Comprehensive Carbon Footprint Report for Companion Data Services

Created by CarbonCents in Collaboration with Companion Data Services

For the Reporting Year of
2023

External

COMPANION
DATA SERVICES®
A CELERIAN GROUP COMPANY

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While CarbonCents strives for the highest quality work, certain constraints within the GHG accounting process must be noted. Owing to the constraints posed by developing emission data across different scopes, comprehensive calculations of all emissions are often unattainable. Moreover, the existing information is susceptible to discrepancies, necessitating the incorporation of certain assumptions. Finally, depending on the quality of data submitted by the client, the depth of information that we receive is also a contributing factor to any assumptions and the work performed by CarbonCents, that will be stated later in the report.

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Executive Overview

This executive overview provides a concise summary of the key findings and recommendations outlined in the comprehensive Carbon Footprint Report. The report aims to assess and analyze the environmental impact of the organization's activities and operations by quantifying Greenhouse Gas (GHG) emissions across various scopes.

Scope and Methodology:

The report utilizes a comprehensive and systematic approach to measure and analyze the carbon footprint. It considers emissions from direct sources (Scope 1), indirect sources from purchased energy (Scope 2), and all other significant upstream and downstream indirect emission activities that occur in a company's value chain (Scope 3). The methodology employed is in conjunction with internationally recognized standards and protocols, specifically the GHG Protocol, ensuring accuracy and comparability of results.

Key Observations:

1.) *Emission Profile:* The report provides an in-depth breakdown of Companion Data Services', herein referred to as Company, GHG emissions, identifying major contributors and their respective scopes. This analysis updates and refines baseline emissions for 2022, but also measures 2023 emissions to monitor key increase or decreases.

2.) *Drivers:* The largest emissions stem from Electricity or Scope 2 emissions. Scope 3 is the second largest source of emissions. Scope 1's largest emissions stem from Stationary Fuels.

3.) *Data Limitations and Assumptions:* Further details for this area can be found in the Report Notes on pages 18 and 19.

Background

Carbon Footprint Reporting relies on three distinct scopes to provide a comprehensive and accurate representation of a company's total Metric Tons of Carbon Dioxide (MTCDE) emissions; following the Environmental Protection Agency (EPA) industry reporting standards. The specific emissions included in each category can vary significantly depending on the company being evaluated.

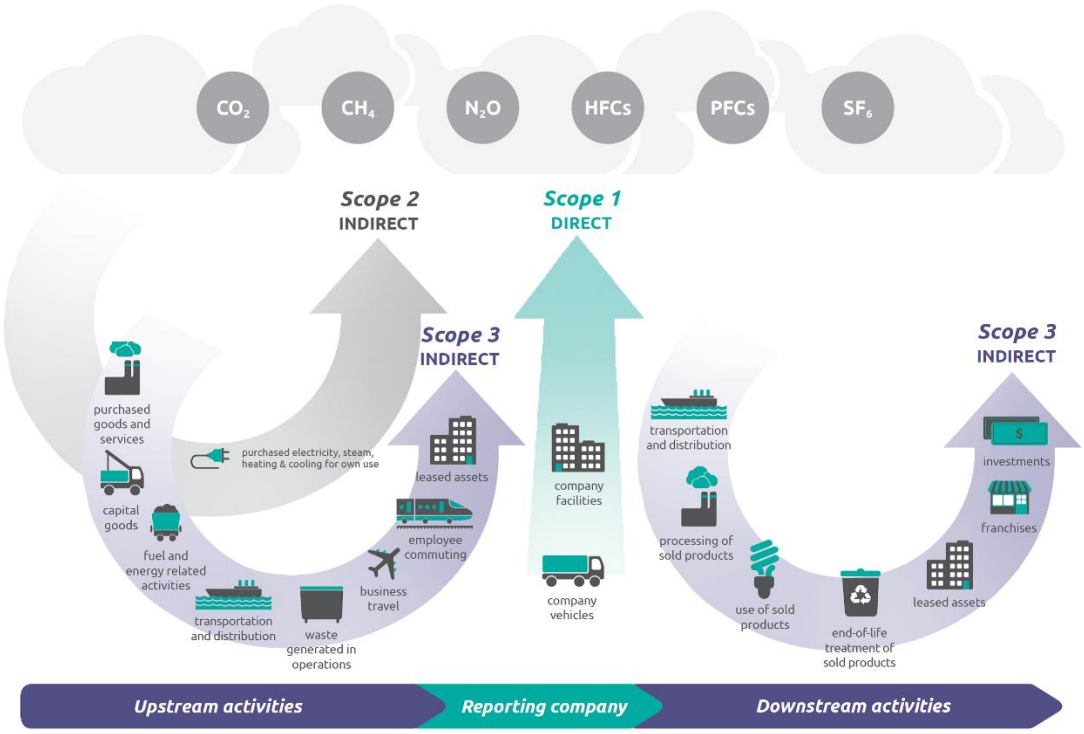

Figure 1: The Various Scope Categories Which Are Sources of Emissions. *Image Sourced from the EPA.*

At CarbonCents we encourage clients to provide all data available by presenting a "data reported" percentage. However, when clients are unable to collect data in all the necessary categories, it can inadvertently lead to a reduction in their overall score. To calculate these percentages properly, an evaluation is done to decide what emissions categories a company has versus what emissions categories a company is reporting. For example, Scope 1 is made up of stationary fuel, fertilizer, transportation fuels, and refrigerants and chemicals. If a company emits from all four categories of Scope 1 within their operations, they will have to accurately report each category in order to receive 100%. Companion Data Services received 100% for both Scope 1 and Scope 3, but received 92.31% in Scope 2 due to only having consumption for 12 out of 13 buildings.

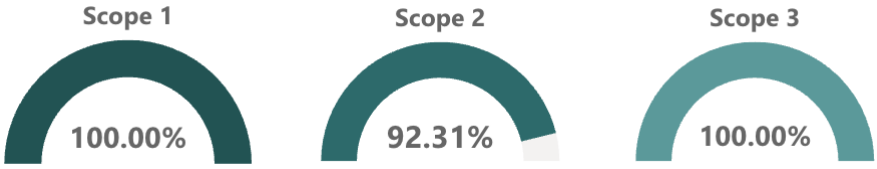

Figure 2: Data Reported Percentages per Category.

Scope 1 Categories	Reported
Fertilizers	Yes
Refrigerants & Chemicals	Yes
Stationary Fuels	Yes
Transport Fuels	Yes
Precent Reported	4/4 cat. Reported 100%

Scope 2 Categories	Reported
Purchased Electricity	Yes
Percent Reported	1/1 cat. Reported 12/13 buildings

Scope 3 Categories	Reported
Company Travel	Yes
Commuting	Yes
Paper	Yes
Waste	Yes
Food	Yes
Percent Reported	5/5 cat. Reported 100%

Table 1: Data Reported Percentages in Detail.

Overview

An overview of Companion Data Services' total carbon emissions for 2023, reported in MTCDE, can be found in **Figure 3** and **Table 2**.

Additionally, it is important to note that this report includes updated figures compared to the prior report provided in 2022. The differences are due to adjustments in methodology and calculations aimed at ensuring data accuracy. These changes also reflect updates to emission factors where necessary. The most significant change observed is in the management of company travel emissions, where both the emission factors and methodology were updated. These updates have resulted in a more accurate calculation of emissions from this category. To assist with data clarity, footnotes will include prior numbers for affected scope categories and provide explanations for the changes where applicable.

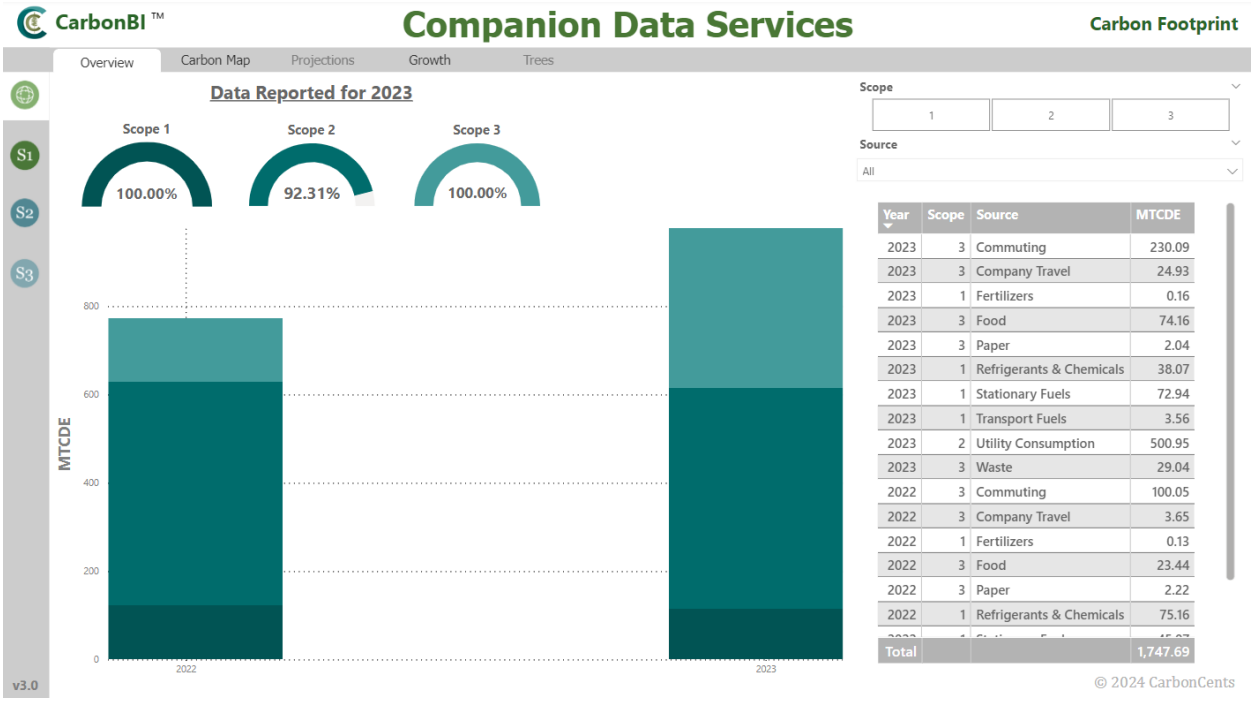

Figure 3: Annual Emissions for CDS Across All Scopes.

Companion Data Services' Carbon Footprint Overview			
	2022 Emissions	**2023 Emissions**	**Percent Change**
Scope One	123.06	114.74	-6.76%
Scope Two	506.58	500.94	-1.11%
Scope Three	142.10	360.26	153.53%
Total	771.74	975.95	26.46%

Table 2: Total Emission Breakdown. All Emissions Reported in MTCDE.

Scope One

Summary

In 2023, Scope 1 emissions account for 11.76% of total emissions whereas in 2022, Scope 1 emissions accounted for 15.95% of total emissions. A visual and numeric breakdown for Scope 1 is shown below.

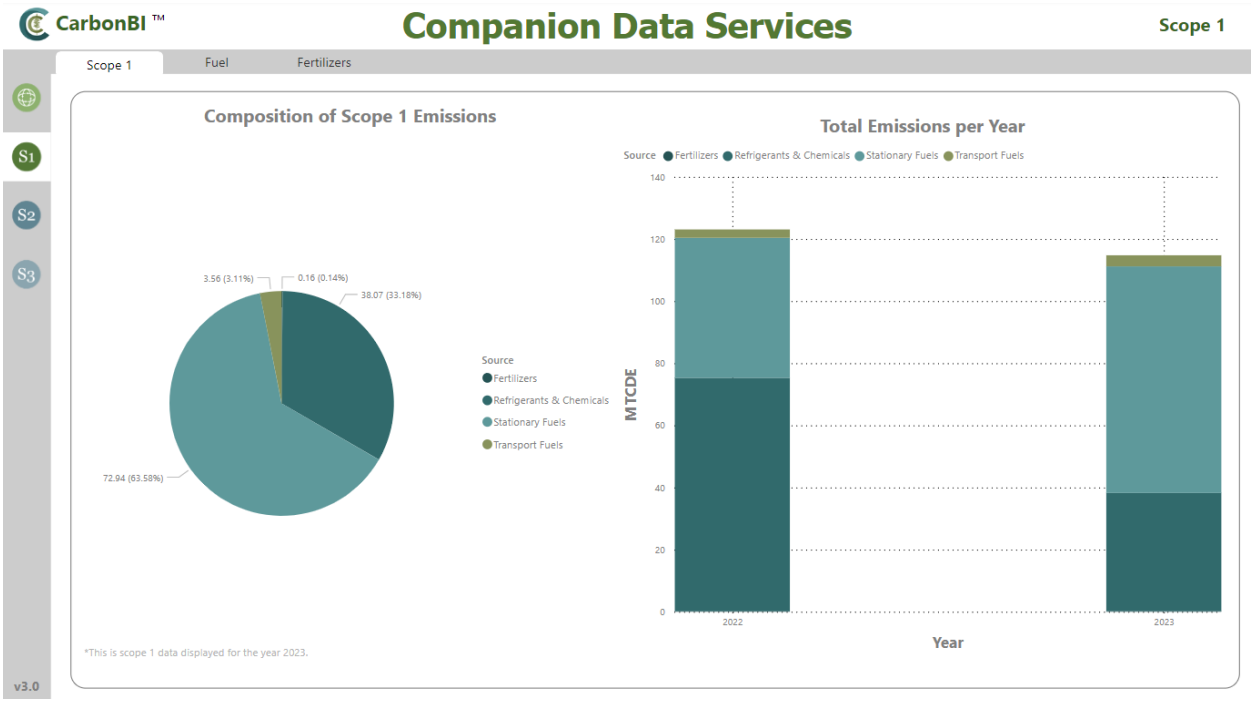

Figure 4: Total Scope 1 Emissions.

Scope 1 Emissions			
	2022 Emissions	**2023 Emissions**	**Percent Change**
Fertilizers	0.13(1)	0.16	23.08%
Refrigerants & Chemicals	75.16	38.07	-49.35%
Stationary Fuels	45.07(2)	72.94	61.84%
Transport Fuels	2.69	3.56	32.34%
Total	123.06	114.74	-6.76%

Table 3: Total Emissions for Scope 1 by Year in MTCDE.

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(1): 0.02 MTCDE, methodology updates for N2O.
(2): 45.00 MTCDE, methodology updates for N2O and CH4.

Scope One Categories

Stationary & Transport Fuels

The Fuel page visual includes emissions from direct GHG emissions resulting from facility operations on location. With respect to the project, Stationary Fuel usage relates to the combustion of natural gas for the purposes of producing electricity or providing heat for the Tower facility. Transport Fuels are the combustion of fuels for vehicles and other mobile sources related to the company's fleet vehicles. A summary of this data can be found below.

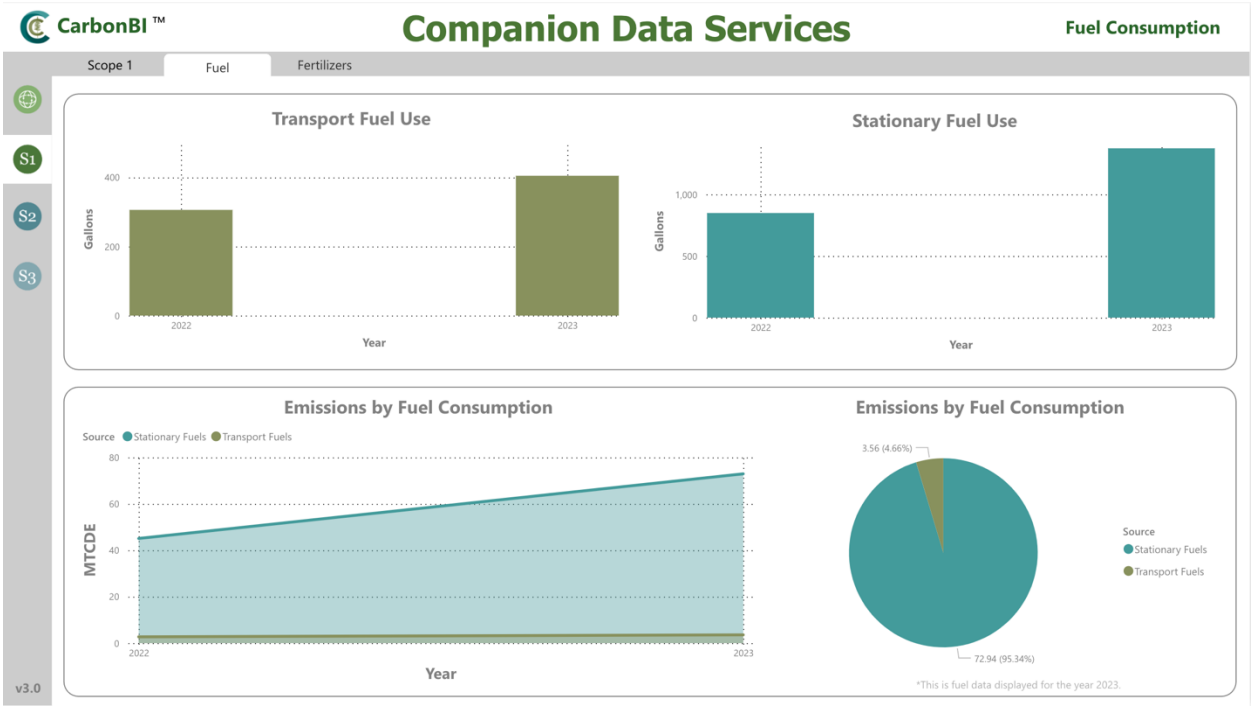

Figure 5: Transport & Stationary Fuel Emissions.

Stationary Fuels			
	2022	**2023**	**Percent Change**
Emissions [MTCDE]	45.07	72.94	61.84%

Table 4: Total Emissions of Stationary Fuels.

Transport Fuels			
	2022	**2023**	**Percent Change**
Emissions [MTCDE]	2.69	3.56	32.34%

Table 5: Total Emissions of Transport Fuels.

Fertilizer

Chemical (non-organic) Fertilizers are used to maintain shrubbery and plants around premises. Chemical Fertilizers are a contributor to GHG due to the release of Nitrous Oxide during its application. Specific to Fertilizers, a future conversation can be held regarding the significant energy required for its production reflecting in Scope 3, indirect, emissions; but specific to this report the emphasis is in Scope 1 application emissions.

Because the Company only uses fertilizers to support its landscaping around facilities, it does not represent a significant part of its Carbon Footprint. Fertilizers, comparative to the other emitters in Scope 1, maintain the lowest source of emissions.

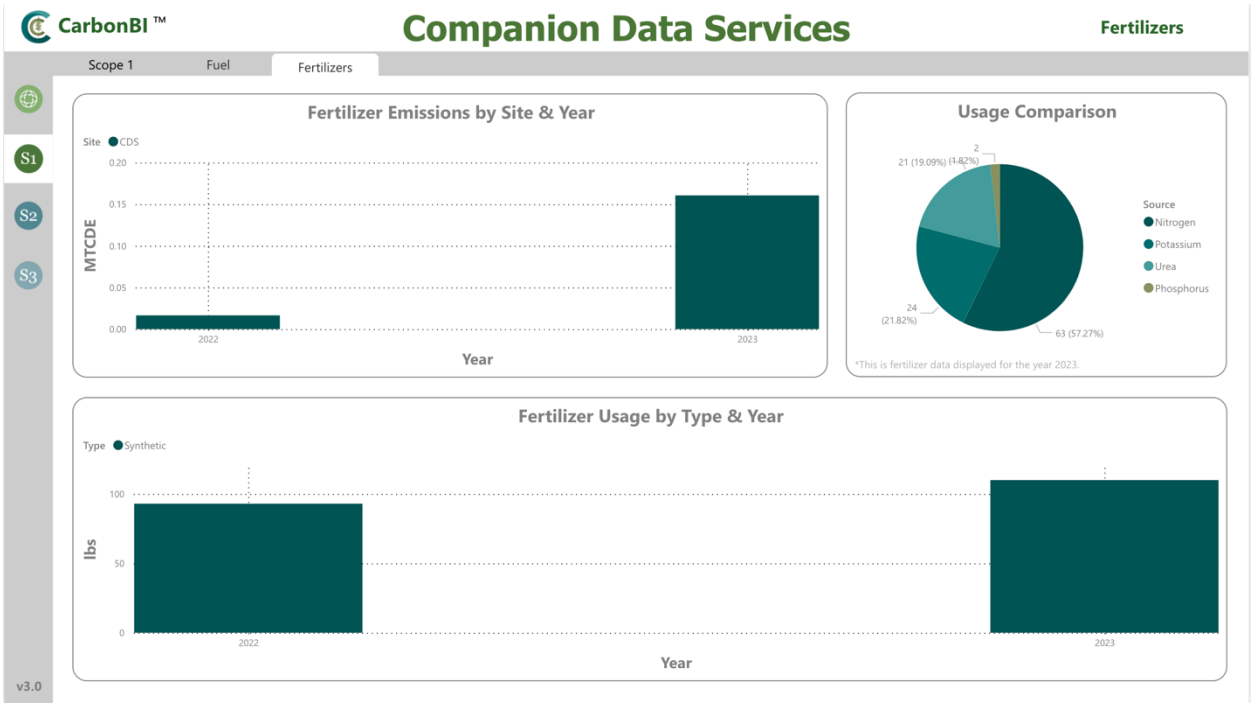

Figure 6: Fertilizer Emissions.

Fertilizers			
	2022	**2023**	**Percent Change**
Nitrogen [MTCDE]	0.12	0.14	16.67%
Urea [MTCDE]	0.02	0.02	0.00%
Total	0.14	0.16	14.29%

Table 6: Total Emissions of Fertilizers by Type.

Refrigerants & Chemicals

For the Company, emissions from the fugitive release of refrigerants & chemicals originate exclusively from HVAC system refills across its various buildings. When refills are needed, it typically results from the release or leak of these chemicals into the atmosphere, contributing to GHG emissions.

Refrigerants			
	2022	**2023**	**Percent Change**
R-22 [MTCDE]	11.56	13.32	15.22%
R-134A [MTCDE]	57.91	18.33	-68.35%
R-410A [MTCDE]	5.69	6.42	12.83%
Total	75.16	38.07	-49.35%

Table 7: Total Emission for Refrigerants by Type.

A significant decrease in usage was observed from 2022 to 2023, which supported the reduction of fugitive emissions.

It's important to highlight that the Global Warming Potential (GWP) of refrigerants for R-22, R-134A, and R-410A vary greatly, which is the overall driver GHG emissions for refrigerants. The higher GWP of R-410A compared to R-134A and R-22 means that even small quantities can result in substantial emissions.

Additionally, the difference in the report's MTCDE between the 2022 report and this year's update is partly due to the us of updated emission factors, which provide a more precise measurement of environmental impacts.

Scope Two

Summary

Scope 2 emissions account for 51.33% of the Company's total emissions in 2023. A visual and numerical breakdown of Scope 2 emissions is shown below.

Scope Two Categories

Purchased Electricity

Scope 2 is comprised of emissions resulting from the production of electricity that is purchased and consumed by the Company. Electricity was the only contributor to the Company's Scope 2 emissions at the time this report was written.

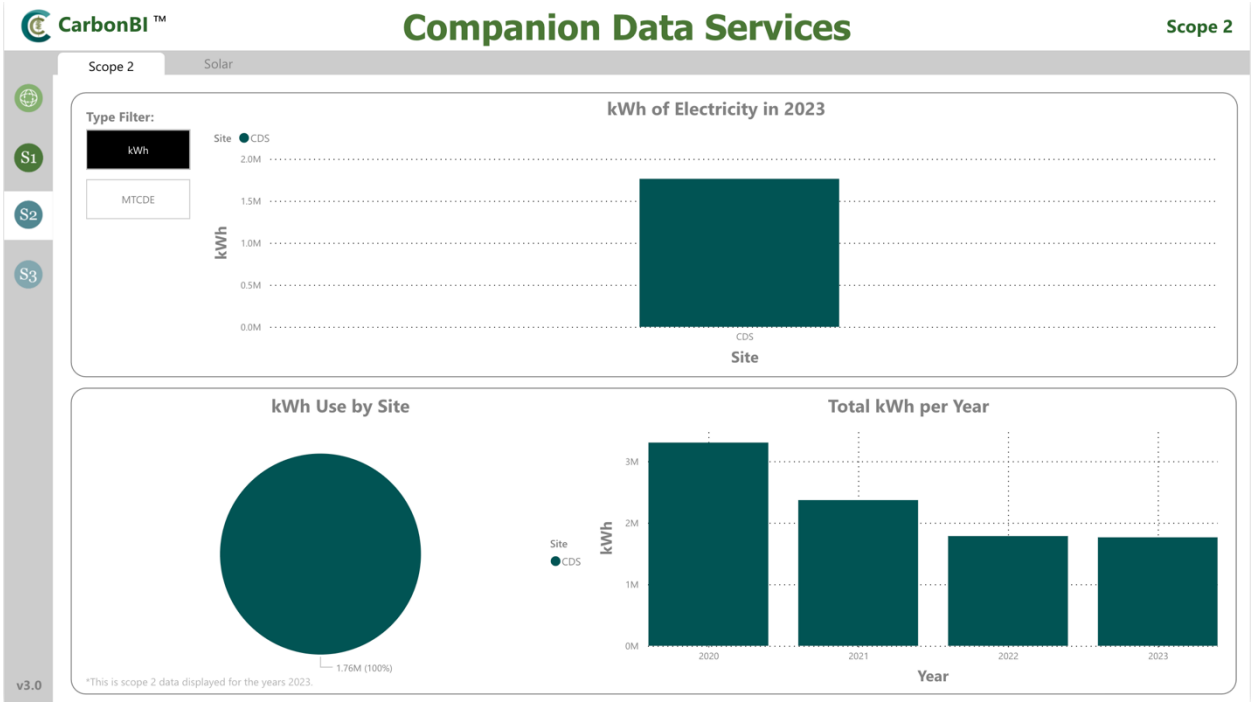

Figure 7: Total Scope 2 Emissions.

Scope 2 Emissions			
	2022	**2023**	**Percent Change**
Electricity	506.58[3]	500.95	-1.11%

Table 8: Total Emissions for Scope 2 by Year in MTCDE.

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(3): 423.26 MTCDE, Update to Subregional Emission Factors.

Scope Three

Summary

Scope 3 emissions are the result of activities from assets not owned or controlled by the reporting organization, but that the organization indirectly affects in its value chain, categorized as indirect emissions. Scope 3 emissions include all sources not within an organization's Scope 1 and 2 boundaries. Scope 3 emission sources include emissions both upstream and downstream of the organization's activities (ie. Vendor/supplier and customer) which can inherently make the gathering of GHG data challenging.

Scope 3 emissions account for 36.91% of the Company's total emissions in 2023. A visual and numerical breakdown of Scope 3 emissions is shown below.

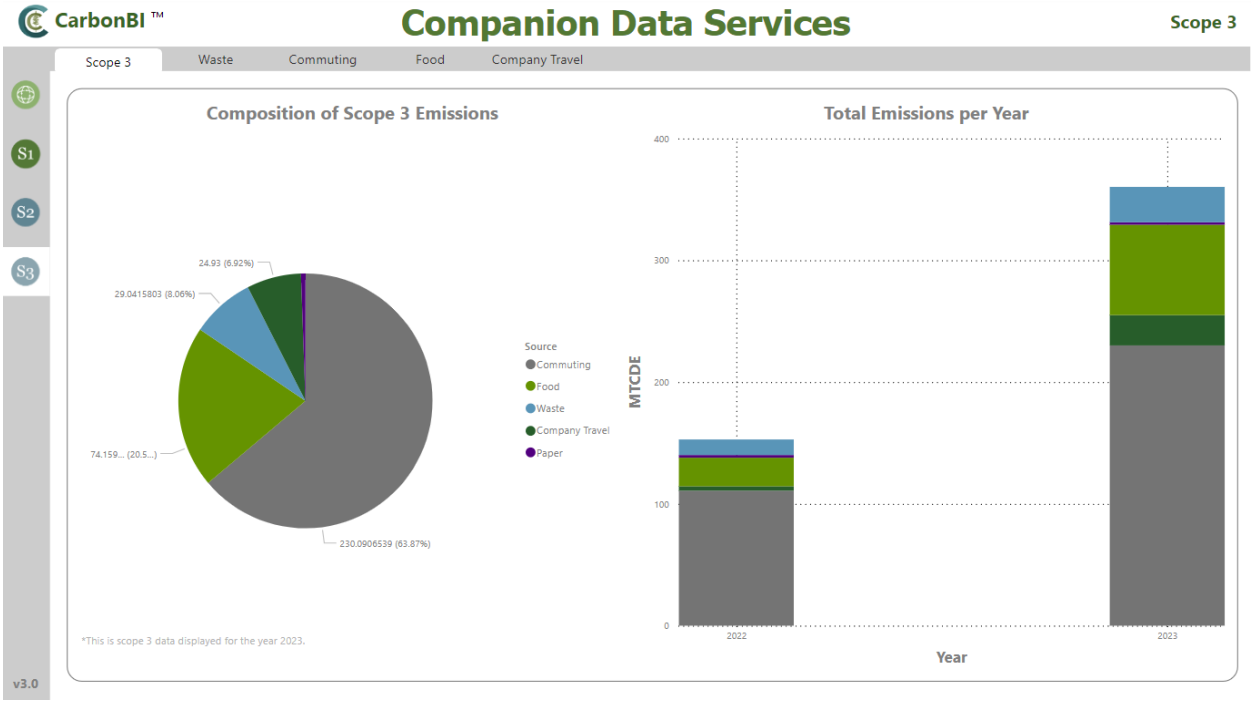

Figure 8: Total Scope 3 Emissions.

Scope 3 Emissions			
	2022	**2023**	**Percent Change**
Company Travel	3.65(4)	24.93	583.01%
Commuting	100.05(5)	230.09	129.98%
Paper	2.22(6)	2.04	-8.11%
Waste	12.74	29.04	127.94%
Food	23.44(7)	74.16	216.38%
Total	142.10	360.26	153.53%

Table 9: Total Emissions for Scope 3 by Year in MTCDE.

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(4): 249.31 MTCDE, methodology and emission factor updates.
(5): 110.83 MTCDE, emission factor update.
(6): 2.18 MTCDE, emission factor updates.
(7): 18.56 MTCDE, emission factor updates.

Scope Three Categories

Company Travel

Company Travel encompasses travel activities undertaken by employees or representatives on behalf of the business, namely commercial flights, and automobiles. This category represents 6.92% of total Scope 3 emissions and 2.55% of total emissions in 2023.

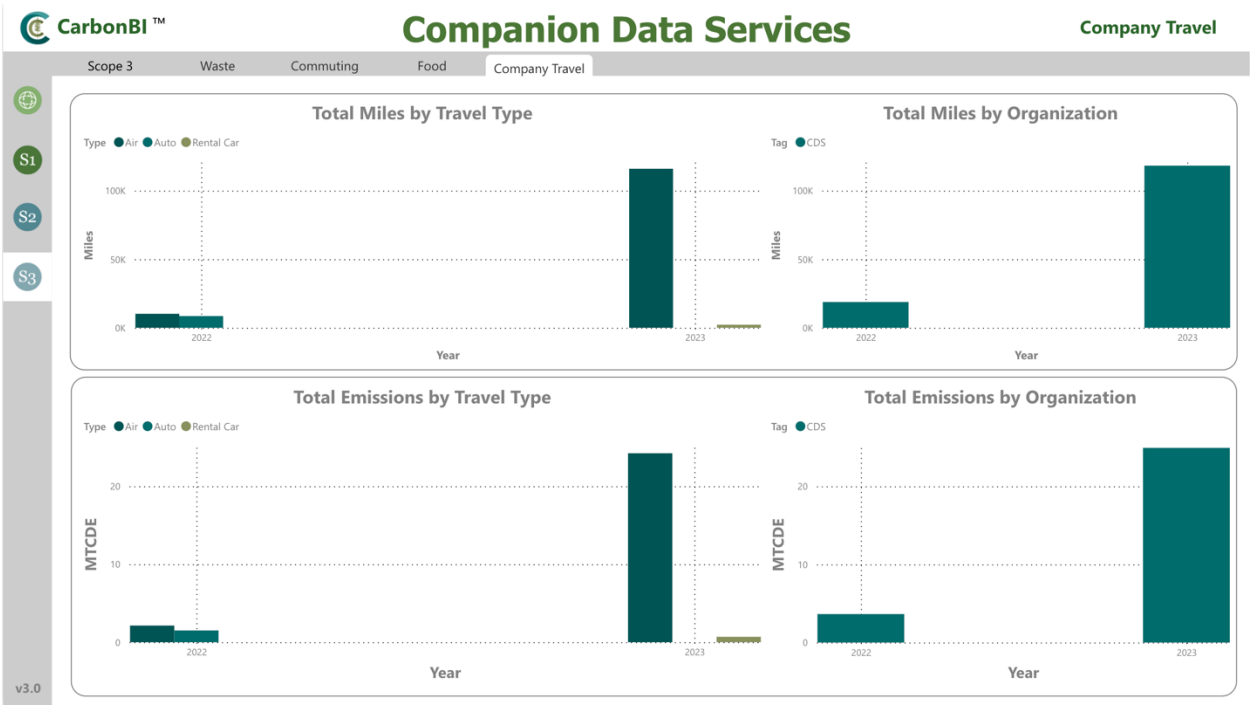

Figure 9: Company Travel Emissions.

Company Travel				
		2022	2023	Percent Change
CDS	Auto Emissions [MTCDE]	1.51	0.69	-54.30%
	Air Emissions [MTCDE]	2.14	24.24	1,032.71%
	Total	3.65	24.93	583.01%

Table 10: Total Company Emissions by Type and Company.

Updates in both emission factors and the methodology used for calculating Company Travel emissions have led to a significant reduction in reported emissions, providing a more accurate representation of the Company's environmental impact.

Commuting

Fossil Fuel consumed from employees commuting to and from work, whether diesel or gasoline, is categorized as Scope 3 emission. It represents 63.87% of total Scope 3 and 23.58% of total emissions. Detailed information regarding commuting was not available from the Company. Due to this, we approximated GHG emissions based on the number of employees commuting miles driven to and from the office and applied the EPA's Fuel Economy Site's emission factors. With the limitation on make, model, and year of the vehicles, we utilized an average number from a variety of fuel efficient to non-efficient vehicles to best estimate our assumption.

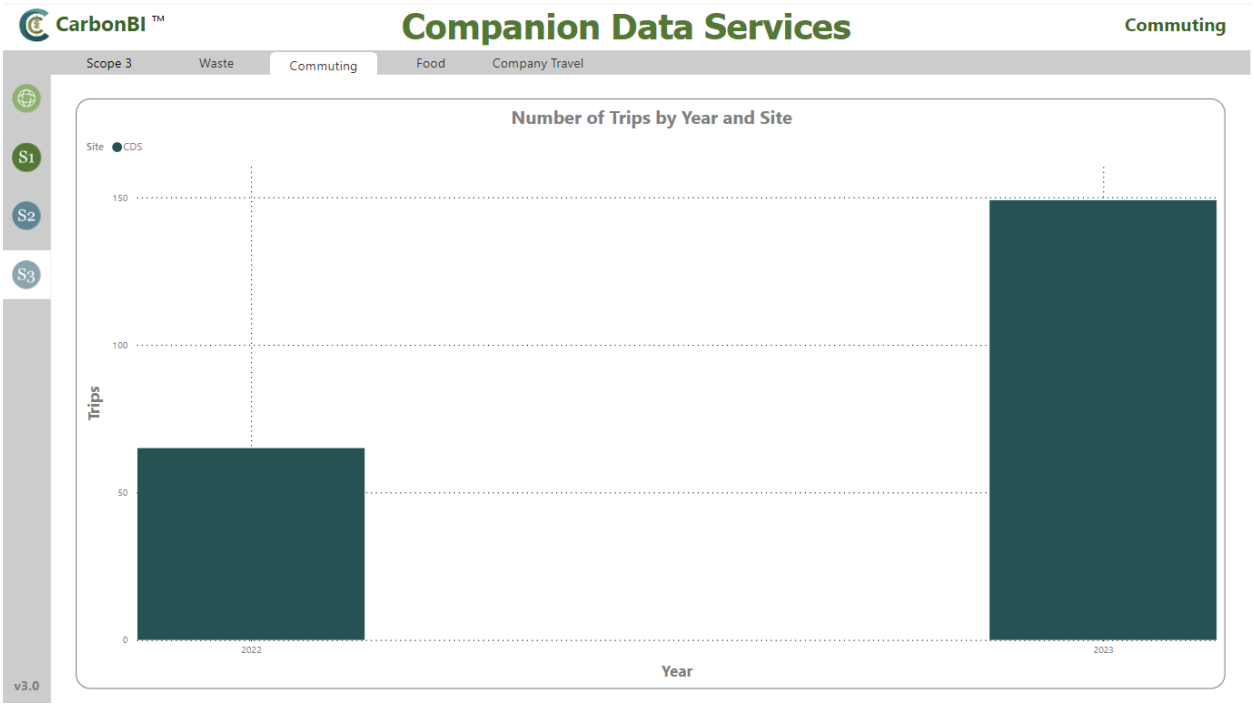

Figure 10: Commuting Emissions

Commuting			
	2022	**2023**	**Percent Change**
Emissions [MTCDE]	100.05	230.09	129.98%

Table 11: Total Commuting Emissions.

As time has passed since the peak of the COVID-19 pandemic, more employees have begun returning to the office, resulting in an increase in commuting miles. This shift back to in-person work has led to a corresponding rise in fossil fuel consumption for daily commutes, contributing to higher Scope 3 emissions from employee travel.

Paper

The production of paper results in the emissions of GHG. The source of paper consumption for CDS comes from Domtar, an American company that manufactures paper and other pulp products in various countries and provides rolls and cutsheet paper to the Company. Paper accounts for 0.57% of Scope 3 emissions and 0.21% of total emissions.

Paper			
	2022	**2023**	**Percent Change**
Emission [MTCDE]	2.18	2.04	-6.42%

Table 12: Total Paper Emissions.

Waste

Waste encompasses all activities that result in the generation of materials being sent to the landfill. At this point in time, we are also categorizing the recycling of cardboard and office paper under Scope 3 emissions, as these activities contribute to the emissions generated during the creation of "waste." Waste accounts for 8.06% of Scope 3 emissions and 2.98% of total emissions.

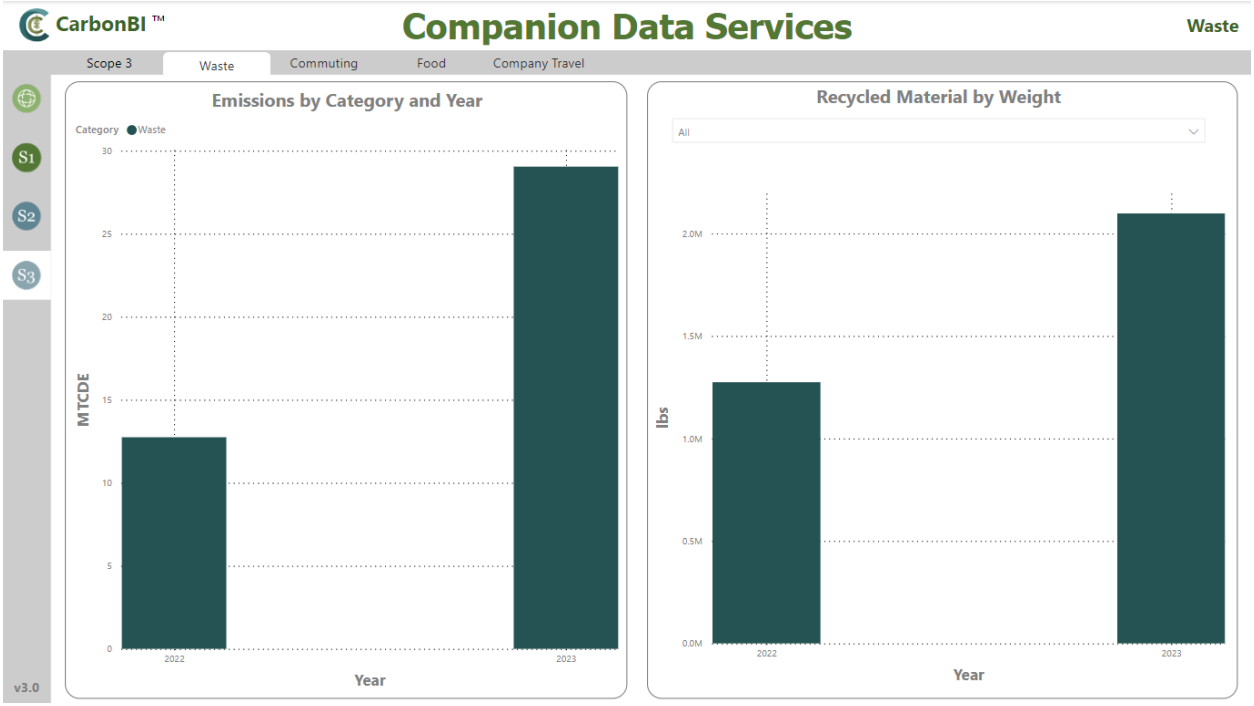

Figure 11: Waste Emissions.

Waste			
	2022	2023	Percent Change
Municipal Solid Waste [MTCDE]	-	5.52	100.00%
Recycled Office Paper [MTCDE]	12.74	20.98	64.68%
Cardboard [MTCDE]	-	2.54	100.00%
Total	12.74	29.04	127.94%

Table 13: Total Emissions from the Various Waste Operations.

The recycling of materials results in the diversion of waste from the landfill, in return avoiding potential emissions, on top of supporting the transition to a circular economy. Through the processing of recycling, subsequently there are GHG emissions generated. Compared to the lifetime emissions from landfilled waste, recycling lessens an organization's impact. When looking at recycled office paper for 2023, the Company was able to avoid around 1,478.91 MTCDE if the 2,097,739.05 pounds of paper were landfilled.

Additionally, it is important to note that wastewater emissions were removed from the scope of Scope 3 emissions since the category is no longer deemed as an area of significance for the Company's due to the inability to influence their wastewater treatment process.

Food

The Company operates several cafeterias for its employees. Cafeterias and the food service industry in general incur GHG emissions indirectly through its supply chain. The emissions provided by this report are calculated to include cradle-to-gate operations. This popular industry phrase stands for the boundary conditions that covers the activities from the extraction of materials to the point where the product, and or food in this case, leaves the 'factory/manufacturer gate' to its consumer. Utilizing the total purchased food in weight by the provider, Sysco, we used emission factors from two sources, to cover obscure products and large food groups, to calculate emissions. Food represents 20.59% of Scope 3 emissions and 7.60% of total emissions.

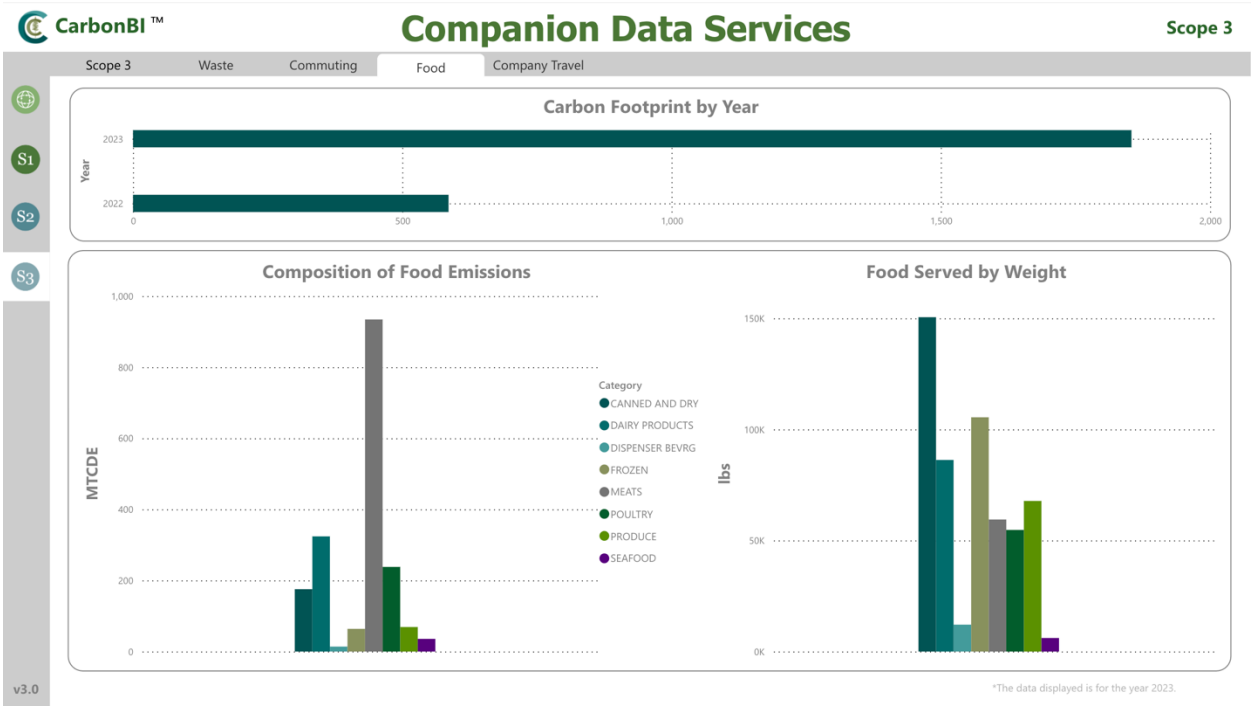

Figure 12: Food Emissions.

Food			
	2022	**2023**	**Percent Change**
Food [MTCDE]	23.44	74.16	216.38%

Table 14: Total Food MTCDE.

Similar to Commuting, Food has seen an increase of consumption due to an increase of in office workers.

Report Notes

This section aims to shed light on the various limitations encountered by CarbonCents' Carbon Consultants during the execution of the Carbon Footprint. By identifying and understanding these limitations, we can derive valuable insights to enhance future project planning, mitigate risks, and improve overall project delivery. Below we will go through any and all areas in which it is valuable to address this in order of the Scopes presented above.

1. **Electricity Emission Factors**: The eGRID has not released the 2023 electricity emission factors. As best practice, we have used the most recent available data from 2022 for this report. Once these numbers are released, we will updated accordingly.
2. **Electricity Consumption for Companion Life Building**: Due to the unavailability of current electricity consumption data for the CDS: PA office, we reused the previous year's data. Based on the combined best judgement, it was assumed no significant changes in consumption patterns.
3. **Transport Fuel Calculations**: The U.S. Department of Transportation average fuel economy by vehicle type information was utilized to estimate the miles per gallon of fuel consumption for fleet vehicle transport-related activities, providing an accurate measure of emissions.
4. **Commuting Emissions**: In the absence of specific vehicle information for each commuter, assumptions regarding the types of vehicles used for commuting was made.
5. **Company Travel**: For Company Travel, we assumed that all flights were short-haul, as detailed flight information was not provided. This assumption aligns with typical business travel patterns.
6. **Food Emissions**: Emissions related to food were calculated using two different sources. One provided a higher level of accuracy, while the other required assumptions for the less defined items due to the broad rand of food types and options available. Sixty-six percent of the data used our first level emission factors and thirty three percent used our second level emission factors.
7. **Waste Emissions**: The emissions for cardboard and municipal office waste estimated based on the size and frequency of dumpster pickups utilizing an equation from the EPA's volume-to-weight estimation sheet. For recycled office paper, avoided emissions were calculated by comparing the potential landfill emissions with the emissions resulting from recycling.

These notes outline the methodologies and assumptions applied in the report, ensuring transparency in how the data was handled.

Conclusion

In conclusion, this Carbon Footprint Report provides a comprehensive analysis of Companion Data Services' environmental impact through the quantification of Greenhouse Gas emissions. In writing Carbon Footprint reports, we aim to provide the ability to gain valuable insight into the sources and scopes of your emissions, and through this enable the awareness of current operations.

As per CarbonCents standards, we uphold and go beyond industry standards to provide the most accurate and specific emissions equivalents for each organizations operations. Our unique database has been compiled from a combination of publications from EPA, EIA, IPCC, and peer reviewed sources as our factors, and if further information is required, please contact any CarbonCents representative.

It is essential to highlight that our Carbon Footprint assessment is an ongoing process. Regular monitoring, reporting, and reassessment of emission reduction initiatives are necessary to ensure continuous improvement and cost reductions and to align with evolving environmental standards and regulations.

In closing, we extend our gratitude to all individuals and teams involved in the data collection, analysis, and reporting processes. Their dedication and commitment have been instrumental in providing us with necessary insights to drive positive change.