

Comprehensive Carbon Footprint Report for Companion Data Services

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Created by CarbonCents in Collaboration
with Companion Data Services

For the Reporting Year of
2022
External Version



COMPANION
DATA SERVICES®

A CELERIAN GROUP COMPANY



Legal Disclaimer

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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 is 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 Company's activities and operations by quantifying Greenhouse Gas (GHG) emissions across various scopes.

Scope and Methodology:

The report adopts a robust and systematic approach to measure and evaluate said carbon footprint. It considers emissions from direct sources (Scope 1), indirect sources from purchased energy (Scope 2), and upstream and downstream activities (Scope 3). The methodology employed follows internationally recognized standards and protocols, specifically GHG Protocol, ensuring accuracy and comparability of the results.

Key Observations:

- 1.) *Emission Profile:* The report provides an in-depth breakdown of our organization's GHG emissions, highlighting the major contributors and their respective scopes. The analysis currently provides a baseline for emissions.
- 2.) *Drivers:* The largest emissions stem from Scope 2 Purchased Electricity with 408.04 Metric Tons of Carbon Dioxide Equivalent (MTCDE), followed by Scope 3 sub-categories of Business Sponsored Travel then Commuting.
- 3.) *Data Limitations and Assumptions:* Further details for this area can be found in the Report Notes on pages 19 and 20. The main limitations encountered were the difficulties that surround leased buildings followed by general assumptions for gasoline consumption emissions.



Background

Carbon Footprint Reporting relies on three separate scopes to accurately represent the full sum of Metric Tons of Carbon Dioxide (MTCDE) emitted by a company, following the Environmental Protection Agency (EPA) industry reporting standards.

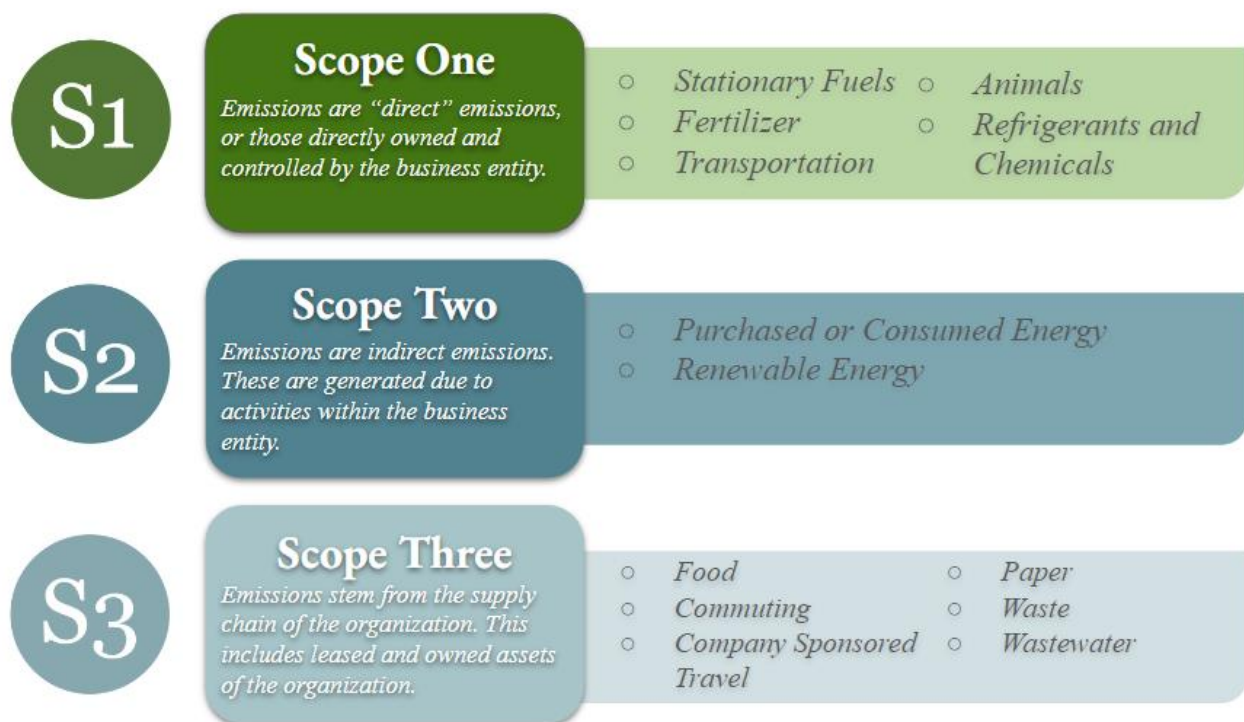


Figure 1: The Various Scope Categories Which are Sources of Emissions.



At CarbonCents we encourage clients to provide all data available by presenting a “data reported” percentage. In order 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, animals, and refrigerants and chemicals. If a company emits from all five categories of Scope 1 within their operations, they will have to accurately report each category in order to receive a 100%. Companion Data Services received a 100% for both Scope 1 and 2 but received an 83% for Scope 3 because they were unable to provide waste data.



Figure 2: Data Reported Percentages per the Company.

Scope 1 Categories	Emits	Reported	Scope 2 Categories	Emits	Reported	Scope 3 Categories	Emits	Reported
Animals	No		Purchased Electricity	Yes	Yes	Food	Yes	Yes
Fertilizers	Yes	Yes	Percent Reported	1 cat.	1/1 cat. Reported = 100%	Commuting	Yes	Yes
R & C	Yes	Yes				Company Sponsored Travel	Yes	Yes
Stationary Fuels	Yes	Yes				Paper	Yes	Yes
Transport Fuels	Yes	Yes				Waste	Yes	No
Percent Reported	4 cat.	4/4 cat. Reported = 100%				Wastewater	Yes	Yes
						Percent Reported	6 cat.	5/6 cat. Reported = 83%

Table 1: Data Reported Percentages in Detail.



Overview

An overview of CDS emissions reported in MTCDE can be found in **Figure 3**.

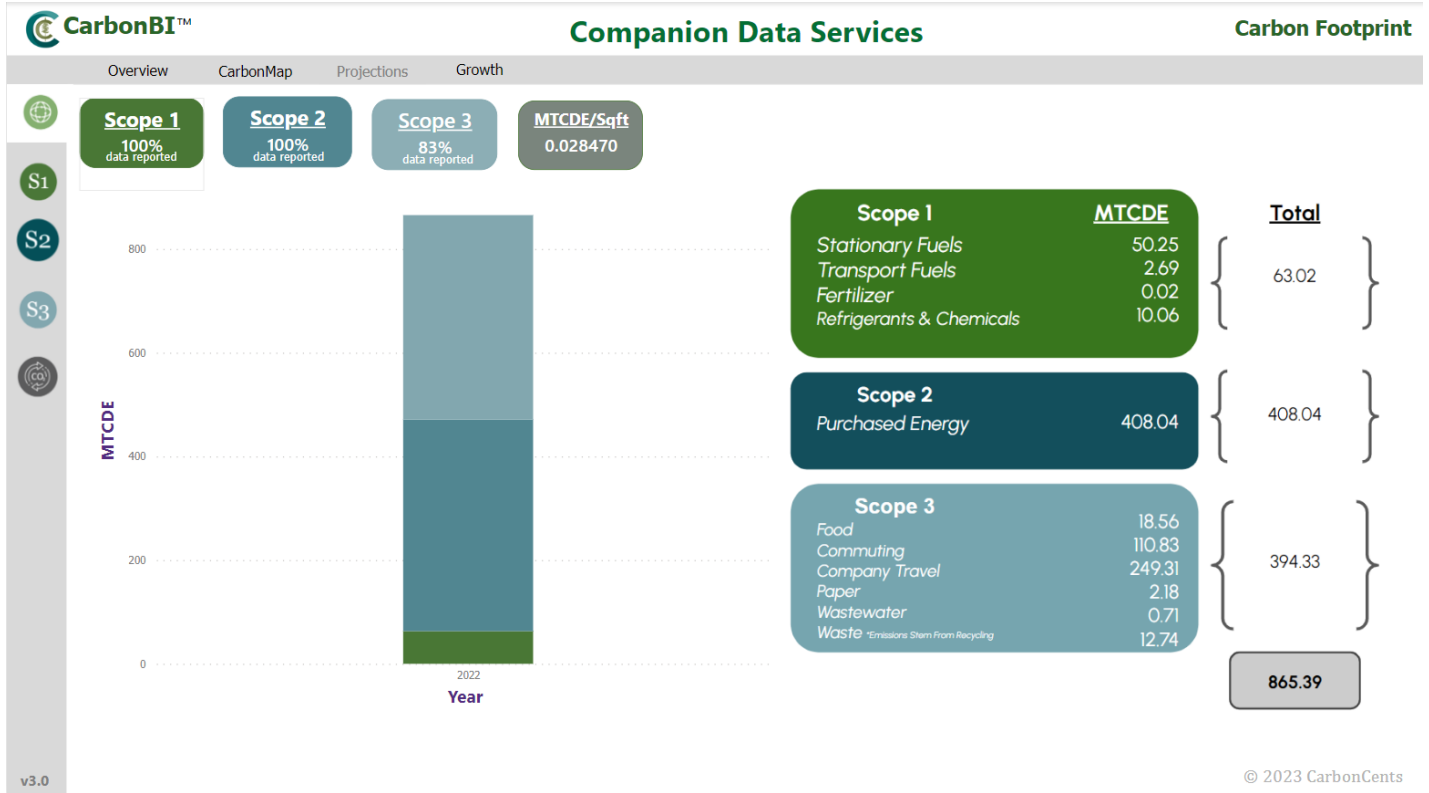


Figure 3: Annual Emissions for CDS Across all Scopes.

CDS Carbon Footprint Overview				
	Scope One	Scope Two	Scope Three	Total
2022 Emissions	63.02	408.04	394.33	865.39

Table 2: Total Emissions Breakdown by Scope, All Emissions Reported in MTCDE.



Scope One

Summary

Scope 1 emissions account for 7.28% of CDS's total emissions. A visual and numerical breakdown of Scope 1 emissions is shown below.

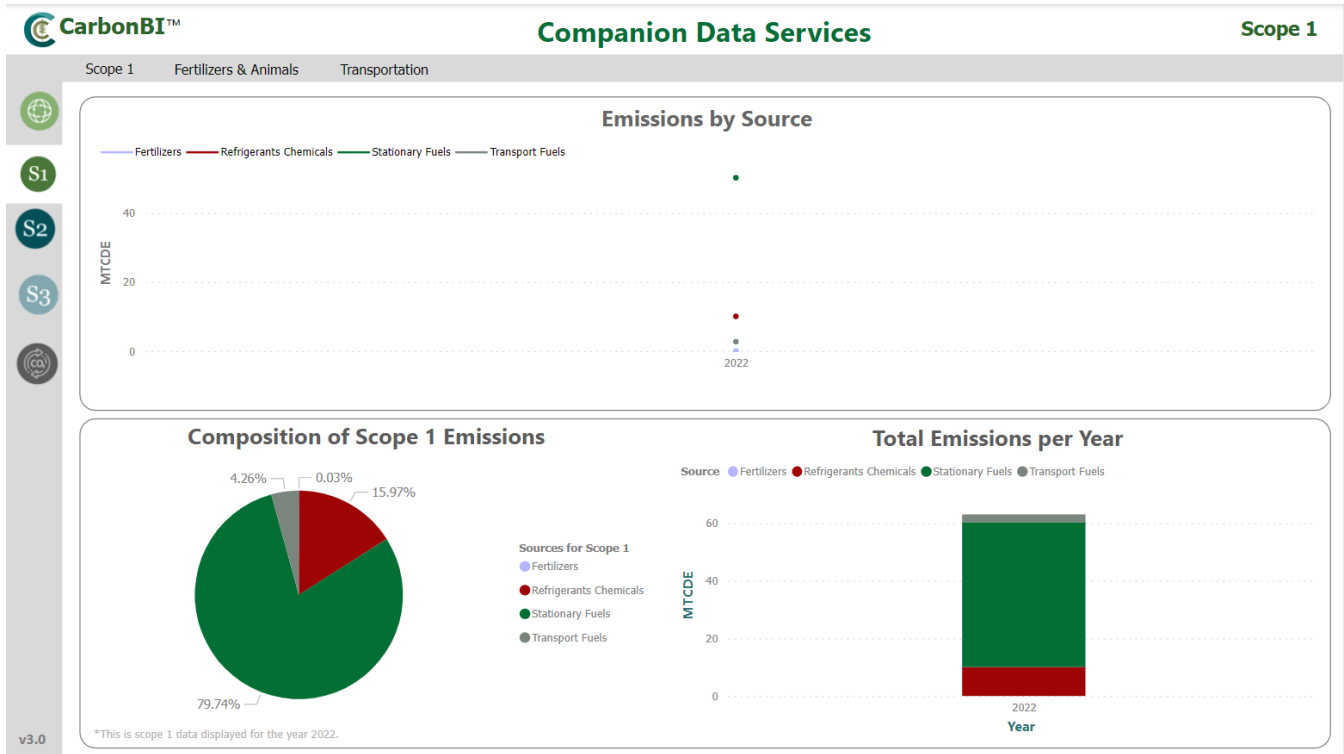


Figure 4: Total Scope 1 Emissions for CDS.

Scope 1 Emissions				
	Fertilizers	Refrigerants & Chemicals	Stationary Fuels	Transport Fuels
2022	0.02	10.06	50.25	2.69

Table 3: Total Emissions for Scope 1 in 2022 for MTCDE.

Stationary Fuels are the largest consumer followed by Refrigerants & Chemicals and Transport Fuels.



Scope One Categories:

Stationary & Transport Fuels

With respect to the Company, Stationary (non-transport) Fuel usage relates to the combustion of natural gas for the purpose of producing electricity or providing heat for the Tower facility specifically. Meanwhile, Transport Fuels are the combustion of fuels for vehicles and other mobile sources related to its fleet vehicles. A summary of this data can be seen below.

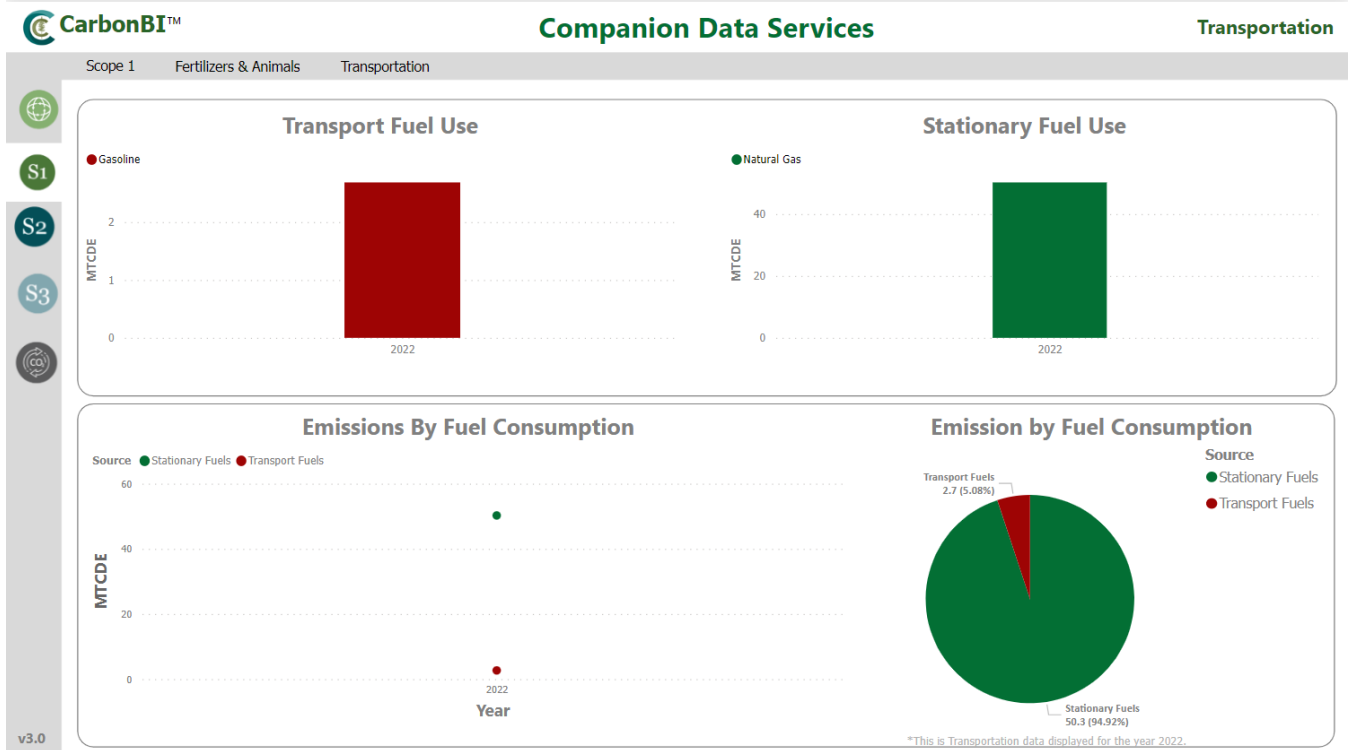


Figure 5: CDS Transport & Stationary Fuel Emissions.

Scope 1 Fuels		
Year	Transport Fuels	Stationary Fuels
2022	2.69	50.25

Table 4: Total Emissions reported in MTCDE.



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, being only 0.02 MTCDE.

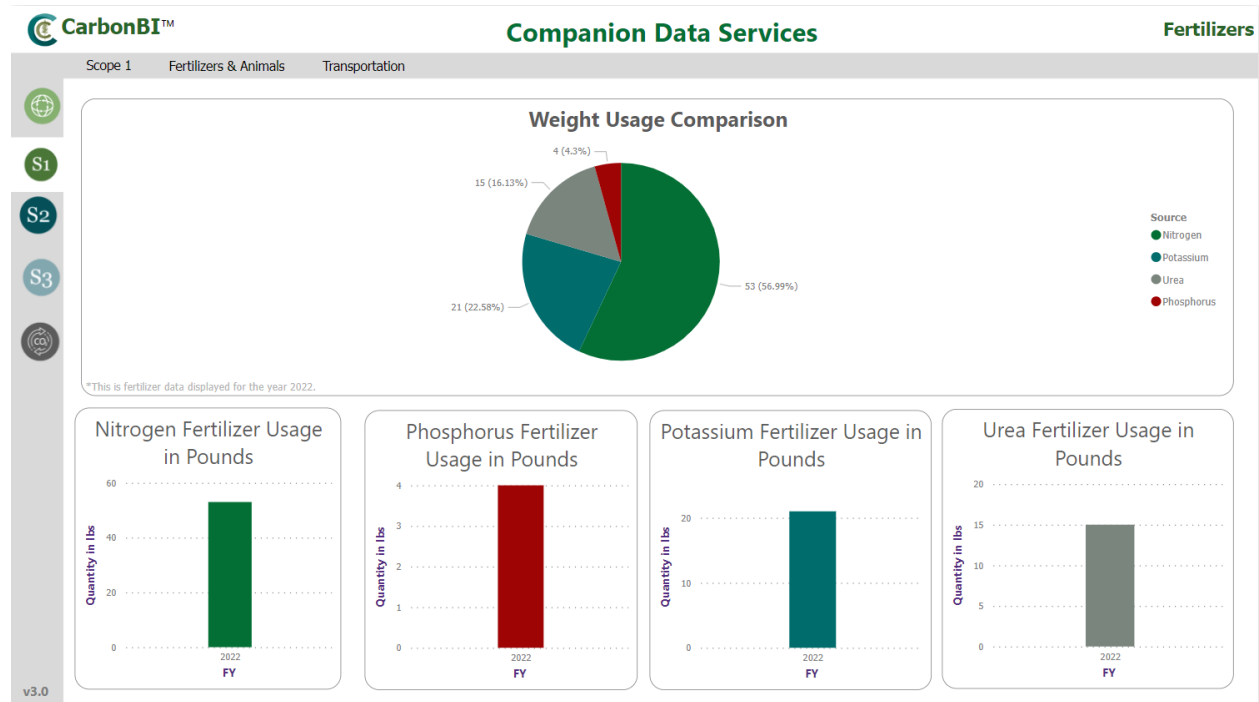


Figure 6: Scope 1 Category- Fertilizer Use & Emissions.

Fertilizers				
Year	Nitrogen	Phosphorus	Potassium	Urea
2022	0.000442	0	0	0.016125

Table 6: Total MTCDE of Various Fertilizers for 2022.

Nitrogen based fertilizer was the most utilized fertilizer type following potassium, urea, and phosphorus. However, the largest emissions stem from Urea Fertilizers with 0.01612 MTCDE with Nitrogen being 0.00044 MTCDE.



Refrigerants & Chemicals

For the Company, emissions from fugitive Refrigerants & Chemicals source solely from HVAC refills for the various buildings that make up the Company. When there is a need for refills, it correlates with the release of the chemical into the atmosphere, resulting in GHG emissions. Refrigerants & Chemicals account for 15.96% of Scope 1 emissions, and 1.16% of total emissions.

Refrigerant Refill	
Source	2022
R-22	0.92455
R-134A	5.20705
R-410A	0.92455

Table 7: Total MTCDE of Refrigerants and Chemicals per Refrigerant Type.



Scope Two

Summary

Scope 2 emissions account for 47.15% of the Company’s total emissions. A visual and numerical breakdown of Scope 2 emissions is shown below. Purchased electricity was the only contributor to CDS’s Scope 2 emissions.

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.

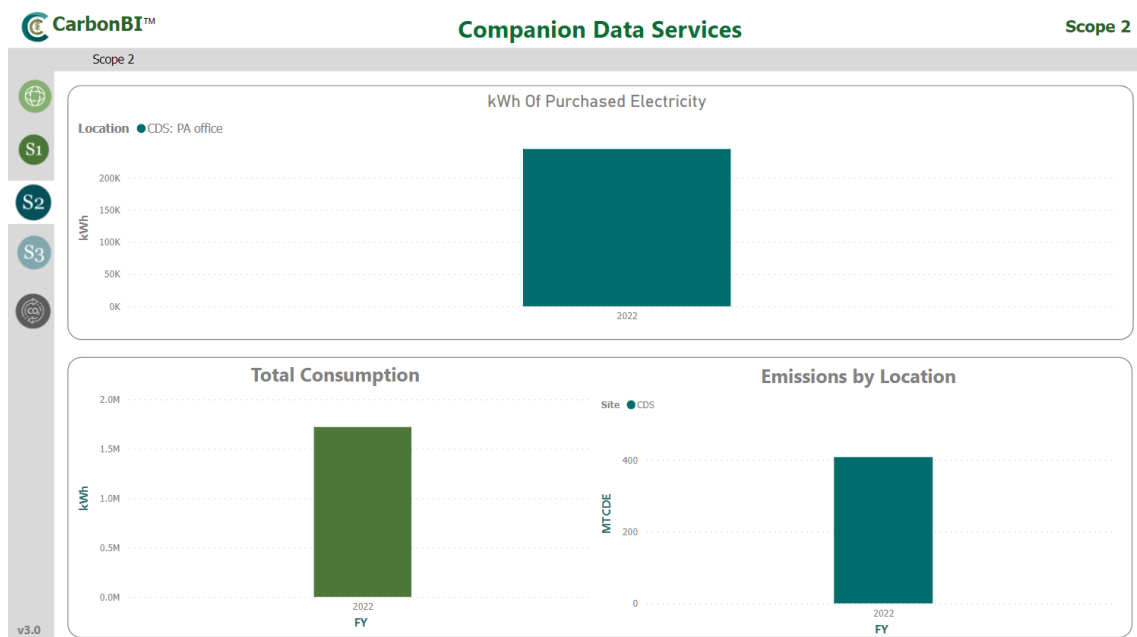


Figure 7: Total Scope 2 Emissions for CDS.

Scope 2 Emissions	
	Emissions [MTCDE]
2022	408.04

Table 8: Total Emissions for Scope 2 in 2022.

EUI Efficiency Values		
	Building Sq. Footage (PA office)	EUI
2022	6,678.00	36.65

Table 9: EUI, Energy Use Intensity, Efficiency Values.



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 45.57% of the Company’s total emissions. A visual and numerical breakdown of Scope 3 emissions is shown below.

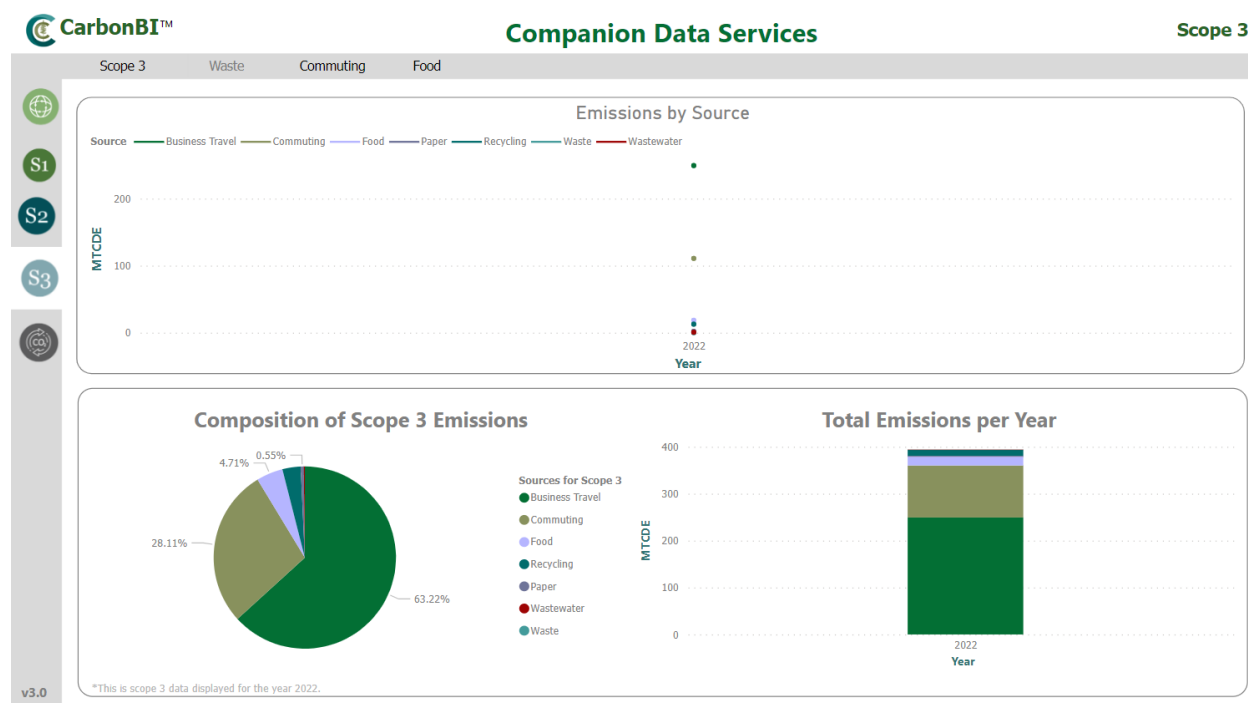


Figure 8: Total Scope 3 Emissions for CDS.

Scope 3 Emissions							Total
	Business Travel	Commuting	Paper	Food	Wastewater	Waste**	
2022	249.31	110.83	2.18	18.56	0.71	12.74	394.33

Table 10: Total Emissions for Scope 3 in 2022 for MTCDE.

**As noted earlier in the report, the Company did not report Waste Consumption numbers, however at this point in time we will be including emission from recycling underneath this category.



Scope Three Categories:

Employee Commuting

Fossil Fuel consumed by employees commuting, diesel or gasoline, to and from work is categorized as Scope 3 emission. It represents 28.11% of total Scope 3 and 12.81% 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 Fuel Economy Site's emission factors generated by the EPA. 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.

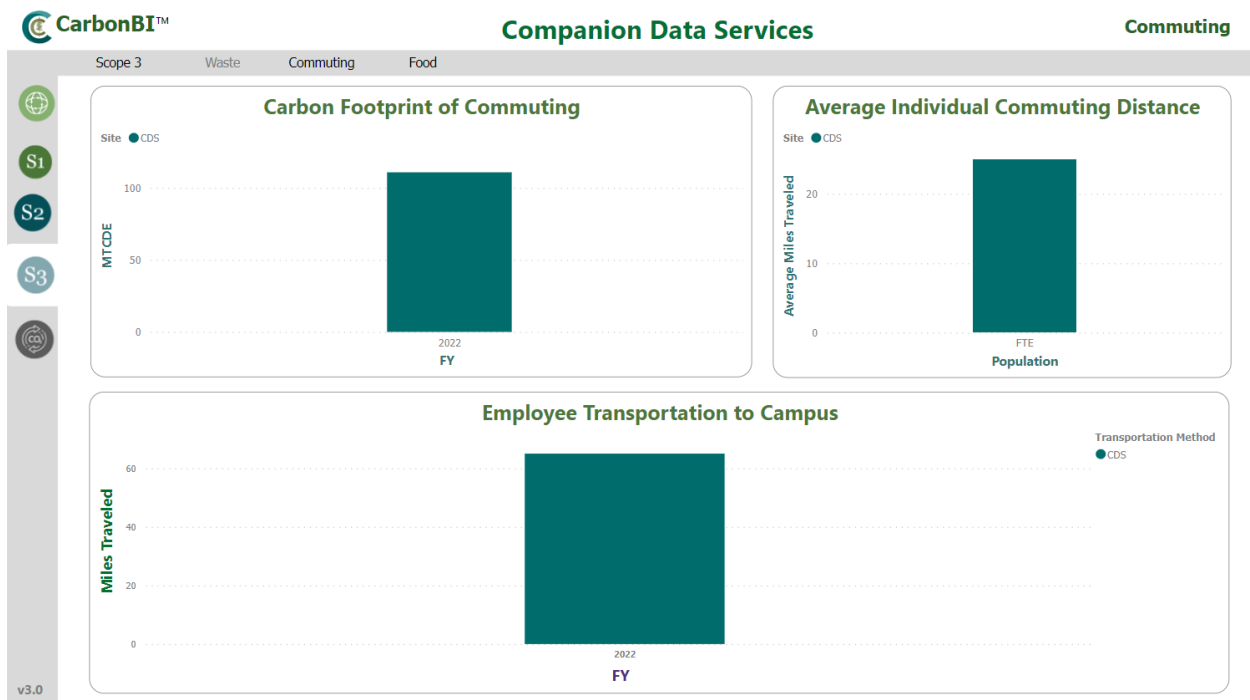


Figure 9: Scope 3 Category- Employee Commuting Emissions & Average Distance.



Business Sponsored Travel

The Company's Business Sponsored Travel encompasses travel activities undertaken by employees or representatives on behalf of the business, namely commercial flights and automobiles. It represents 63.22% of total Scope 3 emissions and 28.81% of total emissions. These travel-related emissions can result in substantial GHG emissions, primarily from burning fossil fuels for transportation.

Company Sponsored Travel 2022	
Travel Type	MTCDE
Air	245.84
Auto	3.47

Table 11: *Company Sponsored Travel in 2022.*



Food

The Company utilizes numerous 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/marketplace 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 4.71% of Scope 3 emissions and 2.14% of total emissions.

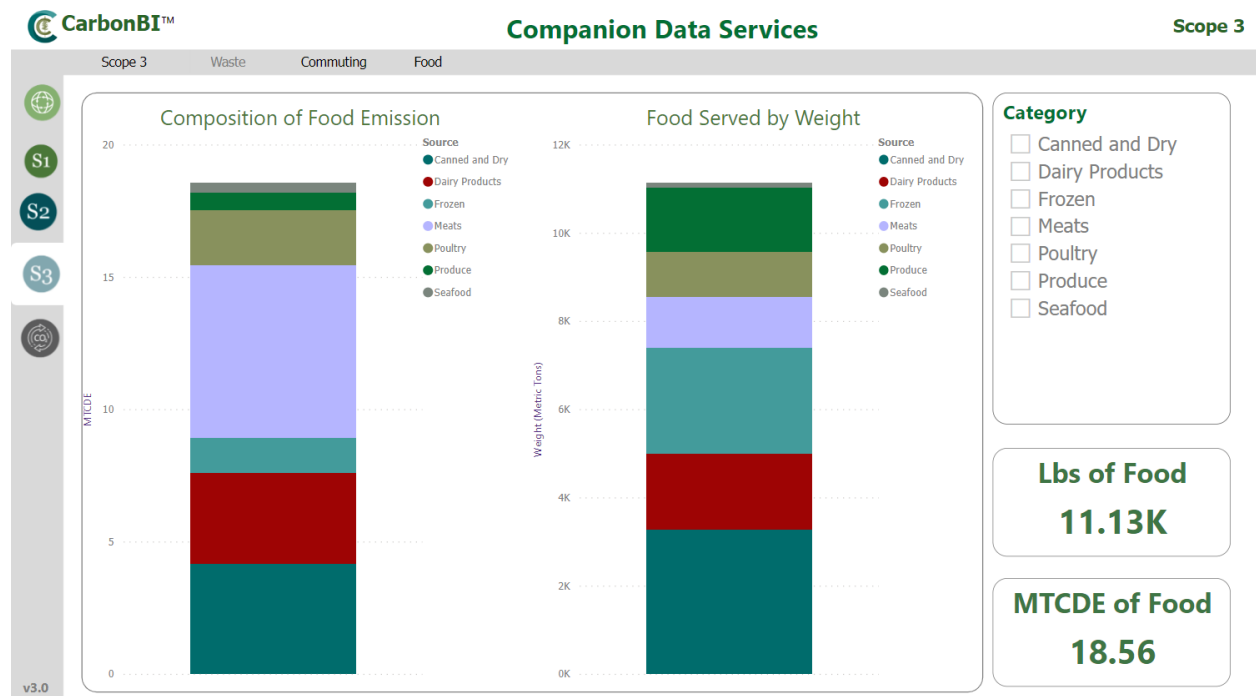


Figure 10: Scope 3 Category- Food Totals & Emissions.



Paper

The production of paper results in the emissions of GHG. The source of paper consumption for CDS come 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 only accounts for 0.55% of Scope 3 emissions and 0.25% of total emissions.

Paper	
Year	MTCDE
2022	2.18

Table 12: Total Emissions of Paper for 2022 in MTCDE.

Water

Producing clean usable water and the resulting wastewater from usage both contribute to GHG emissions. Water, a vital resource for life, is often overlooked in assessments of GHG emissions, despite its crucial role in sustaining ecosystems and supporting human activity. Currently water, through industry standard, is not reported in Scope 3 emissions. We follow this standard; however, we make an effort to track this consumption number for the Company’s understanding and possible future implementation.

Sub-Scope: Water	
	Water Consumption in Gal
2022	408,522.00

Table 13: Consumption of Water.

Wastewater	
Year	MTCDE
2022	0.71

Table 14: Total Emissions and Gallons of Wastewater.



Recycling

The recycling of materials results in the diversion of waste from the landfill, in return avoiding possible 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 emissions impact. Recycling correlates to 1.47% of total emissions. At this point in time, we will be categorizing recycling into Scope 3 emissions as it corresponds to emissions produced during the production of ‘waste’.

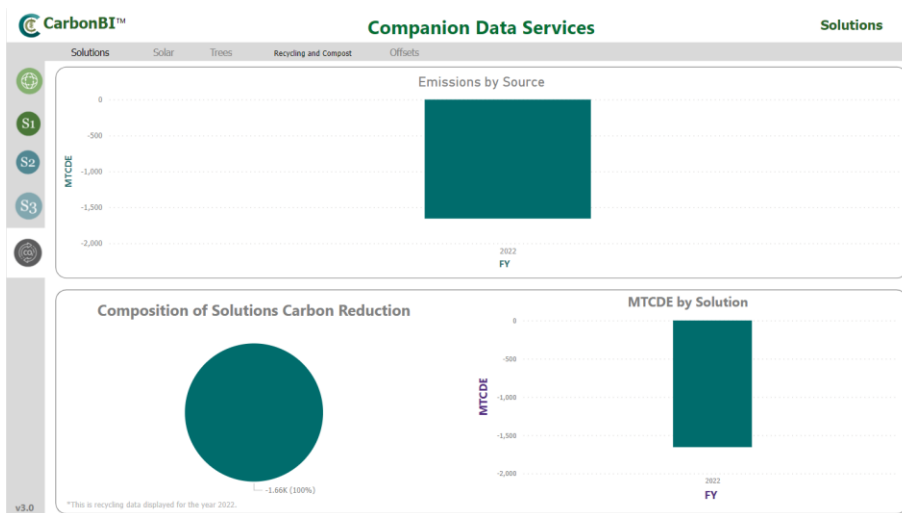


Figure 11: Total MTCDE for recycling.

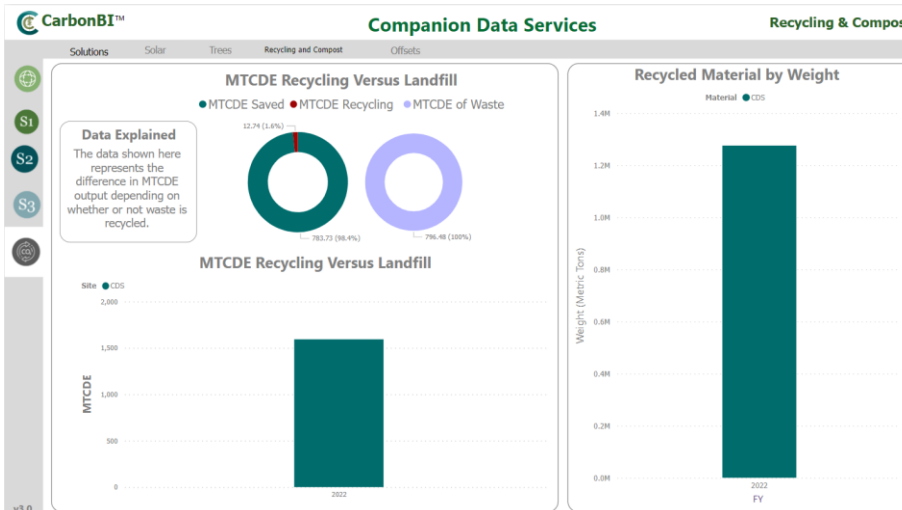


Figure 12: Visual representation of emission avoidance through recycling.

The production of recycling for this visual solely sources from the recycling of shredded paper. In this current report waste production during operations was not measured.



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.

Beginning with Scope 1, Transport Fuels measures the gasoline consumption from fleet vehicles. Without knowledge of the specific year, make, and model of the vehicles, a general assumption was made for the average combustion using EPA's published numbers. Since different vehicles vary in their emissions, to provide more accurate emission numbers, tracking consumption based on specific cars would limit assumptions made. Moving on to Refrigerants & Chemicals, there are limitations due to reporting difficulties. CDS's buildings in Texas and Pennsylvania are leased buildings so the retrieval of HVAC consumption numbers from the landlords were not possible in the time span. For the report notes, it is also important to highlight that for Fertilizer consumption a conclusion was met that the nitrogen and urea numbers would be the only numbers utilized for emission calculations since potassium and phosphorus were just the summation of poundage for the N-P-K found on the fertilizer bags.

Following with Scope 2, electricity consumption, due to reporting limitations of leased facilities as previously mentioned, CDS office in Texas was not reported, inhibiting the ability to cover all locations of the Scope. A future improvement that we can collaboratively make to improve the understanding of electricity consumption is the reporting from monthly kwh utilization.

Finishing with Scope 3, we wanted to make note of the data reported for Commuting. Like the concerns in Transport Fuels, there was no detail in the make, year, and model of the vehicle leaving room for assumptions in the calculations. Building off this, there was a generalized 25-mile commute for all employees regardless of the entity. We recommend for future reporting to utilize a survey that we generate to provide more definitive Commuting data. Transitioning to Food calculations, consumption and distribution of food purchased from Sysco were reported



through the building that ordered. Due to CDS leasing the building with other subsidiaries to various capacities, we utilized the number provided for full-time equivalent (FTE) employees and allocated the MTCDE per FTE.



Conclusion

In conclusion, this baseline Carbon Footprint Report provides a comprehensive analysis of said organization's 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 emission per said organization. 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.