

GREENHOUSE GAS EMISSIONS REPORT

Scope 3

DYNAMIS INC.

CONFIDENTIAL

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INTRODUCTION

Intertek Assuris (hereinafter referred to as "Intertek") was retained by Dynamis, Inc. (hereinafter referred to as "Dynamis") to carry out Greenhouse Gas (GHG) Emissions calculations for Scope 3 emissions for their operations in 2022 (May 1st, 2022 – December 31st, 2022). This service was performed in accordance with The Greenhouse Gas Protocol Corporate Accounting and Reporting Standard.

Background

Dynamis, headquartered in Virginia, USA provides scalable, flexible, and adaptable solutions to a broad range of government agencies, international markets, and commercial customers. They offer products, services, and capabilities in solution areas where they combine operational experience and technical expertise to make the greatest impact in the areas of defense and science, homeland security and law enforcement, preparedness and resilience, information technology and COBRA, and compliance.

GHG Protocol Corporate Standard

The GHG Protocol Corporate Accounting and Reporting Standard provides standards and guidance for companies and other organizations preparing a GHG emissions inventory. It covers accounting and reporting of the six greenhouse gases covered by the Kyoto Protocol – carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs) and Sulphur hexafluoride (SF₆). The GHG Protocol was designed to provide a consistent, reproducible, transparent, and simplified approach to GHG emissions accounting and reporting. Both businesses and other stakeholders benefit from converging on a common standard.

Value Chain (Scope 3) – Other Indirect GHG Emissions: Emissions that are a consequence of the operations of an organization but are not directly owned or controlled by the organization. Scope 3 includes a number of different sources of GHG including employee commuting, business travel, third-party distribution and logistics, production of purchased goods, emissions from the use of sold products, and several more.

The *GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard* accounts for value chain emissions at the corporate level, and together with the *Corporate Standard*, provides a comprehensive approach to value chain GHG measurement and management. The *Scope 3 Standard* enables a company to identify the greatest GHG reduction opportunities across the entire corporate value chain, track performance, and engage suppliers at a corporate level.

GOAL AND SCOPE

The primary goals of the study include the following:

- To determine the value chain Scope 3 GHG emissions from Dynamis operations in 2022 (May 1st, 2022 – December 31st, 2022) for the following categories:
 - Category 1: Purchased goods and services
 - Category 2: Capital Goods
 - Category 6: Business Travel



- Category 7: Employee commuting

Project Boundary

The initial step in developing a GHG emissions accounting is to define the project boundaries. Intertek understands that Dynamis is focused on value chain Scope 3 for Categories 1, 2, 6 and 7 from its operations in Virginia, USA, for FY2022 (March 1st, 2022 – December 31st, 2022).

Organizational Boundary

Business operations vary in their legal and organizational structures and for the purposes of accounting are defined according to established rules that depend on the structure of the organization and relationships with parties involved. In setting organizational boundaries, a company selects an approach for consolidating GHG emissions and then consistently applies the selected approach to define those businesses and operations that constitute the company for the purpose of accounting and reporting GHG emissions. The GHG Protocol standard follows this approach to maintain Consistency and Transparency among various companies globally, and to reduce challenges such as double counting and responsible parties.

For corporate reporting, the GHG Protocol standard defines two distinct approaches to the organizational boundary, as follows:

- 1) **Equity Share Approach:** a company accounts for GHG emissions from operations according to its share of equity in the operation. It is the economic interest, which is the extent of rights a company has to the risks and rewards flowing from an operation. Equity share is often aligned directly with a company's percent ownership of that operation.
- 2) **Control Approach:** a company accounts for 100% of the GHG emissions from operations over which it has control. Control can be defined in either financial or operational terms.
 - a) **Financial Control:** if a company has the ability to direct the financial and operating policies of its operations with a view to gaining economic benefits from its activities or if it retains the majority risk and rewards of ownership of the operation's assets.
 - b) **Operational Control:** if a company has the full authority to introduce and implement its own operating policies at its operation.

Dynamis's Scope 1 and 2 emissions were calculated by another consultant, which followed the operational control approach. Therefore, indirect emissions resulting from Dynamis's activities but occur at another entity in its value chain were accounted for in Scope 3 emissions. For this study, emissions from activities in Dynamis's Scope 3 value chain includes indirect emissions from any asset Dynamis wholly or partially owns but does not control such as purchased good and services, capital goods, fuel and energy related activities, upstream transportation, employee commuting, business travel, leased assets, investments, and franchises that are excluded from the company's organizational boundary.

Dynamis identified four value chain activities significant to their operations based on the minimum boundary requirement provided in GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard. The Scope 3 categories significant to Dynamis operation are listed below.



Company	Scope 3 Category	Description
Dynamis	Category 1: Purchased goods and services	All upstream (i.e., cradle-to-gate) emissions from the production of purchased or acquired products in the reporting year. Products include both goods (tangible products) and services (intangible products) not otherwise included in the other categories of upstream scope 3 emissions
Dynamis	Category 2: Capital goods	All upstream (i.e., cradle-to-gate) emissions from the production of capital goods purchased or acquired in the reporting year only.
Dynamis	Category 6: Business travel	Emissions from the transportation of employees for business related activities in vehicles owned or operated by third parties, such as aircraft, trains, buses, and passenger cars.
Dynamis	Category 7: Employee commuting	Emissions from the transportation of employees between their homes and their worksites

INVENTORY DATA

This inventory was compiled using secondary spend data (USD) provided by Dynamis, as well as the calculation methodology and resources available from the GHG Protocol. All efforts were made to prepare a report in accordance with the guidance of the GHG Protocol. Calculating GHG emissions depends upon numerous assumptions and is limited by the quantity and quality of available data.

In addition to the secondary data, GHG emissions factors are also required to determine carbon dioxide equivalent (CO₂e) values for the project. GHG emissions factors can be taken from several sources, however, the *GHG Protocol* provides tools and resources including a collection of emissions factors from various sources. GHG emissions factors were researched where further specificity was deemed necessary. Once all activity data and emissions factors are collected, they are multiplied to determine final CO₂e for each category. Further details of calculations are outlined within this report.

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Dynamis value chain emissions were primarily upstream indirect GHG emissions from purchased goods and services, capital goods, business travels and employee commuting. Emissions for each category were calculated using the environmentally extended input output (EEIO) model which estimates energy use and/or GHG emissions resulting from the production and upstream supply chain activities of different sectors and products in an economy. EEIO models are derived by allocating national GHG emissions to groups of finished products based on economic flows between industry sectors. The output of EEIO models is typically a quantity of GHG emitted per unit of revenue in a particular industry sector.

Emissions factors for Scope 3 were obtained from US Industries and Commodities Supply Chain Greenhouse Gas Emission Factors - Appendix 3 - Industry and Commodity and US EPA Greenhouse Gas Emission Factor Hub, which in turn references EPA 2021 Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2013



(Table 2-13), for highway vehicles, the Federal Highway Administration Highway Statistics 2019 for vehicle-miles and passenger-miles data for on-road vehicles and the Transportation Energy Data Book: Edition 39 (Table A.14-A.16, C.9-C.11) for passenger-miles for rail. The emissions factors from the EPA include carbon dioxide (CO₂), methane (CH₄) and nitrous oxide (N₂O), and are cross-sector, internationally relevant values. Emissions factors are provided by passenger/vehicle-miles.

GHG emissions from electric and hybrid vehicles were calculated using data sources and assumptions from U.S Department of Energy - Alternative Fuels Data Center. Emission factors selected for each category are highlighted below:

Category 1- Purchased Good and services

Category 1: Purchase goods and services	Sector/Commodity Code	Emission Factor CO ₂ (kg/USD)	Emission Factor CH ₄ (kg/USD)	Emission Factor N ₂ O (kg/USD)
Training/Education	61	0.16	0.00100	0.00000
Copying and Printing	323	0.29	0.00100	0.00000
Computer and other expense	334	0.04	0.00000	0.00000
Furniture, Equipment and Office supplies	337	0.14	0.00100	0.00000
Other Expense/Facility cost/Misc. Expense	452	0.14	0.00100	0.00000
Telecommunications	513	0.08	0.00000	0.00000
Insurance	524	0.04	0.00000	0.00000
Contributions	525	0.17	0.00100	0.00000
Entertainment, Gift, Employee Morale	713	0.16	0.00100	0.00000
Business Meals & Hotels	722	0.19	0.00100	0.00000
Legal and Professional Fees	5411	0.06	0.00000	0.00000
Telephone	334210	0.09	0.00000	0.00000
Taxes, Licenses & Fees	541200	0.05	0.00000	0.00000
Subcontractors and Consultants	541610	0.07	0.00000	0.00000
Advertising, Marketing & PR	541800	0.09	0.00000	0.00000
Security	561600	0.07	0.00000	0.00000
Other services	5419A0	0.07	0.00000	0.00000
Administrative & support service	561	0.001	0.00000	0.08
Lease	61	0.001	0.00000	0.15

Category 2- Capital goods

Category 2: Capital Goods	Commodity Code	Emission Factor CO ₂ (kg/USD)	Emission Factor CH ₄ (kg/USD)	Emission Factor N ₂ O (kg/USD)
Leasehold Improvement - Construction	23	0.26	0.00	0.00
Furniture and Fixtures	337	0.16	0.00	0.00



Category 6- Business Travel

Category 6: Business Travel	Commodity Code	Emission Factor CO2 (kg/USD)	Emission Factor CH4 (kg/USD)	Emission Factor N2O (kg/USD)
Air Transport	481	0.88	0.00	0.00
Transit and ground passenger	485	0.11	0.00	0.00

Category 7- Employee Commuting

Category 7: Employee Commuting	Emission Factor CO2 (kg/Mile)	Emission Factor CH4 (kg/Mile)	Emission Factor N2O (kg/Mile)
Passenger Car	0.33	0.00	0.00
Truck	0.45	0.00	0.00
Bus	0.056	0.00	0.00
Train	0.00	0.00	0.00

CALCULATIONS

The following section outlines the calculations methodologies applied to each scope 3 category identified above. The overall spend value and/or distance are calculated and then multiplied by their emissions factors. For most activity data, relevant emissions include carbon dioxide (CO₂), methane (CH₄) and nitrous oxide (N₂O).

Since there were no supplier-specific material emission factors, nor supplier-specific activity data, Intertek applied the average spend-based method by collecting data on the economic value of Category 1- purchased goods and service, Category 2- capital goods and Category 6- business travels and multiplying them by the relevant EEIO emission factors per unit of economic value.

To calculate Scope 3 GHG emissions, Dynamis product category matching the sector code of the USEEIO Supply Chain Greenhouse Gas Emission Factors for US Industries and Commodities were applied to the spend based method, which represents national GHG emissions to groups of finished products based on economic flows between industry sectors or product category.

The average data method was applied in calculating GHG emissions from Category 7- Employee commuting. A survey was used to determine distance travelled, mode of transportation used by employees and number of commuting days per year. There were 61 respondents to the survey. Average data was then taken, and emission factors applied based on commuting responses.



The results are in tons CO₂ equivalent (tCO₂e) because each of the relevant emissions gases are normalised to CO₂, by multiplying with the Global Warming Potential (GWP) factor. According to IPCC Sixth assessment report, one molecule of CH₄ is equivalent to 27x the CO₂ molecules. Additionally, one molecule of N₂O is equivalent to 273x the CO₂ molecules. This equivalency is captured in the formulas provided below.

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$$tCO_2e = tCO_2 + [27 * tCH_4] + [273 * tN_2O]$$

Category 1- Purchased Goods and Service, Category 2- Capital Goods and Category 6- Business Travels

$$tCO_2e = [(Value\ of\ purchased\ good\ or\ service\ (USD)) * (CO_2\ EEIO\ emission\ factor\ of\ purchased\ good\ or\ service\ per\ unit\ of\ economic\ value\ (kg\ CO_2e/USD))]$$

$$+ [27 * (Value\ of\ purchased\ good\ or\ service\ (USD)) * (CH_4\ EEIO\ emission\ factor\ of\ purchased\ good\ or\ service\ per\ unit\ of\ economic\ value\ (kg\ CO_2e/USD))]$$

$$+ [273 * (Value\ of\ purchased\ good\ or\ service\ (USD)) * (N_2O\ EEIO\ emission\ factor\ of\ purchased\ good\ or\ service\ per\ unit\ of\ economic\ value\ (kg\ CO_2e/USD))]$$

Category 7- Employee Commuting

$$tCO_2e = [(Total\ commuting\ distance\ per\ year\ for\ each\ mode\ of\ transportation\ (passenger/vehicle-miles)) * (CO_2\ emission\ factor\ of\ transport\ mode\ (kg\ CO_2e/passenger/vehicle\ -mile))]$$

$$+ [27 * (Total\ commuting\ distance\ per\ year\ for\ each\ mode\ of\ transportation\ (passenger/vehicle-miles)) * (CH_4\ emission\ factor\ of\ transport\ mode\ (kg\ CO_2e/passenger/vehicle\ -mile))]$$

$$+ [273 * (Total\ commuting\ distance\ per\ year\ for\ each\ mode\ of\ transportation\ (passenger/vehicle-miles)) * (N_2O\ emission\ factor\ of\ transport\ mode\ (kg\ CO_2e/passenger/vehicle\ -mile))]$$



SCOPE 3 GHG EMISSIONS RESULTS

Dynamis Scope 3 GHG Emissions

Total Scope 3 GHG emissions for FY2022 (May 1st, 2022, to Dec 31st, 2022) is reported to be 913.88 tonne CO2 equivalent. Result summaries are provided in the section below

FY2022 Dynamis Scope 3 GHG Emissions by Categories

Table 1: Dynamis Summary of (FY 2022) Scope 3 GHG Emissions by Categories

Scope 3 Categories	GHG Emissions (tCO2e)
Category 1: Purchased Goods and Services	385.0
Category 2: Capital Goods	351.0
Category 6: Business Travel	138.8
Category 7: Employee Commuting	39.1
Total Scope 3 GHG Emissions	913.9

FY2022 Dynamis Employee Commuting Survey Response

Table 2: Dynamis (FY 2022) Employee Commuting Survey

Employee Commuting Responses (Transport Mode)	Percent Distribution
Passenger Car - ICE	41%
Passenger Car - Electric Vehicle	3%
Passenger Car - Hybrid	2%
Truck	3%
Bus	2%
Train	5%
Carpool	3%
Walk	2%
No Commute	39%



INTERPRETATION

Overall, Dynamis’s highest source of greenhouse gas emissions for Scope 3 is attributable to Category 1: Purchased goods and services which accounts for 42% of the entire scope 3 emissions. Category 2: Capital goods, Category 6: Business travel and Category 7: Employee commuting accounts for 38%, 15% and 4% of the entire value chain emissions respectively.

Figure 1 below shows Dynamis Scope 3 emission by category, and Figure 2 shows the distribution of employee commuting modes based on 61 responses received from the survey conducted by Intertek.

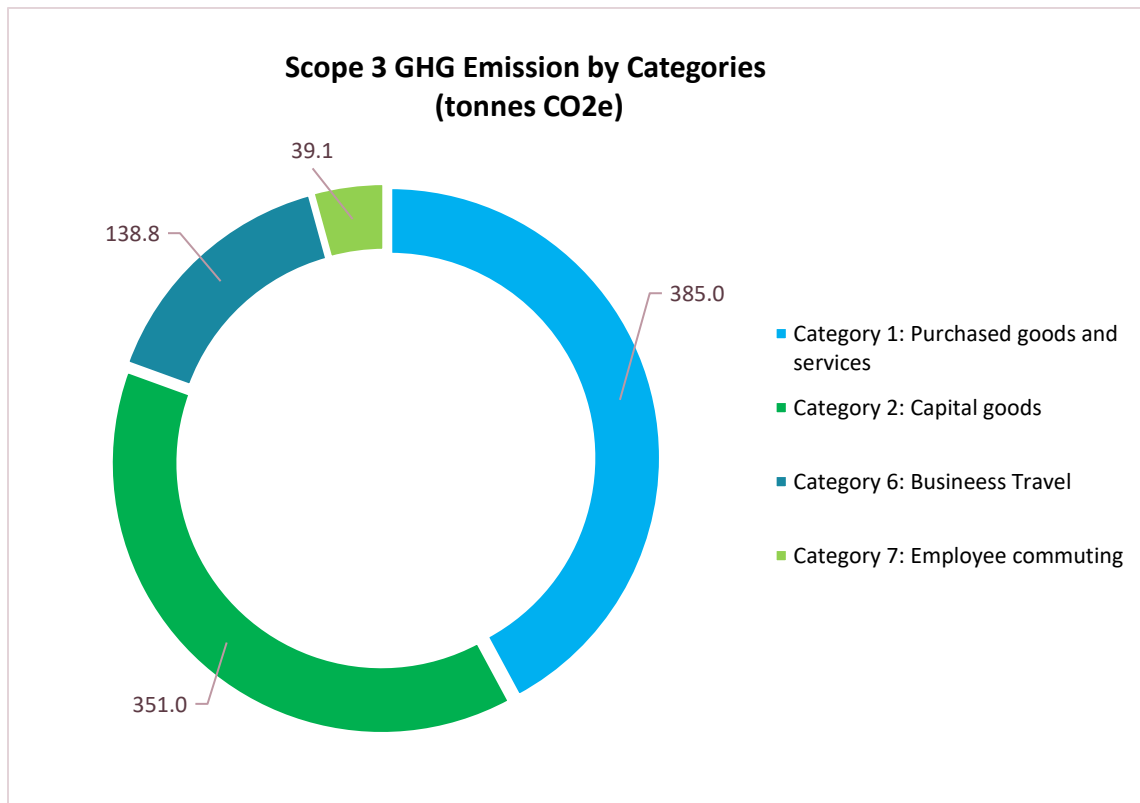


Figure 1: Dynamis: Scope 3 GHG Emission by Categories (tCO2e)

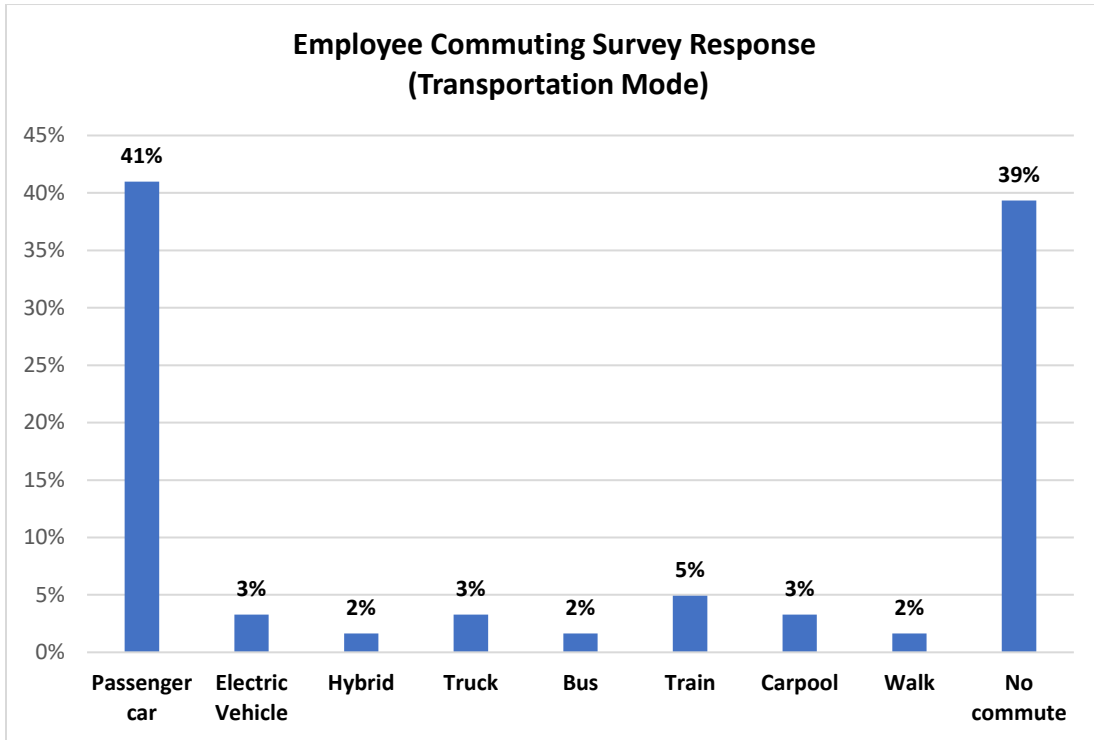


Figure 2: Dynamis: Employee Commuting Survey (Percent distribution)



CONCLUSIONS AND RECOMMENDATIONS

Based on the result shown in Table 1, and observations made in the Interpretation section, Intertek proposes the recommendations outlined below to reduce GHG emissions in each of the Scope 3 category emissions. The GHG Protocol allows for calculation flexibility in each category to accommodate various forms of data available in any organization; therefore, the data collected and provided for future GHG emissions studies can be supplier specific.

It is recommended that passenger travel records (in vehicle mile or passenger miles) be tracked and maintained annually, and a system put in place to track all employee commuting miles annually.

Category 1: Purchased good and services

To reduce category 1 Scope 3 GHG emissions, consider implementing low GHG procurement/purchasing policies and replacing high GHG emitting material with low GHG emitting materials. Where practicable, consider opportunities to encourage tier 1 suppliers to engage their tier 1 suppliers to propagate GHG reporting through the supply chain.

Category 2: Capital Goods

To reduce category 2 Scope 3 GHG emissions, where practicable, consider replacing high GHG emitting material with low GHG emitting materials.

Category 6: Business travel

To reduce category 6 Scope 3 GHG emissions, where practicable, consider reducing the amount of business travel (by encouraging video conferencing and web-based meetings as alternative), and encouraging more efficient and lower emitting modes of travel.

Category 7: Employee commuting

To reduce category 7 Scope 3 GHG emissions, where practicable, consider providing incentives for use of public transit (cycling, carpooling etc.), implementing teleworking/telecommuting programs or reducing number of days worked per week (e.g., 4days *10 hour schedule instead of 5days*8 hour schedule)



Data Quality

According to the GHG Protocol, GHG inventory quality management should be carried out following seven specific steps:

1. Build an official management team responsible for the GHG inventory quality.
2. Develop a specific GHG inventory quality management plan.
3. Hold regular and general monitoring activities.
4. Perform quality checks on specific sources or categories.
5. Review estimation made in GHG inventories and reports.
6. Establish formal feedback procedures and correct errors.
7. Establish reporting, documenting, and archiving procedures for information and communication.

To assure the realization of reliable, accurate and up to date GHG emissions inventories, Dynamis could include, in its GHG reduction action plan, the application of this specific GHG inventory management process.

CLOSING

We thank you for the opportunity to submit this report for Scope 3 GHG Emissions for Dynamis.

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