GCT Net Zero Challenge Plan

Global Container Terminals (GCT) is the largest majority Canadian-owned terminal operator serving world's leading ocean carriers and shipping lines on the West Coast of Canada. We are committed to reaching net zero emissions by 2050 and supporting the global transition to a sustainable economy. Our Net Zero Plan outlines how we will achieve net zero greenhouse gas (GHG) emissions by 2050 and meet the requirements of the Government of Canada's Net Zero 2050 Challenge. The plan provides an overview of our current GHG emissions sources, our interim targets, decarbonization actions and measures, and the overall governance and accountability of our strategy.

About GCT

A Leader in Synchronized Logistics

We play a pivotal role in facilitating international trade between Canada and more than 170 world economies through the operation of our two terminals – GCT Deltaport and GCT Vanterm. With four berths and a combined handling capacity of nearly three and a half million twenty-foot equivalents (TEUs) annually, our terminals are strategically located on the West Coast of North America granting our shipping line customers and cargo owners convenient access to key international trade routes, as well as direct links to major freeways and class-one international railways.

Operating on the Vancouver waterfront since 1907, we have over a century of experience. Today, we are recognized as one of Canada's Best Managed Companies, a prestigious designation which validates our commitment to safety, operational excellence, environmental stewardship and community investment.

Find out more about GCT's capabilities and accomplishments on our website.

Drivers

We are committed to making sustainability a priority. This is the foundation of our Global Commitment, which reflects our dedication to the environment, safety, and community. We believe it is our responsibility, not only as a business, but also as good neighbours, to ensure the future of generations to come.

By joining the federal Net Zero 2050 Challenge, we are taking tangible steps towards a sustainable tomorrow. Through investment in cutting-edge technologies, we enhance operational efficiency while minimizing emissions and energy consumption. Our dedication to environmental stewardship, innovation, and social responsibility drives everything we do.

We have been very successful for over a century because we are forward-thinking. Through ongoing process refinement and strategic investment, we ensure that our operations remain in sync with the evolving needs of the industry. We believe that sustainability supports long-term business value through enhancing our operational efficiency, meeting the needs of our customers, improving the health and well-being of our employees and communities, and building stronger relationships with our industry partners.

Throughout our journey to net zero, we are committed to supporting the needs of our local communities, our customers, employees, industry partners and our investors – while creating long-term value for our business.

GCT's Baseline GHG Inventory

GHG Inventory Boundary

Our GHG inventory relates to our operations and business activities at GCT Deltaport and GCT Vanterm as well as our corporate head office. Our emissions boundary reflects all scope 1, 2 and material scope 3 activities, and follows the operational control approach as outlined in *The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard*. The scope 3 emissions categories listed in Table 2 below represent over 99% of our scope 3 emissions. We have been measuring our scope 1 and 2 emissions since 2014 and began measuring

our scope 3 emissions in 2023. Therefore, our baseline year is 2014 for scope 1 and 2, and 2023 for scope 3 emissions as shown in Table 1.

Table 1: GHG Emissions Inventory Baseline

Scope	Baseline GHG Emissions	Baseline Year
Scope 1 and 2	30,773 tCO_2e	2014
Scope 3	215,566 tCO_2e	2023

Table 2: GHG Emissions Sources by Scope

Scope	Sources
Scope 1	• Emissions from fuel usage in GCT-owned equipment and vehicles • Emissions from heating at terminal facilities and office buildings
Scope 2	• Emissions from electricity consumption at terminal facilities and office buildings
Scope 3	• Emissions from activities not owned or controlled by GCT, including: ○ Category 1: Purchased goods and services ▪ Includes emissions from water consumption and electric vehicle charging ○ Category 2: Capital goods ▪ Includes emissions from maintenance projects completed ○ Category 3: Fuel and energy-related activities ▪ Includes upstream emissions from purchased energy reported in scope 1+2 ○ Category 4: Upstream transportation and distribution ▪ Includes emissions from the raw material (i.e. asphalt) transportation from maintenance projects ○ Category 5: Waste generated in operations ▪ Includes emissions from waste generated ○ Category 6: Business travel ▪ Includes emissions from employee business travel by air ○ Category 7: Employee commuting ▪ Includes emissions from employees commuting ○ Category 9: Downstream transportation and distribution ▪ Includes emissions from the transportation and distribution (import and export) of containers from GCT's terminals by road and rail within the Canadian boundary of the Lower Fraser Valley ○ Category 11: Use of Sold Products ▪ Includes emissions from vessel hoteling and manoeuvring within three nautical miles (nm) from terminals

2024 GHG Emissions Inventory

Figure 2: 2024 Scope 1, 2 and 3 Emissions

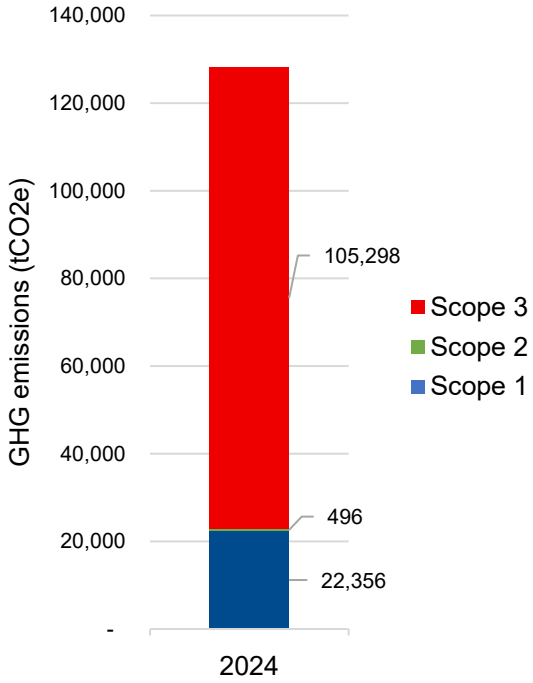
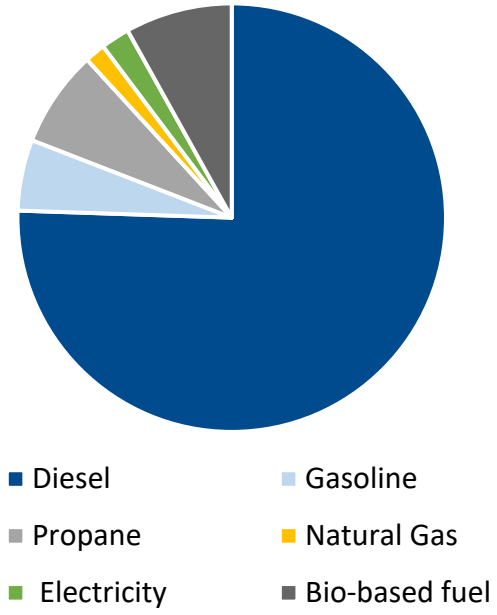


Figure 1: 2024 Scope 1 and 2 Emission Sources



Bio-based fuel includes emissions from hydrogenation-derived renewable diesel, biodiesel, ethanol and renewable naphtha

Our Scope 1 GHG emissions primarily arise from diesel usage at our Deltaport and Vanterm container terminals to power vehicles, cranes and other specialized equipment required for our operations. Scope 2 emissions make up a small portion of our overall emissions footprint due to British Columbia's low-carbon electricity grid. 75% of our scope 1 and 2 emissions are from diesel consumption.

Scope 3 emissions, which make up the majority (82%) of our overall emissions footprint, result primarily from the transportation and distribution (import and export) of containers from GCT's terminals by road and rail (51% of scope 3 emissions). Maintenance projects completed at terminals (Category 2: Capital Goods) and vessel hoteling and maneuvering (Category 11: Use of Sold Products) represent 30% and 10% of scope 3 emissions, respectively. Overall, these three categories make up over 90% of our scope 3 emissions. Our spatial boundary for

monitoring of rail and truck emissions is the Canadian boundary of the Lower Fraser Valley. For vessel manoeuvring, our scope 3 boundary extends to 3 nm from our terminals.

Targets and Net Zero Pathway

Our 2030 and 2050 emissions reduction strategy outlines key measures to reduce emissions and achieve net zero emissions by 2050. We outline our emissions reduction targets in Table 3. Our baseline years are 2014 for scope 1 and 2 emissions (aggregated) and 2023 for scope 3 emissions.

Table 3: GHG Emissions Reduction Targets

	2030 (interim)	2050
Scope	Scope 1, 2 & 3	Scope 1,2 & 3
Type	Absolute	Absolute
Emissions Reduction	-45%[1]	-100%

Emissions Reduction Measures

Reducing our scope 1 and 2 emissions to achieve our 2030 and 2050 reduction targets revolves around four core pillars outlined in Table 4. Scope 3 emissions measures are outlined in Table 5. We also illustrate the emissions reduction potential of various decarbonization measures in Figure 1.

[1]A straight-line path from baseline year to 2050 requires a 44.4% reduction by 2030. Therefore GCT's 45% emissions reduction target in 2030 meets the straight-line path requirements as described in Section 6.1.4 of the Net-Zero Challenge Technical Guide.

Table 4: GCT Pillars of Decarbonization

Pillar	Scope	Description
1. Efficiency and process optimization	Scope 1 and 2	• Using our equipment more efficiently through behavioural change and technologies, e.g. anti-idling, hybrid and engine upgrades • Improving operational processes and layout of our sites, e.g. prime route yard tractor route planning, yard layout efficiency • Upgrading to energy efficient lighting and other technologies, e.g. installing LEDs
2. Switching to renewable fuels	Scope 1	• Using renewable diesel to power heavy duty equipment
3. Light-duty electrification	Scope 1	• Electrifying dock vehicles
4. Zero emission heavy duty equipment	Scope 1	• Electrification and alternative fuel use for cranes and non-road equipment

Table 5: Scope 3 Emissions Reduction Measures

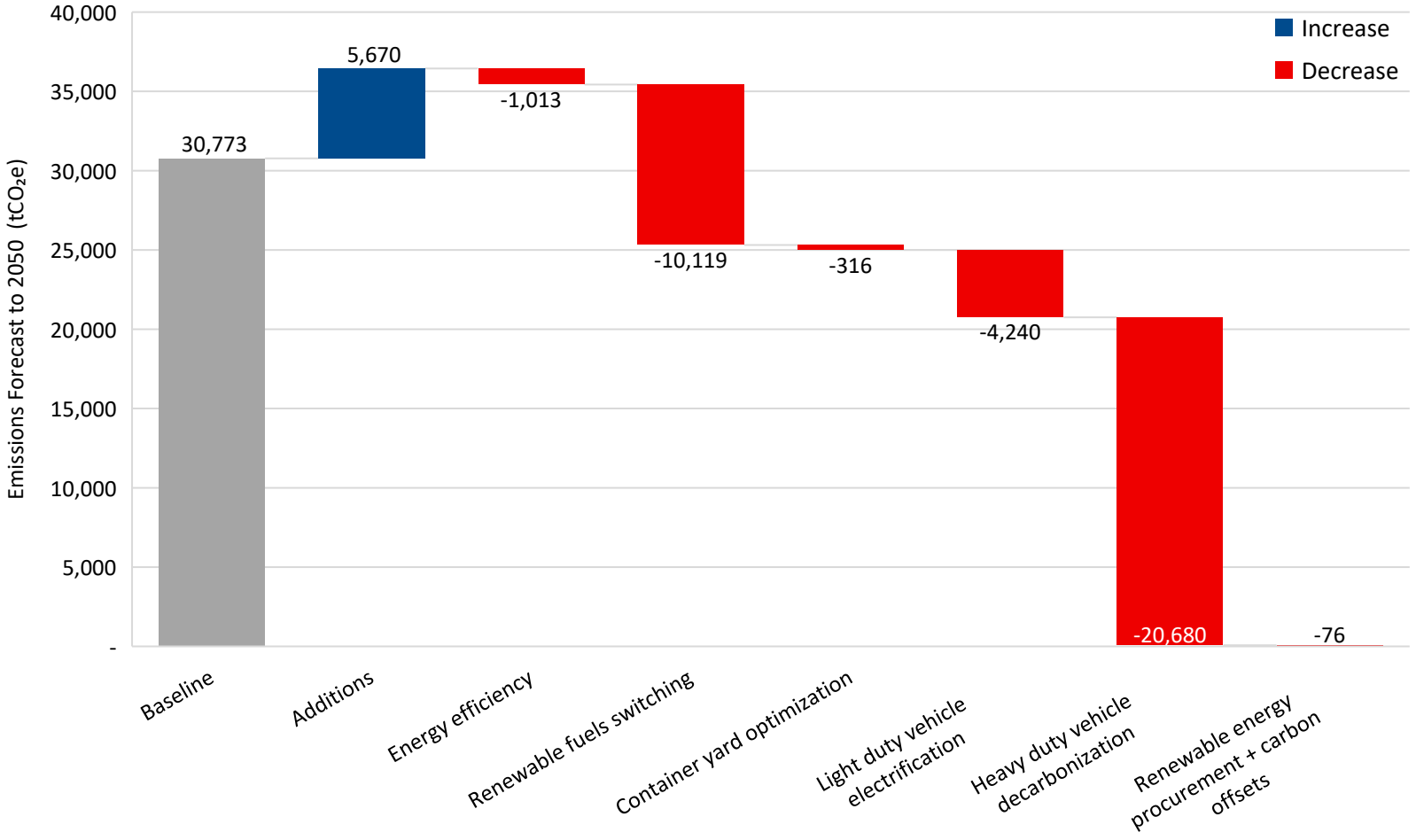
Measure	Scope	Description
Partnerships and collaboration	Scope 3	• Collaborating with the Port Authority on reducing emissions from road and rail transportation, e.g. truck reservation and night gate program • Developing policies and embedding requirements on emissions performance for procurement decisions • Installing shore power and engaging with customers to reduce vessel emissions

Air Quality Management

We are committed to protecting the air quality for our employees, communities and the environment by reducing particulate matter (PM) from diesel. We track particulate air emissions to measure air quality at our terminals and monitor data from Metro Vancouver and Vancouver Fraser Port Authority (VFPA) on an ongoing basis. While the emissions reductions measures above will support reduced particulate matter, we are improving our diesel consumption by moving from a

reactive to proactive, reliability-centered equipment maintenance program. This ensures vehicles and equipment are properly maintained and old equipment is replaced when needed, improving operational efficiency and reducing excess particulate matter.

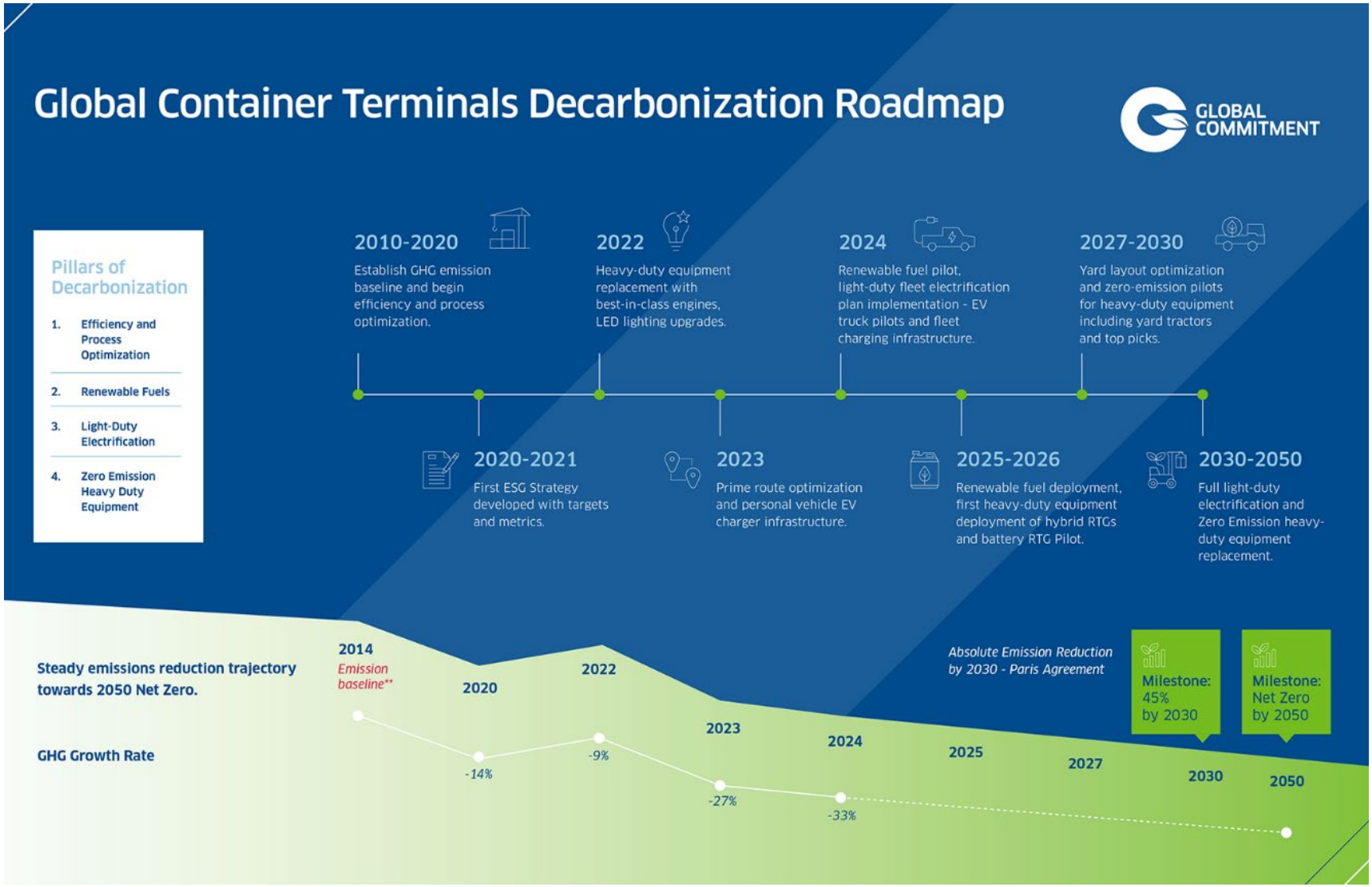
Figure 3. Net Zero by 2050 Forecasted Decarbonization Measures



Our 2050 Net Zero Pathway

To date we have reduced our scope 1 and 2 emissions by 33% since our 2014 baseline through improving fuel efficiency and piloting electric equipment to reduce fuel consumption. To achieve our 45% emissions reduction target by 2030 we are electrifying equipment and light-duty vehicles and piloting electric rubber tyre gantry (RTG) technologies. In the long-term (after 2030), we will continue to decarbonize our heavy-duty equipment through electrification and renewable fuels and reconfigure our railyard to improve operational efficiency. We share more information on timelines in our Decarbonization Roadmap below.

Scope 3 emissions, while outside of GCT's direct control, can be reduced collaboratively through coordination with suppliers, supporting customers with access to shore power, coordinating with the Vancouver Fraser Port Authority for safe alternative fuel bunkering and industry engagement. GCT is a willing partner and anticipates that clarity on a path to reduce scope 3 emissions will increase over time as technology and markets evolve.


Global Container Terminals Decarbonization Roadmap
GLOBAL COMMITMENT
Pillars of Decarbonization
1. Efficiency and Process Optimization
2. Renewable Fuels
3. Light-Duty Electrification
4. Zero Emission Heavy Duty Equipment
2010-2020
Establish GHG emission baseline and begin efficiency and process optimization.
2020-2021
First ESG Strategy developed with targets and metrics.
2022
Heavy-duty equipment replacement with best-in-class engines, LED lighting upgrades.
2023
Prime route optimization and personal vehicle EV charger infrastructure.
2024
Renewable fuel pilot, light-duty fleet electrification plan implementation - EV truck pilots and fleet charging infrastructure.
2025-2026
Renewable fuel deployment, first heavy-duty equipment deployment of hybrid RTGs and battery RTG Pilot.
2027-2030
Yard layout optimization and zero-emission pilots for heavy-duty equipment including yard tractors and top picks.
2030-2050
Full light-duty electrification and Zero Emission heavy-duty equipment replacement.
Steady emissions reduction trajectory towards 2050 Net Zero.
GHG Growth Rate
2014
Emission baseline**
2020
2022
2023
2024
2025
2027
2030
2050
-14%
-9%
-27%
-33%
Absolute Emission Reduction by 2030 - Paris Agreement
Milestone: 45% by 2030
Milestone: Net Zero by 2050

Net Zero Pathways Assessed

In establishing the target and decarbonization plan, we evaluated various decarbonization pathways or scenarios to 2030 and 2050. This helps us consider a range of potential decarbonization pathways to select the most optimal scenario based on emissions reductions, technical feasibility and financial cost.

2030 Decarbonization Scenarios

We assessed four scenarios to achieve our decarbonization goals of reducing GHG emissions by 45% by 2030.

1. Scenario 1 - Carbon Offsets
2. Scenario 2 – Light Duty Vehicle Electrification and Renewable Fuels
3. Scenario 3 - Light Duty Vehicle + RTG Electrification and Renewable Fuels
4. Scenario 4 – Purchase Renewable Fuels

Scenarios are developed based on ambition, GHG reduction impact, incremental capital costs and carbon offsets required. All scenarios reach the GHG emissions reduction target of 45% by 2030 by employing a range of strategies such as renewable fuel purchases, capital investments in electrification of equipment and carbon offsets. We outline the four scenarios assessed in Table 6 below.

Scenario 2 was selected due to feasibility, technical viability and industry adoption around electrification as the preferred pathway for decarbonization. This solution balanced our ambition for maximizing emissions reductions with technology readiness of low-carbon heavy duty equipment.

Table 6: Net Zero Pathways Assessed

	Scenario 1	Scenario 2	Scenario 3	Scenario 4
Description	Carbon offsets only purchased in 2030	Electrification of 275 light duty vehicles and purchasing renewable fuels	Electrification of 275 light duty vehicles, 19 RTG cranes and purchase some renewable fuels	Only purchase renewable fuels
GHG Reduction Impact	-3% (45% with carbon offsets)	45%	45%	45%
Renewable Fuels %	0%	65%	56%	93%
Offsets Required	Yes	No	No	No

2030 to 2050 Scenarios

We also assessed three scenarios to achieve net zero emissions by 2050. These scenarios include:

1. Scenario 1 - Carbon Offsets Only
2. Scenario 2 – Light- and Heavy-Duty Vehicle Electrification, Yard Optimization and Renewable Fuels
3. Scenario 3 – Hydrogen and other technologies

We have selected *Scenario 2 - Light- and Heavy-Duty Vehicle Electrification, Yard Optimization and Renewable Fuels* as the most effective decarbonization pathway to achieve net zero emissions by 2050. This is the current preferred scenario based on industry adoption of electrification and renewable fuels as the most viable decarbonization pathway based on technology maturity and cost. As the market evolves, our preferred decarbonization pathway may shift and we will continue to monitor viability of all three scenarios. We plan to update our 2030 to 2050 decarbonization pathway as we develop the next reiteration of the Net Zero Plan in 2030.

Governance

Clear governance supports sound decision-making and ensures systems and accountability structures are in place to ensure we are making progress and on track to achieve GCT's targets. Our five-year ESG Strategy includes annual GHG emissions measurement as a key performance indicator. The ESG Strategy also established a cross-functional GCT ESG Advisory Committee (GEAC) to oversee environmental, social and governance advances across our organization. We have sub-committees to guide specific action areas, such as Climate Action and include updates on ESG progress in reporting to GCT's Board of Directors on a quarterly basis.

Responsibilities

GCT's terminal and facility departments are responsible for implementing the decarbonization plan. Actions outlined are reviewed and updated annually with the GEAC.

Oversight

GCT Public Affairs department oversees the overall net zero plan and updates planned actions on an annual basis to identify further opportunities to reduce emissions in alignment with the Government of Canada's net zero commitments. The GCT Climate Action Sub-Committee and GEAC review progress towards the targets of the net zero plan.

Monitoring

As a part of GCT's five-year ESG strategy, progress towards emissions reduction targets and key performance indicators are monitored on an ongoing basis. GHG emissions will be reported to the board and align with certifications and reporting frameworks. GCT will quantify, report and externally verify scope 1, 2 and 3 emissions on an annual basis to ensure transparency and track progress.