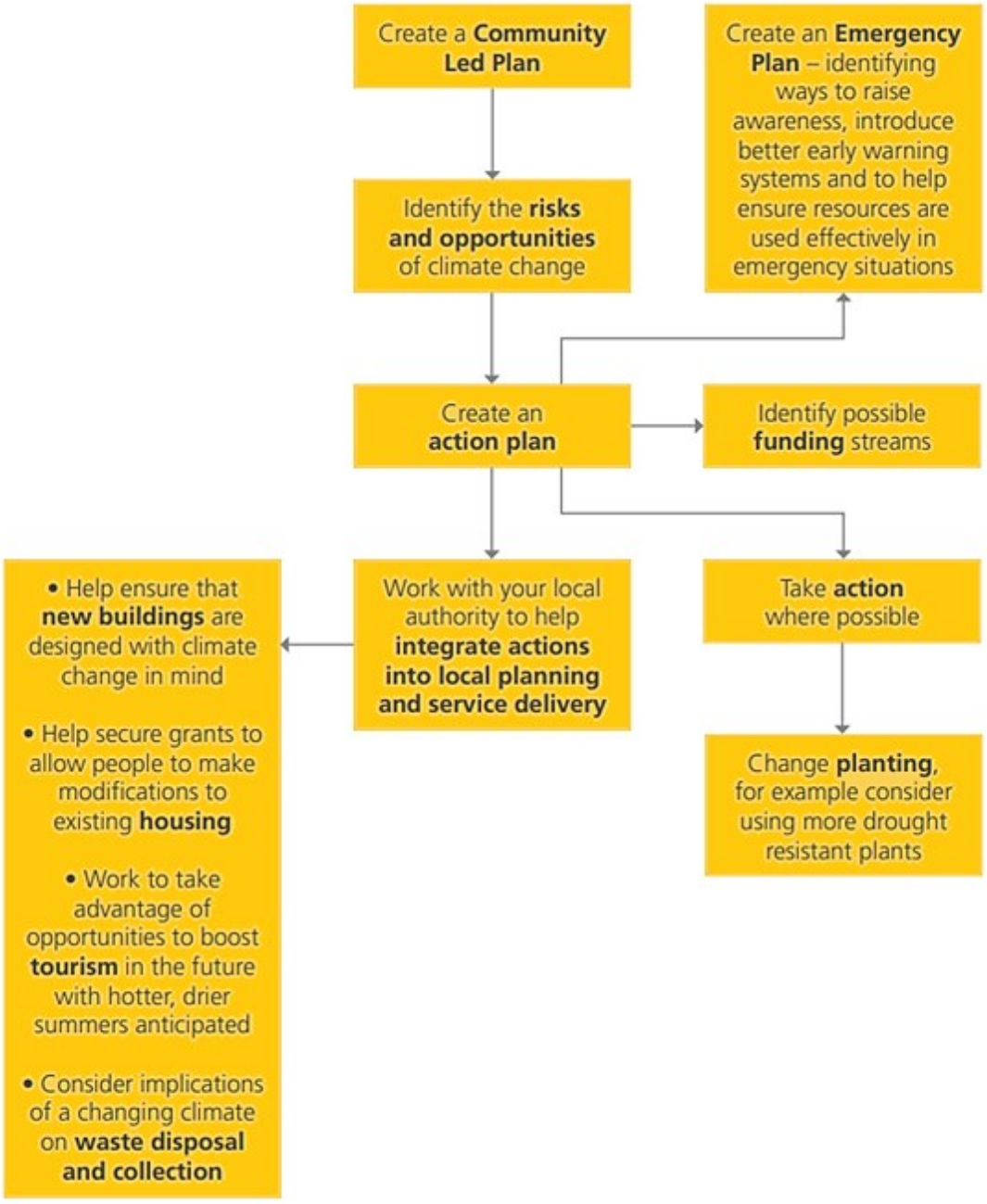
Farming
Work with local farmers and residents with allotments to set up community markets. With climate change likely to increase the length of the growing season, support and encourage people to buy local and seasonal food all year round. This will not only reduce food miles, but also benefit the local economy.

Buildings and Infrastructure
Work with local planning authorities to ensure that the design and location of any new buildings or infrastructure is resilient to the effects of climate change by including water conservation measures, appropriate heating/cooling and ventilation equipment and sustainable drainage systems (SuDS). It is also worth checking if such measures can be implemented in council owned properties.

Housing
Work with the local authority and other national organisations to provide grants towards home composting kits, water butts, solar panels, insulation and simple devices such as ‘Hippos’ to place in toilet cisterns.

Waste
Work with the local authority to provide as many recycling services as possible and ensure that waste contractors take into account warmer and windier conditions in the design and management of waste sites, to help control odours and vermin.

Figure 18: Diagram illustration some of the actions a local council could take
Source: Department for Environment, Food and Rural Affairs (DEFRA), Adapting to Climate Change.



6.4. LOCAL COUNCILS' POWERS TO ADDRESS OR REDUCE CLIMATE CHANGE: EXISTING AND FUTURE OPPORTUNITIES

As a contribution to NALC's work on Climate Change, the following is a brief commentary on the powers which local councils possess to tackle climate change.

Its purpose is encourage thinking within the sector: both about what local councils may do to make effective use of existing powers, and also to recommend changes to current laws and policies, for consideration and adoption as NALC policy.

These are a list of powers that are available to local councils, in NALC's publication 'The Good Councillors Guide':

1) **Allotments and Markets (Small Holdings and Allotments Act 1908, ss. 23, 26 and 42; Food Act 1984, s. 50):**
   - This allows the promotion of local produce and healthy eating.
   - This can help to reduce food-miles.
   - Allotments powers also enable the provision of communal food-growing sites and initiatives, run by associations and cooperatives.

2) **Burials (Open Spaces Act 1906, ss. 9 & 10; Local Government Act 1972, s. 214; Parish Councils & Burial Authorities (Miscellaneous Provisions) Act 1970, s. 1):**
   - This can allow practices such as green burials, eco-friendly management etc.

3) **Commons, Ponds, Open Spaces, Recreation etc (Open Spaces Act 1906, s. 15; Highways Act 1980, ss. 47):**
   - Scope to practise good environmental management, accommodate recycling facilities etc on the council's land.
   - Scope to plant trees on, and maintain, highway verges.

4) **Community Centres and other Public Buildings (Local Government (Miscellaneous Provisions) Act 1970, s. 19; Local Government Act 1972, s. 133):**
   - Scope to embrace/include on-site green energy, energy-conservation, electric car charging-points etc.

5) **Community Energy (Climate Change and Sustainable Energy Act 2006, s. 20):**
   - Councils can encourage or promote the local production and use of renewable energy, and also energy conservation, subject to the section 137 of the Local Government Act 1972 annual spending limit.
   - However, restrictions currently on the ability to 'sell' the energy directly to local consumers.
   - Also, the 's 137 expenditure limit' is a severe constraint on making capital investments in energy schemes.

6) **Highways and Sustainable Transport (Highways Act, ss. 43, 50; Parish Councils Act 1957, s. 1; Local Government Rating Act 1997, s. 25, 28 & 29; Transport Act 1985, s. 106A):**
   - Scope to promote rights of way routes, walking and cycling.
   - Scope to use 'car park' powers, to provide useful facilities such as on-site electric vehicle-charging points.
   - Scope to make more use of powers to support community bus services, and to run or support car-sharing.

7) **Litter and Environmental Crime (Litter Act 1983, ss. 5.6; Cleaner Neighbourhoods and Environment Act 2005):**
   - Scope to provide refuse and waste receptacles and publicity, including recycling.
   - Scope to discourage and prosecute littering and dumping.
   - Currently there is no specific power to promote or run waste-recycling or resource re-use activities.

8) **Neighbourhood Planning (Localism Act 2011; Neighbourhood Planning Act 2017; National Planning Policy Framework):**
   - Scope to include environmentally friendly planning policies, re-design, routes, landscaping etc.
   - There is a continuing need to ensure that Neighbourhood Plans have 'teeth', and that they can be more than just land-use allocation policies.

9) **Newsletters and websites (Local Government Act 1972, s.142):**
   - Scope to use to promote good environmental practices, resource-sharing etc.

10) **Community Support and Engagement (Local Government Act 1972, ss. 111, 140 etc):**
   - Scope to encourage and support volunteers and the wider community with grants, loans, insurance protection, publicity, surveys, good-practice advice etc.

11) **Tourism (Local Government Act 1972, s.144):**
   - Scope to encourage and promote eco-tourism.

12) **General Powers (Local Government Act 1972, s. 137; Localism Act 2011, ss. 1–8):**
   - Scope to spend money and/or undertake work on a wide range of beneficial activities which are not prescribed in other legislation.
   - However, s. 137 annual spending level is limited, and the General Power of Competence is exercisable by relatively few councils.

13) **Subsidiary Powers (Local Government Act 1972, s.111):**
   - A very useful enabling power, for a council to do anything (that are not constrained by other legislation), which is calculated to facilitate or is conducive or incidental to the discharge of any of its functions.

14) **Permitted Development Rights (Town and Country Planning (General Permitted Development) (England) Order 2015, part 12):**
   - Councils may erect and operate, without the need to seek planning permission, a wide variety of small buildings, equipment and other structures on their land, for the purposes of any of their functions or public services. This can include a range of small 'green' developments.

7. APPENDIX

Table 11: List of supporting documents* for the Carbon Audit

***Click on the title to view the documents.**

Title	Document
Avoided Emissions	Avoided Emissions.xlsx
Carbon Audit Calculations (Carbon Footprint Spreadsheet)	Carbon Audit Calculations.xlsx
DEFRA – Adapting to Climate Change	DEFRA - Adapting to Climate Change.p
Figures: Standalone	Figures: Standalone.pdf
GHG Protocol Revised	GHG Protocol Revised.pdf
HM Government Conversion Factors 2017	HM Government Conversion Factors 2
HM Government Conversion Factors 2018	HM Government Conversion Factors 2
HM Government Conversion Factors 2019	HM Government Conversion Factors 2
HM Government Conversion Factors 2020	HM Government Conversion Factors 2
HM Government Conversion Factors 2021	HM Government Conversion Factors 2
HM Government Environmental Reporting Guidelines	HM Government Environmental Repo
NALC – Climate Change Powers	NALC - Climate Change Powers.pdf
Term Meanings – GHGs CO_2 CO_2e and Carbon	Term Meanings - GHGs CO2 CO2e an

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