Gloves n Gloves

Sustainability Report

July 2024 - June 2025

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HOW TO READ THIS REPORT

DATA

This sustainability report has been prepared by Gloves n Gloves in collaboration with Intertek Pakistan. The data reported for the period from July 2024 to June 2025. The report covers the environmental, social, and governance (ESG) aspects of Gloves n Gloves operations and activities that are material to its stakeholders and its long-term value creation. The report also discloses the progress and performance of Gloves n Gloves in relation to its sustainability goals and targets.

STRUCTURE

This report includes content related to Gloves n Gloves company profile, ambition, progress summary, stakeholder engagement, materiality, governance, and a deep dive into each key focus area which includes data-driven metrics on environmental and social impacts.

As of the end of June 2025, Gloves n Gloves has transitioned fully into the implementation phase of its sustainability strategy. We recognize that true accountability require transparency not only regarding our ambitions and commitments, but also our measurable progress and concrete actions.

We are committed to transparent disclosure of high-quality, reliable data. Significant time and resources have been dedicated to data collection, validation, and internal review processes to ensure accuracy, completeness, and a high level of confidence in reported information.

All baseline data presented in this report covers the period from July 2024 to June 2025. Reported progress data reflects performance and actions completed up to 30 June 2025.

July 2024
HIGHLIGHTS
June 2025

- Sustainability reporting and GHG emissions calculations have been initiated
- 100 KWh solar capacity enhancements at GnG - BBW & GnG - SLT
- 70% renewable electricity used across all GnG units
- "Safety First – It starts with me!" Initiative launched
- The organization is focusing on automation across multiple processes
- GLOBAL SOCIAL DEVELOPMENT PROGRAM IS FOCUSED
- HUMAN RIGHTS & DECARBONIZATION
- 100 % recycled & recyclable material used for packaging
- Afforestation and plantation initiatives are ongoing across all company units
- Operational and electrical waste streams are being recovered and repurposed to minimize environmental impact
- Baseline carbon footprint assessments for products and operations have been completed

Executive Summary

This Sustainability Report presents an overview of the environmental and sustainability performance of Gloves n Gloves for the reporting period from July 2024 to June 2025. The report has been prepared by OWS Consultants and Trainers and verified by Intertek Pakistan (Private) Limited, in alignment with recognized sustainability and ESG reporting frameworks and provides a consolidated baseline of greenhouse gas emissions across all operational sites, including BBW, SFD, GMA, SLT, and the Head Office. It is intended to support transparency, informed decision-making, and the development of structured sustainability and emissions reduction strategies.

During the reporting period, Gloves n Gloves recorded a total greenhouse gas footprint of 650.37 tCO_2e. Analysis of emissions by scope indicates that Scope 3 emissions represent the largest share at approximately 55 percent, followed by Scope 2 emissions from purchased electricity at approximately 35 percent, and Scope 1 direct emissions at approximately 10 percent. This distribution highlights that the most significant environmental impacts arise not only from direct operations but also from value-chain activities, particularly electricity consumption, downstream transportation, and employee commuting.

Site-level assessment shows that the BBW facility is the dominant contributor, accounting for approximately 72 percent of total emissions, identifying it as a critical focus area for targeted sustainability interventions. The use of on-site solar energy contributed to an avoidance of 41.92 tCO_2e during the year, demonstrating the effectiveness of renewable energy integration and indicating further potential for emissions reduction through expansion of clean energy solutions.

The findings of this report establish a robust emissions baseline for Gloves n Gloves and provide clear direction for future sustainability actions. Key opportunities are identified in improving energy efficiency, increasing renewable energy adoption, optimizing logistics and transportation, engaging suppliers on sustainability performance, and promoting low carbon commuting practices. By strategically addressing these areas, Gloves n Gloves can progress toward measurable emissions reductions, strengthen compliance with stakeholder expectations, and support long-term environmental and business sustainability.

Chapter# 1
Gloves n Gloves & Sustainability

Company Introduction

Gloves n Gloves (GnG) set foot in the gloves industry in the year 2000. Mr. Najam uz Zaman, founder of GnG, laid the foundation of the company with a vision to deliver superior quality products to our prestigious customers. While workwear operations started in 2020. Having extensive experience in this field has earned him great respect in Pakistan's Workwear & gloves manufacturing community. It is due to his sheer perseverance and efforts that GnG today stands tall in the industry.

Today GnG feels honored to say that it has emerged amongst the top manufacturers & exporters of gloves & Workwear in Pakistan. This achievement may be attributed to our determination to excel and also an absolute organizational setup of complete product making under one roof.

Over the years GnG has specialized in the art of Workwear & glove making to provide customers high quality Workwear & Protective Garments, Impact Resistant and General Mechanics (On/Off Shore Rigs, Gas Fields, Mining, Industrial & Retail/DIY) and Industrial (Cut & Sewn Cotton and Leather).

With production facilities in two major industrial cities of the country, the company has been catering to customer demands from all around the globe. Being a quality compliant organization audited by Intertek for SQP (Supplier Qualification Program) and WCA (Workplace Conditions Assessment) GnG has been able to earn trust and confidence of valuable customers.

GnG takes pride to be part of a highly experienced and energetic team who strive day and night to make GnG a success story. GnG's highly committed employees continuously strive to delight our customers and introduce innovative quality products to provide us competitive edge in the industry. At GnG, a great importance is paid to help customers achieve their goals and objectives

Message from the Partners

Gloves n Gloves (GnG) has established itself as one of the leading glove and workwear manufacturers in Pakistan, known for its commitment to quality, responsibility, and sustainable business practices. As a company operating in the global textile and apparel supply chain, GnG recognizes that the future of our industry depends on how responsibly we use resources and how effectively we respond to global sustainability challenges.

At GnG, we have long understood our duty to go beyond business-as-usual. Climate change, resource depletion, and environmental degradation are among the greatest challenges of our time. We believe it is the responsibility of businesses like ours to act decisively and lead by example in minimizing environmental impacts, promoting circular economy practices, and ensuring the welfare of our employees and communities.

Our sustainability vision is aligned with international frameworks such as the Paris Agreement and the United Nations Sustainable Development Goals (SDGs). We have set ambitious targets to reduce our carbon footprint, optimize energy and water efficiency, manage waste responsibly, and adopt eco-friendly materials in glove and workwear manufacturing. In doing so, we aim not only to protect our planet's natural resources but also to create long-term shared value for our stakeholders.

This Sustainability Report reflects our strategic roadmap for the future. It outlines the steps GnG is taking to transition toward renewable energy, adopt innovative eco-friendly textiles, integrate circular economy practices, and work toward a carbon-neutral future. These initiatives are supported by our commitment to transparency, ethical governance, and continuous improvement across all operations.

We know that the journey toward sustainability is ongoing, and there is always more to be done. GnG will continue to invest in innovation, employee welfare, workplace safety, and community projects to ensure that our growth remains responsible and inclusive. We look forward to collaborating with our stakeholders, customers, and partners to build a sustainable future for the gloves and textile industry in Pakistan and beyond.

On behalf of the entire team at Gloves n Gloves, we reaffirm our pledge to sustainability and invite you to join us in creating a better tomorrow.

OUR VISION

Gloves n Gloves is being recognized locally and internationally as a compliant corporate organization and market leader in trade, services and manufacturing sectors by focusing on customer satisfaction, human resource and continuous research & development.

OUR MISSION

In 2025 Gloves n Gloves will have a substantial global sales in PPE's (Personal Protective Equipment)

OUR VALUES

We operate with integrity, energy, and respect, fostering a culture built on trust, passion, and inclusivity. Through innovation and teamwork, we continuously improve and collaborate to achieve sustainable success.

Field	Information
Company Name	Gloves n Gloves (GnG)
Founded	2000
Founder	Mr. Najam uz Zaman
Head Office	Lahore, Punjab, Pakistan (DHA, Phase IV)
Production Facilities	Faisalabad, Sialkot
Industry	Textiles – Gloves & Work-wear Manufacturing
Specialization	Work-wear & Protective Garments, Impact-Resistant Gloves, General Mechanics Gloves, Cut & Sewn Cotton & Leather Gloves
Certifications & Compliance	Intertek SQP (Supplier Qualification Program), WCA (Workplace Conditions Assessment), ISO 9001:2015, ISO 14001:2015, CE Standards, SEDEX, C-TPAT,
Major Markets	Europe, UK, North & South America
Exports	USD ~ 9.40 million (2024 ~ 2025)
Workforce	850 – 1000 employees
Key Strengths	Vertically integrated production, audited compliance, sustainable sourcing, skilled workforce

Gloves n Gloves Profile

Sustainability Objective & Strategy

(GnG's Sustainability framework is built on three pillars)

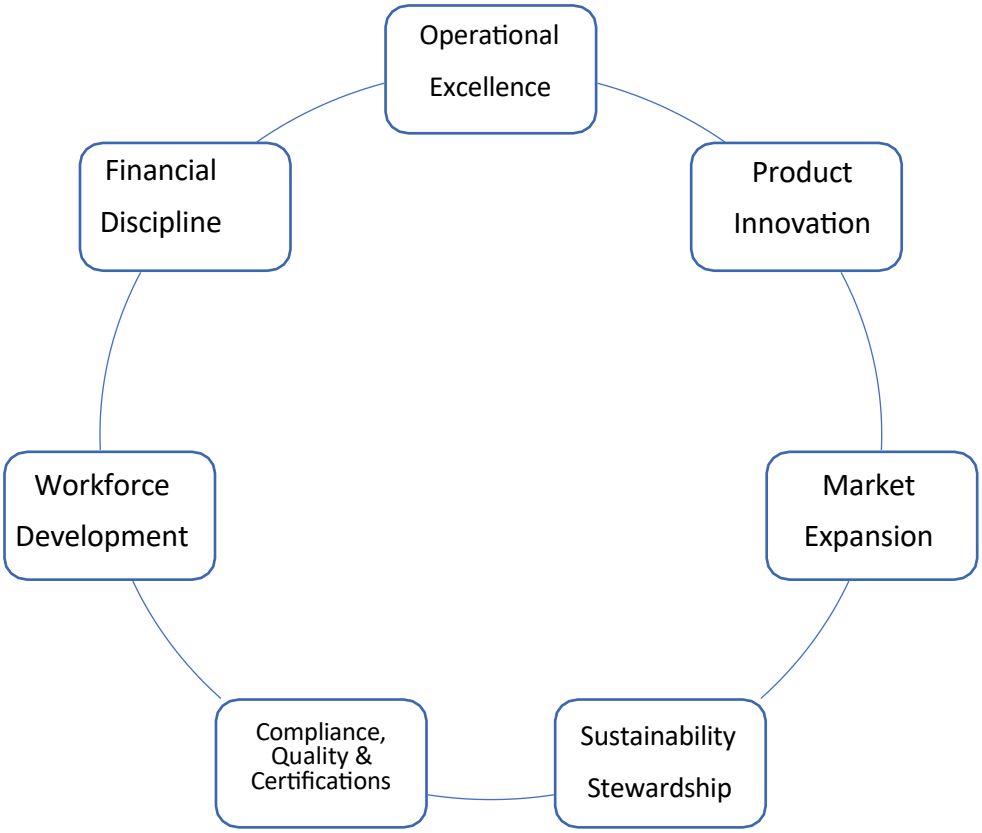
Environmental Responsibility includes reducing carbon emissions, improving water efficiency, adopting renewable energy, and managing waste effectively.

Employee Welfare includes ensuring workplace safety, training, diversity, and career growth opportunities.

Corporate Social Responsibility (CSR) includes supporting community education, health initiatives, and local development.

Business Strategy

Gloves n Gloves is committed to growing as a global leader in protective gloves and work- wear, guided by principles of quality, sustainability, innovation, and stakeholder value. The business strategy of GnG comprises the following pillars:



Sustainable Development Goals		
Activities by GnG	**SDG Aligned**	**Description**
Healthcare Support		Supporting hospitals and foundations offering treatment for cancer, nephrology, thalassemia, arthritis, etc., for underprivileged patients.

Education & Welfare for Underprivileged & Special Needs		Support to educational and welfare institutions for providing education, food, and shelter to underprivileged and special-needs children.
Clean Drinking Water Initiative		Installation of filtration systems delivering 28,800 L/day of purified drinking water to the local community.
Renewable Energy & Climate Action		Use of solar energy across facilities to cut carbon footprint and promote sustainable operations.

Group Capacity / Core activities

Fabric / Leather Stitching & Assembly for Industrial & Mechanical Gloves

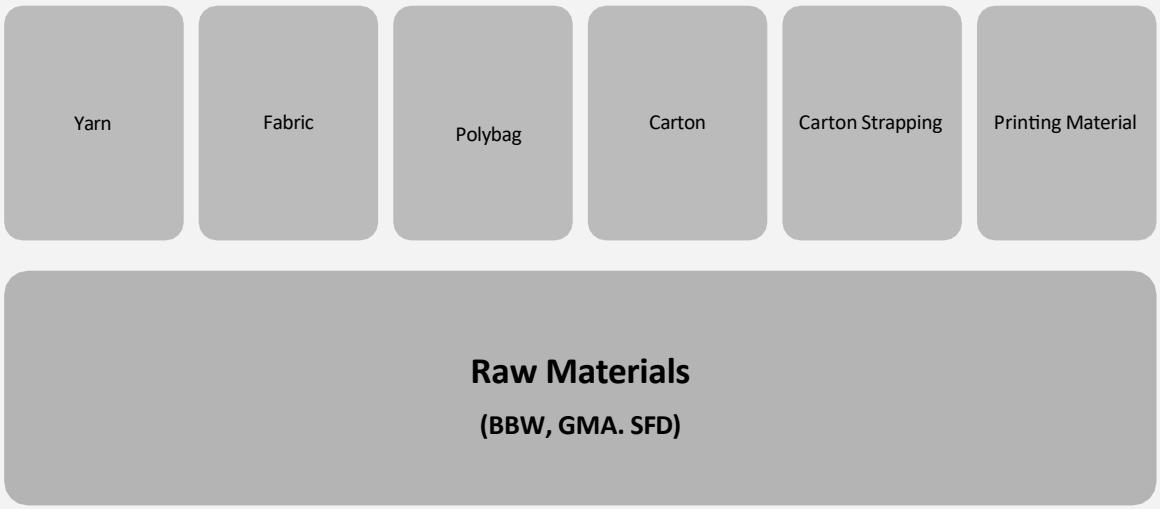
Finishing & Quality Control

Packaging & Export

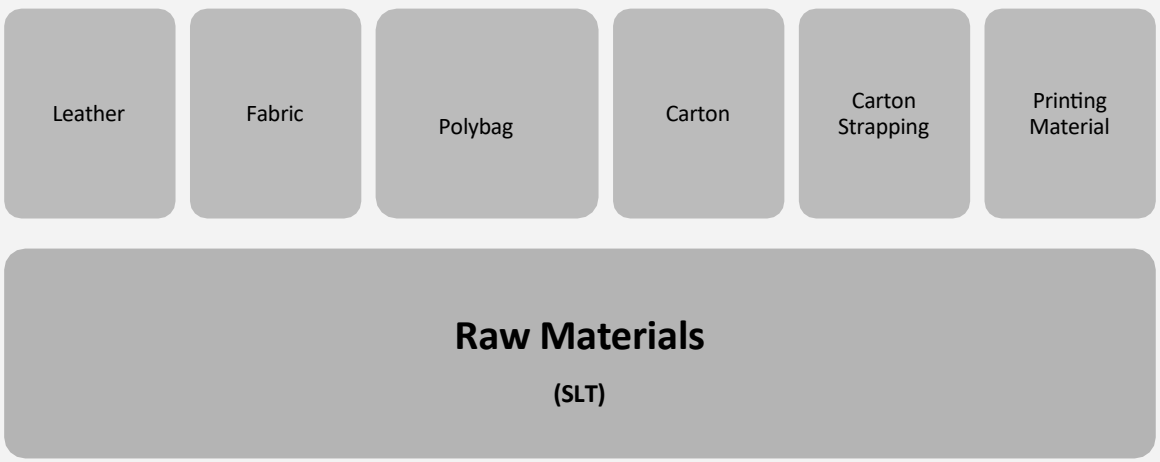
Knitting & Fabric Preparation

Product Types & Raw Materials

For sites, including BBW, GMA and SFD, the raw materials include:



For, SLT Raw Materials include:

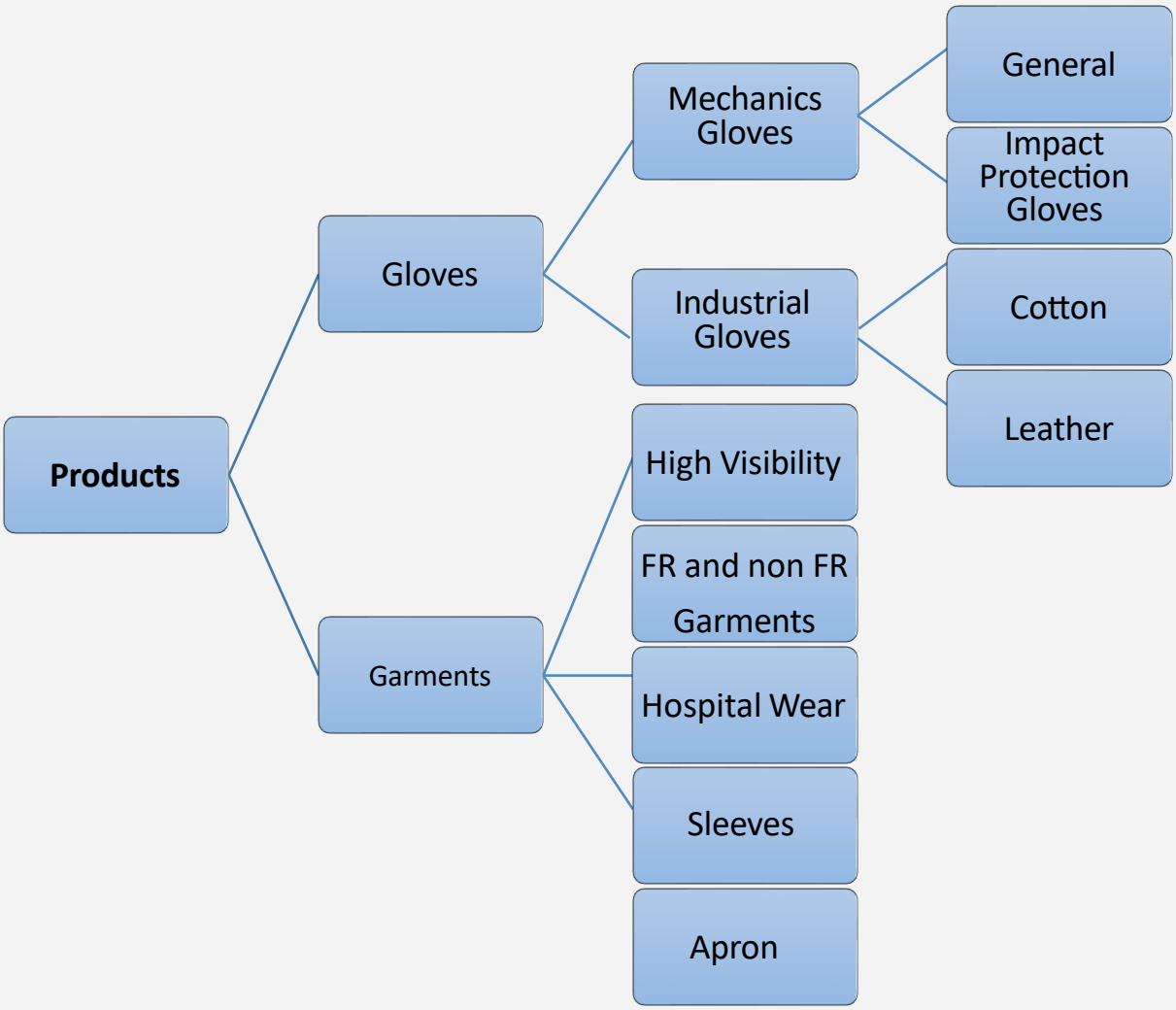


Product Ranges

Gloves n Gloves (GnG) manufactures a diverse range of protective garments and gloves designed for industrial and professional applications. The garment division includes four main categories:

Flame-Resistant (FR) Garments, Non-Flame-Resistant (Non-FR) Garments, High Visibility Workwear, and Hospital Wear.

In gloves, GnG specializes in two key types, Mechanical Gloves and Industrial Gloves. The mechanical category covers General Purpose and Impact Protection gloves, while the industrial range includes Cotton and Leather gloves. Each product line is developed to ensure durability, safety, and compliance with international quality standards, reflecting GnG's commitment to responsible manufacturing and worker protection.



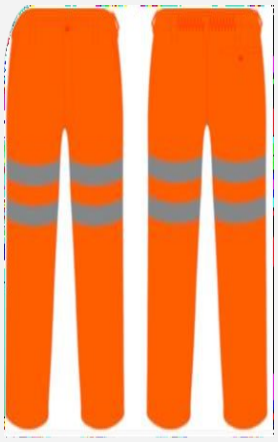
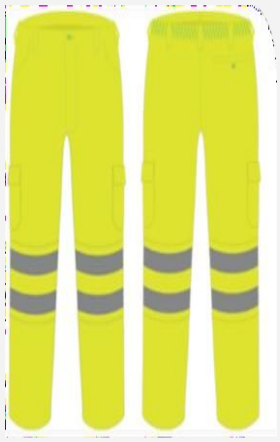
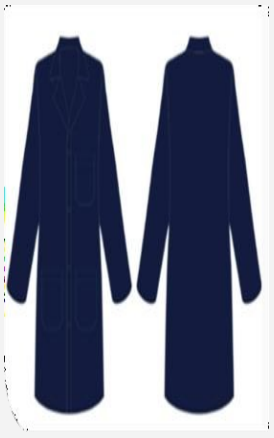
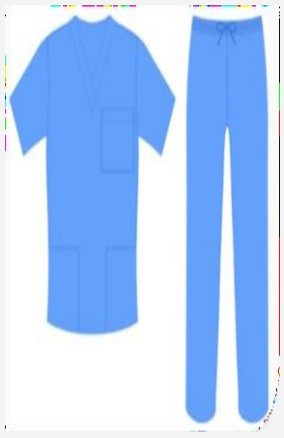
Product Ranges

Multi-Purpose Mechanical Gloves			
			

Impact Protection Gloves			
			
Industrial Cotton Gloves			
			
Industrial Leather Gloves			
			

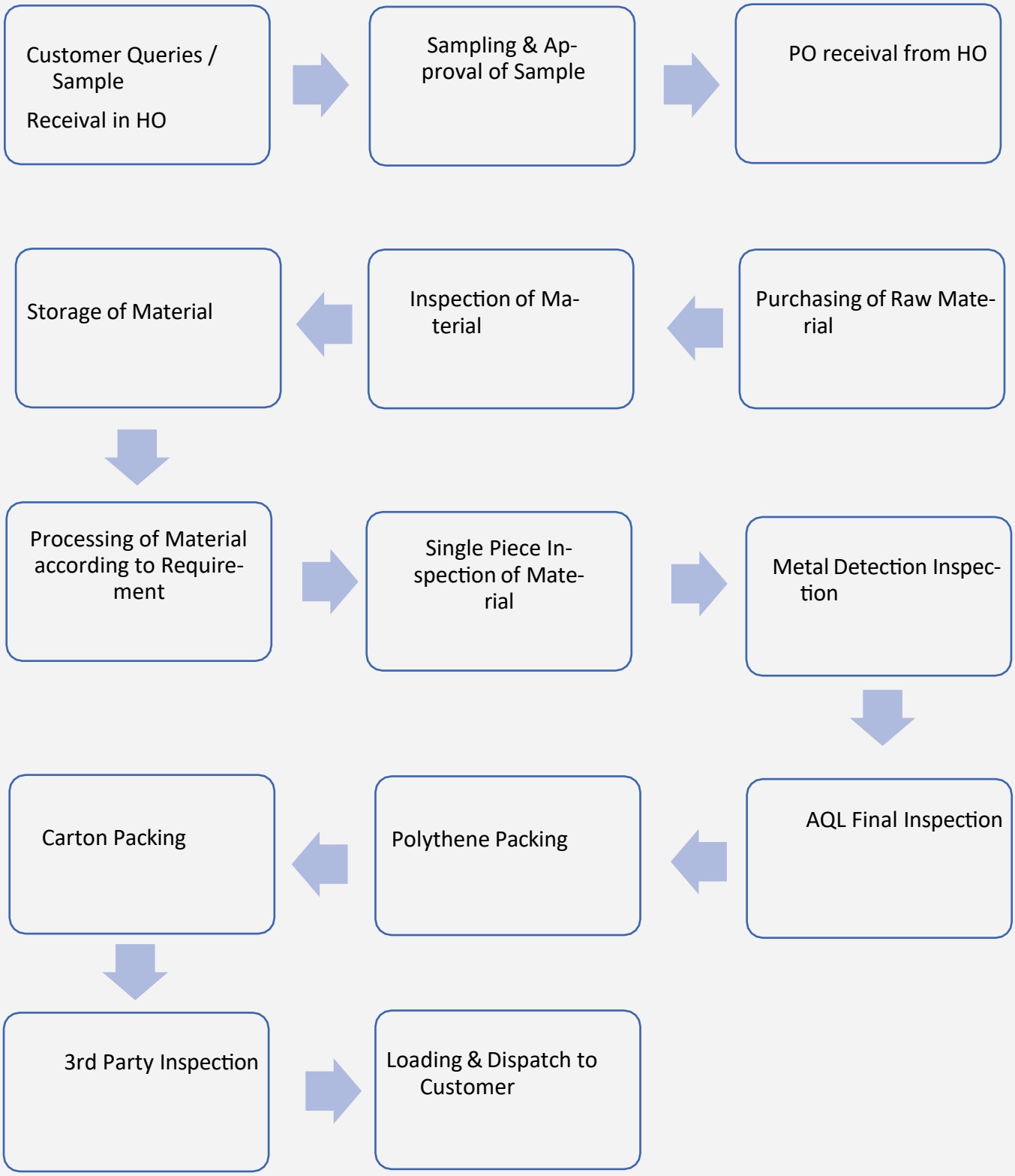
Product Ranges

FR & Non-FR Garments	
	

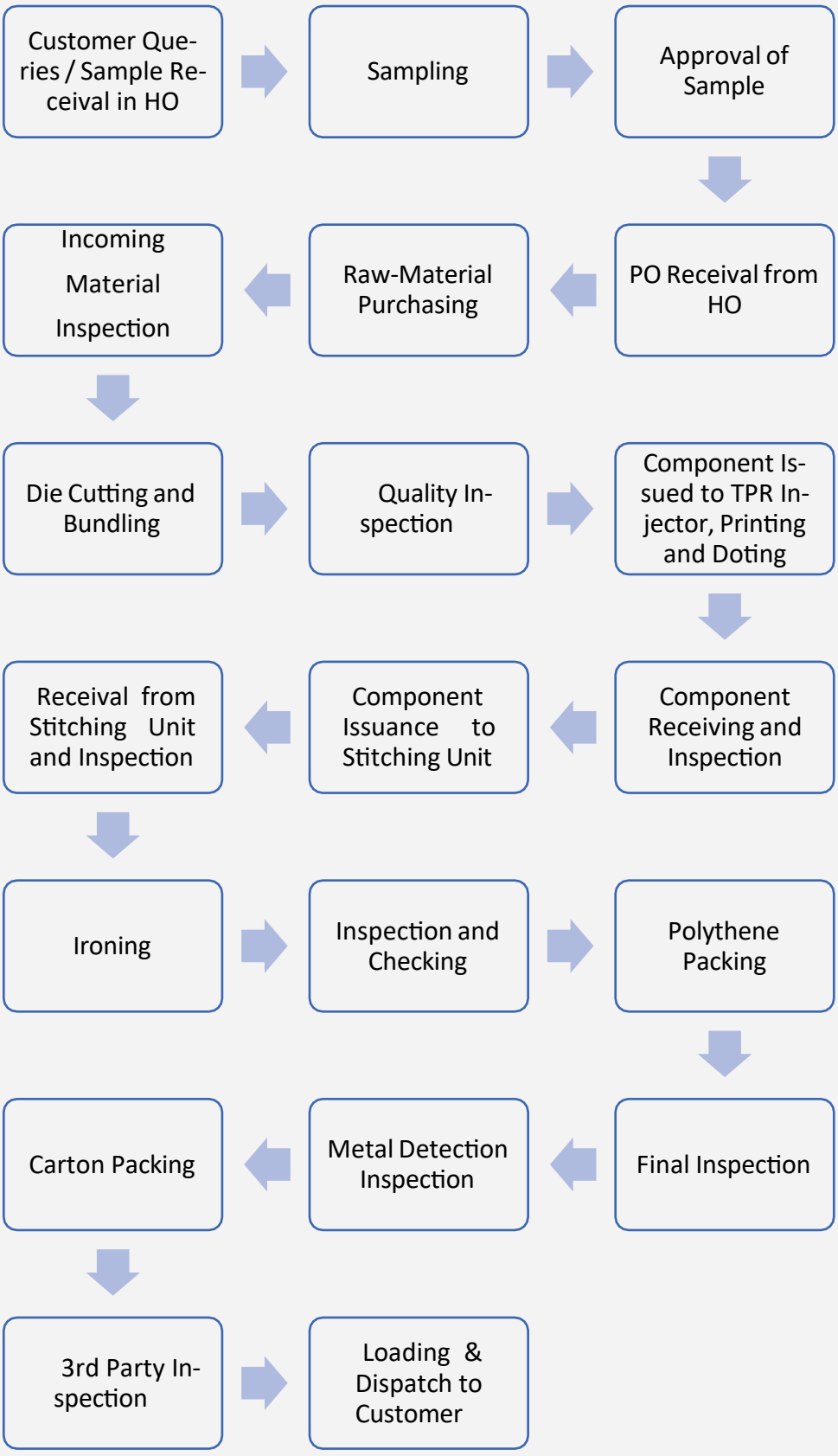
High Visibility and Hospital Wear Garments			
			

Process flow Chart

GnG - BBW, GMA, SFD



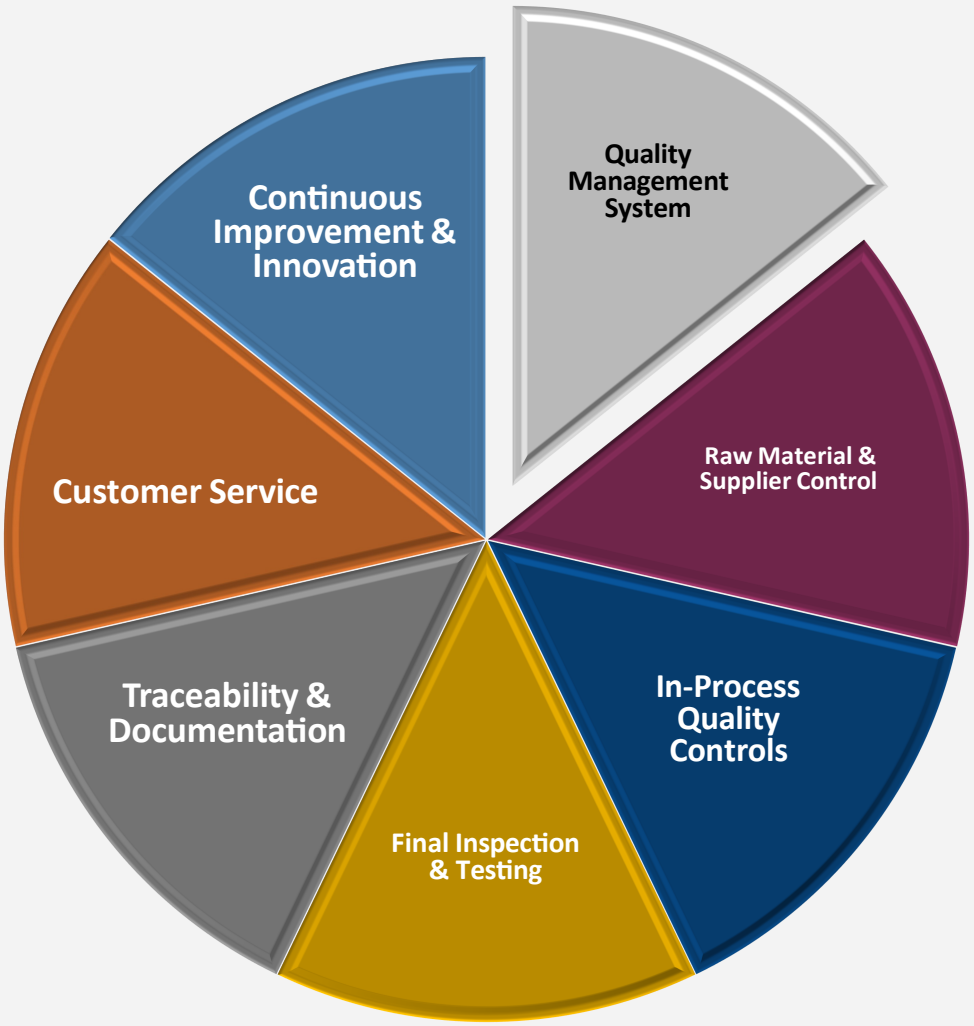
Process flow Chart
GnG - SLT



Product Safety & Quality Service

GnG recognizes that ensuring the highest standards of product safety and quality is fundamental to the company's reputation, customer satisfaction, regulatory compliance, and long-term business success.

In the glove-manufacturing industry, defects, non-compliance, or safety failures can lead to regulatory recalls, liability claims, loss of export orders and serious reputational damage. Hence, Product Safety & Quality Service comprises rigorous systems from raw material input through final shipment, and robust service support to customers.



Product Safety & Quality Service

Quality Management System:

- The production units at GnG are vertically integrated, enabling tighter control over manufacturing processes including knit/stripping, dipping, finishing and packaging.
- GnG maintains documented procedures for inspection, testing, non-conforming product handling, corrective actions, internal audits and continuous improvement.

Raw Material & Supplier Control:

- Incoming raw materials are subjected to inspection and testing prior to use in production.
- Supplier performance assessment covers quality, traceability, labour & environment compliance.

In-Process Quality Control:

- Validated process controls for each stage including cutting/knitting, forming, dipping / coating, curing, finishing, pressing and molding.
- Critical parameters include glove size and dimensions (as per standards), material integrity (no holes, no tears), coating adhesion, finish quality, labelling and packaging compliance.

Final Inspection & Testing:

- Each batch of finished gloves is inspected for compliance to customer specifications and applicable standards (mechanical, cut/puncture resistance, flame resistance, chemical resistance, sizing).
- Non-conforming lots are segregated and either reworked or rejected; root-cause analysis and corrective action procedures are applied.

Traceability & Documentation:

- GnG maintains batch records, process records, test reports and shipment documentation to ensure traceability from raw material to finished product.
- Packaging and labeling adhere to required standards, include user instructions, care instructions, size charts, performance icons & certifications.

Customer Service:

- GnG engages with customers regarding product quality feedback, technical support, returns / replacement of faulty goods and quality improvement initiatives.
- Customer complaints, non-conformities & warranty issues are logged, analyzed and used to drive quality improvement cycles.

Continuous Improvement & Innovation:

- GnG invests in Research and Development and up-to-date machinery to improve process stability, reduce defects, enhance material performance and meet evolving customer safety requirements.
- Quality KPIs (including defect rate, returns rate, customer satisfaction, on-time delivery, nonconformance trend) are monitored at management & Board levels.

Certifications & Sustainability Partners

Subject & Boundary
For Sustainability Report

This Sustainability Report has been developed to present the environmental, social, and governance (ESG) performance of Gloves n Gloves (GnG) Industry, a leading Pakistani manufacturer of protective gloves. The focus of the report is on GnG's organizational activities and their impacts across the entire value chain, ensuring a clear understanding of how the company manages sustainability challenges and opportunities.

The subject of this report includes GnG's operations, policies, and outcomes that influence the environment, workforce, and broader society. It covers areas such as responsible resource use, occupational health and safety, compliance with global standards, and ethical business practices.

The boundaries of the report extend across the value chain, starting from raw material sourcing and procurement, to production at GnG's facilities in Sialkot and Faisalabad, and finally to the delivery of finished protective gloves to international markets. It also considers stakeholder relationships, including employees, customers, suppliers, regulators, and local communities, recognizing their role in shaping and supporting the company's sustainability journey.

Organizational Boundaries:

The report covers all five units of Gloves n Gloves industry:

Lahore - HO | Head Office

Faisalabad - BBW | Processing Unit

Faisalabad - SFD | Processing Unit

Faisalabad - GMA | Processing Unit

Faisalabad - SLT | Processing Unit

Subject & Boundary
For Sustainability Report

Organizational Boundaries:

The report covers all five units of Gloves n Gloves industry:

Scope - 1 | Direct Emissions

- Fuel Combustion at Generator, Company Owned Vehicles, Emissions from ACs and LPG

Scope - 2 | Indirect Emissions

- Purchased Electricity from External Sources

Scope - 3 | Indirect Emissions

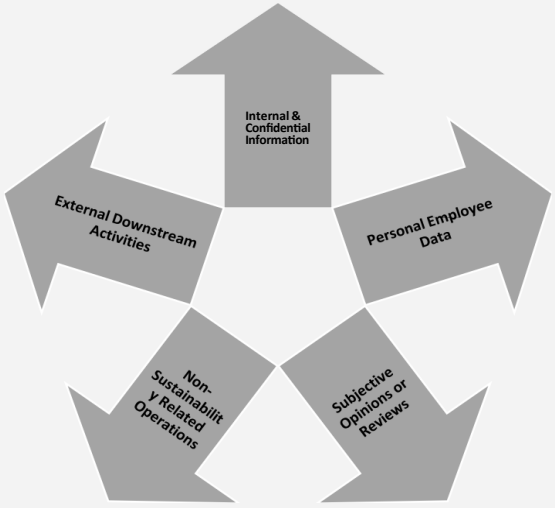
- Upstream & Downstream Activities

Reporting Period:

July 2024 - June 2025

Exclusions from Report:

This Sustainability Report focuses exclusively on the material environmental, social, and governance (ESG) aspects of Gloves n Gloves (GnG). Certain elements have been intentionally excluded to ensure relevance, transparency, and compliance with sustainability reporting principles. Specifically, the following are not included in the scope of this report:



Subject & Boundary
For Sustainability Report

Internal and Confidential Information:

Sensitive operational details, trade secrets, financial records beyond publicly reported data, and proprietary strategies remain outside the reporting boundary.

Personal Employee Data:

The report does not disclose individual employee information, personal identifiers, or private records to safeguard privacy and comply with data protection standards.

Subjective Opinions or Reviews:

Personal opinions, anecdotal comments, or non- verifiable perspectives from individuals are excluded, ensuring that the report remains fact-based and objective.

Non-Sustainability-Related Operations:

Activities that do not contribute to or directly impact GnG's sustainability performance such as unrelated administrative or non-core business functions are not reported.

External Downstream Activities:

While Scope 3 supply chain emissions are partially included, the downstream use phase and end-of-life disposal of products are excluded due to methodological limitations and lack of reliable data at this stage.

By defining these exclusions, GnG maintains a clear and credible reporting boundary. This approach ensures that the report remains focused on material ESG issues that are most relevant to stakeholders, while also protecting sensitive information and complying with ethical standards.

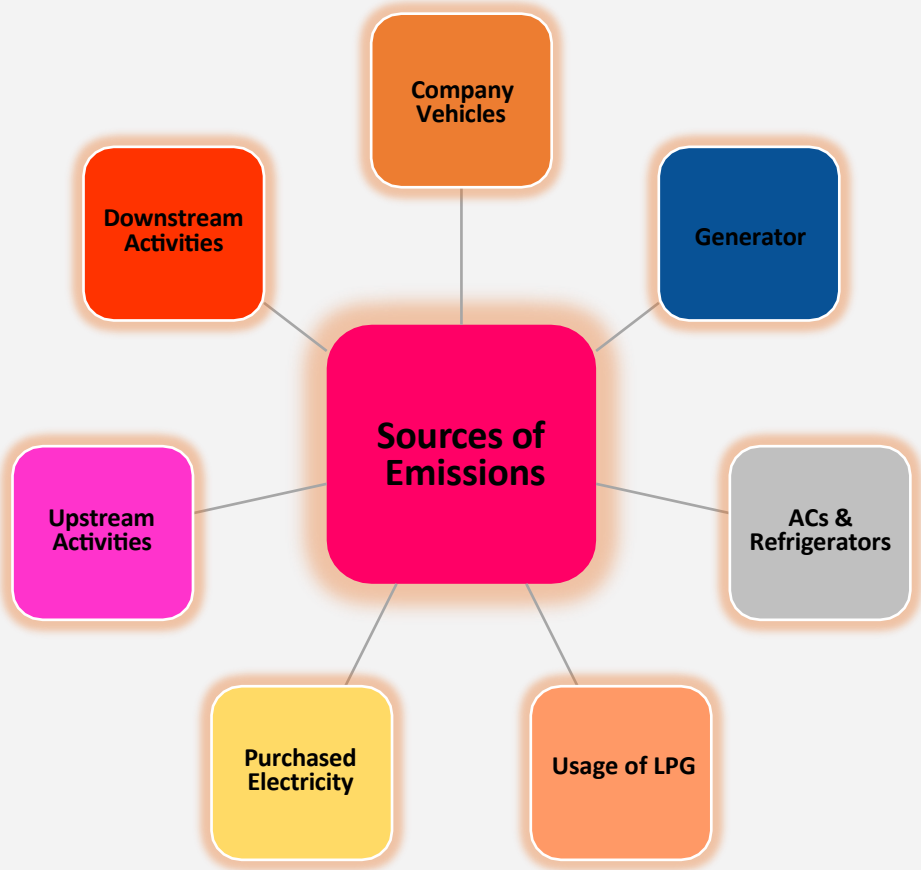
Chapter# 2
Environmental Sustainability

Environmental
Sustainability Management

Gloves n Gloves recognizes a multi-dimensional emissions landscape across its operations. The visual map of emission sources, including company vehicles, on-site generators, LPG use, purchased electricity, and upstream and downstream value chains, guides our sustainability focus. To counteract these emissions, primary current lever of GnG is solar-generated electricity, which displaces grid power and reduces reliance on carbon-intensive backup systems.

By overlaying on solar deployment, GnG clearly traces how clean electricity avoids emissions from multiple nodes. The largest leverage (and easiest quantification) lies in substituting purchased grid electricity with solar, yielding the metric of "emissions avoided" we report. Secondary benefits come through reducing generator runtime, and aligning EV or EV-charging adoption with clean power.

However, GnG's sustainability vision extends beyond electricity alone. GnG actively collaborating with raw-material suppliers to reduce upstream carbon intensity—such as promoting more sustainable leather processing and minimizing chemical treatments—while also optimizing downstream logistics, packaging, and waste management. These initiatives aim to lower end-to-end emissions across the entire glove lifecycle.



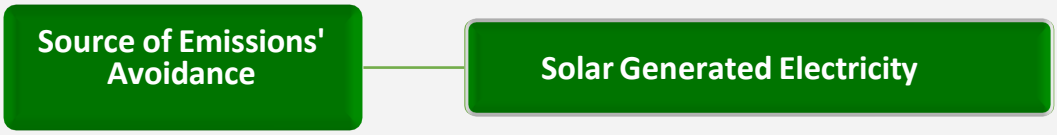
Environmental
Sustainability Management

Source of Emissions	Relevance at GnG	Challenges & Measurement Considerations	Mitigation / Avoidance Strategies
Company Vehicles	GnG operates logistics vehicles (for raw material transport, inter site transfers)	Fuel consumption (diesel/petrol), kilometers travelled, emissions = fuel usage × emission factor	Switch to more efficient vehicles, upgrade fleet, adopt electric vehicles (EVs) or hybrid, better route planning
Generator (on-site backup power, diesel generator)	In Pakistani industrial setups, grid instability means reliance on diesel generators during outages. GnG sites have standby generators	Quantify fuel consumption, emissions = fuel usage × emission factor	Optimize generator usage (only use when needed), maintain generators for efficiency, switch to biofuels or cleaner fuels, replace with battery storage or hybrid solar + battery + genset systems
ACs & Refrigerators (cooling systems)	In glove manufacturing and in offices, warehouses, labs, climate control is important (for comfort, material drying, humidity control)	These systems consume electricity; leakage of refrigerants (if using HFCs) leads to potent greenhouse gases; must monitor refrigerant leaks, energy use	Use energy-efficient systems having proper insulation, preventive maintenance, switch to low-GWP refrigerants, demand control (zoning, thermostats)
Usage of LPG (or other fuel gas)	If GnG uses LPG (liquefied petroleum gas) for heating, drying processes, or in small thermal applications (e.g., in labs, pilot processes)	Measure volume of LPG used, map emissions factor; check for leaks or inefficiencies	Replace or reduce LPG usage by electrifying heat processes (if lower- temperature), adopt efficient burners, heat recovery, insulation, or switch to renewable fuels (e.g., biogas)
Purchased Electricity	This is a major source for GnG used for powering machinery, lighting, motors, conveyors, fans, pumps, etc.	Measure kWh usage by site, know the grid emission factor (kg CO_2e/ kWh) for the local grid; emissions = fuel usage × emission factor	Improve energy efficiency (LED lighting, efficient motors, variable- frequency drives, energy management systems, process optimization), demand-side management, shift load to low-demand times

Environmental
Sustainability Management

Source of Emissions	Relevance at GnG	Challenges & Measurement Considerations	Mitigation / Avoidance Strategies
Upstream Activities	Emissions embodied in raw materials, transport of raw materials to GnG	Harder to measure (requires supplier data, life-cycle assessments, emission factors for upstream supply chain)	Engage suppliers in emissions reporting, switch to lower-emission raw materials, prefer local sourcing, improve material efficiency, circular reuse or recycling
Downstream Activities	Emissions resulting after the product leaves GnG, e.g., transport of finished gloves to customers	Again, reliant on logistics data, emissions from transport modes	Optimize logistics (fill rates, efficient transport modes), encourage circular use (take-back programs, recycling)

Solar-generated electricity is the mechanism through which emissions are avoided.



Gloves n Gloves, declares the source of emissions' avoidance, which enlist the action or technology that prevents greenhouse gas emissions, is solar generated electricity. It simplifies the causal link: deploying solar power leads directly to avoided emissions (by displacing higher-carbon energy sources).

Environmental

Calculations due to internal & external sources

Total Emissions Breakdown per Site, from all Sources	
Site Name	**Emissions in tCO2e**
GnG - BBW	469.46
GnG - SFD	69.23
GnG - GMA	67.50
GnG - HO	20.91
GnG - SLT	23.28
Total Emissions	**650.37**

The total emissions across all sites amount to **650.37 tCO_2e**, reflecting the organization's overall carbon footprint from all sources.

From the calculated data, it is clear that the **GnG - BBW** site is the most significant contributor, producing **469.46 tCO_2e**, which accounts for approximately **72%** of the total emissions. This Indicates that the BBW site is the largest in terms of operations, energy consumption and represents the primary area where emission-reduction efforts should be focused.

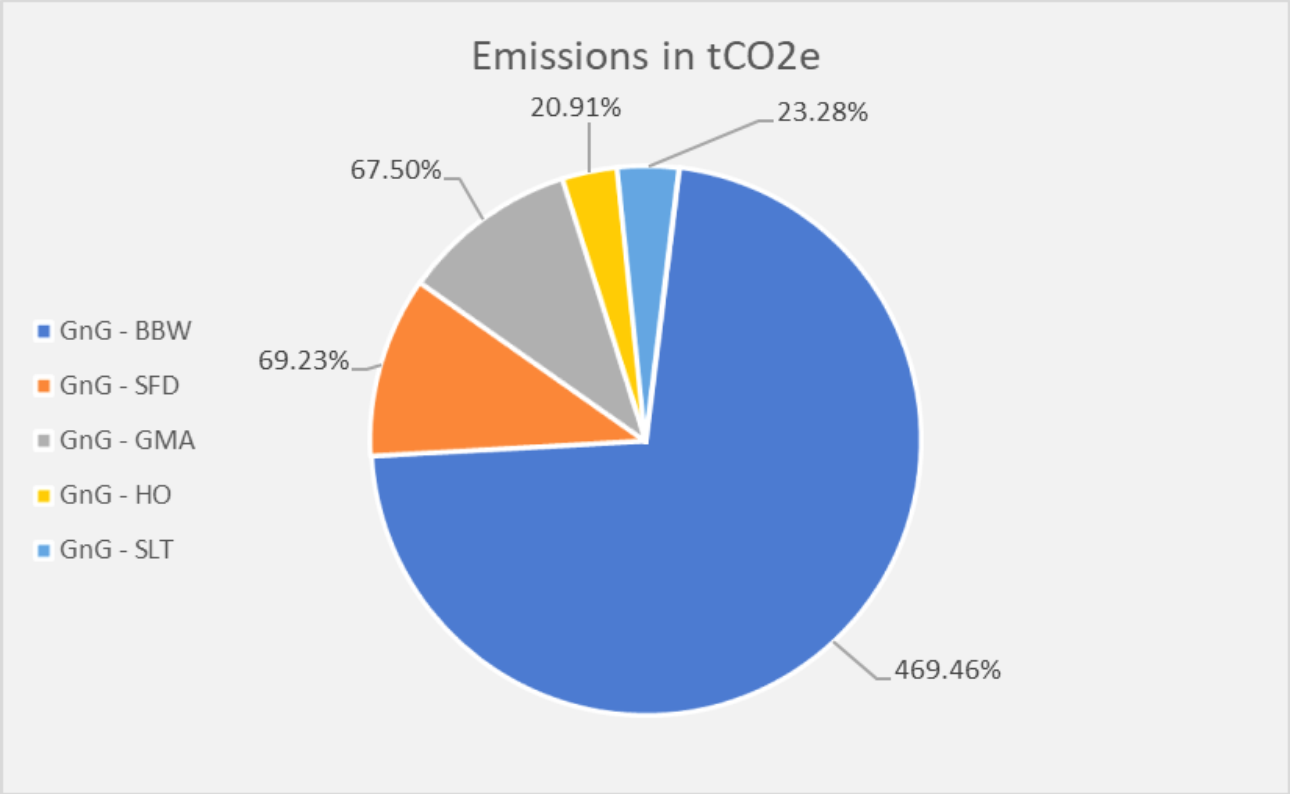
The next two sites, **GnG - SFD** and **GnG - GMA**, contribute **69.23 tCO_2e** and **67.50 tCO_2e** respectively, each making up around **10%** of total emissions. These two sites have comparable emission levels, indicating that they have similar operational scopes and processes.

The remaining two sites, **GnG - HO** and **GnG - SLT**, produce relatively low emissions of **20.91 tCO_2e** and **23.28 tCO_2e** respectively, together contributing less than **7%** of the total. This low level of emissions indicates that these sites are smaller in scale, administrative in nature, and already operate with a higher degree of energy efficiency.

Overall, the data highlights a clear **emission concentration at the BBW site**, with more than two thirds of the organization's emissions coming from a single location. This presents an opportunity for targeted emission-reduction strategies including improving energy efficiency, transitioning to renewable energy sources, and optimizing production processes at this specific site, which is **GnG-BBW.**

Environmental

Calculations due to internal & external sources

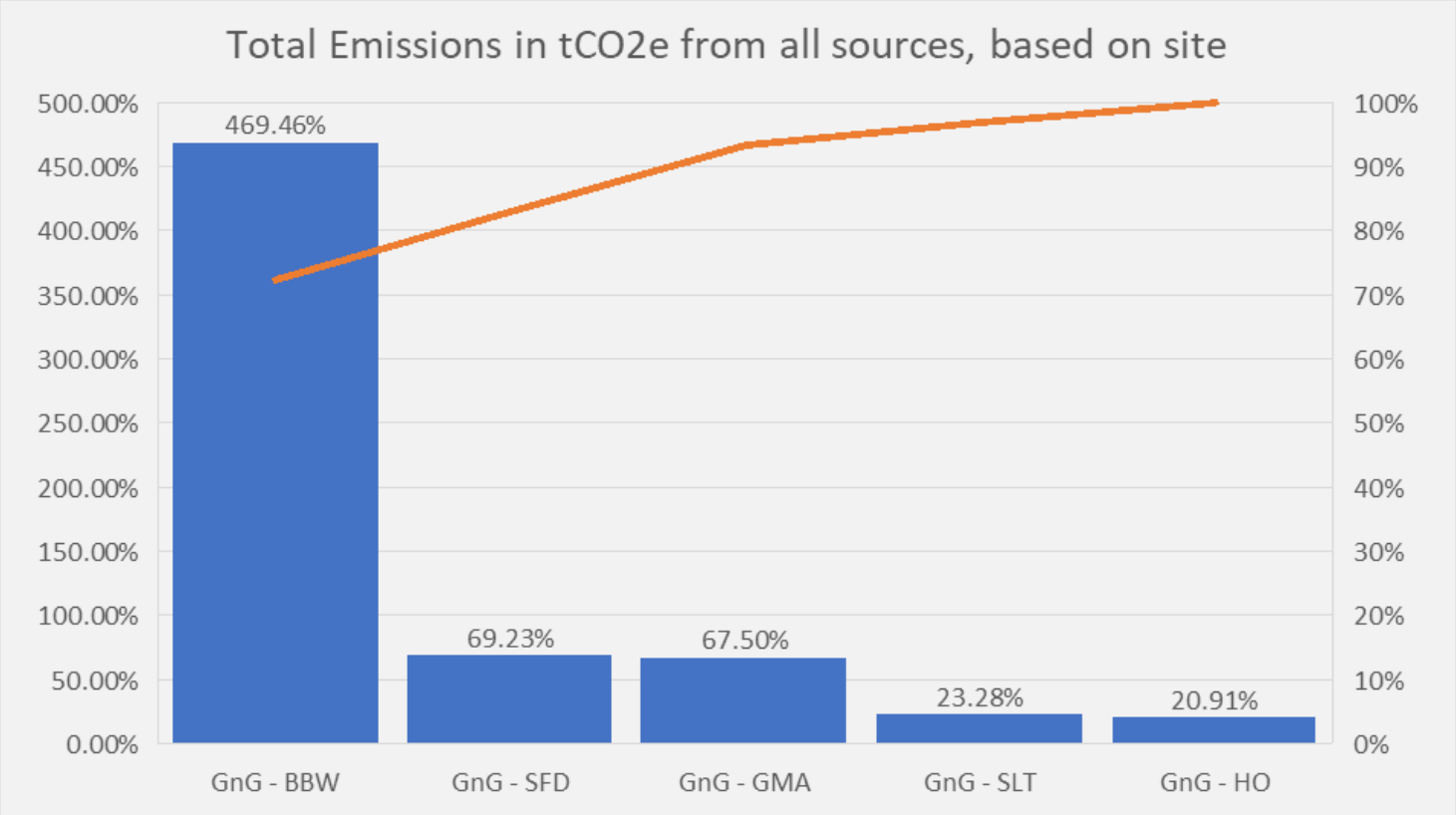


The pie chart illustrates the total emissions in tones of CO_2 equivalent (tCO_2e) from all sources across different sites. It is evident that the **GnG - BBW** site is the largest contributor, accounting for **469.46 tCO_2e** or **72.2%** of total emissions, indicating a significant concentration of carbon output at this location.

The **GnG - SFD** and **GnG - GMA** sites contribute relatively similar amounts, at **69.23 tCO_2e (10.6%)** and **67.50 tCO_2e (10.4%)**, respectively, representing moderate emission sources. Meanwhile, **GnG - SLT** and **GnG - HO** have the lowest emissions, producing **23.28 tCO_2e (3.6%)** and **20.91 tCO_2e (3.2%),** respectively. Overall, the data reveal a highly uneven distribution of emissions, with over two-thirds originating from the **BBW** site. This indicates that focusing emission reduction and sustainability efforts on the **BBW** site would be the most effective strategy for achieving substantial overall emission reductions.

Environmental

Calculations due to internal & external sources



The Pareto chart displays the **total emissions in tCO_2e** from all sources, based on site, highlighting both the absolute and cumulative contributions of each location. The **GnG - BBW** site clearly dominates, emitting **469.46 tCO_2e**, which represents the majority of total emissions. In comparison, **GnG - SFD (69.23 tCO_2e)** and **GnG - GMA (67.50 tCO_2e)** contribute significantly less but still account for a noticeable share. The **GnG - SLT** and **GnG - HO** sites have minimal emissions, at **23.28 tCO_2e** and **20.91 tCO_2e**, respectively.

The cumulative percentage line shows a steep rise after BBW, indicating its overwhelming influence on total emissions, and it gradually levels off as smaller sites are added. Overall, the chart emphasizes a **highly uneven distribution of emissions**, with the BBW site being the primary source. This indicates that focusing carbon reduction initiatives on BBW would yield the greatest environmental impact, while secondary efforts at SFD and GMA would further enhance total emission reduction outcomes.

Total Emissions

Breakdown based on scope

Scope Wise Total Emissions Breakdown from all Sites	
Site Name	**Emissions in tCO2e**
Scope 1	66.44
Scope 2	227.02
Scope 3	356.91
Total Emissions	**650.37**

The table presents a detailed summary of greenhouse gas emissions categorized under three distinct scopes, expressed in metric tons of CO_2 equivalent (tCO_2e). The total emissions from all sites amount to **650.37 tCO_2e**, indicating the overall carbon footprint.

Scope 1 emissions, recorded at **66.44 tCO_2e**, represent the direct emissions from owned or controlled sources, such as fuel combustion in company facilities and vehicles. This relatively low figure suggests that the organization's direct contribution to greenhouse gas emissions is limited, potentially due to efficient energy usage, reliance on cleaner fuels, or reduced dependence on emission-intensive equipment.

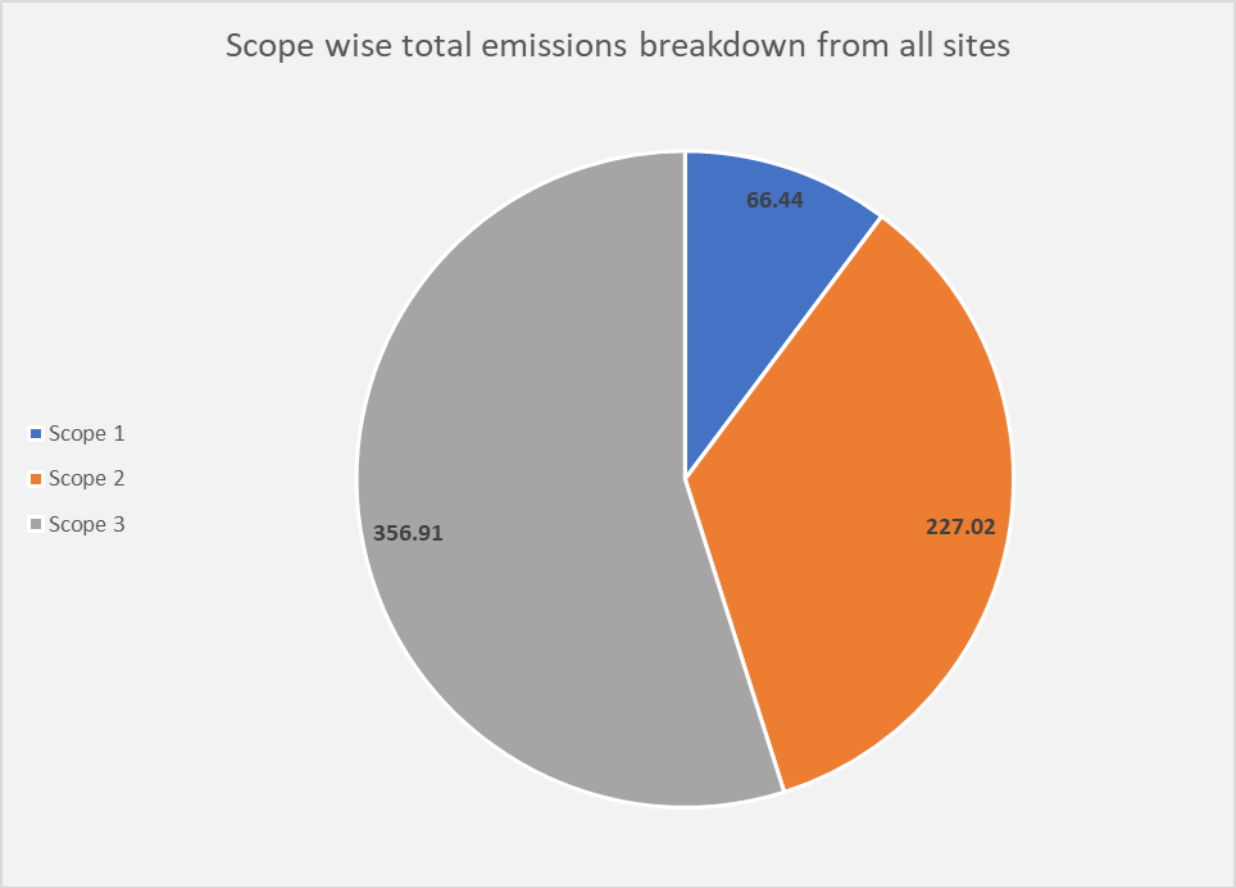
Scope 2 emissions, amounting to **227.02 tCO_2e**, account for indirect emissions resulting from the generation of purchased electricity consumed by the organization. This value is significantly higher than Scope 1, implying that electricity consumption is a major contributor to the company's carbon footprint. The dependence on externally sourced energy, particularly from non-renewable sources, is the primary driver of this emission level. Reducing these emissions would involve transitioning to renewable electricity sources, enhancing energy efficiency, and implementing power-saving technologies.

Scope 3 emissions, the largest contributor at **356.91 tCO_2e**, represent other indirect emissions that occur in the value chain, including upstream and downstream activities such as business travel, procurement, and logistics. The dominance of Scope 3 emissions (over 54% of total emissions) highlights that a substantial portion of the organization's environmental impact lies outside its direct control. This underscores the importance of engaging suppliers, improving logistics efficiency, and promoting sustainable practices across the supply chain.

The calculated data shows that **Scope 3 emissions** are the primary driver of total emissions, followed by **Scope 2**, while **Scope 1 contributes the least.** To achieve meaningful emission reductions, strategies would focus on energy procurement, value chain collaboration, and comprehensive sustainability initiatives that address all three scopes holistically.

Total Emissions

Breakdown based on scope



The pie chart shows that **Scope 3 emissions** are the largest contributor, making up **54.9%** of total **emissions (356.91 tCO_2e),** indicating significant indirect impacts from supply chain and external activities. **Scope 2 emissions** account for **34.9% (227.02 tCO_2e),** reflecting emissions from purchased electricity. **Scope 1 emissions** are the smallest at **10.2% (66.44 tCO_2e),** representing direct emissions from owned or controlled sources. Overall, the chart highlights that the indirect emissions, especially from Scope 3, dominate the organization's total carbon footprint.

Total Rank wise Emissions Breakdown

Based on each source

Sr. No	Scope Category	Category Name	Total Emissions Recorded in tCO_{e2}
1	Scope 2	Electricity - WAPDA	227.02
2	Scope 3	Downstream (Diesel)	214.66
3	Scope 3	Commute (Employee Owned)	97.24
4	Scope 3	Upstream (Diesel)	39.76
5	Scope 1	Company Vehicles	32.42
6	Scope 1	Generator	14.67
7	Scope 1	Lubricants	9.13
8	Scope 1	ACs	8.96
9	Scope 3	Commute (Third Party)	4.50
10	Scope 1	LPG	0.83
11	Scope 3	Upstream (Petrol)	0.75
12	Scope 1	Fire Extinguishers	0.45

The table presents a **comprehensive breakdown of total greenhouse gas emissions** across various categories within **Scope 1, Scope 2, and Scope 3,** measured in metric tons of CO_2 equivalent (tCO_2e). The data shows the relative contribution of each source to the overall emissions, offering insights into key areas where the organization's carbon footprint is most significant.

Scope 2 emissions, specifically from electricity consumption through WAPDA, stand out as the **single largest emission source** at **227.02 tCO_2e**. This indicates that electricity usage represents a major component of the organization's total emissions, driven by dependence on grid electricity. It suggests that energy efficiency improvements, renewable energy sourcing, and enhancing solar installations could significantly reduce this impact.

Within **Scope 3 emissions**, the **Downstream (Diesel)** category contributes **214.66 tCO_2e**, making it the **second-highest emission source overall**. This high figure reflects substantial emissions from transportation and distribution activities that occur after the organization's direct control, such as logistics and delivery networks. The **Commute (Employee Owned)** category, with **97.24 tCO_2e,** also contributes significantly, showing that employee commuting habits are a considerable indirect emission source. Encouraging sustainable commuting options like public transport, or electric vehicles would help mitigate these emissions.

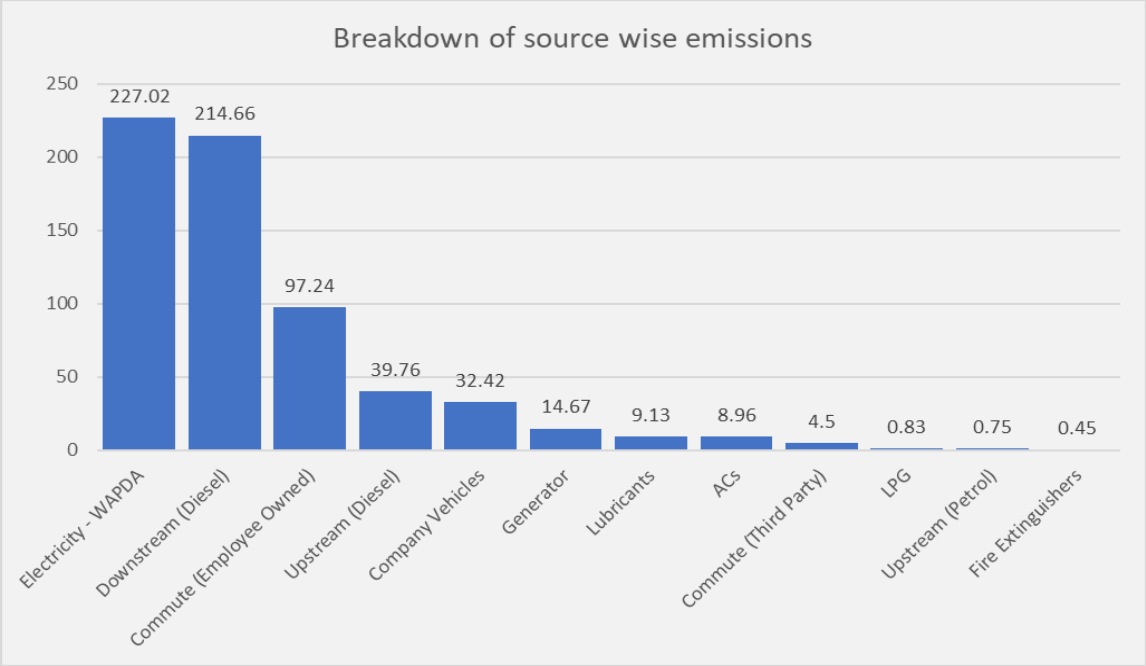
Total Rank wise Emissions Breakdown

Based on each source

Other **Scope 3** categories, including **Upstream (Diesel)** at **39.76 tCO_2e**, Commute (Third Party) at **4.50 tCO_2e,** and Upstream (Petrol) at **0.75 tCO_2e,** collectively represent additional indirect emissions related to supply chain logistics and third-party operations. These figures indicate that both upstream and downstream transportation have measurable environmental impacts that are required to be addressed through supplier engagement and fuel efficiency strategies.

In **Scope 1** emissions, the Company Vehicles category contributes **32.42 tCO_2e**, making it the largest source of direct emissions. Other **Scope 1** sources, including Generators **(14.67 tCO_2e), Lubricants (9.13 tCO_2e)**, ACs and Refrigerators **(8.96 tCO_2e), LPG (0.83 tCO_2e),** and **Fire Extinguishers (0.45 tCO_2e),** are relatively smaller but collectively highlight the organization's operational carbon footprint. These emissions stem from fuel use, refrigerants, and other maintenance-related activities, suggesting opportunities for adopting cleaner fuels, energy efficient equipment, and improved maintenance practices.

In summary, the data reveals that the **major contributors to total emissions** are electricity consumption **(Scope 2)** and **diesel-related activities** in **Scope 3**, together accounting for a substantial portion of the carbon footprint. Direct emissions from **Scope 1** are comparatively lower but still notable in specific areas such as company vehicles and generators. The analysis underscores the need for a dual focus: involving reducing energy consumption and enhancing fuel efficiency across both direct operations and the broader value chain to achieve meaningful carbon reduction.



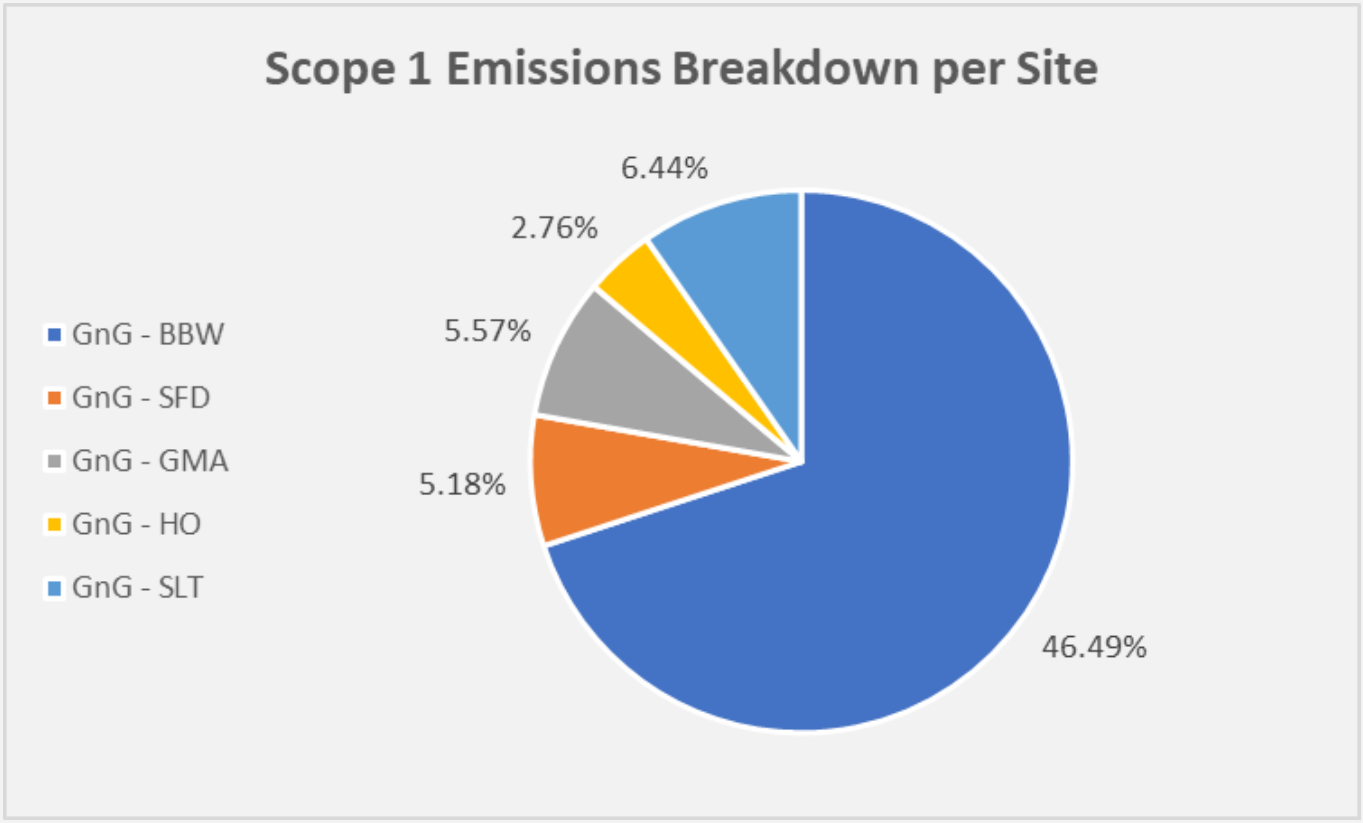
The chart shows that electricity consumption (WAPDA) and downstream diesel use are the largest emission sources, contributing **227.02 tCO_2e** and **214.66 tCO_2e** respectively. Employee commuting follows with **97.24 tCO_2e**, while other sources such as upstream diesel, company vehicles, and generators contribute smaller amounts. Emissions from LPG, petrol, and fire extinguishers are minimal. Overall, energy use and fuel-related activities dominate the total emissions.

Total Scope wise

Emissions breakdown per site

Scope 1 Emissions Breakdown per Site	
Site Name	**Emissions in tCO_{2e}**
GnG - BBW	46.49
GnG - SFD	5.18
GnG - GMA	5.57
GnG - HO	2.76
GnG - SLT	6.44
Total Emissions	**66.44**

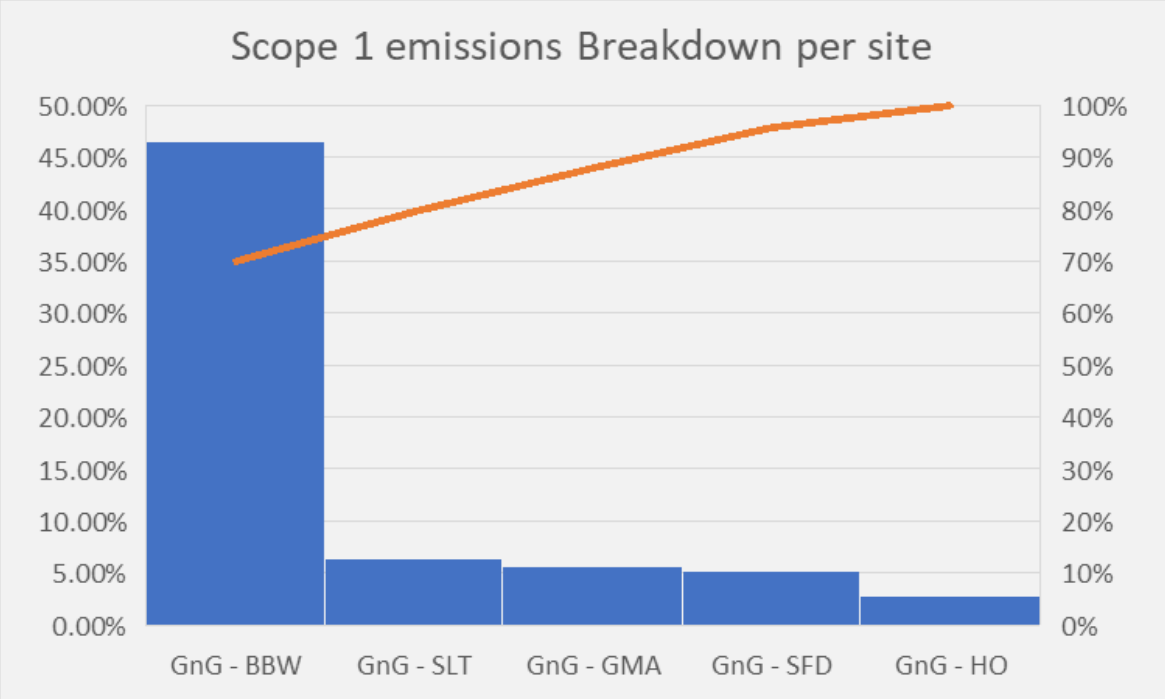
The data shows the **Scope 1 emissions** breakdown per site with total emissions amounting to **66.44 tCO_2e**. Among the sites, **GnG–BBW** is the dominant contributor, accounting for **46.49 tCO_2e,** which represents roughly **70%** of the total emissions. This indicates that BBW is the primary site, which is driving **Scope 1** emissions, due to higher on-site fuel consumption and operational intensity. The remaining sites including **GnG–SFD (5.18 tCO_2e), GnG–GMA (5.57 tCO_2e), GnG–HO (2.76 tCO_2e),** and **GnG–SLT (6.44 tCO_2e),** have relatively minor emission levels, each contributing less than 10% individually. These findings suggest that the targeted emission reduction strategies focused on the BBW site would yield the most significant overall impact. Meanwhile, maintaining efficiency and monitoring smaller sites will help ensure that total emissions remain low and balanced across all locations.



The chart shows that **GnG-BBW** dominates Scope 1 emissions, contributing **70%** of the total, indicating it's the primary source of direct emissions. The other sites **GnG-SLT (9.7%), GnG-GMA (8.4%), GnG-SFD (7.8%),** and **GnG-HO (4.2%),** have relatively minor shares. This suggests that emission reduction efforts should prioritize **GnG-BBW**, as improvements there would have the greatest overall impact.

Total Scope wise

Emissions breakdown per site



The chart illustrates a highly uneven distribution of **Scope 1** emissions across sites, with **GnG-BBW** overwhelmingly dominating the footprint. At **46.49 tCO_2e**, this site accounts for the vast majority of total emissions, dwarfing all others and driving the upward trajectory of the cumulative percentage line. The remaining sites **GnG-SLT (6.44 tCO_2e), GnG-GMA (5.57 tCO_2e), GnG-SFD (5.18 tCO_2e), and GnG-HO (2.76 tCO_2e),** contribute relatively minor amounts in comparison, each representing only a small share of the total. This pattern indicates that mitigation efforts targeted at GnG-BBW would yield the greatest reduction impact, while the smaller-emitting sites will require more tailored, efficiency-focused initiatives. Overall, the data emphasizes a clear priority area for emission-reduction strategies and highlights the disproportionate influence of a single site, which is GnG-BBW on the organization's Scope 1 emissions profile.

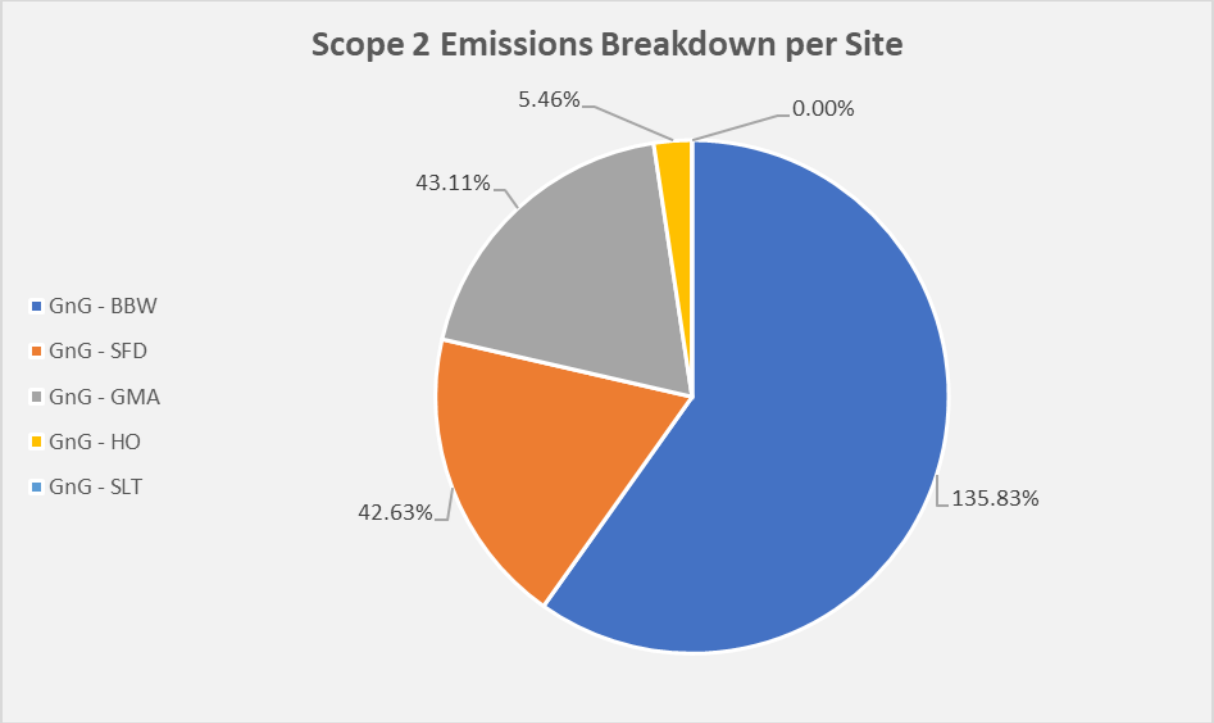
Scope 2 Emissions Breakdown per Site	
Site Name	Emissions in tCO_{2e}
GnG - BBW	135.83
GnG - SFD	42.63
GnG - GMA	43.11
GnG - HO	5.46
GnG - SLT	0.00
Total Emissions	**227.02**

The table of **Scope 2** Emissions Breakdown per Site shows that **Scope 2** emissions are heavily concentrated at the **GnG-BBW** site, which produces **135.83 tCO_2e**, representing well over half of the total **Scope 2** footprint. The next-largest contributors, **GnG-GMA (43.11 tCO_2e)** and **GnG-SFD (42.63 tCO_2e)** emit significantly less but still form substantial portions of the remaining total, indicating that electricity-related emissions are fairly sizable at these operational locations.

Total Scope wise

Emissions breakdown per site

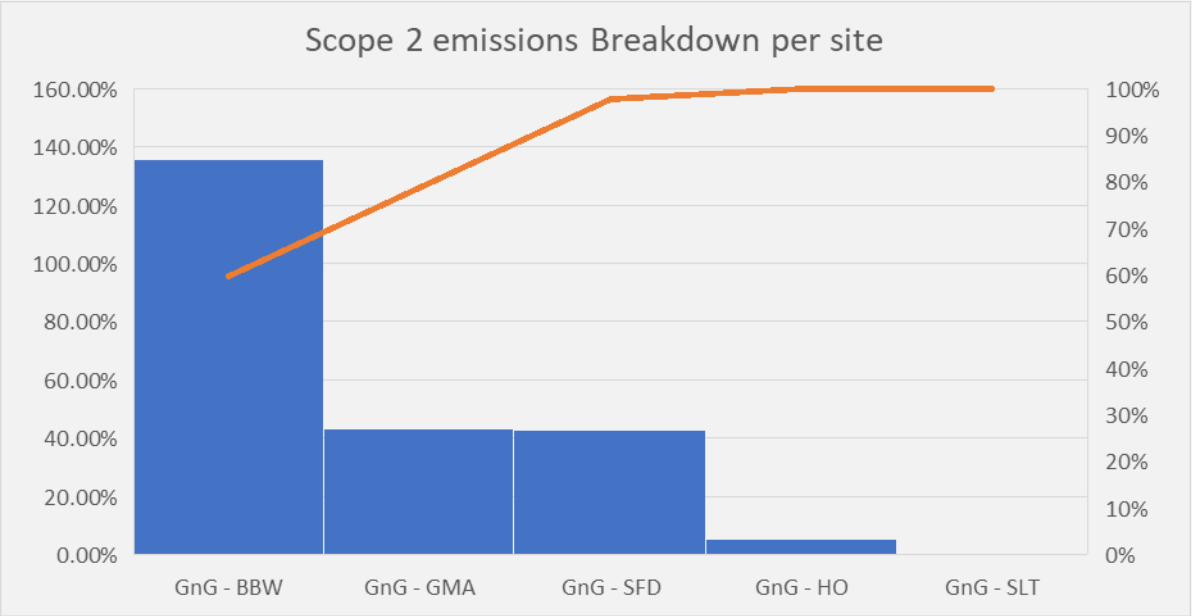
In contrast, **GnG-HO** accounts for only **5.46 tCO_2e**, suggesting lower energy consumption or a more efficient or differently sourced electricity supply. **GnG-SLT** registers **0.00 tCO_2e**, which is due to, zero-emission energy procurement, and usage of Solar Power. Overall, the distribution highlights that targeted electricity-use reduction or renewable energy sourcing at the three highest emitting sites, particularly **GnG-BBW**, would yield the most meaningful reductions in **Scope 2 emissions.**



The pie chart shows that **Scope 2 emissions** are heavily concentrated at **GnG-BBW**, which generates **59.8%** of the total and is the clear priority for reduction efforts. **GnG-GMA** and **GnG-SFD** follow with **18.8%** and **19%,** indicating moderate but still meaningful contributions. **GnG-HO** accounts for only **2.4%**, while **GnG-SLT** registers **0%**, indicating reliance on renewable energy. Overall, the distribution highlights that most emission-reduction potential lies within the top three sites, especially **BBW**.

Total Scope wise

Emissions breakdown per site



The Pareto chart illustrates a clear imbalance in **Scope 2 emissions** across the sites, with **GnG-BBW** emerging as the dominant contributor at **135.83 tCO_2e**, which is more than triple the emissions of the next two sites, **GnG- GMA** and **GnG-SFD**, which are nearly identical at around **43 tCO_2e** each. This steep drop from the first to the second and third sites highlights a significant concentration of electricity-related emissions at **GnG-BBW**. Beyond these, emissions decrease sharply again, with **GnG-HO** contributing only about **5.5 tCO_2e** and **GnG-SLT** showing no measurable emissions. The accompanying line trend indicates cumulative contribution, quickly approaching **100%** due to the heavy skew toward the first few sites. Overall, the distribution suggests that targeted energy efficiency and renewable procurement strategies at **GnG-BBW** are more required and to a lesser extent GnG- GMA and GnG-SFD, which would yield the most substantial reductions in overall **Scope 2 emissions.**

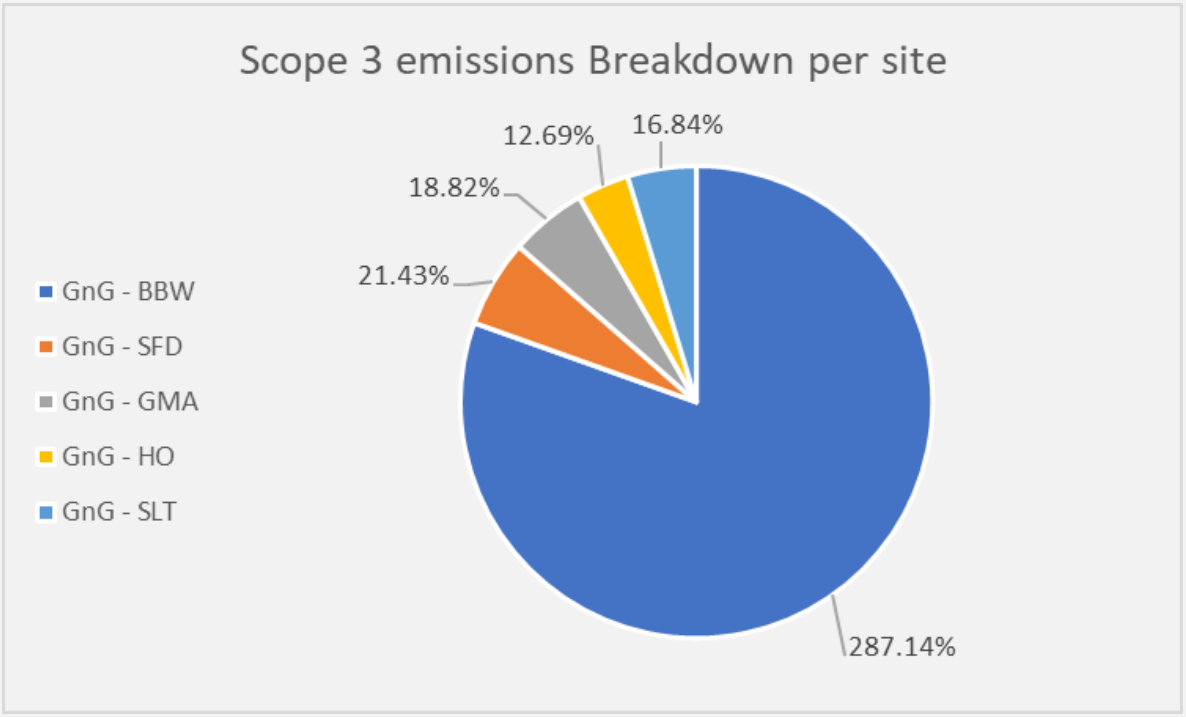
Scope 3 Emissions Breakdown per Site	
Site Name	**Emissions in tCO_{2e}**
GnG - BBW	287.14
GnG - SFD	21.43
GnG - GMA	18.82
GnG - HO	12.69
GnG - SLT	16.84
Total Emissions	**356.91**

The **Scope 3 emissions** table shows a pronounced imbalance in value-chain impacts across the different sites, with **GnG-BBW** standing out as the dominant contributor at **287.14 tCO_2e**, representing roughly four-fifths of the total **Scope 3 emissions.** This significant concentration indicates that activities associated with **GnG-BBW**, such as procurement of goods and services, transportation and distribution, upstream/downstream processes, are far more carbon-intensive than those of the other sites. In contrast, the remaining sites **GnG-SFD (21.43 tCO_2e), GnG-GMA (18.82 tCO_2e), GnG-SLT (16.84 tCO_2e), and GnG-HO (12.69 tCO_2e),** display a relatively narrow emission range, indicating more moderate and consistent value- chain activities across these locations

Total Scope wise

Emissions breakdown per site

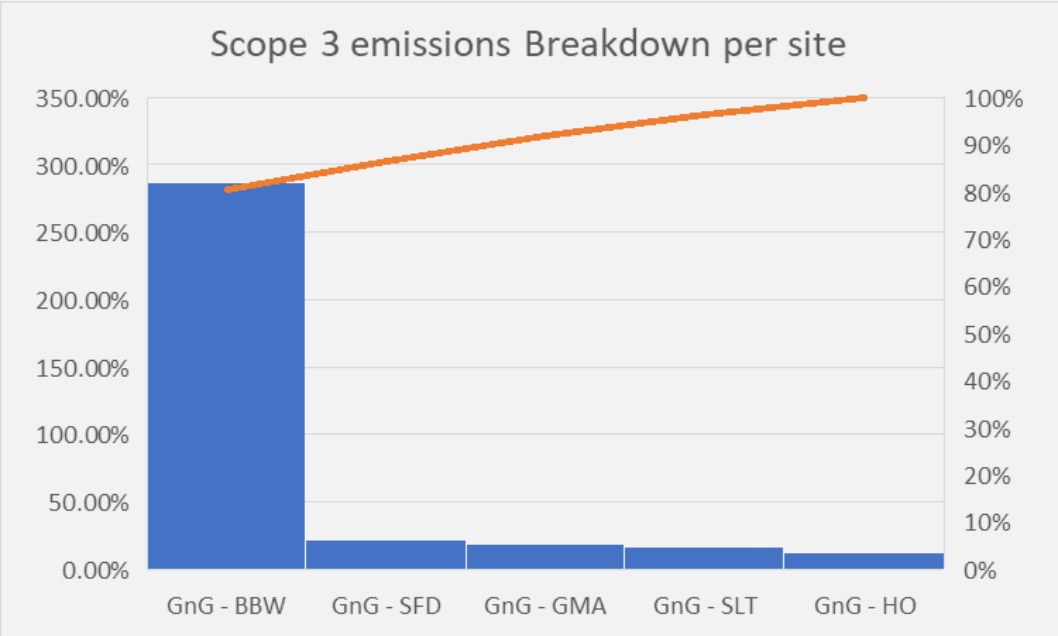
The steep gap between **GnG-BBW** and the others underscores a key hotspot where targeted interventions would yield substantial reductions in overall **Scope 3** emissions. Efforts including supplier collaboration, enhanced procurement standards, improved logistics efficiency, and material substitution at this site would significantly shift the total emissions profile. Meanwhile, the smaller but still meaningful contributions from the remaining sites indicate opportunities for incremental improvements across the portfolio. Overall, the data clearly positions GnG-BBW as the most critical focus area for Scope 3 decarbonization efforts while highlighting a more uniform and lower-impact pattern among the other sites.



The pie chart shows that **Scope 3 emissions** are heavily concentrated at the **GnG–BBW** site, which contributes **287.14 units**, or **80.5%** of the total emissions. This overwhelming dominance indicates that the company's overall **Scope 3** footprint is largely shaped by activities occurring at this single location, indicating that factors including higher procurement volumes, greater supplier-related impacts, or more intensive logistics operations may be driving BBW's elevated emissions. In contrast, the remaining sites, **GnG–SFD (6.0%), GnG–GMA (5.3%), GnG–SLT (4.7%),** and **GnG–HO (3.6%),** each contribute comparatively modest portions and together account for less than **20%** of the total. This distribution highlights a clear strategic priority: meaningful reductions in Scope 3 emissions will depend primarily on targeted interventions at the BBW site, while improvements at other locations, though still valuable, will have a much smaller influence on the overall emissions profile.

Total Scope wise

Emissions breakdown per site



This pareto chart highlights a highly uneven distribution of **Scope 3 emissions** across sites, with **GnG–BBW** producing an overwhelmingly dominant share at **287.14 tCO_2e**, far exceeding all other locations. The steep contrast between **BBW** and the remaining sites including **GnG–SFD (21.43 tCO_2e), GnG–GMA (18.82 tCO_2e), GnG–SLT (16.84 tCO_2e), and GnG–HO (12.69 tCO_2e),** indicates that the bulk of the organization's **Scope 3 emissions** stems from a single site. The cumulative percentage line rising sharply toward **100%** reinforces this concentration, indicating that **BBW** alone accounts for the majority of total emissions, while the other sites collectively contribute only a small fraction. This distribution shows that any meaningful reduction in overall **Scope 3** emissions will depend largely on targeted mitigation strategies at the BBW location, whereas the remaining sites, although still relevant, have comparatively limited impact on the organization's total emissions profile.

Scope wise emissions

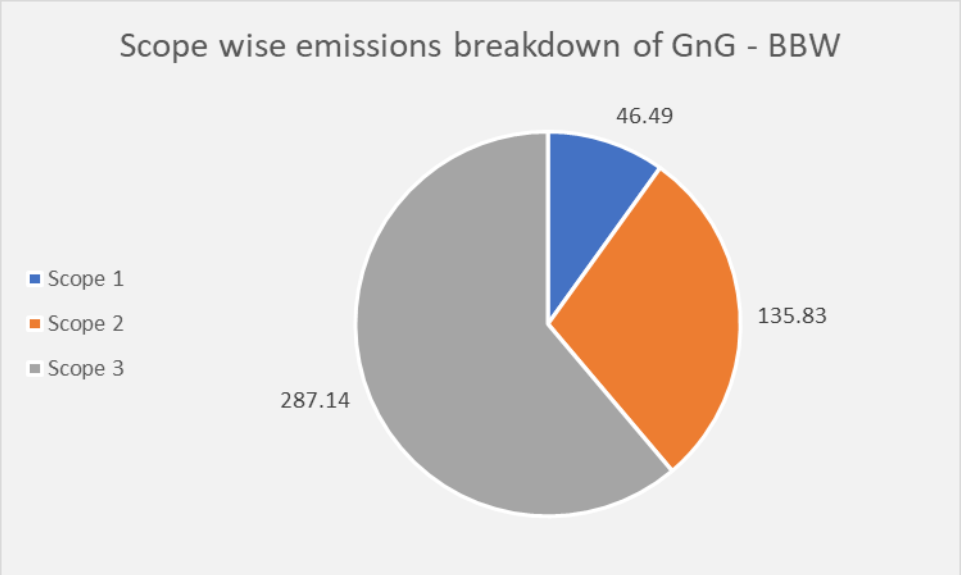
Breakdown of each site

Scope Wise Emissions Breakdown of GnG - BBW	
Site Name	**Emissions in tCO_{2e}**
Scope 1	46.49
Scope 2	135.83
Scope 3	287.14
Total Emissions	**469.46**

The table presents a clear breakdown of **greenhouse gas (GHG) emissions** for the **BBW** site across the three standard reporting scopes. **Scope 1 emissions**, which account for direct emissions from owned and controlled sources, contribute the smallest portion at **46.49 tCO_2e**. This indicates that on-site fuel combustion or other direct processes are not the primary drivers of the site's carbon footprint.

Scope 2 emissions, representing indirect emissions from purchased electricity, are significantly higher at **135.83 tCO_2e**. This indicates that the site relies substantially on grid electricity and its carbon footprint is influenced by the emissions intensity of the energy it purchases. Opportunities for reduction in this area will include transitioning more to renewable electricity sources and implementing energy-efficiency measures.

Scope 3 emissions, which include all other indirect emissions from the value chain, form the largest share at **287.14 tCO_2e**, which is over **61%** of total emissions. This indicates that most of the site's climate impact lies outside its direct operational control, including upstream supply chains, waste disposal, employee commuting, or other outsourced activities. Addressing **Scope 3 emissions** requires deeper collaboration with suppliers and stakeholders.



The pie chart indicates that the majority of **BBW's** emissions come from **Scope 3**, which accounts for **61.2%** of the total, highlighting the significant impact of value-chain activities outside direct operations. **Scope 2 emissions** make up **28.9%**, indicating that purchased electricity is another major contributor and an important area for efficiency and more renewable energy initiatives. **Scope 1** contributes only **9.9%**, suggesting that direct on-site emissions are relatively low. Overall, the chart emphasizes that strong focus on both energy use and supply chain engagement is required for meaningful emission reductions.

Scope wise emissions

Breakdown of each site

Scope Wise Emissions Breakdown of GnG - SFD	
Site Name	**Emissions in tCO_{2e}**
Scope 1	5.18
Scope 2	42.63
Scope 3	21.43
Total Emissions	**69.23**

The table provides a clear breakdown of greenhouse gas emissions for the **SFD** site across the three reporting scopes, revealing how different operational areas, which contribute to the total footprint of **69.23 tCO_2e**. **Scope 1 emissions**, which are at **5.18 tCO_2e**, represent the smallest share and indicate that direct on-site activities, including operation of company- owned equipment have a limited impact on overall emissions. This indicates that the site's direct energy use is relatively low due to efficient management and low requirement of usage.

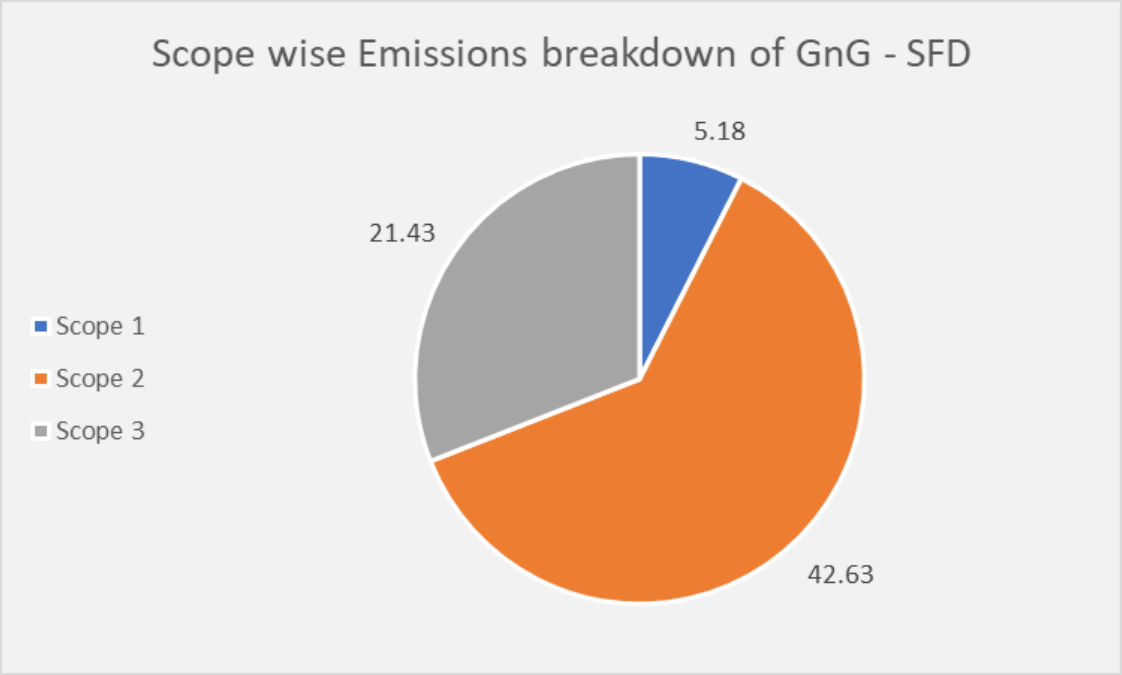
Scope 2 emissions, totaling **42.63 tCO_2e**, form the largest portion of the site's emissions. This highlights the significant role of electricity consumption in the site's carbon footprint. Since **Scope 2 emissions** stem from purchased electricity, the figure suggests that the emissions intensity of the site's energy demand is the primary driver of total emissions. Improving energy efficiency and transitioning further towards renewable electricity sources would have a substantial effect on reducing these emissions.

Scope 3 emissions, at **21.43 tCO_2e**, also make a notable contribution, accounting for activities that occur indirectly within the value chain, including, transportation, and upstream or downstream processes. While smaller as compared to **Scope 2**, this category still represents a meaningful portion of the footprint, signaling the need for collaboration with suppliers and service providers to reduce impacts beyond direct operations.

Overall, emissions at the **SFD** site are heavily influenced by electricity usage, with indirect value chain activities playing a secondary role and direct on-site emissions remaining minimal. This distribution points to energy-related initiatives as the most effective starting point for emission reduction strategies, supported by value-chain improvements to further reduce the site's overall climate impact.

Scope wise emissions

Breakdown of each site



The chart illustrates the distribution of greenhouse gas emissions across **Scope 1, Scope 2, and Scope 3** for the **GnG - SFD** category, highlighting a clear dominance of indirect energy-related emissions. Scope 2 emissions account for the largest share at 42.63 units, representing 61.6% of the total, indicating that electricity consumption is the primary driver of the organization's carbon footprint. Scope 3 emissions follow at 21.43 units, or 31.0%, suggesting that value-chain activities including procurement, business travel, and logistics also contribute significantly, though less than energy use. Scope 1 emissions are the smallest contributor at 5.18 units (7.5%), reflecting relatively low direct emissions from owned or controlled sources. Overall, the breakdown shows that while direct emissions are limited, substantial opportunities for emissions reduction lie in energy efficiency, more renewable energy sourcing, and engagement with suppliers to lower value chain impacts.

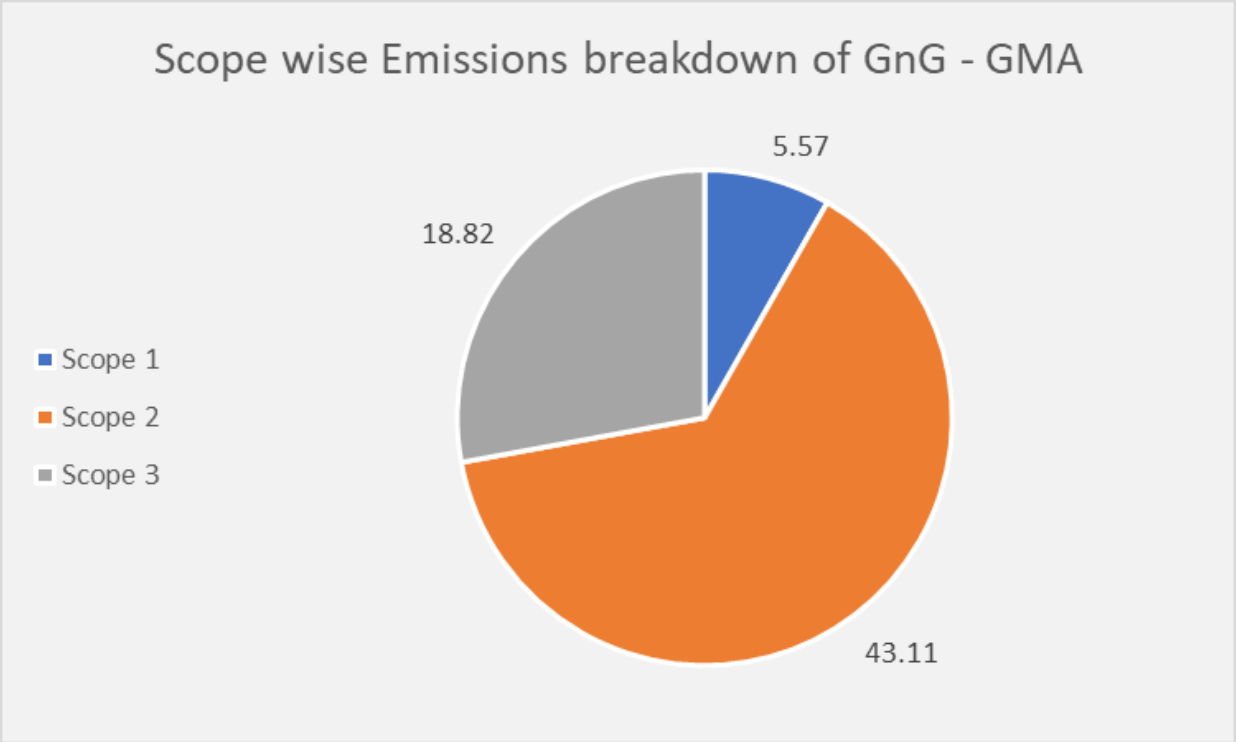
Scope Wise Emissions Breakdown of GnG - GMA	
Site Name	**Emissions in tCO_{2e}**
Scope 1	5.57
Scope 2	43.11
Scope 3	18.82
Total Emissions	**67.50**

The table presents a breakdown of greenhouse gas emissions for **GnG - GMA** across the three reporting scopes, revealing that indirect emissions from purchased electricity (Scope 2) form the largest share at 43.11 tCO_2e. This indicates that energy consumption is the primary driver of the site's carbon footprint. Scope 3 emissions, representing indirect value chain activities including business travel, upstream and downstream processes, account for 18.82 tCO_2e, making them the second-largest contributor and highlighting the importance of supply-chain engagement in emission-reduction strategies.

Scope wise emissions

Breakdown of each site

Direct emissions from owned and controlled sources (Scope 1) are comparatively low at 5.57 tCO_2e, indicating limited on-site fuel use and combustion activities. Overall, total emissions amount to 67.50 tCO_2e, and the distribution underscores that the most impactful opportunities for reduction lie in improving energy efficiency, transitioning more towards cleaner electricity sources, and managing upstream and downstream activities more sustainably.



The pie chart shows that Scope 2 emissions dominate the GnG–GMA footprint, contributing 43.11 tCO_2e or 63.9% of total emissions, indicating that purchased electricity is the primary source of impact. Scope 3 emissions follow at 18.82 tCO_2e (27.9%), reflecting notable contributions from value-chain activities. Scope 1 emissions are the smallest at 5.57 tCO_2e, making up only 8.3%, which indicates limited direct fuel use and on-site combustion.

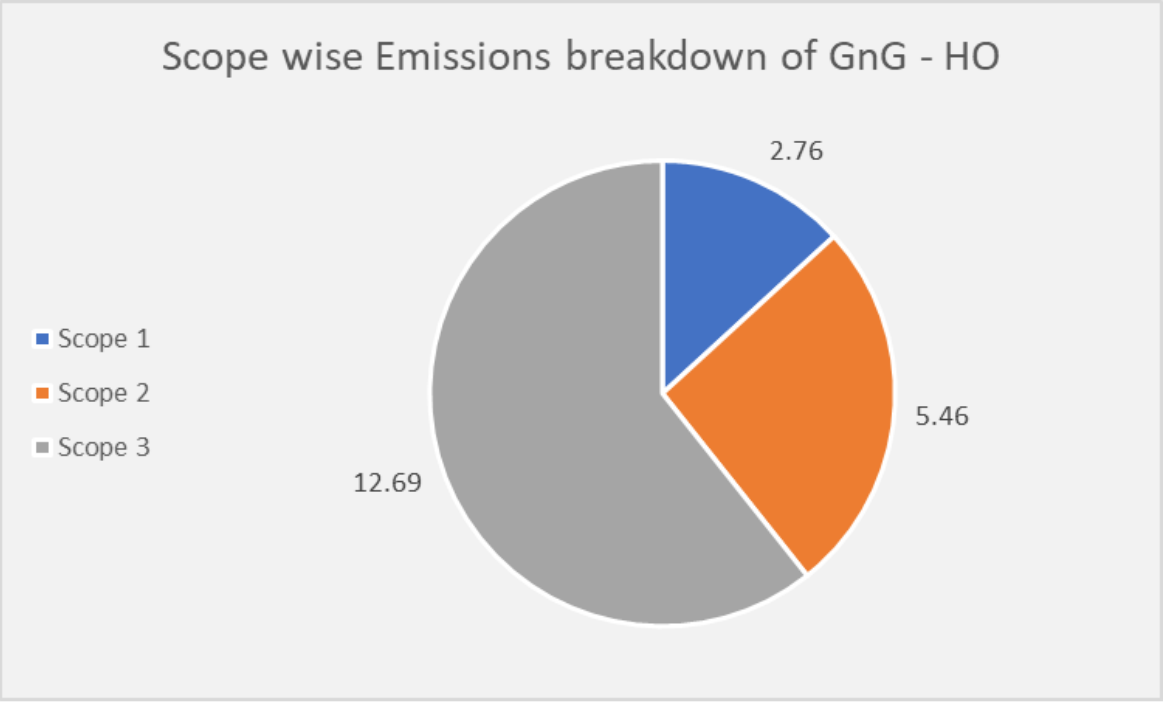
Scope Wise Emissions Breakdown of GnG - HO	
Site Name	Emissions in tCO_{2e}
Scope 1	2.76
Scope 2	5.46
Scope 3	12.69
Total Emissions	**20.91**

The data indicates that total greenhouse gas emissions for the GnG – HO site amount to 20.91 tCO_2e, with Scope 3 forming the largest share of the footprint. At 12.69 tCO_2e, Scope 3 emissions account for more than half of the total, highlighting that indirect value-chain activities are the most significant contributors.

Scope wise emissions

Breakdown of each site

Scope 2 emissions, representing purchased electricity, contribute 5.46 tCO_2e, making them the second-largest component and indicating reliance on grid energy. Scope 1 emissions are the lowest at 2.76 tCO_2e, indicating minimal direct on-site fuel consumption and operational emissions. Overall, the distribution shows that upstream or downstream activities dominate the emissions profile, followed by electricity usage, while direct site operations play a comparatively minor role.



The pie chart reinforces the dominance of Scope 3 emissions in the GnG – HO emissions profile, indicating that more than half of the total greenhouse gas output, which is 60.7%, or 12.69 tCO_2e, originates from indirect value-chain activities. Scope 2 emissions, stemming from purchased electricity, contribute 5.46 tCO_2e, making up 26.1% of the total and forming the second-largest category. Scope 1 emissions are appearing as the smallest segment at 2.76 tCO_2e, accounting for 13.2%, which is due to low direct fuel combustion and operational emissions on-site.

Scope Wise Emissions Breakdown of GnG - SLT	
Site Name	**Emissions in tCO_{2e}**
Scope 1	6.44
Scope 2	0.00
Scope 3	16.84
Total Emissions	**23.28**

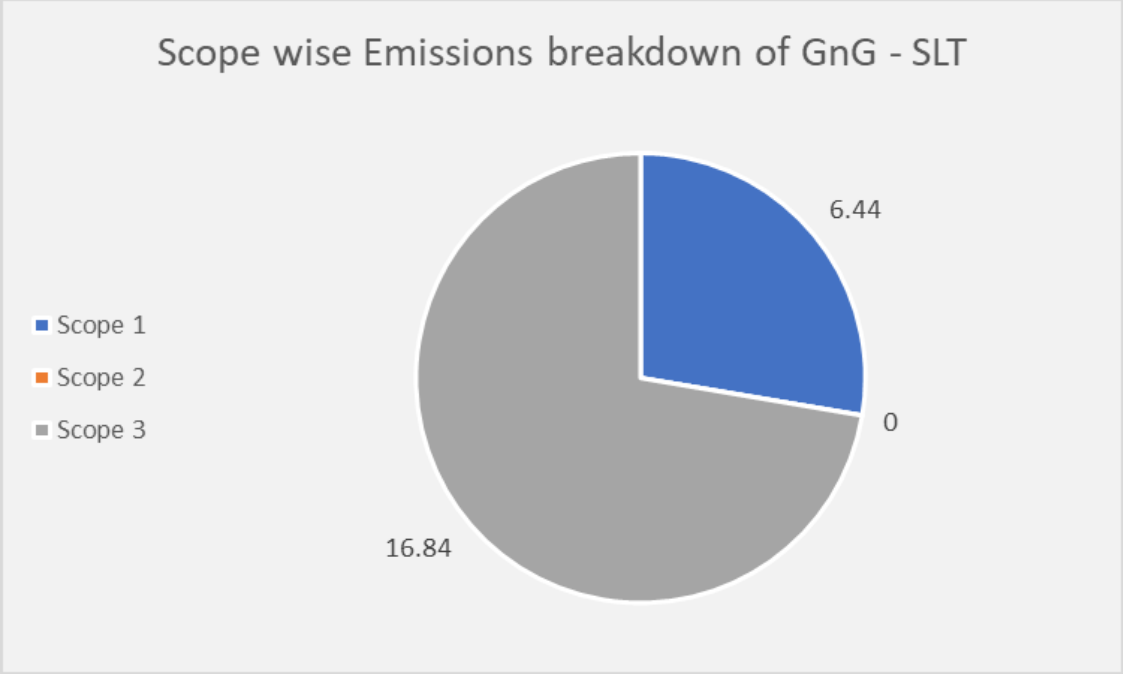
The emissions breakdown for the GnG – SLT site shows a total footprint of 23.28 tCO_2e, with Scope 3 once again emerging as the predominant contributor. At 16.84 tCO_2e, Scope 3 accounts for the majority of emissions, reflecting substantial indirect impacts from value- chain activities and emphasizing their central role in the site's overall carbon profile.

Scope wise emissions

Breakdown of each site

Scope 1 emissions stand at 6.44 tCO_2e, representing the second-largest share and indicating a notable level of direct operational emissions compared to the HO site. Meanwhile, Scope 2 emissions are recorded as 0.00 tCO_2e, indicating the facility does not consume purchased electricity and relies entirely on a zero-emission electricity source, which is solar.

Collectively, the data highlights that, despite slightly higher overall emissions compared to HO, the SLT site's carbon footprint is still heavily driven by Scope 3 activities, with direct emissions playing a more significant role than electricity-related emissions.



The chart shows that Scope 3 emissions overwhelmingly dominate the GnG–SLT emissions profile, accounting for 16.84 units or 72.3% of the total. This indicates that the majority of the organization's climate impact arises from indirect value-chain activities including procurement, transportation, and other upstream and downstream processes. Scope 1 emissions contribute 6.44 units, representing 27.7%, suggesting a meaningful but comparatively smaller share from direct operational sources including fuel combustion and onsite activities. Meanwhile, Scope 2 emissions are reported as zero, implying no measurable emissions from purchased electricity, verifying the use of renewable energy.

Scope wise emissions
Breakdown & Calculations

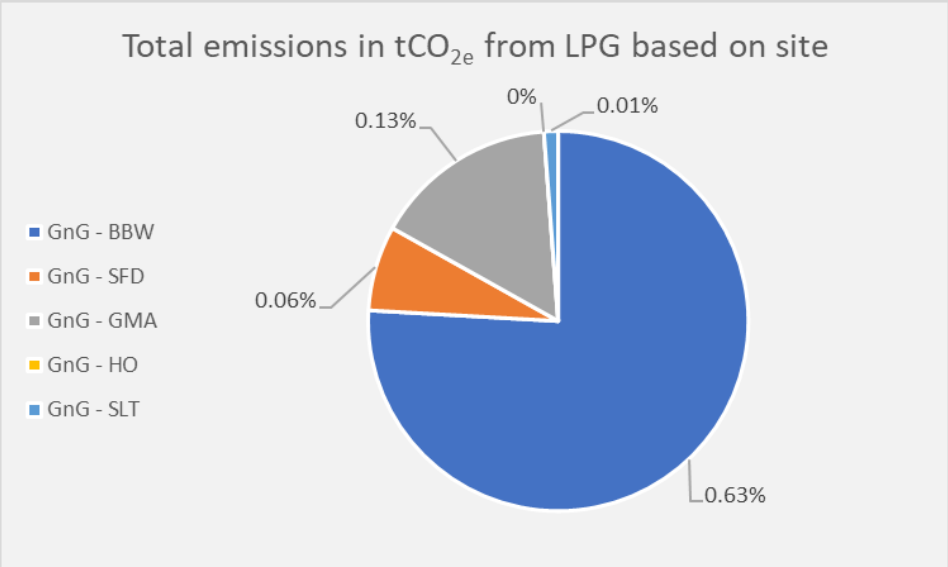
At Gloves n Gloves, our commitment to protecting both our customers and our planet begins with a clear-eyed understanding of our operational footprint. This section provides a transparent, and detailed breakdown of the emissions calculations data from each of our manufacturing and distribution sites, serving as the factual core of our sustainability journey.

To transform this vast dataset into a strategic asset, we have employed clear visual analyses including Pie charts which dissect our resource use, revealing, the percentage of our total emissions per site. Additionally, Pareto analysis helps us identify the most significant opportunities for improvement. It answers the pivotal questions: Which single site is the top contributor to our specific emission source?

Furthermore, we have reported month basis emissions as well, from each source, which serves as the analysis factor for the month in which highest and lowest emissions occur. This rigorous, data driven approach ensures that our sustainability strategy is not a separate agenda, but an integrated, intelligent, and essential part of how we manufacture and deliver the gloves you trust.

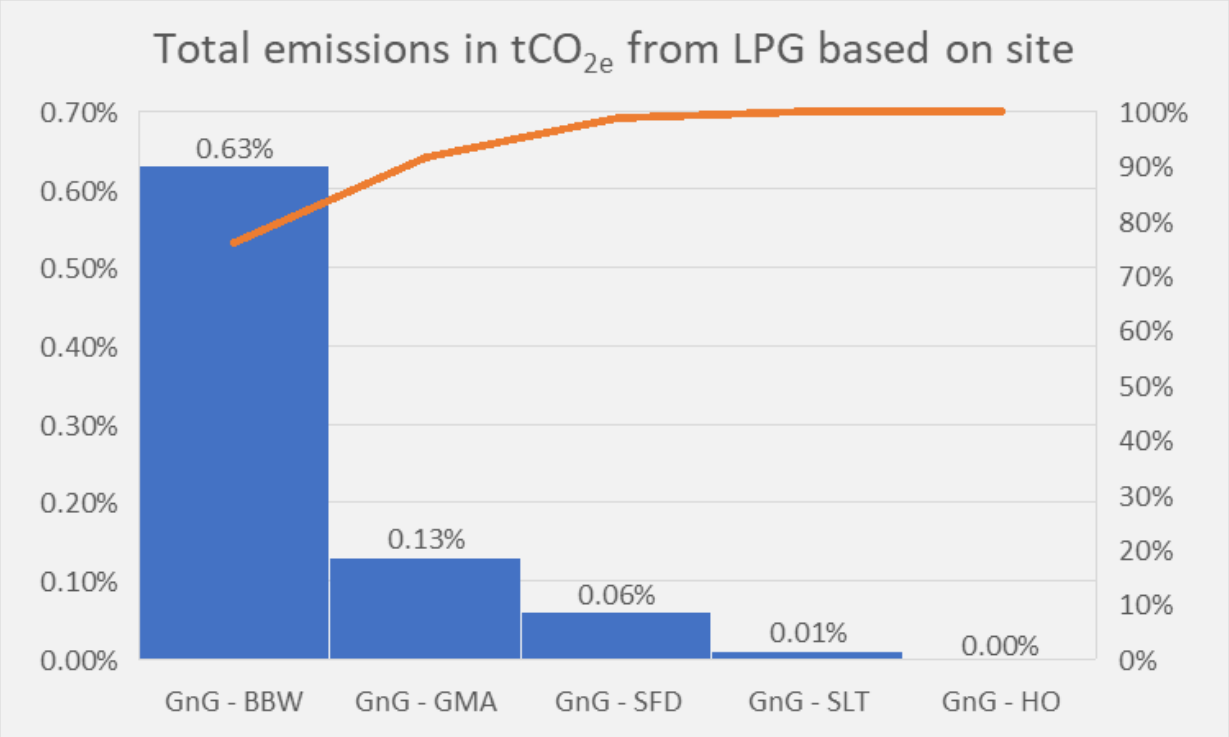
Scope 1 - LPG Based

LPG Based Total Emissions Breakdown per Site	
Source	**LPG**
Emission Factor (kg CO_{2e}/L)	1.57713
Site Name	**Emissions in tCO_{2e}**
GnG - BBW	0.63
GnG - SFD	0.06
GnG - GMA	0.13
GnG - HO	0.00
GnG - SLT	0.01
Total Emissions	**0.83**



Scope wise emissions

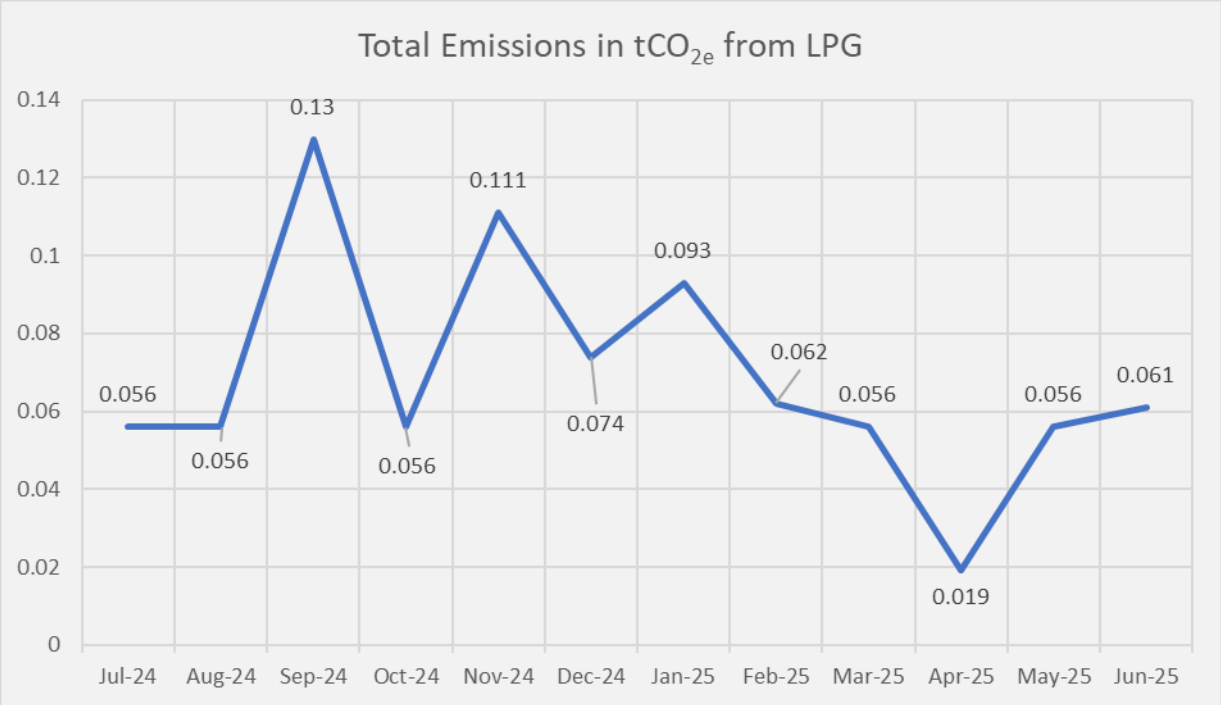
Breakdown & Calculations



LPG based Total Month Wise Emissions from All Sites	
Source	**LPG**
Months	**Total Emissions in tCO_{2e}**
Jul 24	0.056
Aug 24	0.056
Sep 24	0.130
Oct 24	0.056
Nov 24	0.111
Dec 24	0.074
Jan 25	0.093
Feb 25	0.062
Mar 25	0.056
Apr 25	0.019
May 25	0.056
Jun 25	0.061
Total	**0.830**

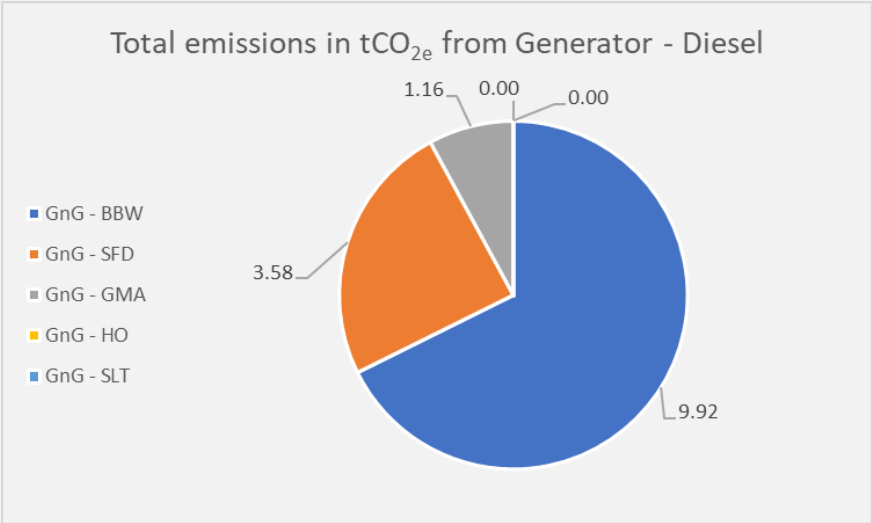
Scope wise emissions

Breakdown & Calculations



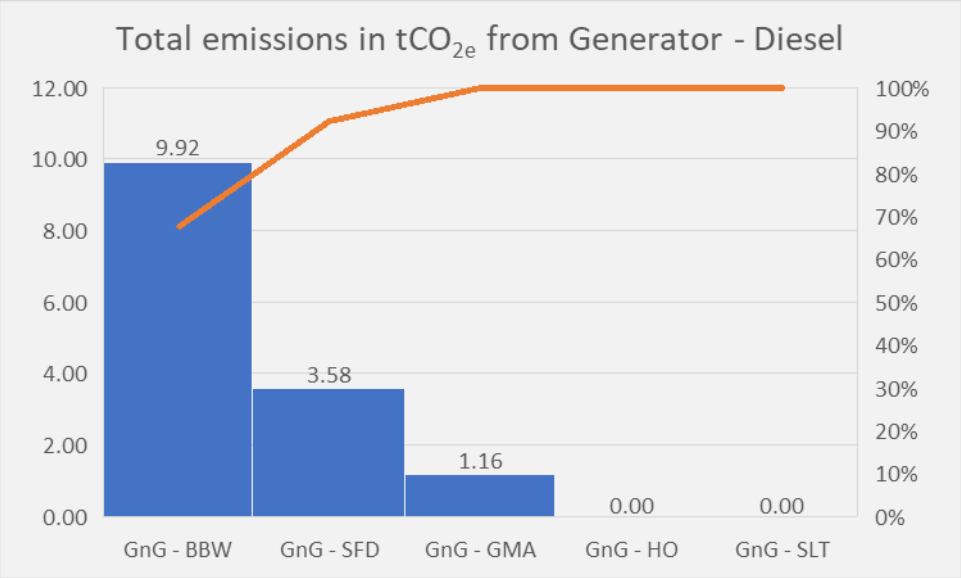
Scope 1 - Generator - Diesel

Generator – Diesel based Total Emissions Breakdown per Site	
Source	**Generator - Diesel**
Emission Factor (kg CO_{2e}/L)	2.66155
Site Name	**Emissions in tCO_{2e}**
GnG - BBW	9.92
GnG - SFD	3.58
GnG - GMA	1.16
GnG - HO	0.00
GnG - SLT	0.00
Total Emissions	**14.67**



Scope wise emissions

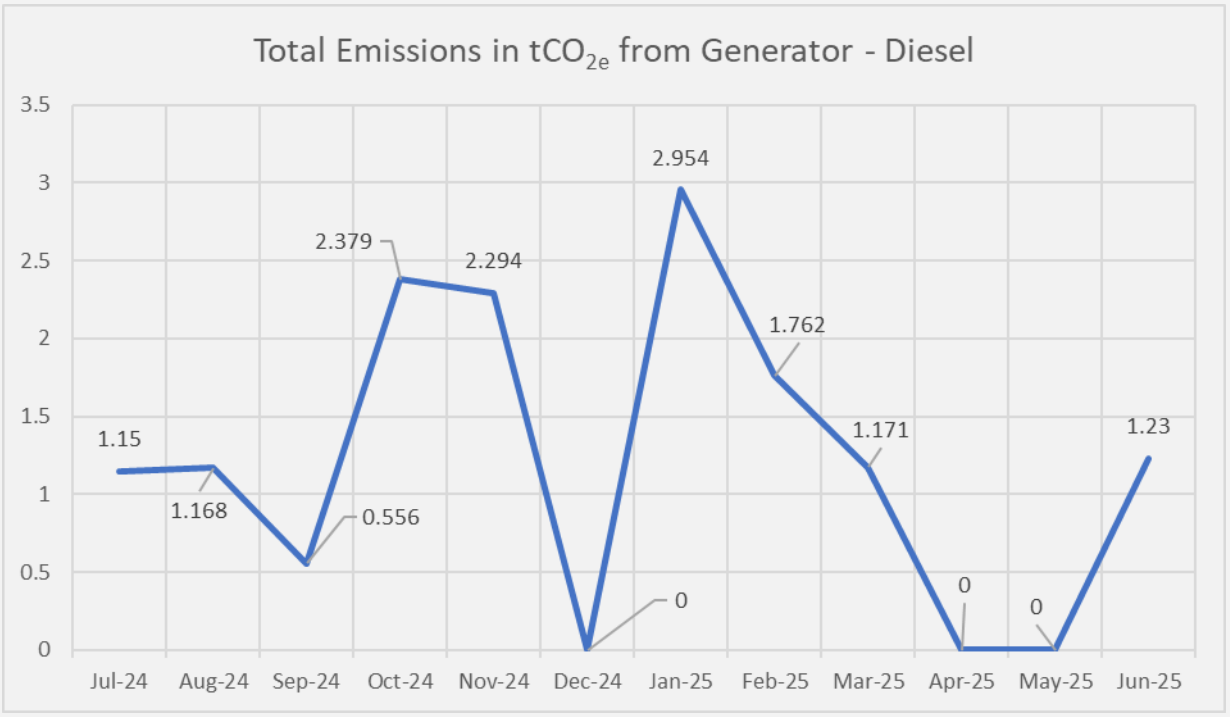
Breakdown & Calculations



Generator – Diesel based Total Month Wise Emissions from All Sites	
Source	**Generator - Diesel**
Months	**Total Emissions in tCO_{2e}**
Jul 24	1.150
Aug 24	1.168
Sep 24	0.556
Oct 24	2.379
Nov 24	2.294
Dec 24	0.000
Jan 25	2.954
Feb 25	1.762
Mar 25	1.171
Apr 25	0.000
May 25	0.000
Jun 25	1.230
Total	**14.665**

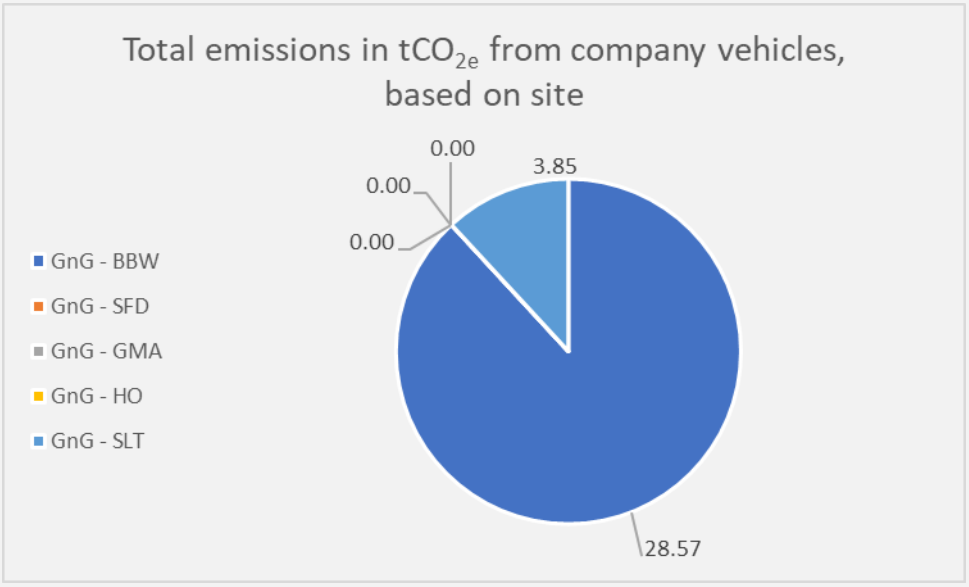
Scope wise emissions

Breakdown & Calculations



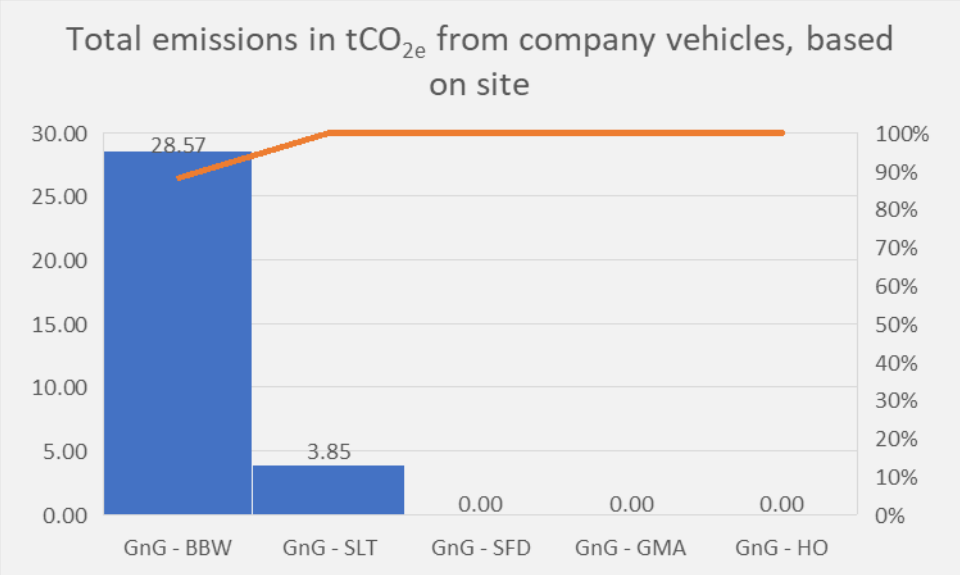
Scope 1 - Company Vehicles on Diesel and Petrol

Company Vehicles on Diesel and Petrol based Total Emissions Breakdown per Site	
Source Site Name	**Company Vehicles on Diesel and Petrol Emissions in tCO_{2e}**
GnG - BBW	28.57
GnG - SFD	0.00
GnG - GMA	0.00
GnG - HO	0.00
GnG - SLT	3.85
Total Emissions	**32.42**

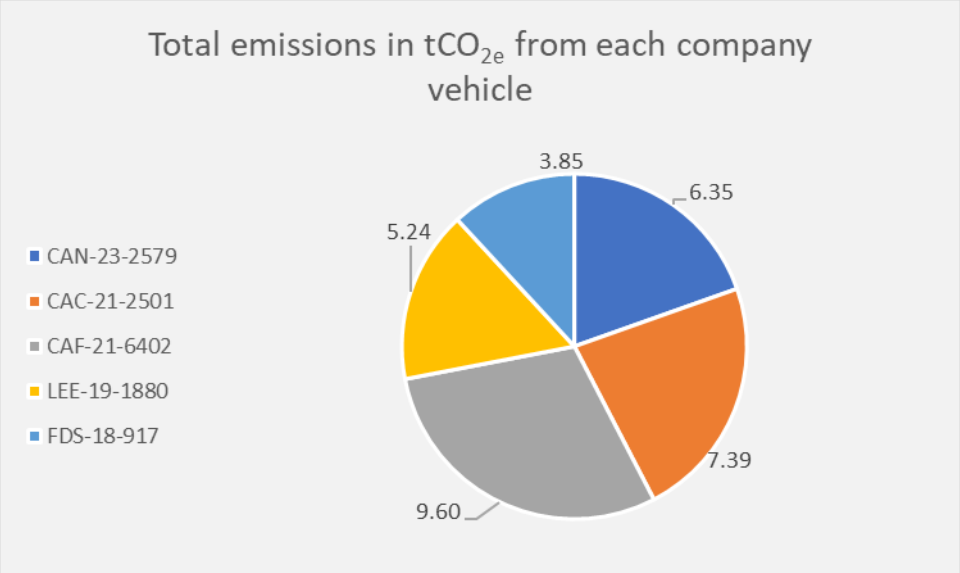


Scope wise emissions

Breakdown & Calculations

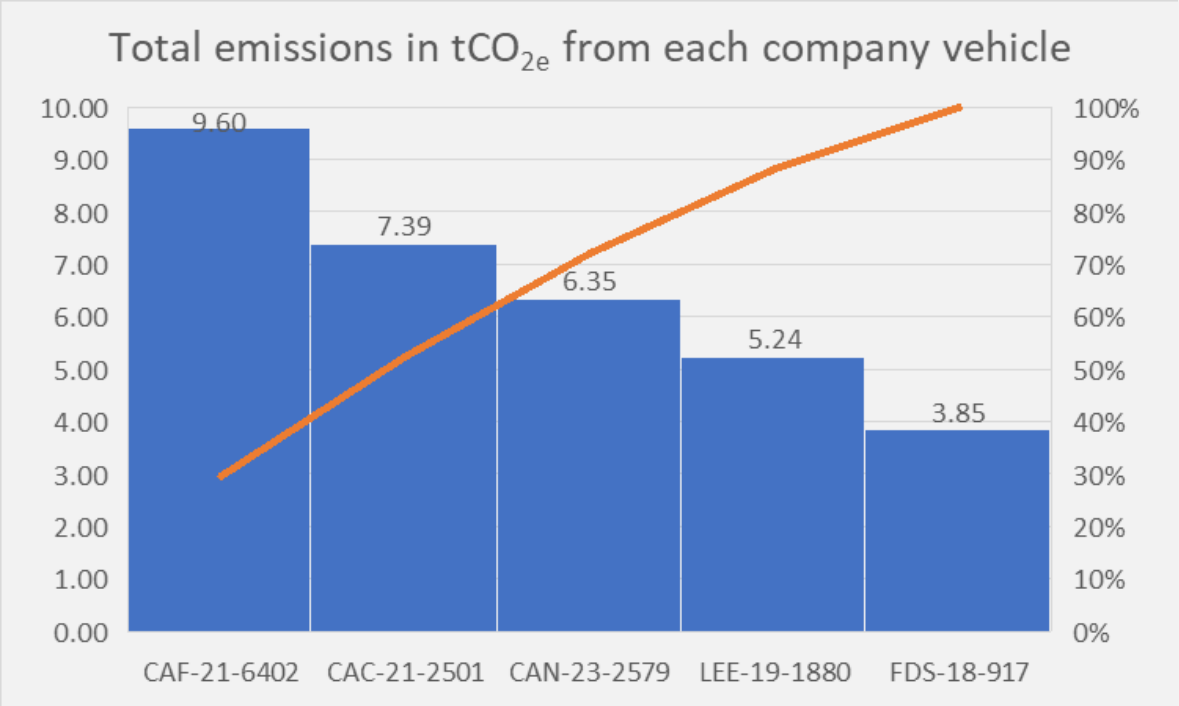


Company Vehicles on Diesel and Petrol based Total Emissions Breakdown per Vehicle	
Source	**Company Vehicles on Diesel and Petrol**
License Plate	**Emissions in tCO_{2e}**
CAN-23-2579	6.35
CAC-21-2501	7.39
CAF-21-6402	9.60
LEE-19-1880	5.24
FDS-18-917	3.85
Total Emissions	**32.42**



Scope wise emissions

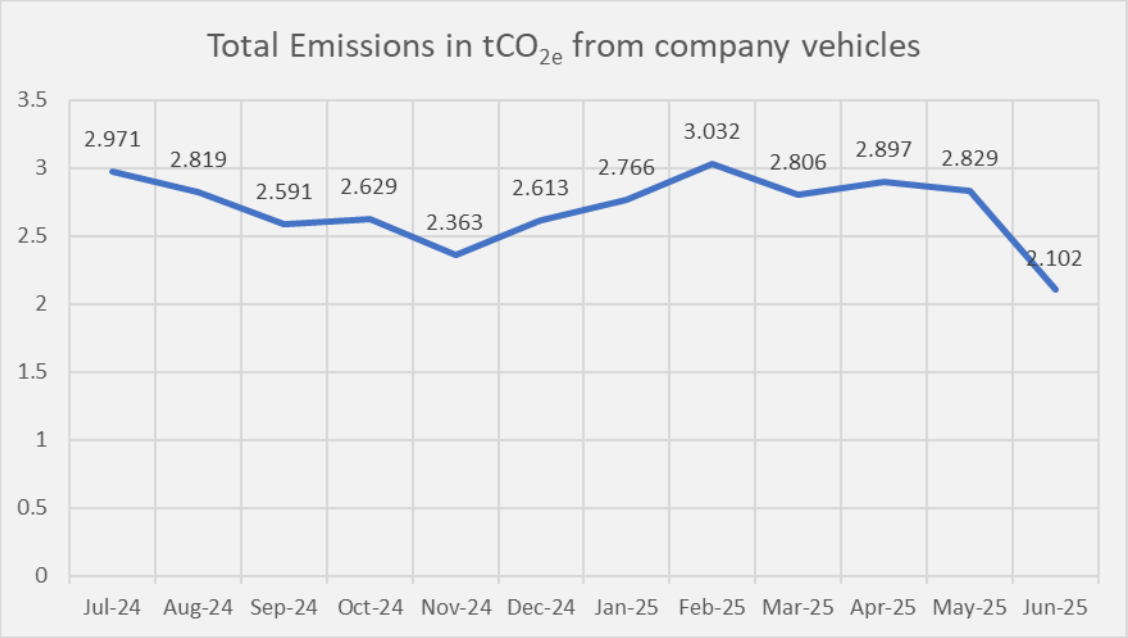
Breakdown & Calculations



Company Vehicles on Diesel and Petrol based Total Month Wise Emissions from All Sites	
Source	**Company Vehicles on Diesel and Petrol**
Months	**Total Emissions in tCO_{2e}**
Jul 24	2.971
Aug 24	2.819
Sep 24	2.591
Oct 24	2.629
Nov 24	2.363
Dec 24	2.613
Jan 25	2.766
Feb 25	3.032
Mar 25	2.806
Apr 25	2.897
May 25	2.829
Jun 25	2.102
Total	**32.418**

Scope wise emissions

Breakdown & Calculations

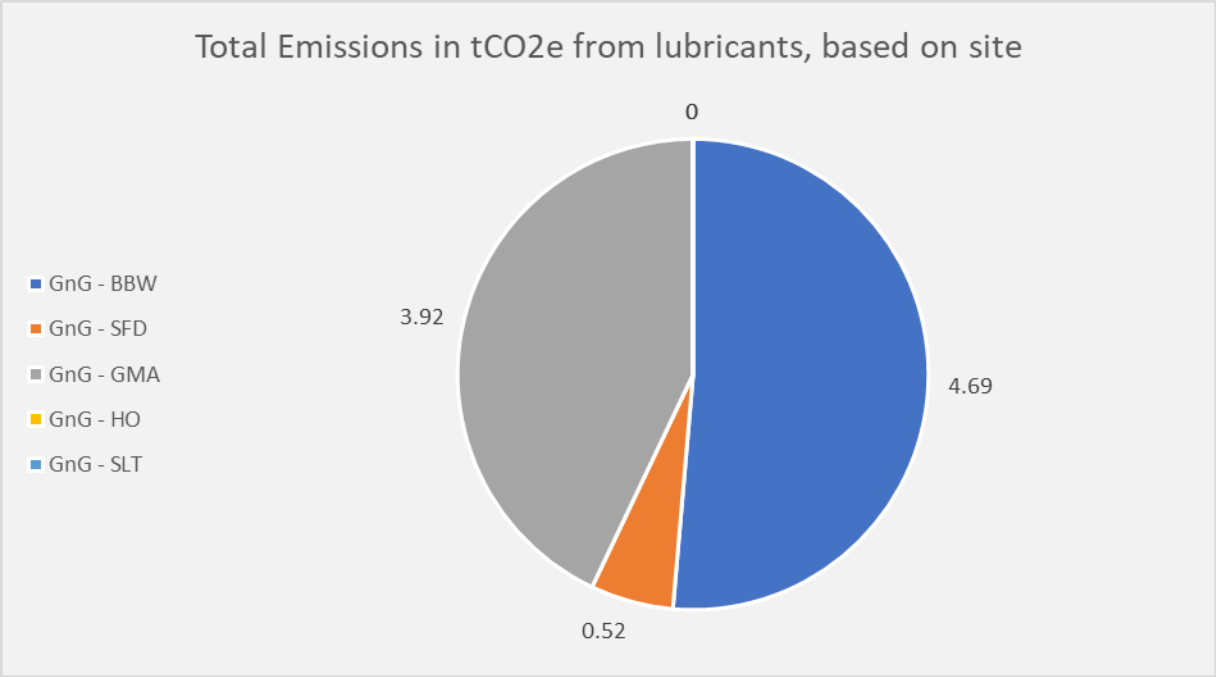


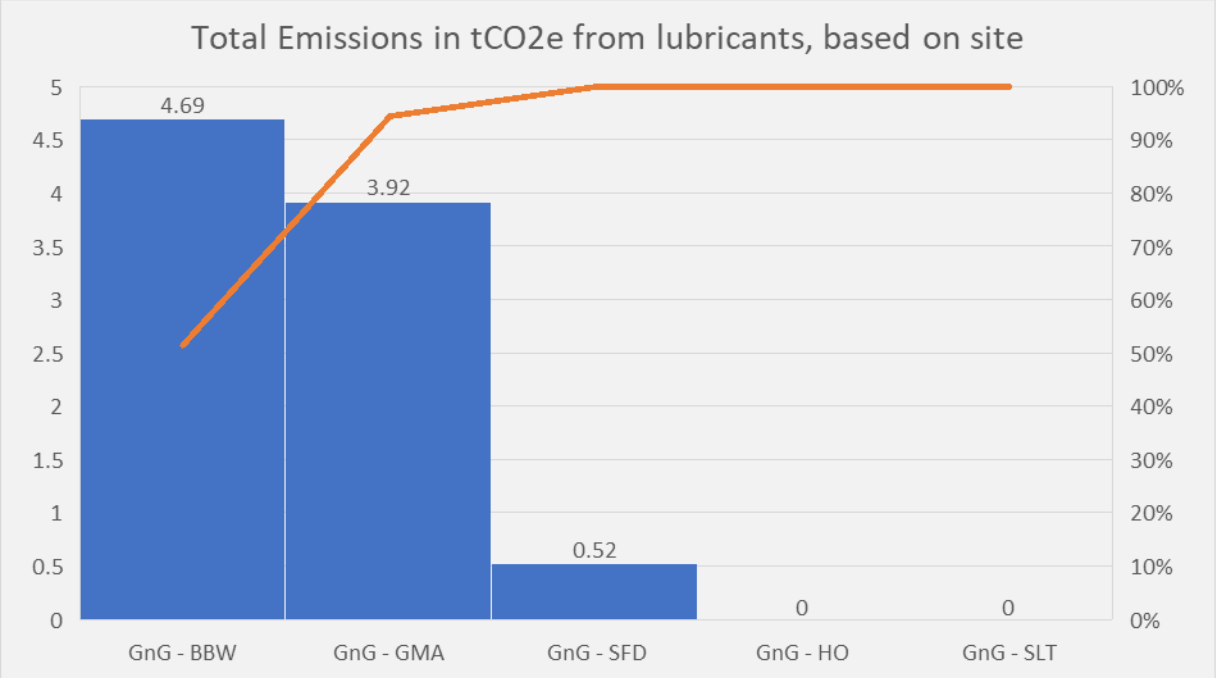
Scope 1 - Lubricants

Lubricants based Total Emissions Breakdown per Site	
Source	**Lubricants**
Site Name	**Emissions in tCO_{2e}**
GnG - BBW	4.69
GnG - SFD	0.52
GnG - GMA	3.92
GnG - HO	0.00
GnG - SLT	0.00
Total Emissions	**9.13**

Scope wise emissions

Breakdown & Calculations

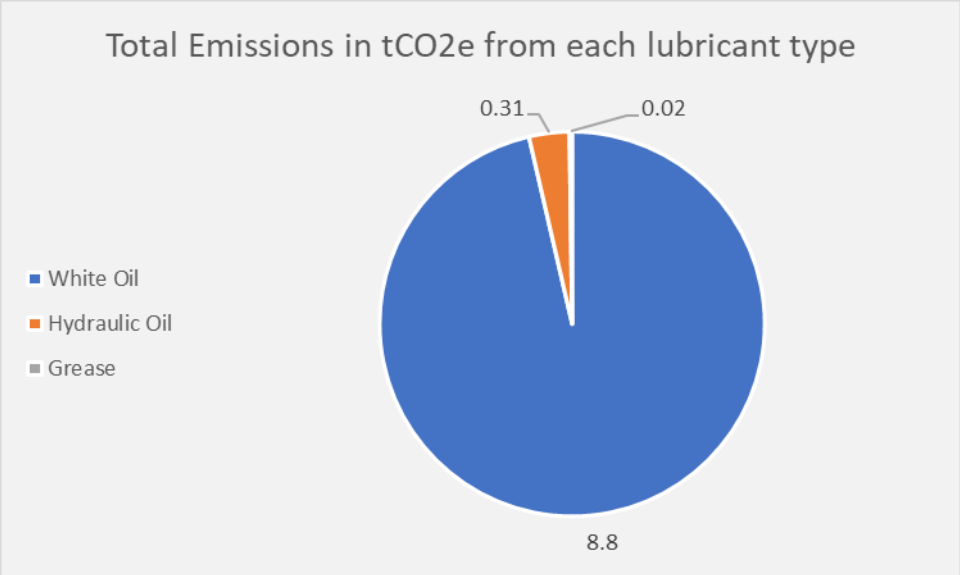


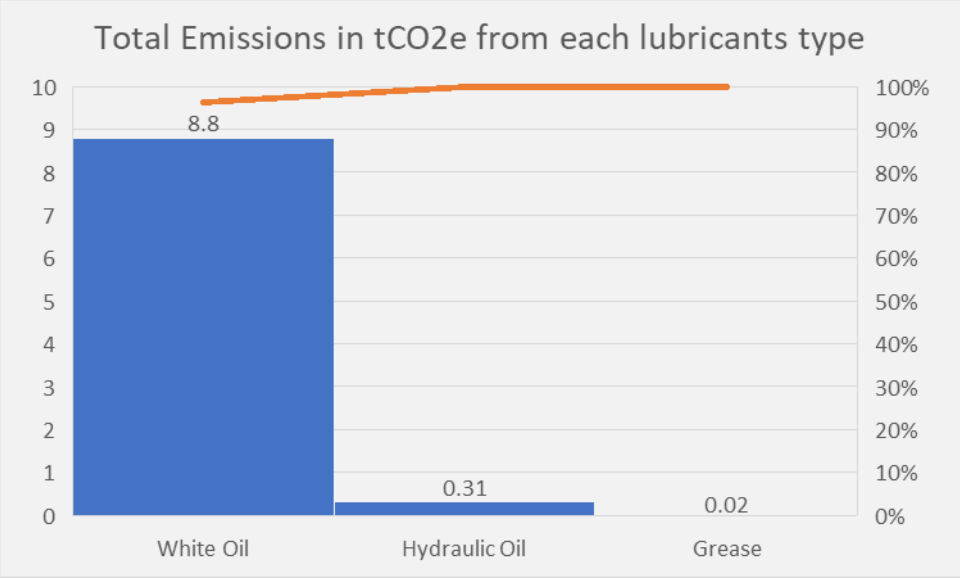


Scope wise emissions

Breakdown & Calculations

Lubricants based Total Emissions Breakdown per Lubricant Type	
Source	**Lubricants**
License Plate	**Emissions in tCO_{2e}**
White Oil	8.80
Hydraulic Oil	0.31
Grease	0.02
Total Emissions	**9.13**

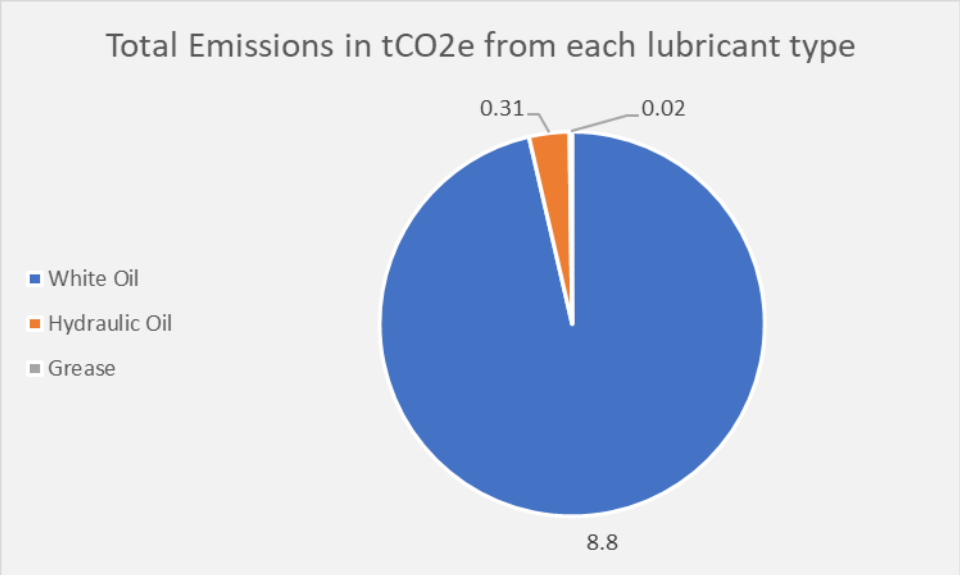


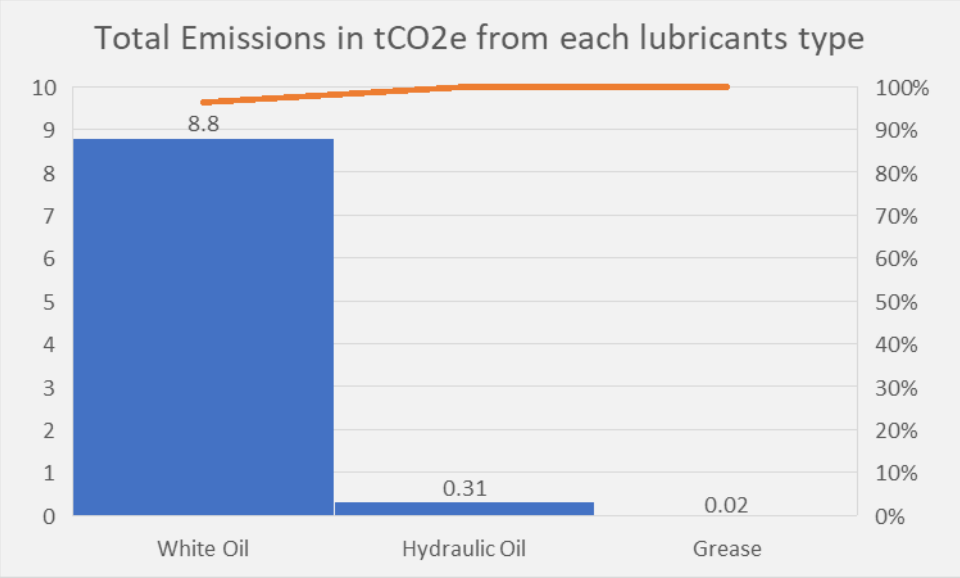


Scope wise emissions

Breakdown & Calculations

Lubricants based Total Emissions Breakdown per Lubricant Type	
Source	**Lubricants**
License Plate	**Emissions in tCO_{2e}**
White Oil	8.80
Hydraulic Oil	0.31
Grease	0.02
Total Emissions	**9.13**

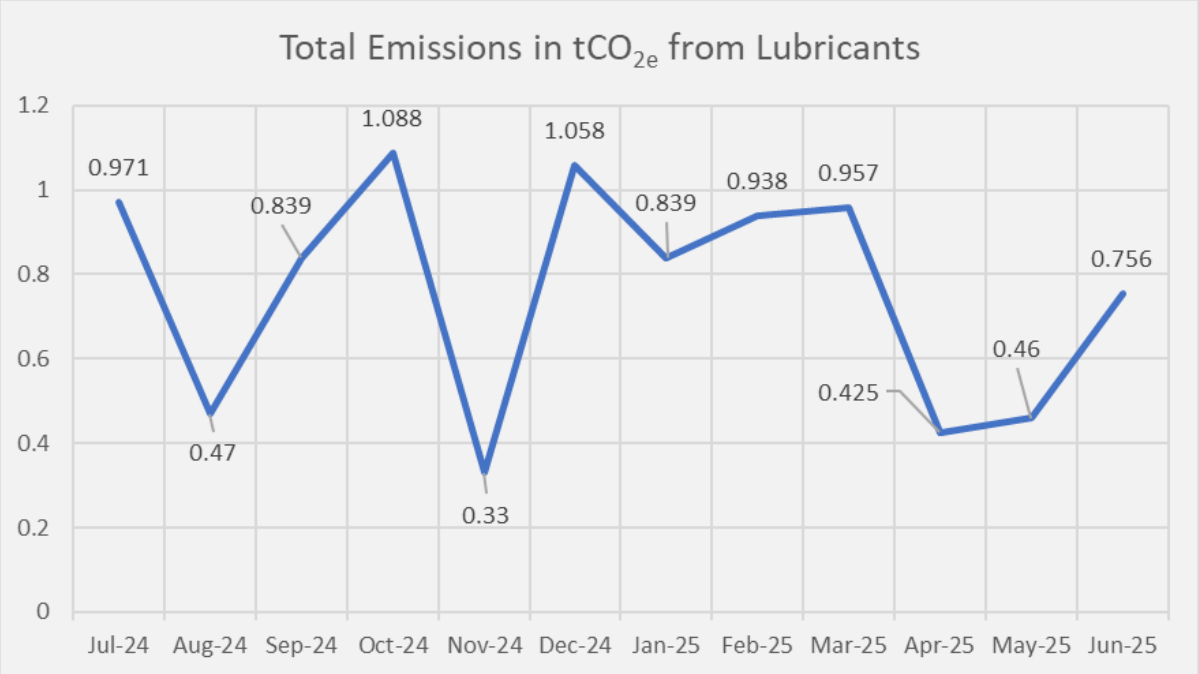




Scope wise emissions

Breakdown & Calculations

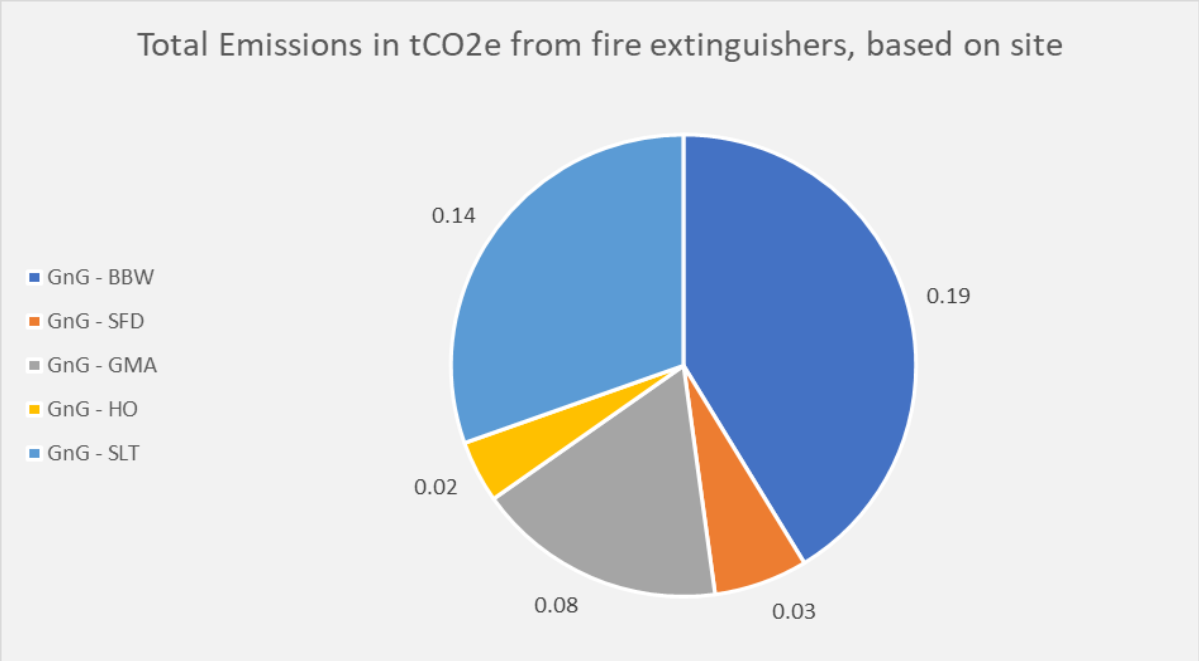
Lubricants based Total Month Wise Emissions from All Sites	
Source	**Lubricants**
Months	**Total Emissions in tCO_{2e}**
Jul 24	0.971
Aug 24	0.470
Sep 24	0.839
Oct 24	1.088
Nov 24	0.330
Dec 24	1.058
Jan 25	0.839
Feb 25	0.938
Mar 25	0.957
Apr 25	0.425
May 25	0.460
Jun 25	0.756
Total	**9.129**

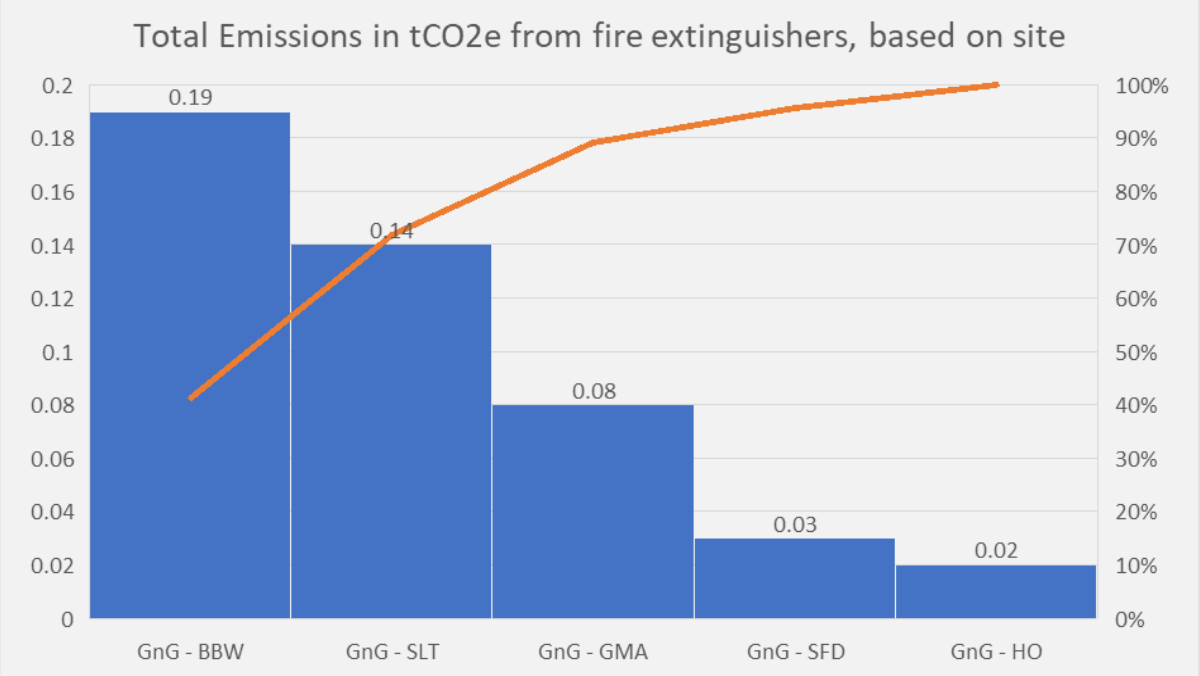


Scope wise emissions

Breakdown & Calculations

Fire Extinguishers based Total Emissions Breakdown per Site	
Source	**Fire Extinguishers - CO_2 Based**
Site Name	**Emissions in tCO_{2e}**
GnG - BBW	0.19
GnG - SFD	0.03
GnG - GMA	0.08
GnG - HO	0.02
GnG - SLT	0.14
Total Emissions	**0.45**

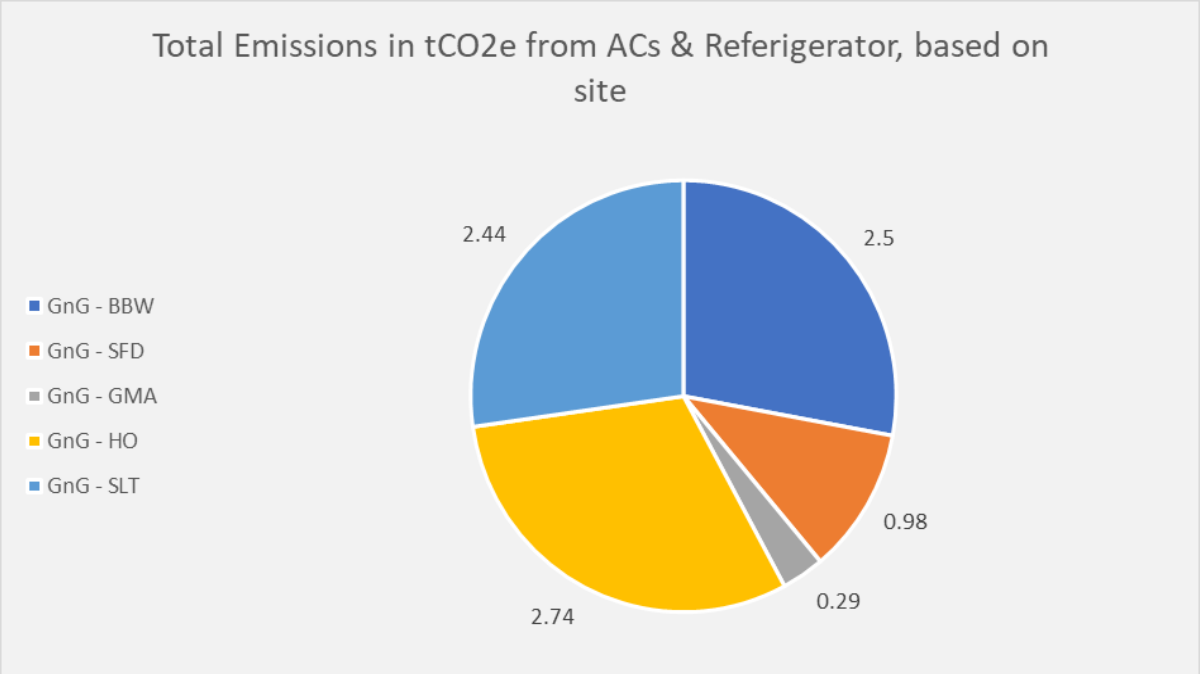


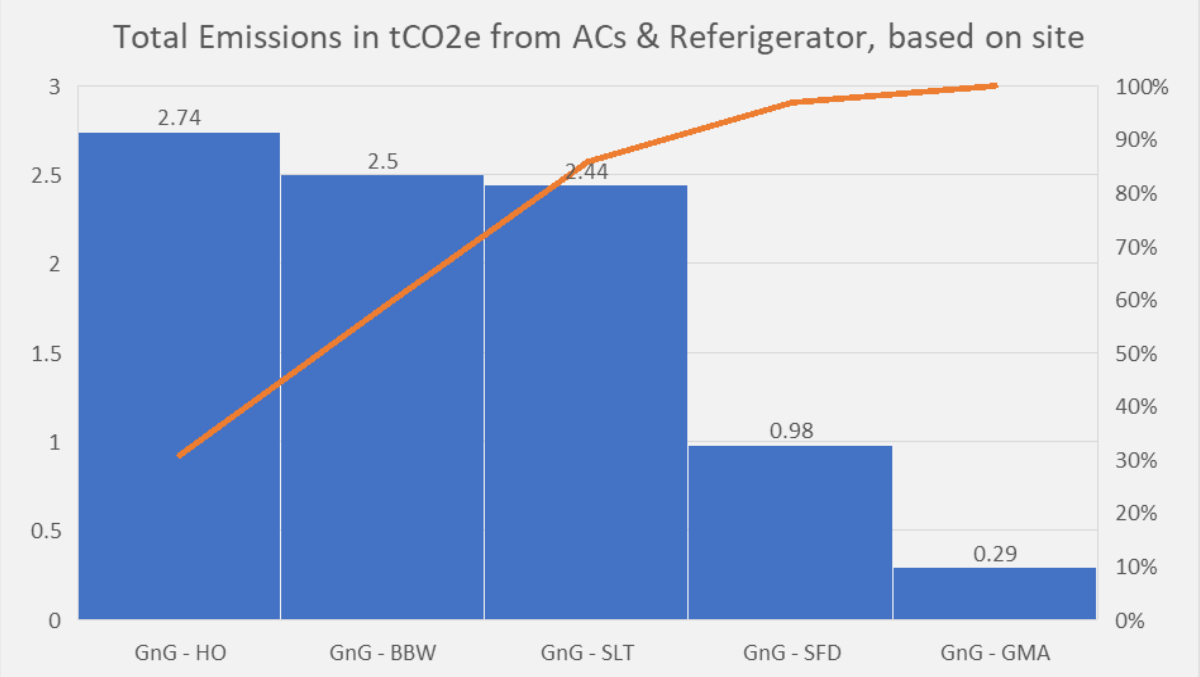


Scope wise emissions
Breakdown & Calculations

Scope 1 - ACs and Refrigerators

ACs and Refrigerators based Total Emissions Breakdown per Site	
Source	**ACs & Refrigerators**
Site Name	**Emissions in tCO_{2e}**
GnG - BBW	2.50
GnG - SFD	0.98
GnG - GMA	0.29
GnG - HO	2.74
GnG - SLT	2.44
Total Emissions	**8.96**

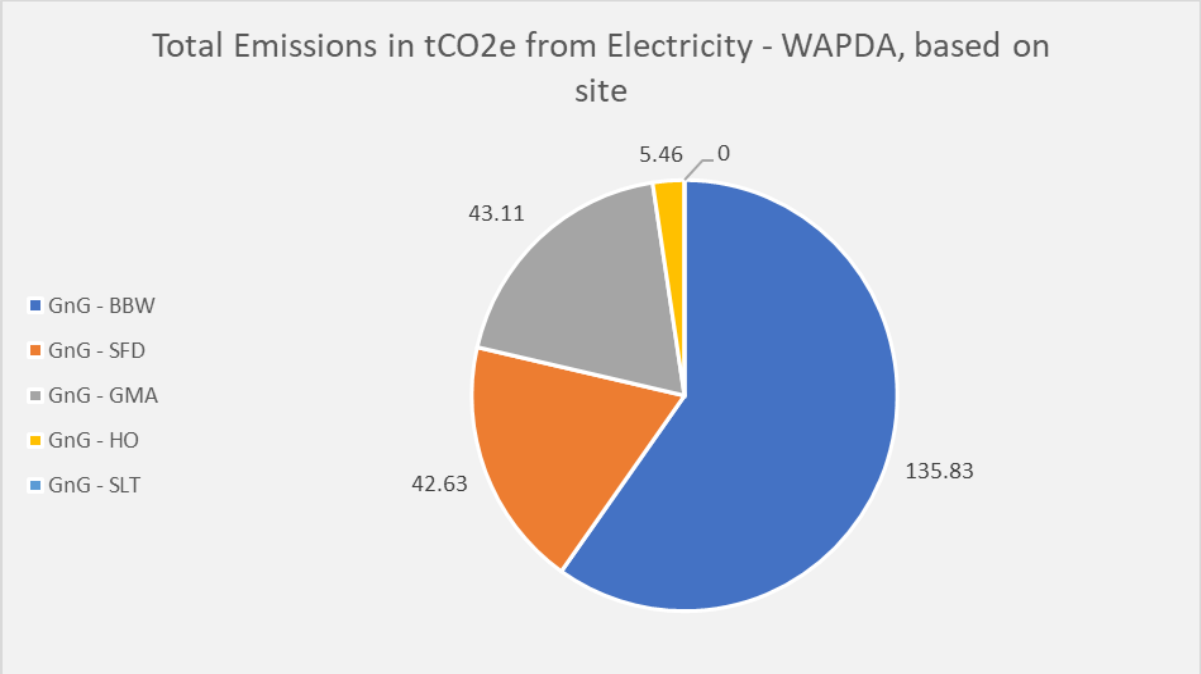


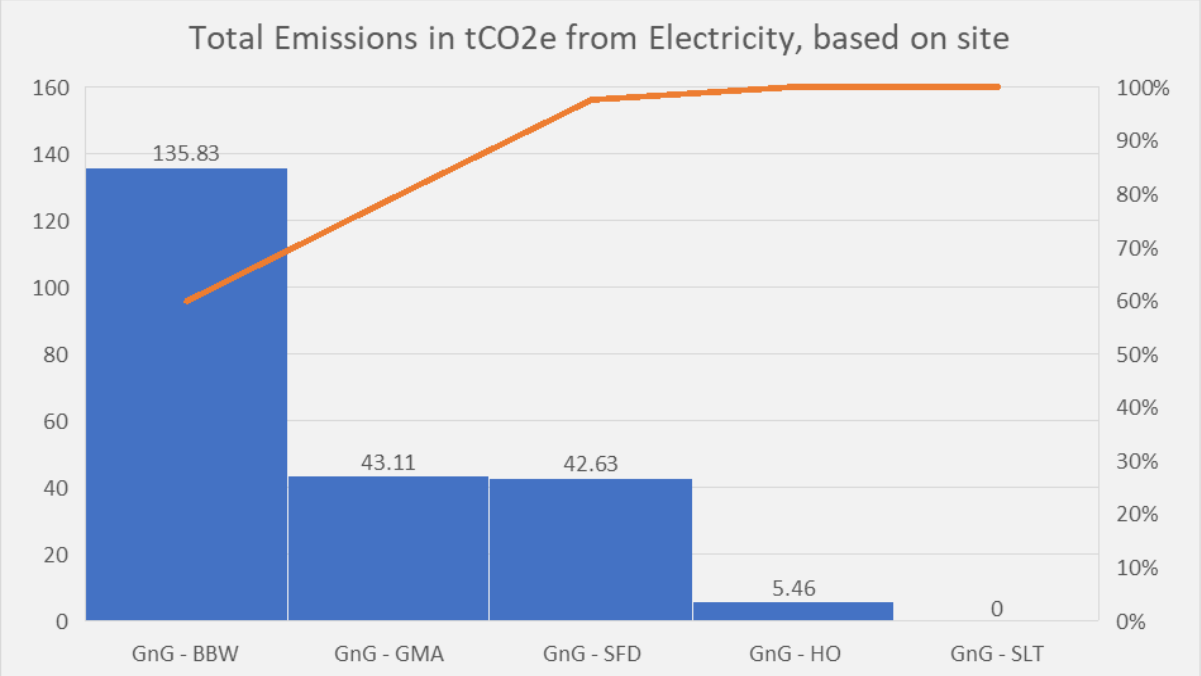


Scope wise emissions
Breakdown & Calculations

Scope 2 – Electricity - WAPDA

Electricity WAPDA based Total Emissions Breakdown per Site	
Source	**Electricity - WAPDA**
Emission Factor (tCO_{2e}/kWh)	0.000396
Site Name	**Emissions in tCO_{2e}**
GnG - BBW	135.83
GnG - SFD	42.63
GnG - GMA	43.11
GnG - HO	5.46
GnG - SLT	0.00
Total Emissions	**227.02**

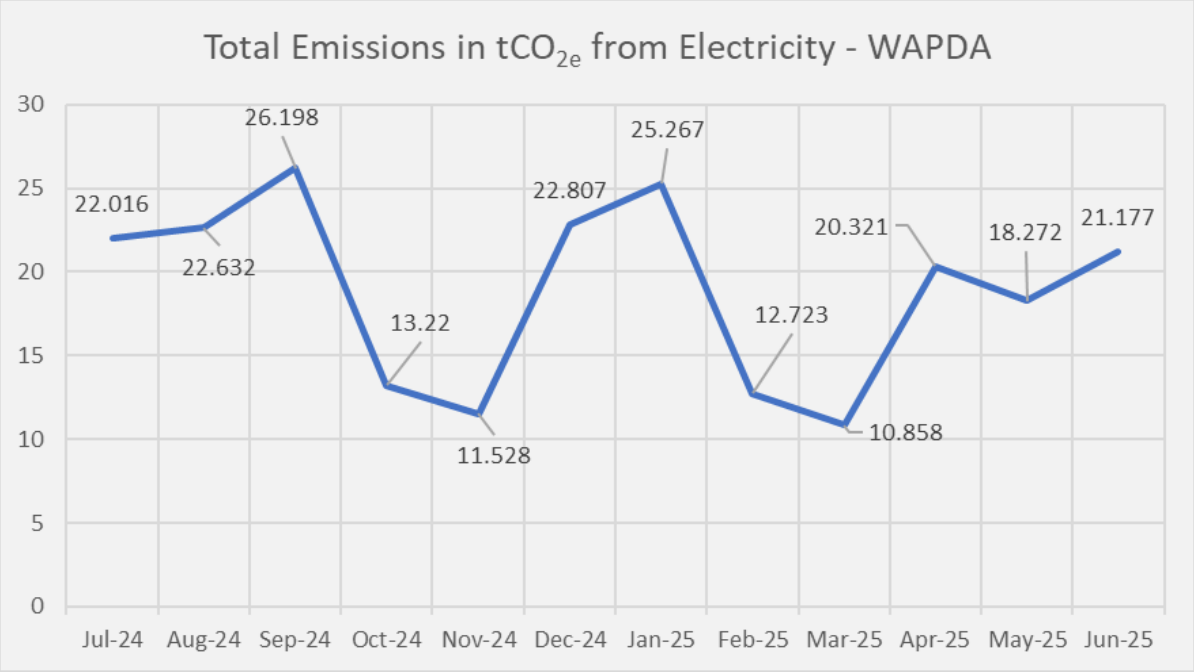




Scope wise emissions

Breakdown & Calculations

Electricity WAPDA based Total Month Wise Emissions from All Sites	
Source	**Electricity - WAPDA**
Months	**Total Emissions in tCO_{2e}**
Jul 24	22.016
Aug 24	22.632
Sep 24	26.198
Oct 24	13.220
Nov 24	11.528
Dec 24	22.807
Jan 25	25.267
Feb 25	12.723
Mar 25	10.858
Apr 25	20.321
May 25	18.272
Jun 25	21.177
Total	**227.018**

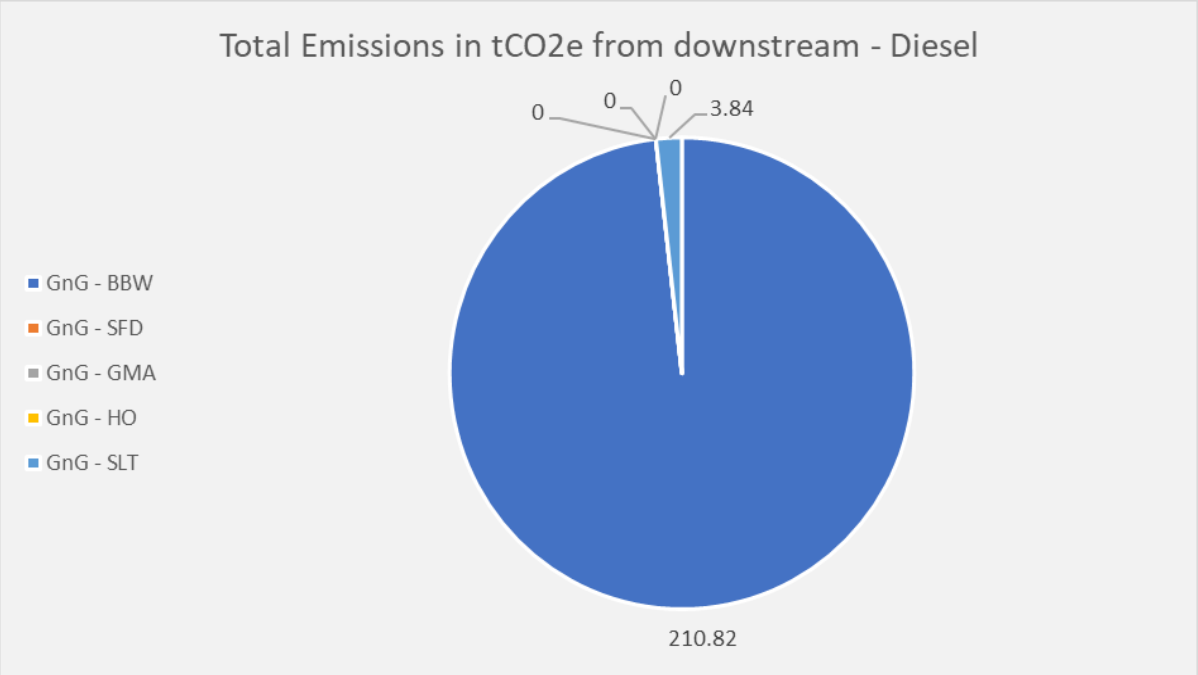


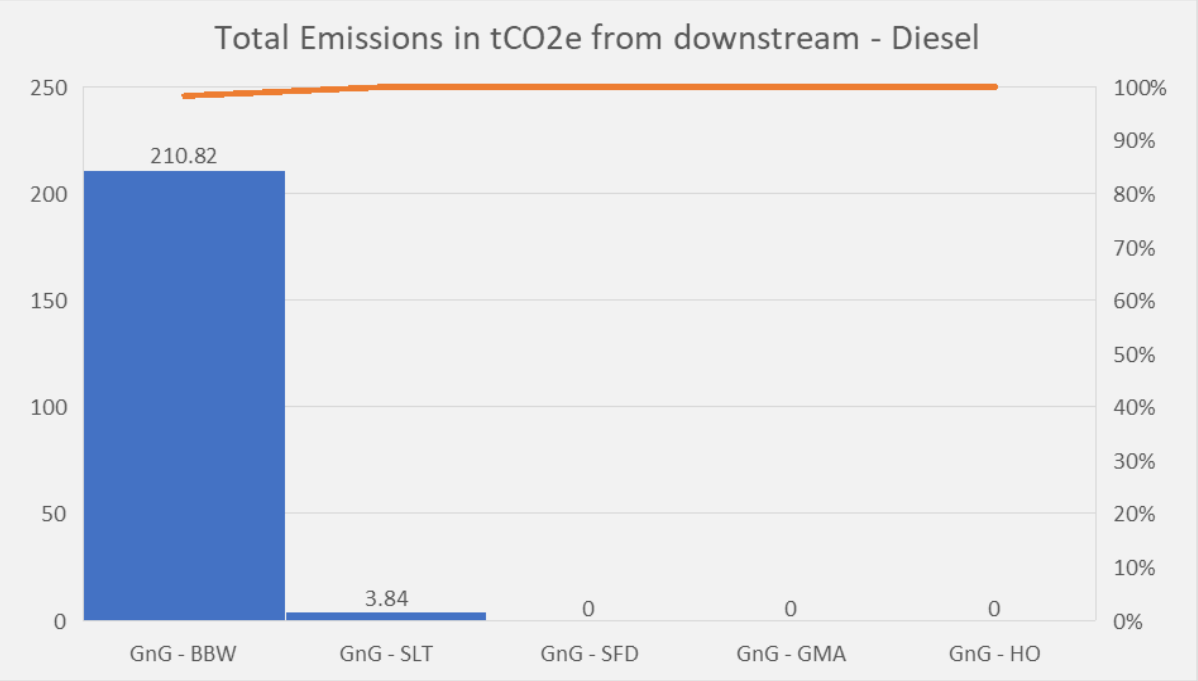
Scope wise emissions

Breakdown & Calculations

Scope 3 – Downstream - Diesel

Downstream – Diesel based Total Emissions Breakdown per Site	
Source	**Downstream - Diesel**
Emission Factor ($kg\ CO_{2e}/L$)	2.66155
Site Name	**Emissions in tCO_{2e}**
GnG - BBW	210.82
GnG - SFD	0.00
GnG - GMA	0.00
GnG - HO	0.00
GnG - SLT	3.84
Total Emissions	**214.66**



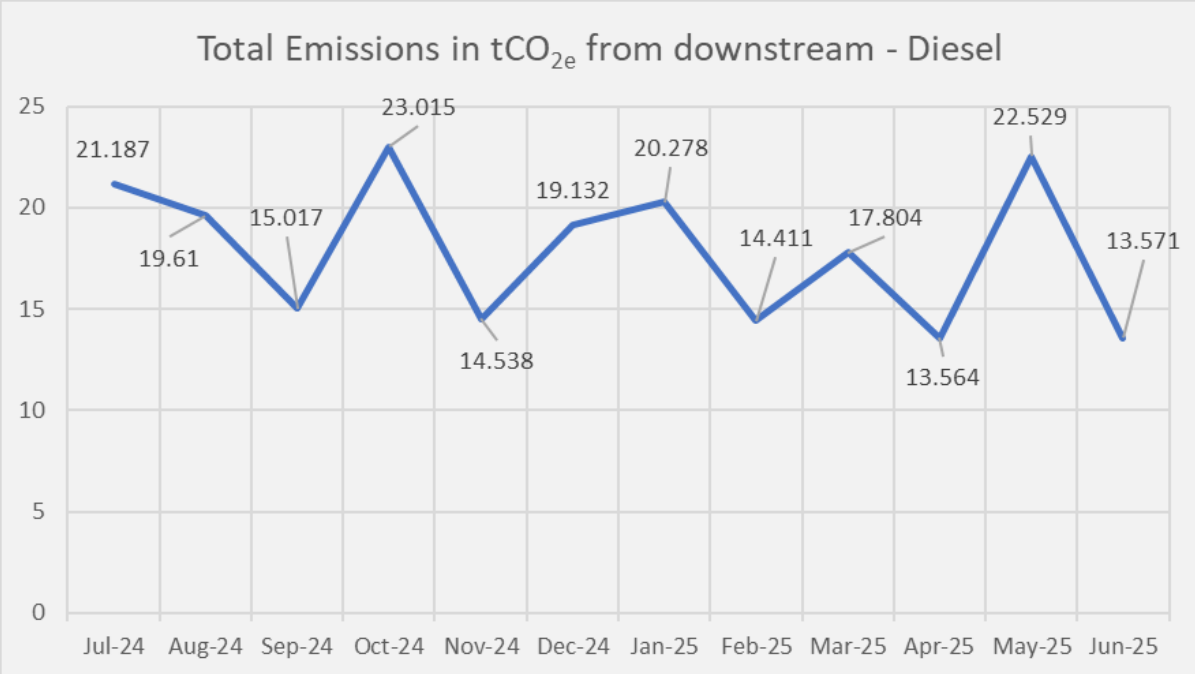


Scope wise emissions

Breakdown & Calculations

Scope 3 – Downstream - Diesel

Downstream – Diesel based Total Month Wise Emissions from All Sites	
Source	**Downstream - Diesel**
Months	**Total Emissions in tCO_{2e}**
Jul 24	21.187
Aug 24	19.610
Sep 24	15.017
Oct 24	23.015
Nov 24	14.538
Dec 24	19.132
Jan 25	20.278
Feb 25	14.411
Mar 25	17.804
Apr 25	13.564
May 25	22.529
Jun 25	13.571
Total	**214.656**

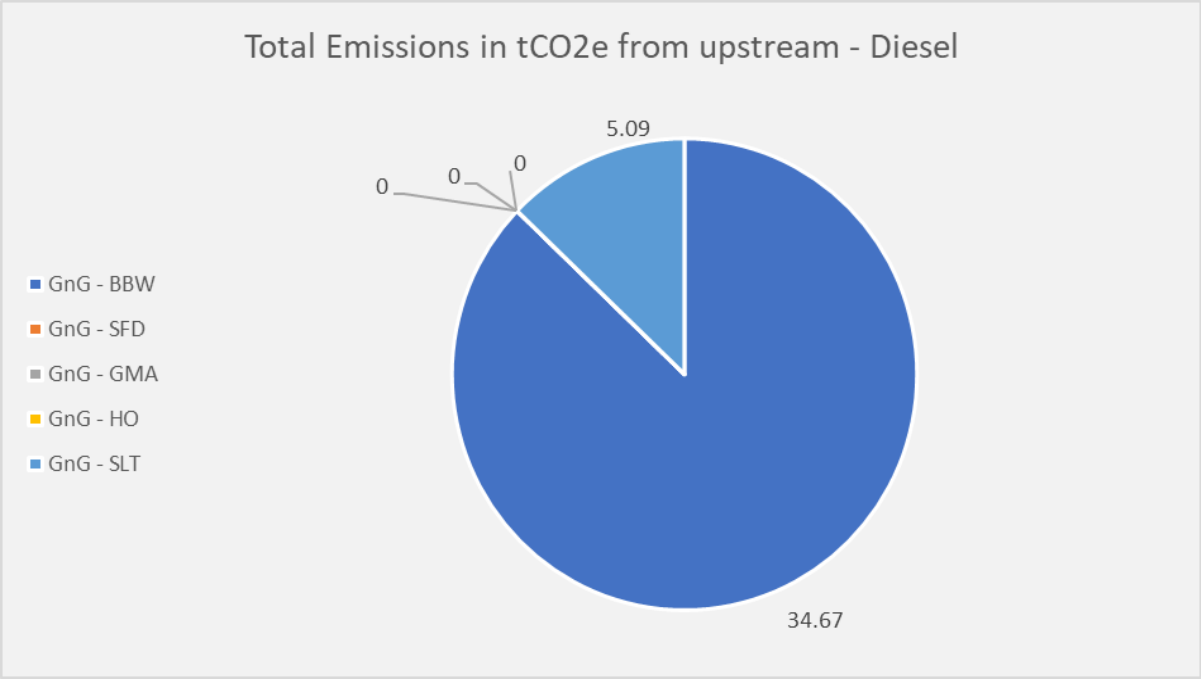


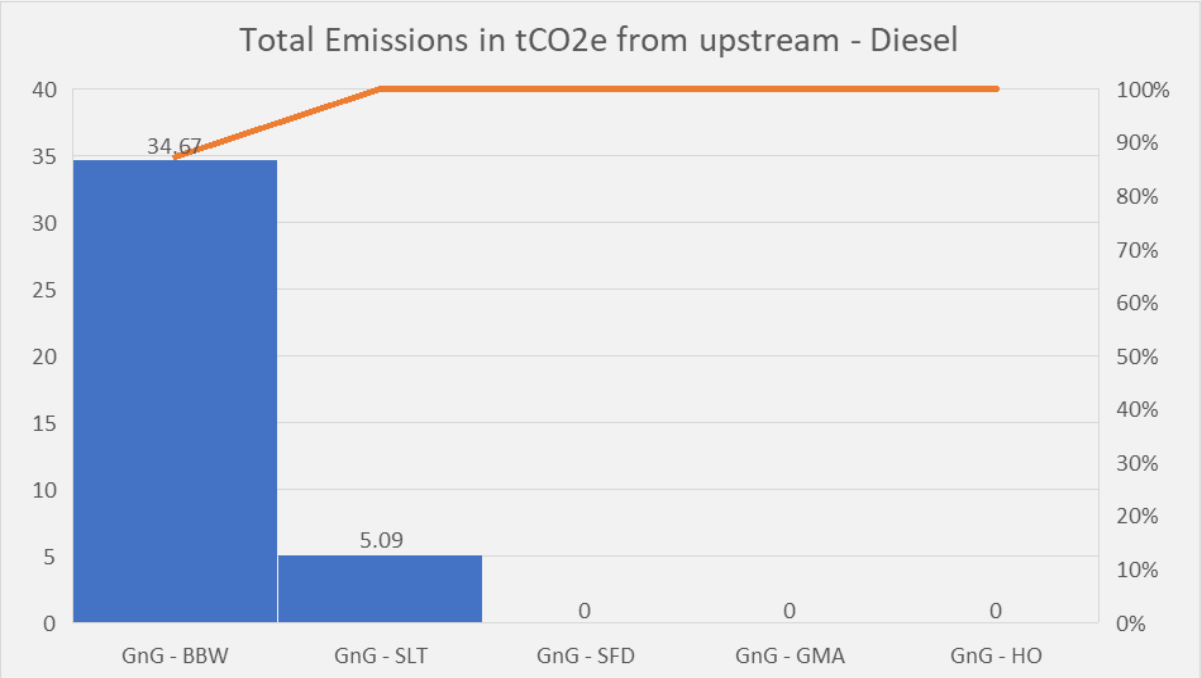
Scope wise emissions

Breakdown & Calculations

Scope 3 – Upstream - Diesel

Upstream – Diesel based Total Emissions Breakdown per Site	
Source	**Upstream - Diesel**
Emission Factor (kg CO_{2e}/L)	2.66155
Site Name	**Emissions in tCO_{2e}**
GnG - BBW	34.67
GnG - SFD	0.00
GnG - GMA	0.00
GnG - HO	0.00
GnG - SLT	5.09
Total Emissions	**39.76**



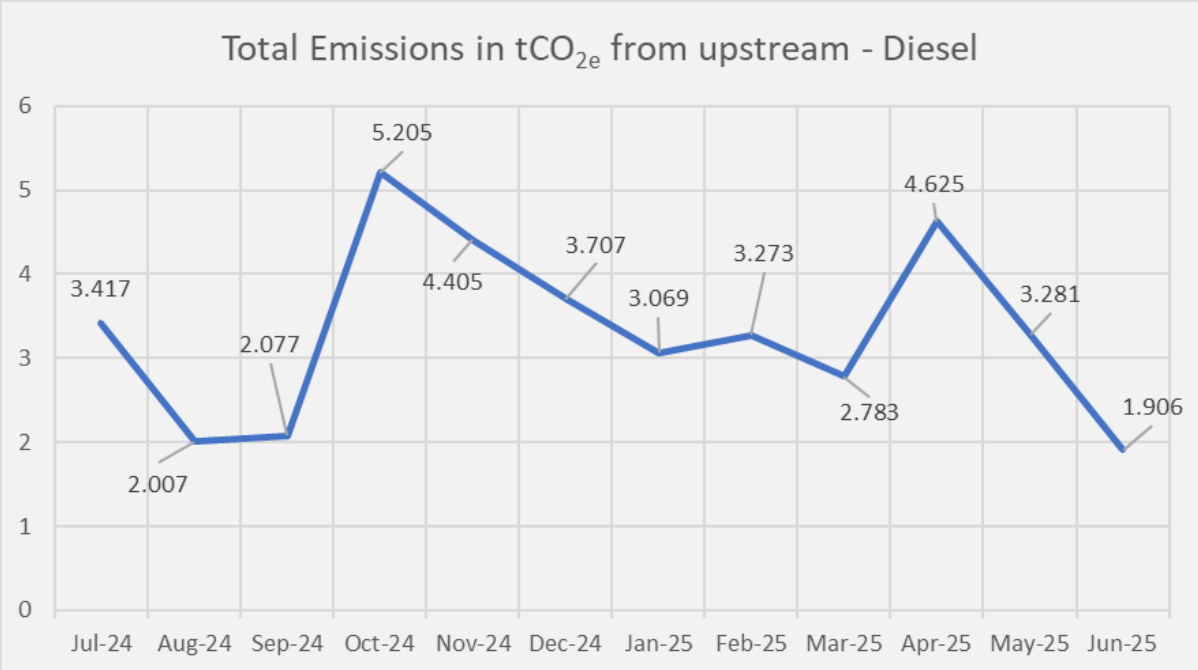


Scope wise emissions

Breakdown & Calculations

Scope 3 – Upstream - Diesel

Upstream – Diesel based Total Month Wise Emissions from All Sites	
Source	**Upstream - Diesel**
Months	**Total Emissions in tCO_{2e}**
Jul 24	3.417
Aug 24	2.007
Sep 24	2.077
Oct 24	5.205
Nov 24	4.405
Dec 24	3.707
Jan 25	3.069
Feb 25	3.273
Mar 25	2.783
Apr 25	4.625
May 25	3.281
Jun 25	1.906
Total	**39.756**

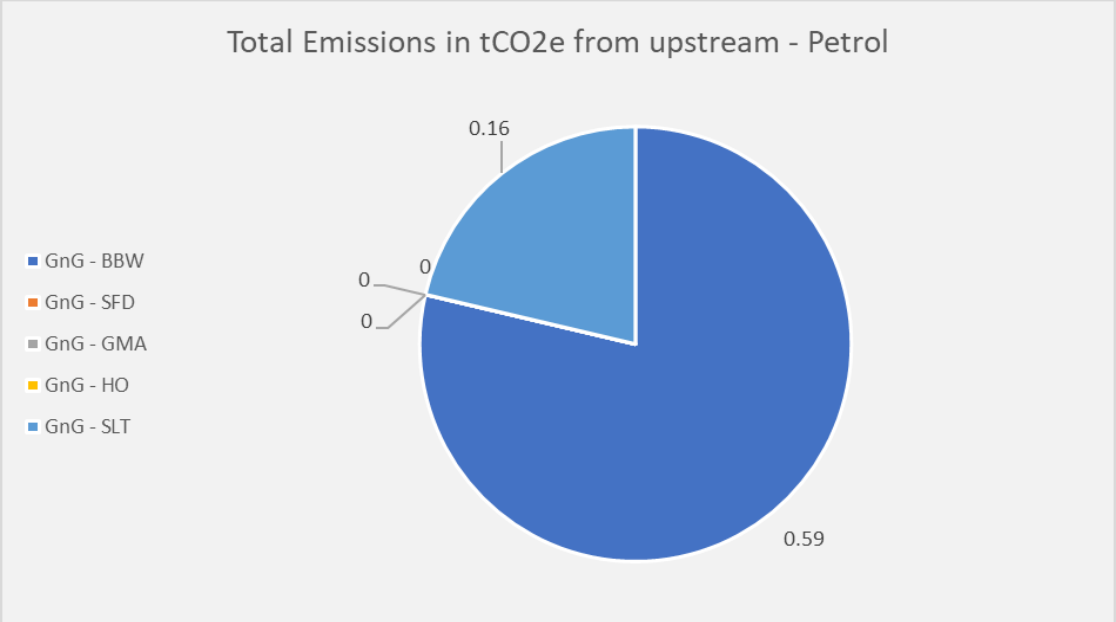


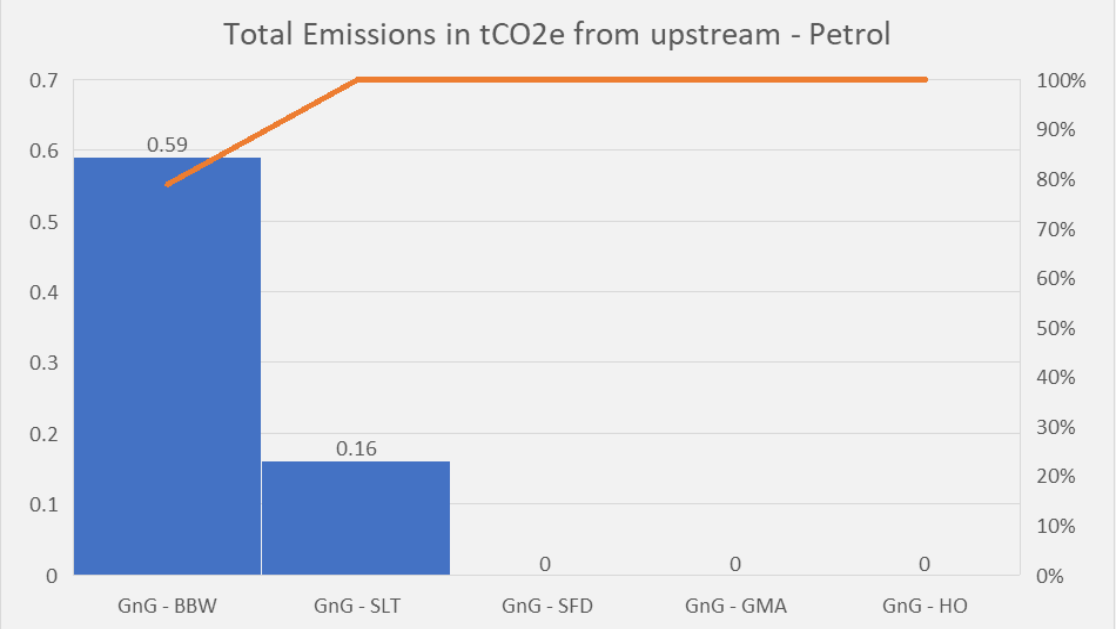
Scope wise emissions

Breakdown & Calculations

Scope 3 – Upstream - Petrol

Upstream – Petrol based Total Emissions Breakdown per Site	
Source	**Upstream - Petrol**
Emission Factor (kg CO_{2e}/L)	2.35372
Site Name	**Emissions in tCO_{2e}**
GnG - BBW	0.59
GnG - SFD	0.00
GnG - GMA	0.00
GnG - HO	0.00
GnG - SLT	0.16
Total Emissions	**0.75**

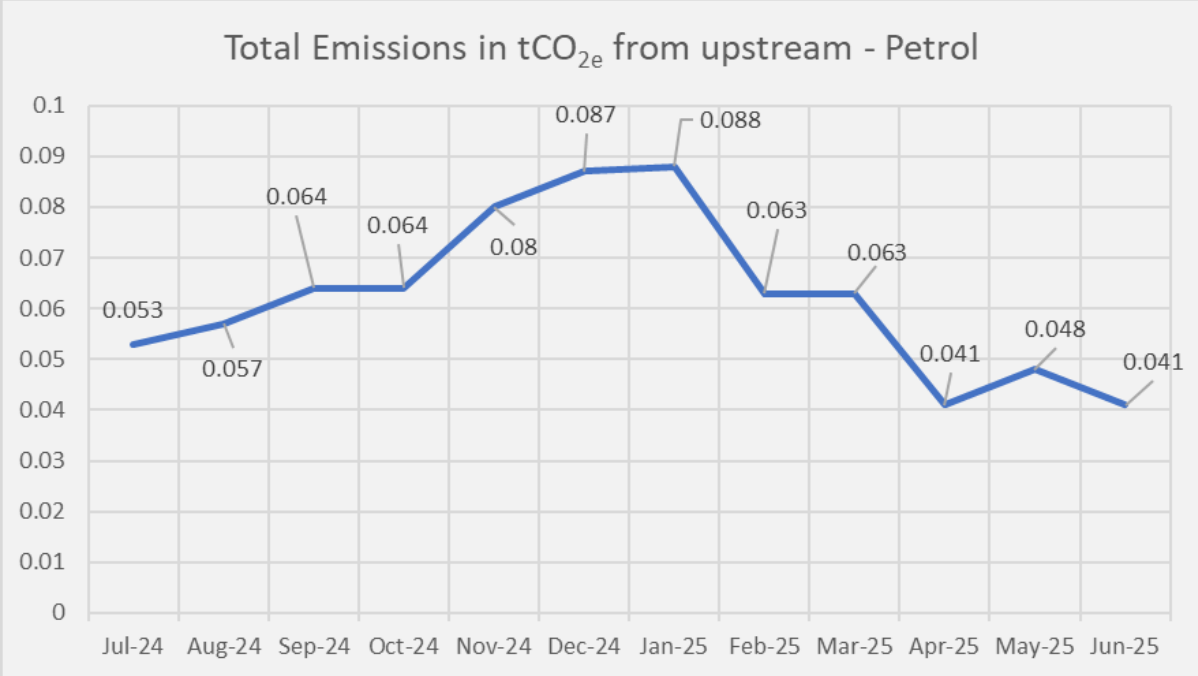




Scope wise emissions

Breakdown & Calculations

Upstream – Petrol based Total Month Wise Emissions from All Sites	
Source	**Upstream - Petrol**
Months	**Total Emissions in tCO_{2e}**
Jul 24	0.053
Aug 24	0.057
Sep 24	0.064
Oct 24	0.064
Nov 24	0.080
Dec 24	0.087
Jan 25	0.088
Feb 25	0.063
Mar 25	0.063
Apr 25	0.041
May 25	0.048
Jun 25	0.041
Total	**0.751**

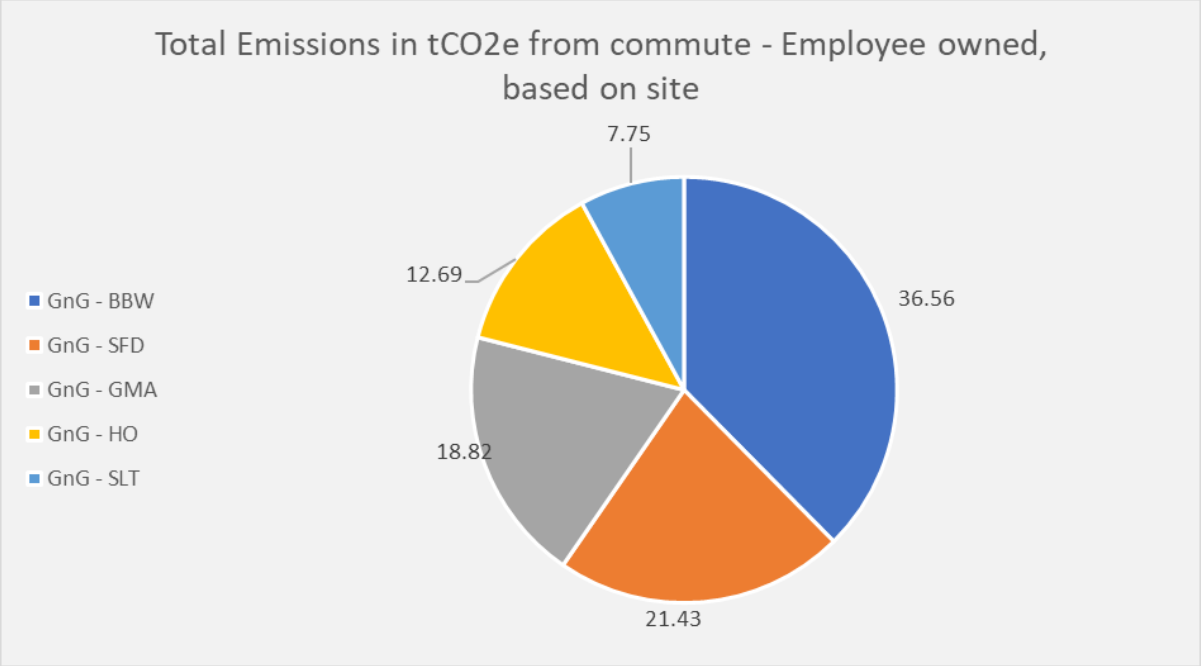


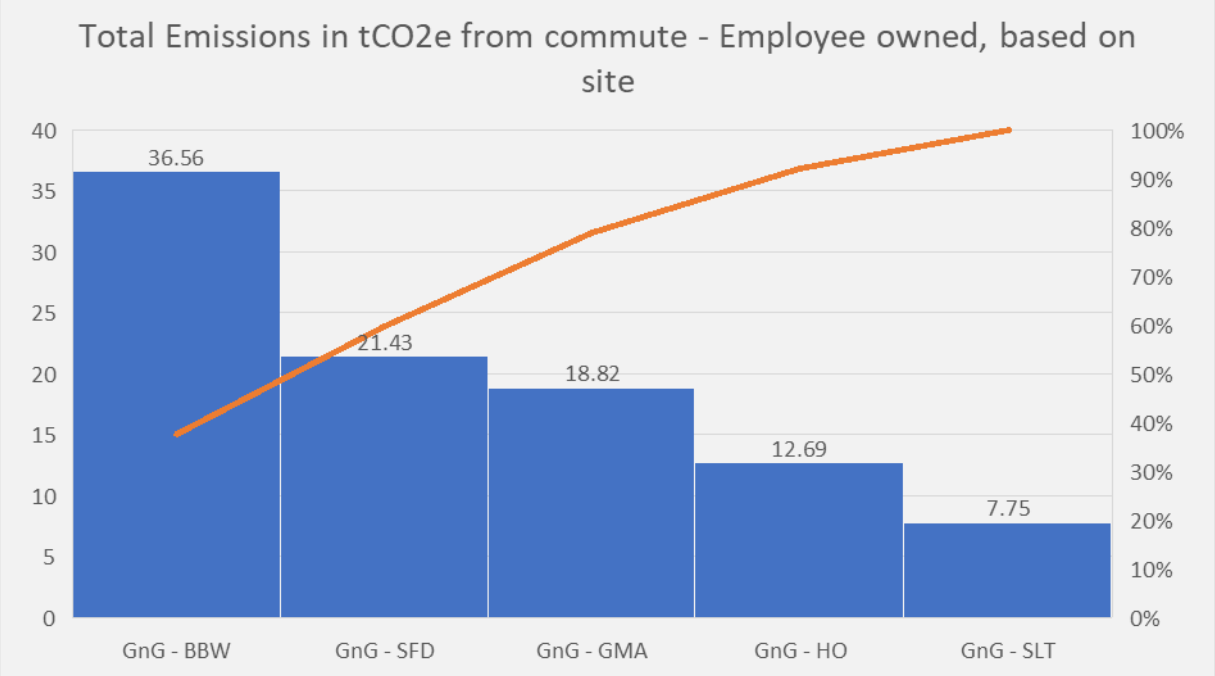
Scope wise emissions

Breakdown & Calculations

Scope 3 – Commute - Employee owned

Commute – Employee-Owned based Total Emissions Breakdown per Site	
Source	**Commute - Employee Owned - All Sources - Diesel & Petrol**
Site Name	**Emissions in tCO_{2e}**
GnG - BBW	36.56
GnG - SFD	21.43
GnG - GMA	18.82
GnG - HO	12.69
GnG - SLT	7.75
Total Emissions	**97.24**

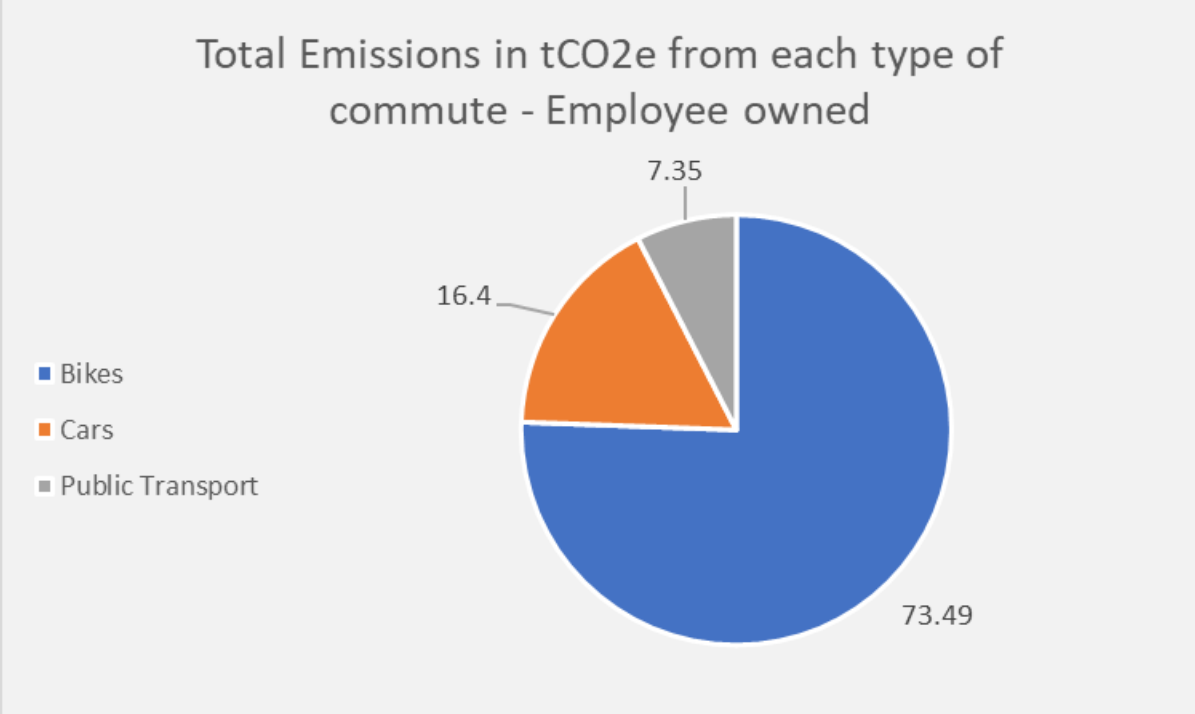


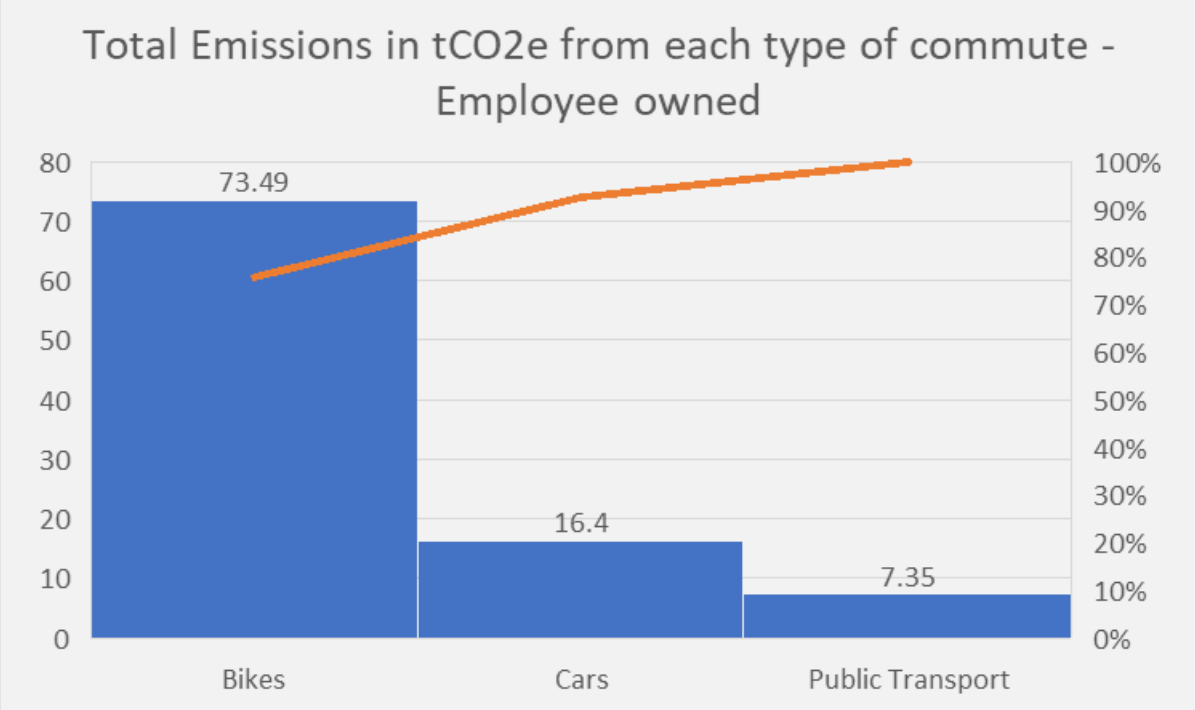


Scope wise emissions

Breakdown & Calculations

Commute – Employee-Owned based Total Emissions Breakdown per Type of Transport	
Source	**Commute - Employee Owned - All Sources - Diesel & Petrol**
Type of Transport	**Emissions in tCO_{2e}**
Bikes	73.49
Cars	16.40
Public Transport	7.35
Total Emissions	**97.24**



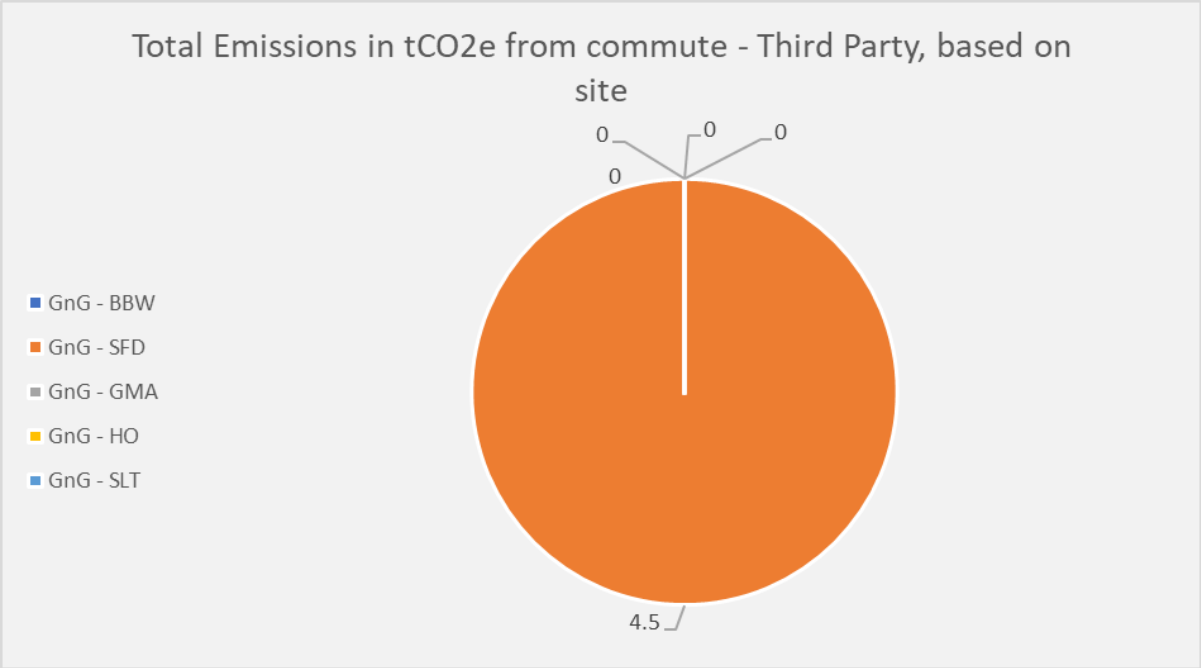


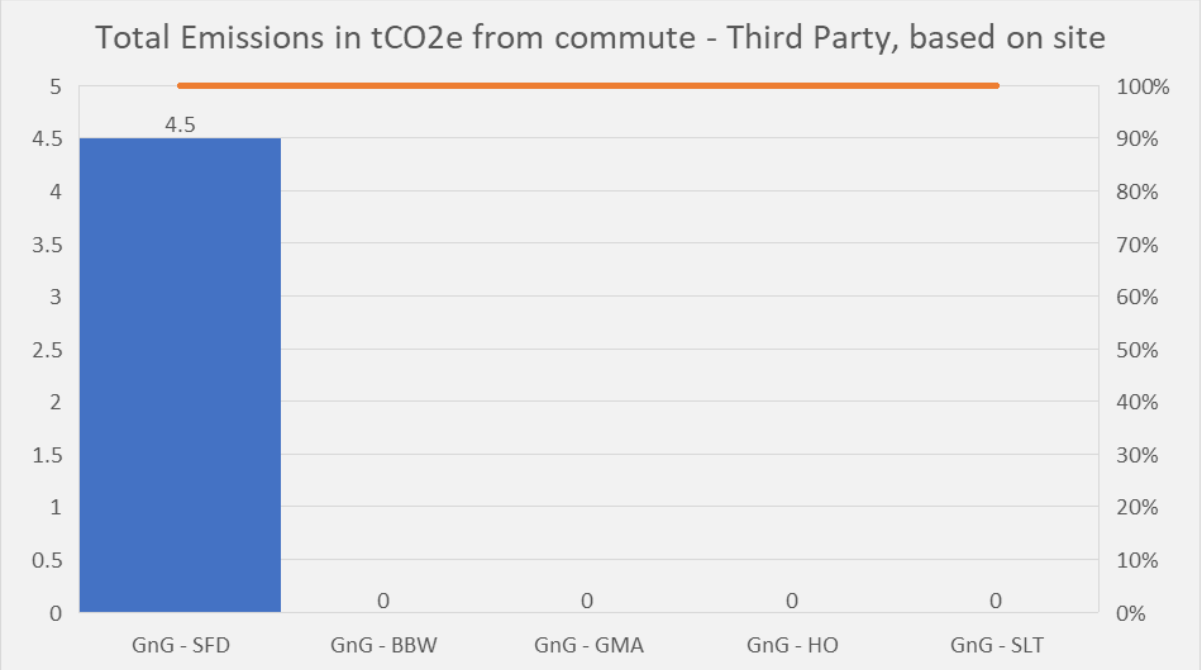
Scope wise emissions

Breakdown & Calculations

Scope 3 – Commute - Third Party

Commute – Third Party based Total Emissions Breakdown per Site	
Source	**Commute - Third Party - Diesel**
Site Name	**Emissions in tCO_{2e}**
GnG - BBW	0.00
GnG - SFD	4.50
GnG - GMA	0.00
GnG - HO	0.00
GnG - SLT	0.00
Total Emissions	**4.50**



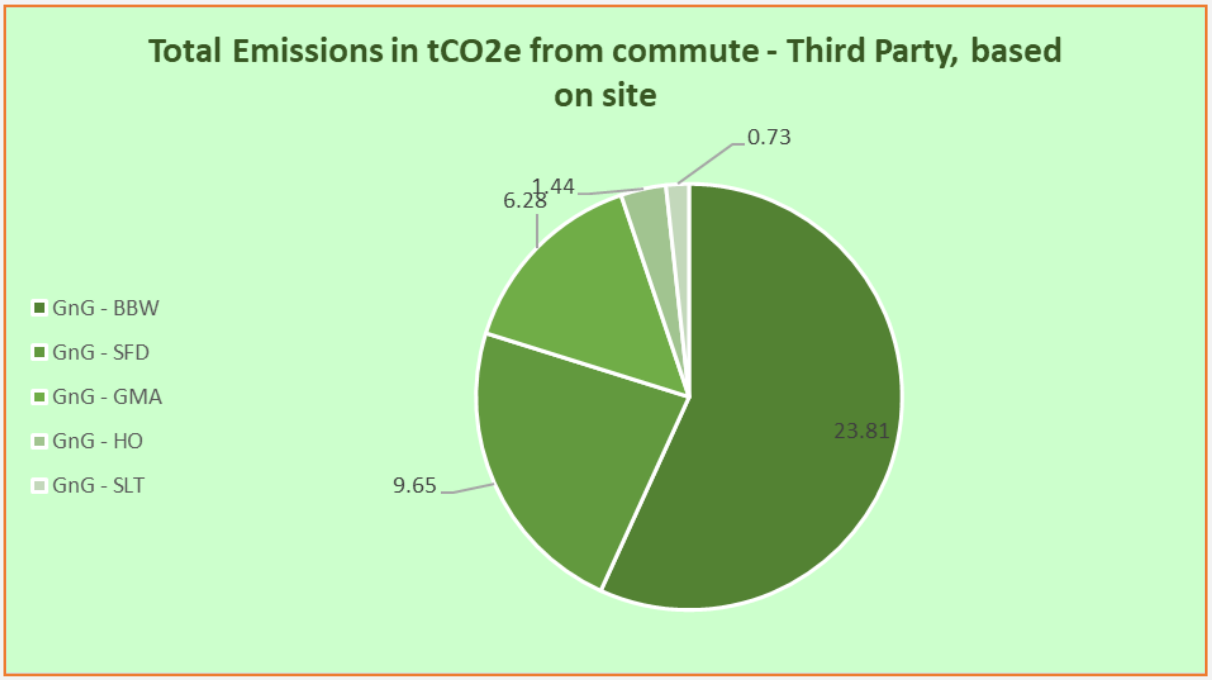


Emissions avoided

Due to sustainable efforts

- The total emissions avoided across all sites is 41.92 tCO_2e (i.e., metric tons of CO_2 equivalent).
- The emission factor used is 0.086 kg CO_2e per kWh of solar generation, which means that for each kilowatt-hour of solar electricity generated, 0.086 kg CO_2e is avoided as compared to grid electricity.
- Among the sites, GnG – BBW contributes the largest share (~23.81 tCO_2e), followed by SLT (9.65 tCO_2e) and SFD (6.28 tCO_2e). The smaller contributions from GMA (1.44 t) and HO (0.73 t) reflects lower solar generation at these sites

Total Emissions Avoidance Breakdown per Site	
Source	**Solar**
Emission Factor (kg CO_2e/kWh)	0.086
Site Name	**Emissions Avoided in tCO_2e**
GnG - BBW	23.81
GnG - SLT	9.65
GnG - SFD	6.28
GnG - GMA	1.44
GnG - HO	0.73
Total Emissions	**41.92**



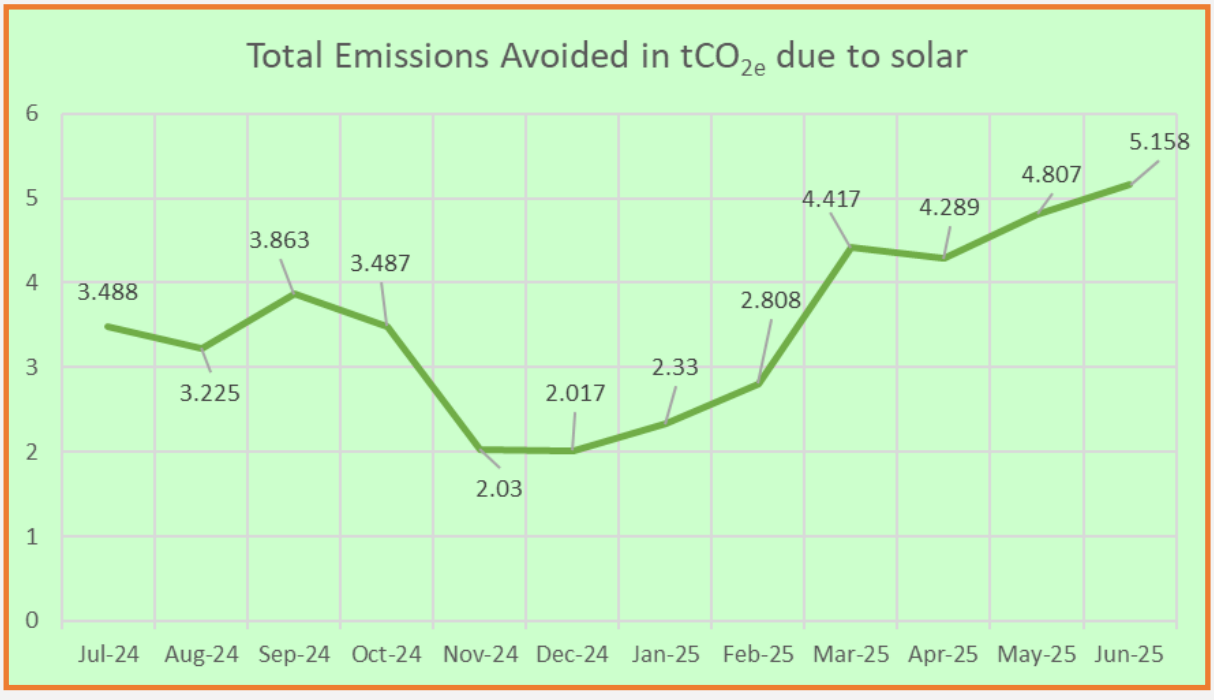
- The solar installation is making a meaningful and measurable offset to the company's carbon footprint which was nearly 42 tCO_2e avoided during the tenure of July 2024 till June 2025.
- While this solar accomplishment addresses the Scope 2 (electricity) footprint, GnG recognizes that further emissions reductions lie across full value chain including raw material sourcing to product disposal. Nevertheless, the solar initiative is a cornerstone of climate strategy of GnG, offering both environmental and operational resilience.

Emissions avoided

Due to sustainable efforts

Solar based Total Month Wise Emissions Avoidance from All Sites	
Source Months	**Solar Total Emissions Avoided in tCO_{2e}**
Jul 24	3.488
Aug 24	3.225
Sep 24	3.863
Oct 24	3.487
Nov 24	2.030
Dec 24	2.017
Jan 25	2.330
Feb 25	2.808
Mar 25	4.417
Apr 25	4.289
May 25	4.807
Jun 25	5.158
Total	**41.919**

- There is a clear seasonal pattern in the avoided emissions, which are lowest in the Nov, Dec, Jan window and peak in late spring and early summer (May & Jun).
- The lowest monthly values are from December (2.017 tCO_2e) and November (2.030 tCO_2e), while the highest is obtained in June 2025 at 5.158 tCO_2e.



- The pattern indicates that solar generation, and thus emissions avoided, correlates closely with solar irradiance, daylight hours, and possibly local weather conditions (cloud cover and fog during the winter season, monsoon rains during the summer, etc.).

Chapter# 3
Emissions Reduction plan

Emissions reduction
Plans

The company has developed a phased strategy to reduce **greenhouse gas (GHG) emissions** across **Scope 1, Scope 2, and Scope 3** sources. The plan focuses on improving energy efficiency, transitioning to cleaner technologies, and collaborating with supply chain partners to achieve long term decarbonization.

Short-term actions (0–2 years) focus on operational improvements such as conducting energy audits, optimizing equipment efficiency, monitoring energy consumption, improving logistics efficiency, promoting car-pooling and efficient driving practices, and assessing fuel usage across operations and supply chains.

Medium-term actions (2–5 years) include expanding renewable energy generation (especially solar), upgrading machinery and vehicle fleets to more efficient or electric alternatives, improving supply-chain efficiency, installing EV charging infrastructure, adopting cleaner fuels, and implementing smart energy monitoring systems.

Long-term actions (5+ years) aim for deep decarbonization through major structural changes such as minimizing reliance on grid electricity, transitioning logistics and company fleets to zero-emission vehicles, integrating renewable micro-grids, adopting advanced technologies (e.g., hydrogen or next-generation fuels), and offsetting any residual emissions as part of a net-zero strategy.

Overall, the roadmap targets emissions reductions from key sources including **electricity consumption, transportation (upstream and downstream logistics), employee commuting, company vehicles, generators, lubricants, cooling systems, LPG usage, and other minor emission sources,** with the ultimate objective of achieving a **low-carbon and eventually net-zero operational model.**

Emissions reduction
Achievement Plan & Objectives

Reduce greenhouse gas (GHG) emissions across **Scope 1, Scope 2, and Scope 3** operations through energy efficiency, renewable energy adoption, low-carbon technologies, and supply-chain collaboration, supporting the company's long-term **net-zero strategy.**

1. Short-Term Strategy (0–2 Years)

Strategic Focus: Efficiency & Emissions Visibility

Key Initiatives:

⇒ Conduct factory-wide energy audits to identify high-consumption equipment.
⇒ Implement LED lighting, VFDs, and energy-efficient machinery practices.
⇒ Begin rooftop solar installations to reduce grid electricity reliance.
⇒ Map logistics fuel usage and optimize routes, payloads, and driving practices.
⇒ Encourage carpooling, shuttle services, and flexible working schedules.
⇒ Improve generator, fleet, and machinery maintenance to reduce fuel consumption.

Key KPIs:

⇒ 5–10% reduction in electricity consumption
⇒ 5–10% reduction in fuel usage for logistics
⇒ Solar energy contributing 5–10% of facility electricity

2. Medium-Term Strategy (2–5 Years)

Strategic Focus: Renewable Energy Expansion & Clean Technologies

Key Initiatives

⇒ Expand solar PV systems and battery storage capacity.
⇒ Upgrade production equipment to high-efficiency models.
⇒ Implement real-time energy monitoring and digital energy management systems.
⇒ Transition company vehicles to hybrid or electric vehicles (EVs).
⇒ Install EV charging infrastructure at company facilities.
⇒ Partner with logistics providers and suppliers to reduce transport emissions.
⇒ Improve HVAC efficiency through smart controls and improved insulation.

Key KPIs:

⇒ 15–55% renewable electricity share.
⇒ 20–30% reduction in operational emissions.
⇒ 20% fleet electrification.
⇒ 15–20% reduction in logistics fuel intensity.

Emissions reduction
Achievement Plan & Objectives

3. Long-Term Strategy (5+ Years)

Strategic Focus: Net-Zero Operations & Deep Decarbonization

Key Initiatives

⇒ Develop renewable micro-grid systems combining solar, storage, and smart energy management.
⇒ Transition logistics to zero-emission transportation (EV or hydrogen trucks).
⇒ Reduce grid dependency to below 20% of total energy consumption.
⇒ Introduce advanced technologies such as hydrogen energy, waste heat recovery, and next generation cooling systems.
⇒ Offset unavoidable emissions through verified carbon credits and removals.

Key KPIs:

⇒ 60–80% renewable energy utilization.
⇒ 70–90% reduction in operational emissions.
⇒ 100% zero-emission company fleet.