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Content

Figures

Tables

1. Introduction

This report has been compiled to provide a comprehensive carbon footprint report, of the Eskom Holdings SOC Ltd (Eskom) business for the 2023 calendar year. It aims to provide valuable insight not only into the sources and magnitude of Greenhouse Gas (GHG) emissions, but also as a basis for possible mitigation action and GHG offsetting measures.

A carbon footprint is an important tool for measuring and monitoring GHG emissions emanating from an organisation's activities, it is expressed in tonnes of carbon dioxide equivalent (tCO_2e). GHG's are emitted from a variety of activities, including electricity generation, transport, industry, agriculture, and waste processing.

For the information to be reliable and consistent, a carbon footprint needs to be based on credible data, which is collated and calculated according to a recognised international GHG standard. Moreover, the information should be kept in a well-structured database that can provide graphical outputs useful for emissions reporting purposes.

Eskom's Climate Change and Sustainable Development Department (CCSD) calculated the Carbon Footprint for 2023 using the Enterprise Performance and Carbon Management (EPCAM) a Cloud-based GHG calculation tool. While Eskom's financial year runs from April to March, the carbon footprint is based on the calendar year. This is in part to align with the reporting period used by National GHG Emission Reporting Regulations (NGER's).

The results of the carbon footprint are published in the integrated report and sustainability report annually. The results also form a basis for reporting climate activities for the Carbon Disclosure Project (CDP) an international body which provides a platform for the most complete source of self-reported corporate environmental data, in a uniform and comparable manner that is fully aligned with the Task Force on Climate-Related Financial Disclosures (TCFD) and partially aligned to Task Force on Nature-related Financial Disclosures (TNFD). Reporting on the CDP influences a company's reputation and attracts investors.

2. Supporting Clauses

2.1 Scope

Large organisations typically operate within complex legal and organisational frameworks, encompassing various levels of ownership and control. These intricacies have a direct impact on how greenhouse gas (GHG) emissions are consolidated and reported at an entity-wide level. Defining the organisational boundaries of a carbon footprint is a critical step, as it establishes the approach for including GHG emissions from different business units and operational activities within the broader organisation. Eskom's organisational boundary considered for 2023 carbon footprint assessment is shown in Figure 1, which included Eskom Rotek Industries (ERI).

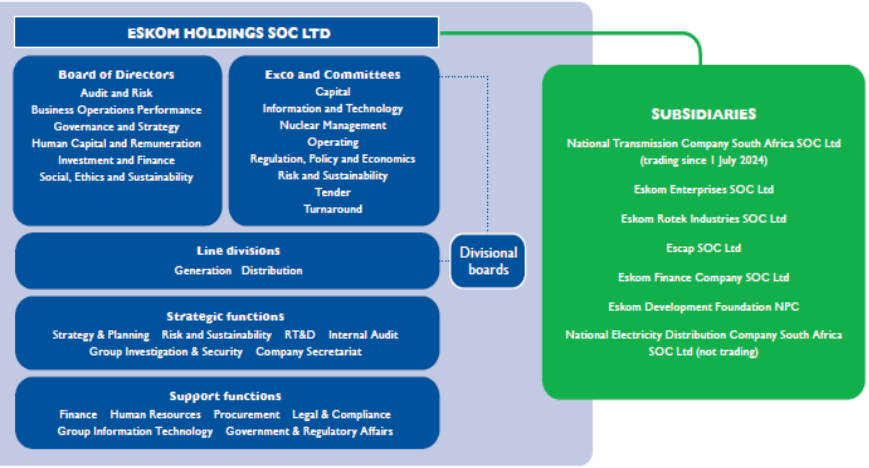


Figure 1: **Eskom Carbon Footprint Organisational boundary (including Eskom subsidaries)**

2.1.1 Purpose

This report provides an updated carbon footprint, which estimates the total GHGs emitted by Eskom and subsidiary activities, and the associated findings for the 2023 calendar year.

2.1.1 Applicability

This document shall apply throughout Eskom Holdings Limited Divisions, including Eskom subsidiaries.

2.1.3 Effective date

01 March 2025

2.2 Normative/Informative References

The parties using this document shall apply the most recent edition of the documents listed in the following paragraphs.

2.2.1 Normative

[1] Greenhouse Gas Protocol Corporate Accounting and Reporting Standard

[2] 240-164779414 Eskom Carbon Footprint Study, 2019

[3] 240-164779414 Eskom Carbon Footprint Study, 2020

[4] 240-164779414 Eskom Carbon Footprint Study, 2021

[5] 240-164779414 Eskom Carbon Footprint Study, 2022

[6] The Eskom Integrated Report, 31 March 2022

2.2.2 Informative

[7] Department of Fisheries, Forestry and Environment (DFFE) National Greenhouse Gas Emissions (GHG) Reporting Regulations

[8] Intergovernmental Panel on Climate Change (IPCC) 2006 Guidelines for National Greenhouse Gas Inventories

[9] Climate Change Act, No 22 of 2024

[10] Carbon Tax Act, No 15 of 2019

2.3 Definitions

- **Carbon Footprint** – a term used to describe the amount of greenhouse gas (GHG) emissions (expressed in tCO_2e) caused by a particular activity or entity and thus a way for organisations and individuals to assess their contribution to climate change.
- **Carbon reduction** – occurs as a result of reducing your gross greenhouse gas (GHG) emissions, this can be done through initiatives such as energy efficiency plans, transport efficiency programmes, fuel switch projects and process enhancement.
- **Carbon Offsetting** – is the purchase of carbon credits to offset your carbon footprint. This can be done through various carbon markets such as the mandatory market or other voluntary markets.
- **Climate Change impact** – arises due to the interaction of a climate-related hazard and the vulnerability or exposure of the natural or human system.
- **Emission** – the release of GHG's into the atmosphere**.**
- **Emissions factors** – are the average emission rate, measured in carbon equivalent (CO_2e) per unit of activity.
- **Operational boundaries –** are governed by the concept of scopes. Scopes allow for different types of reporting methods and aim to avoid double counting by two separate companies. Scope 1 (direct emissions), Scope 2 (indirect electricity emissions) and Scope 3 (indirect emissions).
- **Organisational boundaries** – businesses vary in legal and organisational structures; organisational boundaries state the organisational make-up. There are two distinct approaches for selecting organisational boundaries, the control approach (operational control or financial control) and the equity share approach.

(***Source**: Terra Firma Academy, Carbon Footprint Analyst Course Manual, 2019)*

2.4 Abbreviations

Abbreviation	Explanation
CCSD	Climate Change and Sustainable Development
CO_2	Carbon Dioxide
DFFE	Department of Fisheries, Forestry and Environment
Dx	Distribution Division
EFs	Emission factors
ERI	Eskom Rotek Industries
GHG	Greenhouse gas
GWP	Global Warming Potential
Gx	Generation Division
IPCC	Intergovernmental Panel on Climate Change
IPP	Independent Power Producers
NCVs	Net calorific values
NGER	National Greenhouse Gas Emission Reporting Regulations
NTCSA	National Transmission Company of South Africa
RT&D	Research Testing and Development
SF_6	Sulphur Hexafluoride
tCO_2e	Tonnes of Carbon Dioxide equivalent

2.5 Roles and Responsibilities

Table 1 provides the roles and responsibilities (RACI) for the reporting of Eskom's Carbon Footprint.

Table 1: RACI (Table showing the Carbon Footprint roles and responsibilities)

Role	Responsible	Accountable	Consult	Inform
Data collection and consolidation	Line Divisions (Dx, Gx) RT&D, NTCSA, ERI and data providers	Line Divisions (Dx, Tx, Gx) RT&D, NTCSA, ERI	CCSD	CCSD
Submission of consolidated Data	Data providers from line divisions, subsidiaries, and travel agent (external data providers)	Data Providers from line divisions, subsidiaries, travel agent	CCSD	CCSD
Sign-off and verification of data	Line Divisions (Dx, Gx) and subsidiaries Data providers (internal and external)	Line Divisions (Dx, Gx) and subsidiaries Data providers (internal and external)	CCSD	CCSD RT&D
Input data into data collection system (EPCAM)	Line Divisions (Dx, Gx) and subsidiaries and CCSD (external users do not have access)	Line Divisions (Dx, Gx) and subsidiaries RT&D	CCSD	CCSD
Calculation of GHG emissions (EPCAM)	CCSD	CCSD	Line Divisions (Dx, Gx) and subsidiaries	Line Divisions (Dx, Gx) and subsidiaries RT&D

Circulation of Carbon Footprint report and Co-ordination of comments	CCSD	CCSD	Line Divisions (Dx, Gx) and subsidiaries Data providers (internal and external)	Line Divisions (Dx, Gx) and subsidiaries Data providers (internal and external) RT&D Finance (Integrated Reporting team)
Preparation for publication and disclosure	CCSD	CCSD	Finance (Integrated Reporting team)	Line Divisions (Dx, Gx) and subsidiaries RT&D Finance (Integrated Reporting team)
Disclosure in IR	Finance (Integrated Reporting team)	Finance (Integrated Reporting team)	CCSD	CCSD Data providers (internal)

2.6 Process for Monitoring

Data providers from line divisions, subsidiaries, and external service providers are responsible for collating, managing, maintaining accurate and up-to-date information. The Climate Change and Sustainable Development (CCSD) department consolidates this data utilising the EPCAM tool, to quantify Eskom's carbon footprint and compile an annual report. This report supports the monitoring of carbon emissions, provides actionable recommendations where applicable and enables the organisation to reflect on areas of improvement.

For 2025 reporting cycle, data providers will transition to uploading their information directly onto the cloud-based EPCAM platform with 2024 data. This enhancement will enable real-time data input and provide users with improved visibility and the ability to actively track and manage emissions data.

2.7 Related/Supporting Documents

240-164779414 Eskom Carbon Footprint Study, 2019

240-164779414 Eskom Carbon Footprint Study, 2020

240-164779414 Eskom Carbon Footprint Study, 2021

240-164779414 Eskom Carbon Footprint Study, 2022

3. Carbon Footprint Assessment

This section provides further clarification of the scope of the study; it sets out the approach followed in calculating Eskom's carbon footprint and presents the actual footprint results. High-level analyses of the outcomes and assumptions are provided.

3.1 GHG Report Standard

While there are various internationally recognised GHG standards, the Eskom's carbon footprint has been calculated in line with the GHG Protocol Corporate Accounting and Reporting Standard (WRI, 2004).

3.2 Scopes of Emissions

In terms of GHG accounting and reporting, the standard identifies three different scopes of GHG emissions (as illustrated by Figure 2) to differentiate between direct and indirect emissions:

- Scope 1 direct emissions
- Scope 2 indirect emissions
- Scope 3 indirect emissions (i.e. from activities not controlled by an organisation that occur up-and downstream in the supply chain).

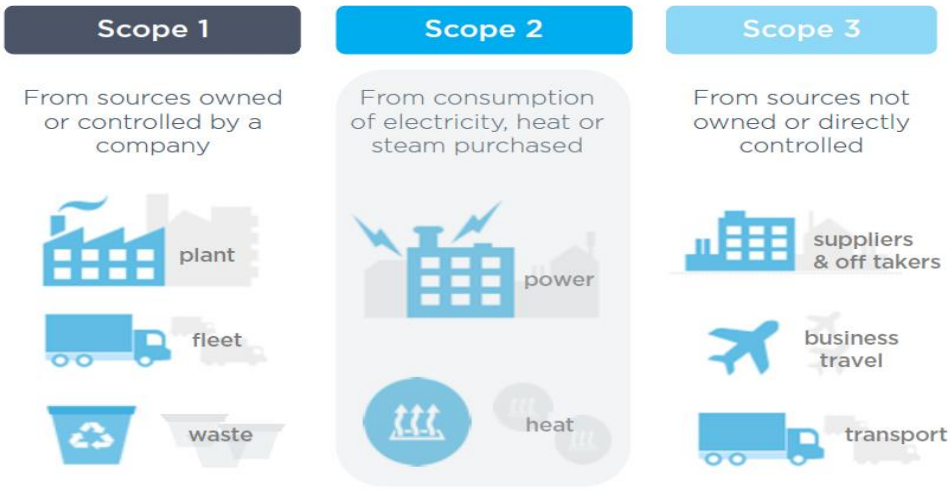


Figure 2: GHG protocol concepts of scopes

3.3 Emission Factors and Global Warming Potentials

The carbon footprint assessment primarily utilises default emission factors (EFs) and net calorific values (NCVs) as outlined in the 2006 Intergovernmental Panel on Climate Change (IPCC) Guidelines for National GHG Inventories, along with global warming potentials (GWPs) from the IPCC's Fifth Assessment Report (AR5). Where applicable and appropriate, country-specific values—such as those provided under the National GHG Reporting Regulations—have been used to improve accuracy.

NCVs are calculated as an average of monthly values per station and per fuel type (coal, fuel oil and diesel). Greenhouse gas (GHG) emissions are computed monthly and aggregated to produce the annual report. Therefore, the NCVs applied in the GHG calculations are monthly values, while the year-to-date (YTD) figure represents the average of these monthly NCVs across the reporting period.

3.4 Categorisation

Table 2 displays the main source categories of GHG emissions applicable to Eskom's activities.

Table 2: Summary of GHG emission categories included in the 2023 Carbon footprint study

Scope 1	Scope 2	Scope 3
Stationary Combustion: coal, fuel oil and diesel consumed in power stations, and diesel consumed by back-up generators at Eskom-owned sites	**Purchased electricity or heat:** purchased electricity – NTCSA and Distribution network losses (electricity lost during transmission and distribution to end user)	**Air Travel:** kilometres flown for local and international flights
Mobile Combustion by Eskom Fleet: fuel consumption by fleet vehicles owned by Eskom, and NTCSA aviation helicopters.		**Official Mileage:** kilometres travelled by employees utilising

Scope 1	Scope 2	Scope 3
		their own vehicles (petrol or diesel)
Non-Combustion Product Use: lubricants, oil and grease		**Vehicle Rental:** kilometres travelled with rented vehicles
Waste Disposal: solid waste and wastewater treatment sites owned by Eskom		**Coal Delivery to Site:** kilometres driven by third party-owned coal trucks, including trains and tons of rail weight
Fugitive Emissions: SF_6 from gas-insulated switchgears, current transformers and breakers		**Purchased electricity:** MWh of purchased electricity from Independent Power Producers (IPP's)
		Waste Generated: solid waste treated by third party

3.5 Data Collection

The process of collating the necessary activity data per GHG emission category was initiated by contacting all relevant data providers within and outside the organisation.

Scope 1 emission data inputs were collated based on actual fuel consumption data. Scope 2 data was calculated, based on the Mwh of purchased electricity and then divided between NTCSA and Dx on a percentage of 20/80 basis. Scope 3 data inputs were based on activity data and use default EFs in the EPCAM model.

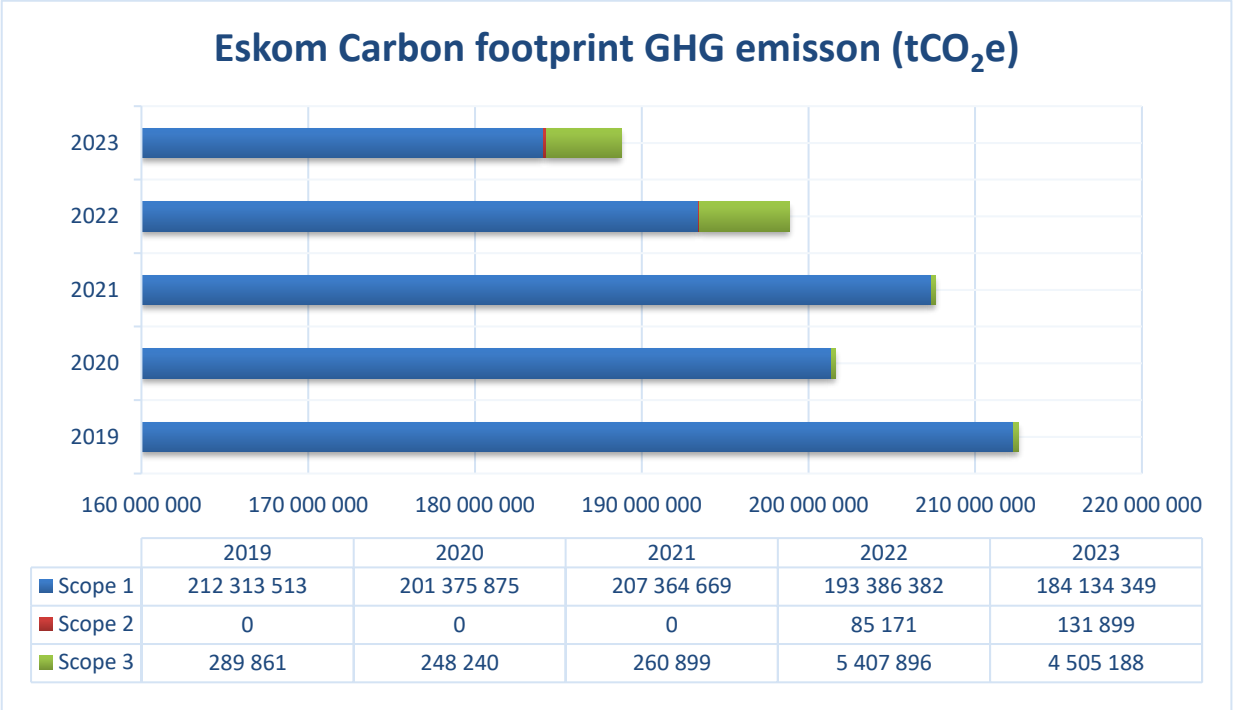
Data quality checks were performed by CCSD and, in some cases, a further check with the data providers was initiated. However, in future each data provider will be required to formally verify, sign-off the information, and upload verified data onto the EPCAM cloud tool.

3.6 Results and Assessment

The results of the Eskom carbon footprint assessment are presented in Table 3. The total GHG emissions for 2023 was 188 771 436 tCO_2e, indicating a decrease in Eskom's overall carbon footprint relative to the 2019 base year. Majority of total emissions emanate from combustion of fossil fuels at power stations for the generation of electricity. Coal, fuel oil, and diesel consumption contributed 97.4% of overall GHG emissions.

In 2023 Eskom Rotek Industries (ERI) was included in the carbon footprint study as a subsidiary of Eskom Holdings SOC Limited. ERI provided data for most categories currently being reported on by other divisions, which is highly commendable for a first-time data provider. CCSD will continue to

collaborate with and support ERI in improving reporting, data collation, and identifying any reporting gaps.



	2019	2020	2021	2022	2023
Scope 1	212 313 513	201 375 875	207 364 669	193 386 382	184 134 349
Scope 2	0	0	0	85 171	131 899
Scope 3	289 861	248 240	260 899	5 407 896	4 505 188

Figure 3: Eskom Carbon Footprint emissions by scope from base year (based on table 3 data)

Table 3: Eskom Carbon Footprint Summary by Scope and Category, from base year

Source	2023	2022	2021	2020	2019
	GHG emissions (tCO_2e)	GHG emissions (tCO_2e)	GHG emissions (tCO_2e)	GHG emissions (tCO_2e)	GHG emissions (tCO_2e)
	Scope1				
Stationary combustion[1]	183 904 930	193 157 386	207 230 321	201 260 329	212 192 077
Eskom Fleet	129 543	71 623	78 138	37 810	81 797
Fugitive emissions	85 762	65 712	52 841	73 904	36 212
Waste disposal	3 189	81 972	3 366	3 820	3 468
Non-combustion product use	10 925	9 689	3	12	9
	Scope 2				
Purchased Electricity (NTCSA & Dx Network losses)	131 899	85 171	-	-	-
	Scope 3				
Purchased Electricity	765 429	49 4263	-	-	-
Coal Delivery to site: Road	3 717 648	264 993	252 743	238 338	269 963
Coal Delivery to site: Rail		4 635 759	-	-	-
Official mileage	11 129	8 598	6 003	6 669	12 627
Air travel	8 122	3 621	937	1 008	3 368
Vehicle rental	489	627	1 216	2 225	1 903
Waste generation	2 371	35	-	-	-
Total	**188 771 436**	**198 879 449**	**207 625 568**	**201 624 115**	**212 601 425**

[1] As an electricity generating company Eskom reports emissions produced from this activity; additionally reports emissions for purchased electricity from IPP's – under scope 3 for Mwh and scope 2 for network losses.

Eskom's carbon footprint emissions trend per scope, shown in figure 3 from the base year. Although additional reporting categories and entities (ERI) have been included in the 2023 reporting period, total emissions continue to decrease. Scope 1 emissions make up the bulk of emissions, this is due to the heavy reliance on fossil fuels to produce electricity. Other scope categories have a significantly lower footprint and do not drastically impact the overall figures.

For further analysis of the 2023 Carbon footprint figures, data has been categorised into divisional and subsidiary groups:

- Generation
- NTCSA
- Distribution
- ERI
- Corporate

Grouping of emissions data, provides each division and subsidiary with overall performance for 2023, which can initiate discussions about potential mitigation efforts and enable divisions and subsidiaries to set emissions reduction targets, for activities both inside and outside the direct control of the organisation. Figure 4 depicts the total emissions and percentage of each division and subsidiaries contribution towards to Eskom's carbon footprint for 2023.

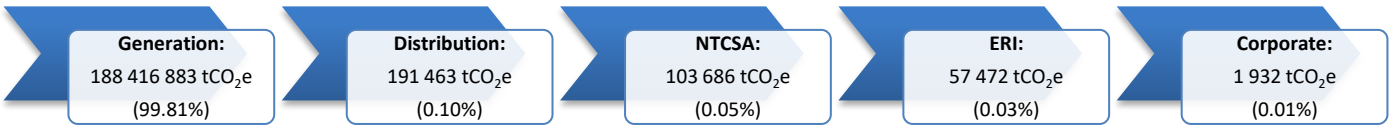


Figure 4: Eskom divisional and subsidiary emissions for 2023

3.6.1 Generation emissions

The Generation divisions main source of emissions emanates from stationary combustion, which mainly includes the burning of coal at Eskom power stations to generate baseload electricity and is by far the largest source of GHG emissions for the organisation. To a lesser extent, it includes the consumption of diesel used in peaking stations. Heavy fuel oil and diesel are also used for start-up and backup/auxiliary processes. Annually the coal, fuel oil, and diesel consumption data are internally reviewed and externally audited to ensure the reliability and credibility of the data.

To align with the GHG Protocol, the results of the Generation carbon footprint are presented in Table 4 as per scope 1 emissions. Table 5 provides a comparison of Generation emissions for 2022 and 2023.

Table 4: Overview of Stationary Combustion for Generation division

Total GHG emissions	183 904 600	tCO_2e
Total GWh sent out	183 938	GWh

Table 5: Generation scope 1 and 3 GHG emissions for 2022 and 2023

Scope 1 (tCO2e)			Scope 3 (tCO2e)		
Category	**2022**	**2023**	**Category**	**2022**	**2023**
Stationary Combustion	193 157 057	183 904 600	Purchased Electricity (Mwh)	494 263	765 429
Eskom fleet	8 771	11 077	Coal delivery to site (road and rail)	4 900 752	3 717 648
Fugitive Emissions	0	0	Waste Generation	35	7
Waste disposal	81 972	3 189	Air travel	1 237	2 070
Non-Combustion product use	9 689	10 925	Official mileage	1 304	1 863
			Vehicle rental	95	74
Total:	**193 257 489**	**183 929 791**	**Total:**	**5 397 686**	**4 487 092**

Eskom fleet vehicles, non-combustion product use (lubricants), waste disposal from Eskom owned land fill sites, and wastewater treatment plants contributed 0.05% of scope 1 emissions. Generation has no scope 2 emissions to report. However, the electricity purchased from IPP's is recorded as scope 3 emissions with other activities procured from third parties such as, Delivery to site (road and rail) waste treatment and business travel (air, vehicle rental and employee's vehicles) accounts for 2% of Generations total emissions. Figure 5 displays Generations emission contribution to Eskom's total carbon footprint per scope in 2023.

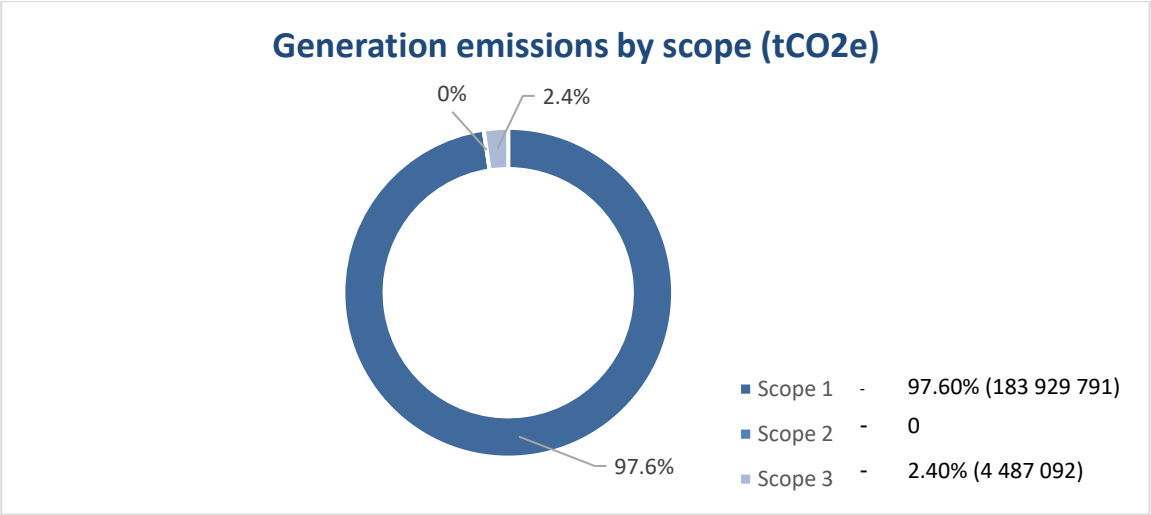


Figure 5: Generation emissions by scope

3.6.2 NTCSA emissions

NTCSA has the third highest overall emissions in the organisation, with most of these emissions emanating from scope 1. NTCSA has two sources of scope 1 emissions, however it is envisaged that from 2024, more categories will be included i.e., stationary combustion (from back-up generators). Fugitive emissions (leakage of Sulphur Hexafluoride (SF_6)) from circuit breakers, contributes to the highest emissions for scope 1 followed by fleet vehicle emissions. SF_6 is the currently available arcing agent, utilised as an insulator in circuit breakers and switchgears. Top-up data is collated from all grids, which is then used to calculate total mass of SF_6 emissions per annum and subsequently converted into tons of CO_2 equivalent (tCO_2e). Table 6 provides a comparison of 2022 and 2023 emissions.

Table 6: NTCSA scope 1,2, and 3 emissions

Scope 1 (tCO2e)			Scope 2 (tCO2e)			Scope 3 (tCO2e)		
Category	**2022**	**2023**	**Category**	**2022**	**2023**	**Category**	**2022**	**2023**
Stationary Combustion (back-up generators)	0	0	Purchased Electricity (Grid losses)	17 034	26 380	Waste Generation	0	0
Eskom fleet	5 138	6 981				Air travel	976	2 114
Fugitive Emissions	52 064	65 991				Official mileage	1 881	2 135

Waste disposal	0	0				Vehicle rental	137	86
Total:	**57 202**	**72 971**	**Total:**	**17 034**	**26 380**	**Total:**	**2 994**	**4 335**

Scope 1 emissions account for 70% of overall emissions across all three scopes for NTCSA. Eskom procures electricity from IPP's and transmits it through Eskom infrastructure to end users, which is reported as scope 2 emissions for NTCSA, due to the network losses that occur during transmission of electricity. Network losses (purchased electricity) is the second highest source of emissions for NTCSA, contributing 26%. Network losses emissions are shared by NTCSA (20%) and Distribution (80%) principal, based on average grid emissions factors calculation.

Scope 3 emissions emanate from services procured from third parties, business travel (air travel, car rental, and employee vehicles) accounting for 4% of scope 3 emissions. Figure 6 displays NTCSA 2023 emissions per scope.

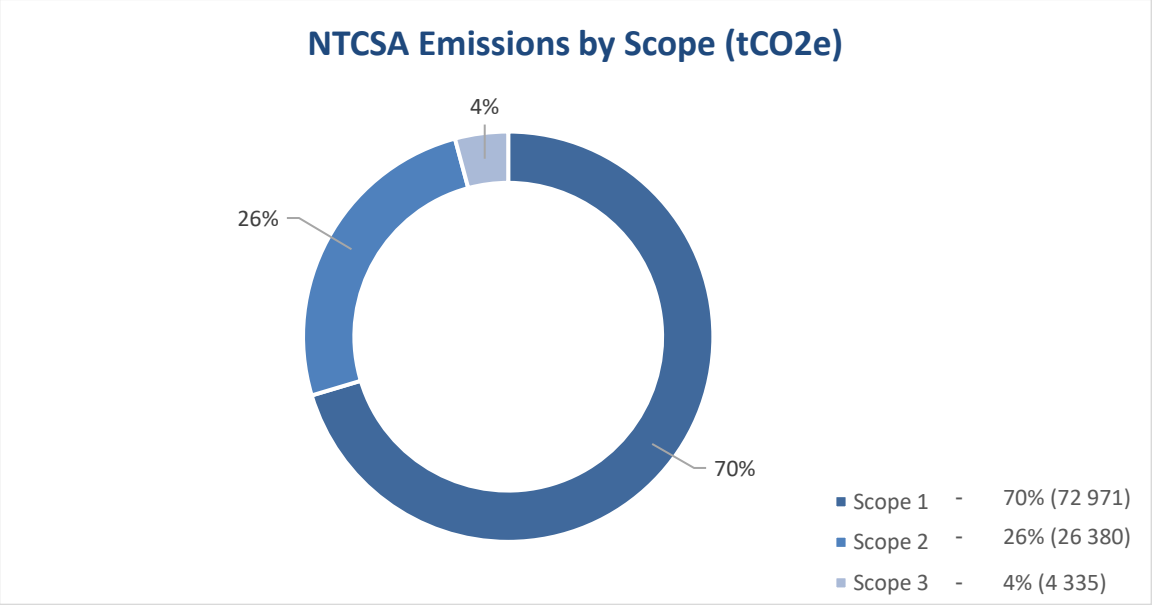


Figure 6: NTCSA emissions by scope

3.6.3 Distribution emissions

The Distribution division has the second highest overall emissions in the organisation, with most of these emissions emanating from scope 1. Distribution has three sources of scope 1 emissions, namely stationary combustion, fugitive emissions (leakages of Sulphur Hexafluoride (SF_6)) from circuit breakers and fleet vehicles, with the latter recording the highest emissions. This is due to the division's large geographic footprint operating in communities servicing customers and requiring staff to be mobile. Stationary combustion refers to back-up generators located in the various operating units (OU's) and currently contributes the least emissions (this could be due low data submission).Table 7 provides an overview of scope 1,2 and 3 emissions for 2022 and 2023.

Table 7: Distribution of scope 1,2 and 3 GHG emissions

Scope 1 (tCO2e)			Scope 2 (tCO2e)			Scope 3 (tCO2e)		
Category	**2022**	**2023**	**Category**	**2022**	**2023**	**Category**	**2022**	**2023**
Stationary Combustion (back-up generators)	47	236	Purchased Electricity (Grid losses)	68 137	105 519	Waste Generation	0	0
Eskom fleet	57 714	58 128				Air travel	785	1 654
Fugitive Emissions	13 648	19 771				Official mileage	5 166	5 917
Waste disposal	0	0				Vehicle rental	377	238
Total:	**71 409**	**78 135**	**Total:**	**68 137**	**105 519**	**Total:**	**6 328**	**7 809**

Scope 1 emissions account for 41% of overall emissions across all three scopes for the Distribution division. Eskom procures electricity from IPP's and distributes it through Eskom infrastructure to end users, which is reported as scope 2 emissions for Distribution division, due to the network losses that occur during distribution of electricity. Network losses (purchased electricity) is the highest source of emissions for the division, contributing 55%. Network losses emissions are shared by NTCSA (20%) and Distribution (80%) principal, based on average grid emissions factors calculation.

Scope 3 emissions emanate from services procured from third parties. Business travel (air travel, car rental and employee vehicles) accounted for 4% of the total divisional emissions. Figure 7 displays Distributions 2023 emissions per scope.

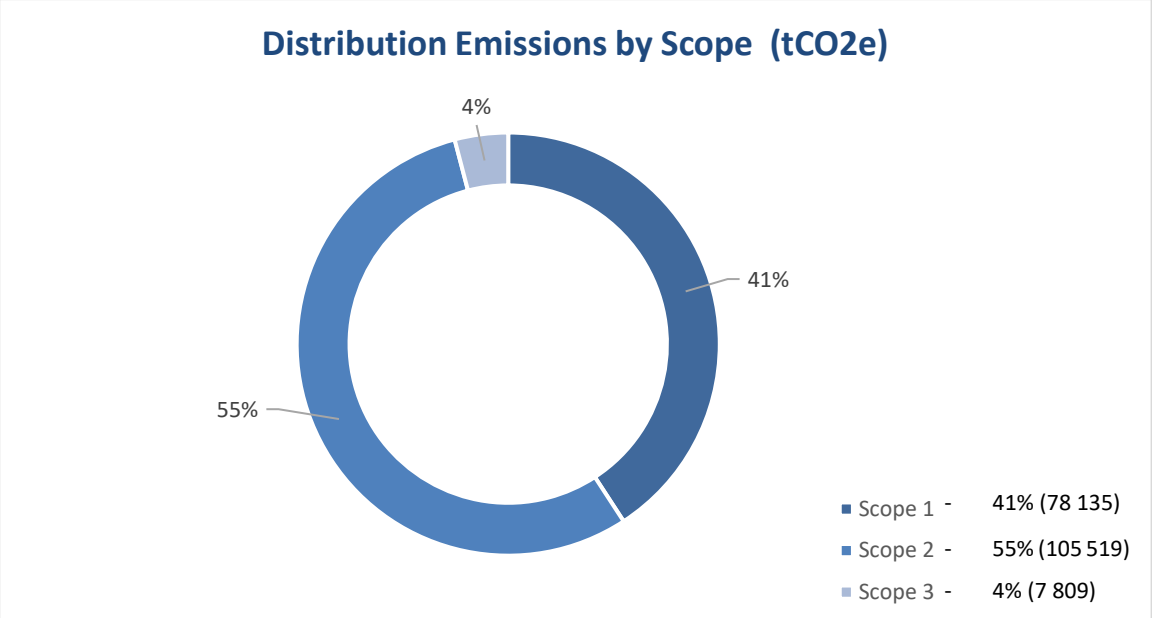


Figure 7: Distribution emissions by scope

3.6.4 Eskom Rotek Industries (ERI)

ERI (a subsidiary of Eskom) was included in the Carbon footprint assessment for the first time, in the 2023 calendar year. ERI reported data for most categories and will continue to improve on data quality and collation. ERI recorded the second lowest emissions; scope 1 and 3 emissions were calculated with available data, there are no scope 2 emissions. Table 8 provides an overview of ERI emissions for 2023.

Table 8: ERI scope 1 and 3 emissions

Scope 1 (tCO2e)		**Scope 3 (tCO2e)**	
Category	2023	Category	2023
Stationary Combustion	85	Waste Generation	2 364
Eskom fleet	53 357	Air travel	857
		Official mileage	731
		Vehicle rental	79
Total:	**53 442**	**Total:**	**4 031**

Due to the nature of ERI's mandate 99.8% of scope 1 emissions emanate from fleet vehicles and 0.2% from stationary combustion (back-up generations). Waste generation accounts for 58.6% of scope 3 emissions, and the remaining emissions emanate from business travel (air travel, car rental and employee vehicles) for services procured from third party. Figure 8 displays percentage overview of ERI emissions by scope.

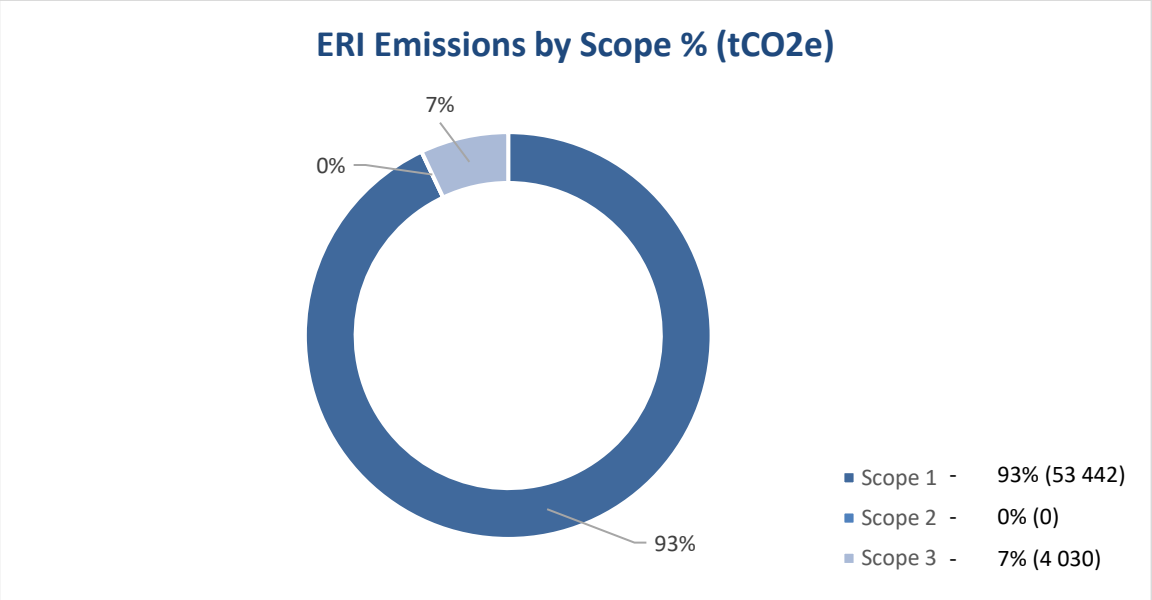


Figure 8: ERI emissions by scope

3.6.5 Corporate emissions

Corporate (entails head office functions such as Group IT, Strategy, Risk and sustainability etc.) contributed the least towards emissions in the organisation, particularly due to the nature of the business undertaken. There is only one source of scope 1 emissions, which emanates from the use of back-up generators, which is notably lower for this reporting year, due to reduced loadshedding occurrences.

Corporate does not contribute any scope 2 emissions. Scope 3 emissions account for 99% of total emissions as a division. All scope 3 emissions emanate from business travel category, namely air travel, car rentals and employee vehicles, however emissions contributed to this category are significantly lower compared to other divisions. Table 9 provides an overview of corporate scope 1 and 3 emissions for 2022 and 2023. Figure 9 displays the percentage of Corporate 2023 emissions per scope.

Table 9: Corporate scope 1 and 3 emissions

Scope 1 (tCO2e)			Scope 3 (tCO2e)		
Category	**2022**	**2023**	**Category**	**2022**	**2023**
Stationary Combustion	282	10	Waste Generation	0	0.08
Total:	**282**	**10**	Air travel	622	1 427
			Official mileage	247	483
			Vehicle rental	18	12
			Total:	**887**	**1 922.08**

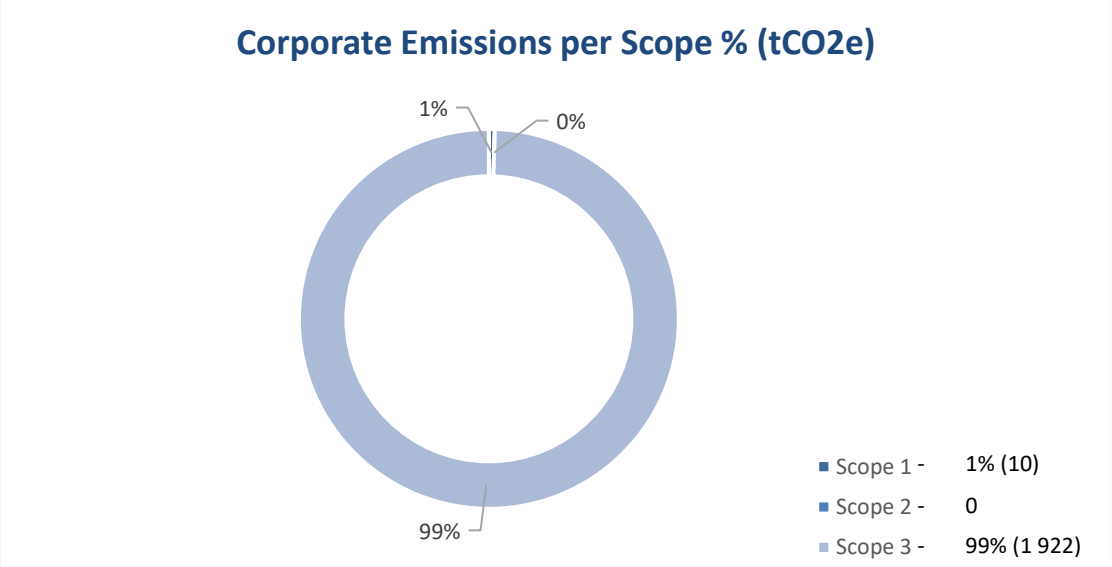


Figure 9: Corporate 2023 Emissions by scope

3.6.6 Eskom divisional summary of emissions

Eskom's previous carbon footprint assessments were reported collectively, the 2023 report has detailed divisional and subsidiary sources and scopes, to assist with effective management of GHG emissions, and to enable divisions and subsidiaries to monitor their footprint trend. Table 10 summarises the total emissions per division by scope.

Table 10: Divisional Carbon Footprint Scopes and Emissions

Scopes	Generation (tCO_2e)	NTCSA (tCO_2e)	Distribution (tCO_2e)	ERI (tCO_2e)	Corporate (tCO_2e)
Scope 1	183 929 791	72 971	78 135	53 442	10
Scope 2	0	26 380	105 519	0	0
Scope 3	4 487 092	4 335	7 809	4 030	1 922

Eskom continuously makes considerable progress in terms of data collection, quality and verification however, there are areas of improvement to be addressed. The cloud based (EPCAM) tool has contributed by providing an efficient and easy to use tool to calculate and retain data securely. EPCAM will continue to be improved and maintained as Eskom's carbon footprint data repository.

3.6.7 Areas of improvement

CCSD is working on continuously improving Eskom's Carbon footprint reporting, firstly by ensuring data integrity, providing a secure repository and accurate calculation of emissions data. As part of the ongoing improvement initiatives, CCSD will be updating EPCAM tool to reflect Eskom's current structure and will continue to engage divisions and subsidiaries on various reporting gaps and opportunities of improvement.

In the last two years, CCSD has managed to improve in the following areas:

- Provided divisional and subsidiary GHG emissions data
- Generation:
  - Reported more data in non-combustion category
  - Reported more solid waste data both scope 1 and 3
  - More wastewater plants reported data (seven out sixteen sites)
  - Reported purchased electricity
  - Incorporated rail transportation data
- NTCSA and Distribution:
  - Reported Grid losses from purchased electricity
- Corporate:
  - Reported waste for scope 3
- ERI:
  - Reported on scope 1 and 3 (covering four categories)

These areas have been identified for improvement for future reporting per division and subsidiary:

- Generation:
  - Wastewater: only seven plants reported out of sixteen
  - Include SF_6 top-up data
- NTCSA:
  - Include backup generators fuel consumption data
  - Waste data (treated by third party)
- Distribution:
  - Back-up Generators: 2022 - two OU's reported and 2023 - five OU's reported
  - Waste data (treated by third party)
- Corporate
  - Include wastewater data

Challenges have been experienced with regards to data gathering. Contributing factors include resource constraints, and the lack of understanding of emissions reporting requirements, negative impact on Eskom for inaccurate reporting and the value in disclosing data. It is imperative that divisions report GHG emissions data, build capacity in the field of climate change knowledge and GHG reporting. CCSD must be informed of any changes that may impact the calculation of the carbon footprint.

4. Acceptance

This document has been seen and accepted by:

Name	Designation
Gabi Mkhatshwa	Senior Manager, Climate Change and Sustainable Development Department & Environmental Department
Gina Downes	Corporate Specialist, Climate Change and Sustainable Development Department
Bryan McCourt	Middle Manager, Generation Environmental Management (GEM)
Lindi Vilakazi	Senior Scientist: Emissions Reduction Technologies (RT&D)
Romi Bhimsan	Chief Advisor, Environment (NTCSA)
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Shamaine Thulasaie	Chief Advisor, Environmental Management (Dx)
Anelia Bothma	Eskom Rotek Industries (ERI)

5. Revisions

Date	Rev.	Compiler	Remarks
August 2021	1	Noella Molefe	2020 Carbon Footprint report for the Eskom business
August 2022	2	Noella Molefe	2021 Carbon Footprint report for the Eskom business
March 2024	3	Michelle Magazi	Updated report with 2022 data and changes
March 2025	4	Michelle Magazi	Updated report with 2023 data and changes

6. Development Team

The following people were involved in the development of this document:

- Michelle Magazi, Climate Change and Sustainable Development, Risk and Sustainability Division
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7. Acknowledgements

Brundtland previously known as EcoMetrix Africa (Pty) Ltd