

CARBON FOOTPRINT ASSESSMENT

Prepared for Reunert Limited
December 2023

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Carbon footprint assumptions & methodology



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EXECUTIVE SUMMARY

Terra Firma Solutions (Pty) Ltd were commissioned by Reunert Limited to assist and develop their carbon footprint for the reporting period 01/10/2022 to 30/09/2023.

The carbon footprint inventory includes 44 Reunert Limited entities, excluding entities for which emissions are deemed immaterial or entities for which non-financial data is reported as part of another entity. Reunert has 100% financial control over all entities included in the carbon footprint. Only franchises where Reunert holds majority of shares have been included in the scope of this Carbon Footprint Assessment.

The carbon footprint is based on the financial control approach.

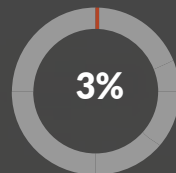
The operational boundaries include scope 1 direct emissions (mobile combustion and stationary combustion), scope 2 indirect emissions (electricity consumption in Reunert owned buildings) and scope 3 indirect emissions (electricity consumption in leased buildings, mobile combustion in leased vehicles, business travel, employee commute, waste, water and material use).

CARBON FOOTPRINT 2022 - 2023

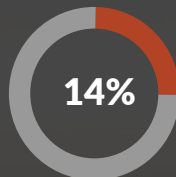
238 870

tCO₂e

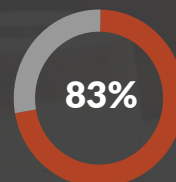
FOLLOWING THE GREENHOUSE GAS PROTOCOL



SCOPE 1: **7 883** tCO₂e



SCOPE 2: **33 689** tCO₂e



SCOPE 3: **197 297** tCO₂e



RECOMMENDATIONS



Reduce carbon footprint



Improve data quality



Set KPI's & targets



Annual reporting

ENERGY EFFICIENCY

Energy efficiency assessments are a valuable exercise to obtain a detailed database of energy opportunities. The assessments investigate voltage and power, lighting, heating ventilation and air conditioning (HVAC) and IT equipment to ensure the building is efficient and is being billed the correct amount.



RENEWABLE ENERGY

Reunert has installed a 297 kWp solar PV system in Reunert Park ,a 429 kWp solar PV system at Fuchs Electronics and a 1086.75 kWp solar PV system at CBI Low Voltage: Johannesburg.

In 2022-2023, Reunert generated 3 095 MWh's of renewable energy, resulting in an electricity cost saving of R2 640 661 as well as saving 3 126 tonnes of CO₂e from being released into the atmosphere.

3 126 tCO₂e saved in 2022 - 2023.



INTRODUCTION

PROJECT BACKGROUND

Businesses around the world are increasingly confronted with the topic of climate change, social investment and environmental issues.

It has become apparent that more businesses are fast recognising that their response (or lack thereof) to these issues, poses both risks and opportunities to their triple bottom line.

People, planet and profits.

Reunert has decided to embark on this journey by engaging with Terra Firma Solutions to undertake a Carbon Footprint Assessment (CFA).

Embarking on the aforementioned assessments is an important step in determining the environmental impact of the company as it highlights key areas to focus on emission reductions and can ultimately lead to increased profits from lower energy and fossil fuel costs.

THE KEY COMPANY DRIVERS FOR EMBARKING ON THE CARBON FOOTPRINT ASSESSMENT ARE:

- Set emission reduction goals against which the company can be measured
- Increase operational efficiency and reduce operating costs
- Implement carbon management plans
- Position Reunert Limited as a climate change leader in its sector
- Enhance the level of data accuracy throughout the company
- Differentiate and increase possible market share

CLIENT BACKGROUND

The Reunert Group manages a portfolio of businesses in the fields of Electrical Engineering, Information Communication Technologies (ICT) and Applied Electronics.

The group was established in 1888 by Theodore Reunert and Otto Lenz, and has contributed to the South African economy in numerous ways over the past 130 years.

The group was listed on the JSE in 1948, and is included in the industrial goods and services (electronic and electrical equipment) sector of the JSE. The group primarily operates in South Africa with smaller operations in Australia, Lesotho, Mauritius, the USA and Zambia. Reunert's offices are located in Woodmead, Johannesburg, South Africa.

Electrical Engineering manufactures and sells a comprehensive range of power and telecommunications cables and low-voltage circuit breakers.

ICT offers a range of office automation, business communication, connectivity and asset backed finance products and services.

Applied Electronics develops, supplies and maintains high-precision electronic products for defence, commercial applications and renewable energy solutions.

<https://www.reunert.co.za/group-overview.php>

PROJECT TEAM

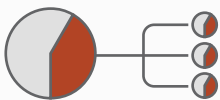
NAME	COMPANY	RESPONSIBILITY
Karen Smith	Reunert Limited	Project Sponsor
Agripa Munyai	Reunert Limited	Sustainability Specialist
Harriet Magano	Terra Firma Solutions	Sustainability Analyst
Kyle Petzer	Terra Firma Solutions	Carbon Analyst

PROJECT DESCRIPTION

PROJECT SCOPE

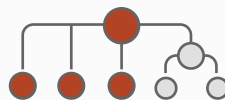
ORGANISATIONAL BOUNDARIES

Organisational boundaries determine whether Greenhouse Gas reporting is done according to one of these approaches:



EQUITY SHARE APPROACH

A company accounts for the emissions from operations according to its share in equity of the operation, where equity share reflects economic interest.



CONTROL APPROACH

Emissions are accounted for from operations which are under the direct control of the parent company; this can be based on either financial control or operational control.

CONTROL APPROACH

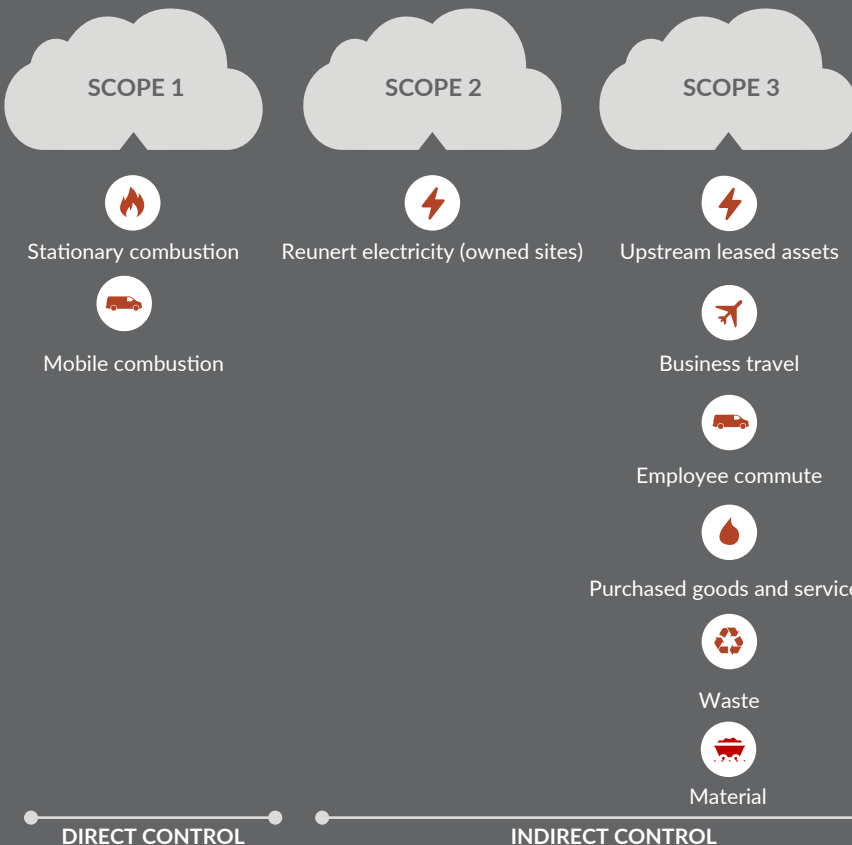
FINANCIAL AND OPERATIONAL

Financial: Can direct the financial policies with the view to gaining economic benefit.

Operational: Can direct operational policies at the operation.

REUNERT HAS CHOSEN THE FINANCIAL CONTROL APPROACH TO MEASURE THE ORGANISATIONS CARBON FOOTPRINT

OPERATIONAL BOUNDARIES



DATA SOURCES

ACTIVITY DATA

- Electricity usage
- Fuel usage
- Transport
- Waste
- Goods and Services
- Material

EMISSIONS FACTORS

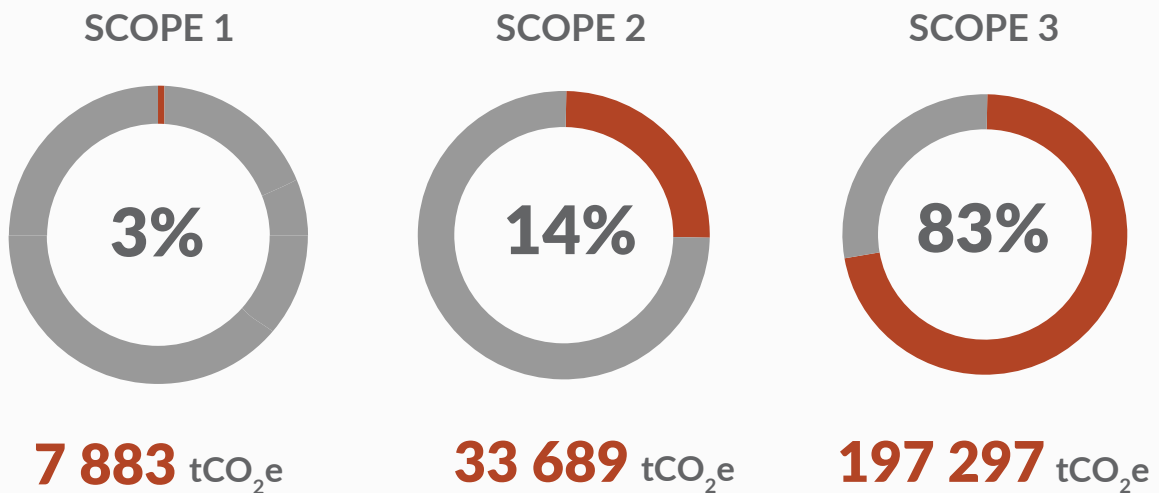
- defra DEFRA 2023
- Eskom Eskom Annual Report 2023
- ipcc IPCC 2006

Friedrich, Pillay & Buckley, (2007). Water SA, Vol. 33, No. 4

CARBON FOOTPRINT RESULTS

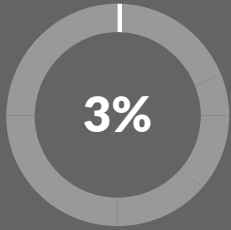
The total greenhouse gas emissions for Reunert Limited have been calculated at **238 870** tonnes of CO₂e, following the Greenhouse Gas Protocol.

238 870 tCO₂e
 FOR THE PERIOD 2022-2023
 FOLLOWING THE
 GREENHOUSE GAS PROTOCOL





Emissions associated with material use were the highest contributor to Reunert's carbon footprint at 179 894 tCO₂e (75% of emissions). Electricity consumed by electricity consumption in Reunert owned sites followed at 33 689 tCO₂e (14% of emissions).

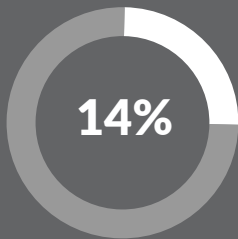
SCOPE 1 % OF TOTAL EMISSIONS



SCOPE 1 EMISSIONS

- 52%  Reunert stationary consumption [4 167 tCO₂e]
- 48%  Reunert mobile consumption [3 716 tCO₂e]

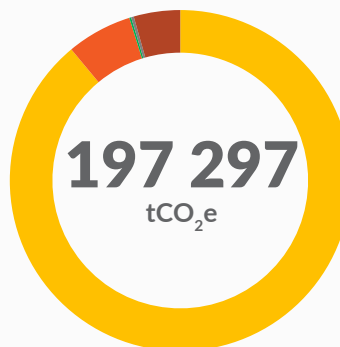
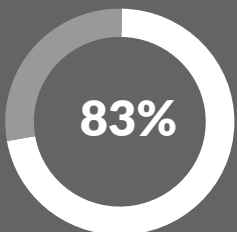
SCOPE 2 % OF TOTAL EMISSIONS








SCOPE 2 EMISSIONS

- 100%  Reunert Electricity (Owned sites) [33 689 tCO₂e]

SCOPE 3 % OF TOTAL EMISSIONS



SCOPE 3 EMISSIONS

- 91%  Purchased goods, services [180 080 tCO₂e]
- 5%  Employee Commute [10 255 tCO₂e]
- 0.1%  Waste [147 tCO₂e]
- 0.8%  Business Travel [1 646 tCO₂e]
- 2.6%  Upstream Leased Assets [5 170 tCO₂e]

BENCHMARKING

YEAR-ON-YEAR EMISSIONS

Scope	Emissions Source	Total tCO ₂ e							2022 vs 2023 % Change
		2017	2018	2019	2020	2021	2022	2023	
Scope 1	Diesel	426	404	336	301	342	552	600	9%
	Natural Gas	3 761	3 690	3 466	3 130	3 777	3 695	3 355	-9%
	LPG	130	210	139	109	117	144	131	-9%
	Stationary Combustion	4 317	4 305	3 941	3 540	4 235	4 391	4 086	-7%
	Oil	7	240	22	42	27	86	80	-6%
	Lubricants	2	9	1	1	2	0.40	0.33	-18%
	Stationary Fuel Non-Energy	21	250	23	43	29	86	81	-6%
	Diesel (mobile)	1 156	1 172	1 178	944	949	2 180	2 335	7%
	Petrol (mobile)	1 147	1 050	1 069	747	755	1 415	1 381	-2%
	LPG (mobile)	22	-	-	12	12	-	-	-
	Mobile Combustion	2 325	2 223	2 247	1 703	1 716	3 595	3 716	3%
Total Scope 1		6 662	6 913	6 362	5 404	6 090	8 071	7 883	-2%
Scope 2	Electricity	51 778	43 641	48 816	44 025	43 803	37 176	33 689	-9%
Total Scope 2		56 297	46 570	52 410	47 329	47 072	37 176	33 689	-9%
Total (Scope 1 & 2)		62 960	53 483	58 772	52 734	53 162	45 247	41 572	-8%
Scope 3	Material use	181 778	187 012	127 368	96 524	133 250	139 512	179 894	29%
	Water supply	100	107	70	56	75	197	185	-6%
	Purchased goods, services	182 007	187 350	127 623	96 726	133 582	139 708	180 080	29%
	Employee Commute	-	15 099	18 801	13 925	11 300	9 703	10 255	6%
	Water treatment	290	476	155	116	105	71	60	-16%
	Waste disposal	336	231	19	67	83	207	87	-58%
	Waste	626	703	174	183	188	277	147	-47%
	Mobile Fuel	68	208	196	382	167	1 115	942	-16%
	Business Travel	2 654	2 986	2 192	1 146	1 010	1 530	1 646	8%
	Purchased electricity	6 226	6 145	6 090	7 069	5 281	5 800	5 170	-11%
Upstream leased assets	6 294	6 353	6 286	7 451	5 448	6 915	5 170	-25%	
Total Scope 3		191 580	212 490	155 076	119 431	151 528	158 133	197 297	25%
Total tCO₂e emissions		254 531	265 973	213 848	172 165	204 690	203 380	238 870	17%

NOTES

- Stationary combustion emissions associated with diesel generators increased by 9% due to the increase in loadshedding days compared to FY22.
- Scope 2 emissions have undergone a 9% decrease, driven primarily by adjustments in both Eskom's grid emission factor and Zambia's emission factor. Eskom's grid emission factor transitioned from 1.06 in 2022 to 1.01 in 2023, representing a notable 5% decrease. Furthermore, Zambia's emission factor experienced a pivotal reduction, plummeting from 0.58 in FY22 to a mere 0.07 in FY23, constituting an impressive 88% decrease.
- Electricity consumption data was available for all entities for all reported months, while in FY22, 4% of the electricity data was extrapolated.
- Water data was extrapolated for properties with missing data using the average kl/m² value for the respective sector multiplied by the total GLA for the property. Where a month's water data was considered an outlier or data was missing, the average for the year was used.
- Water consumption has decreased compared to FY22, a positive outcome attributed to enhanced completeness and accuracy in data collection. In FY22, 22% of the data was extrapolated, potentially leading to an overstatement of consumption figures. However, in FY23, data extrapolation was limited to just 4% of the portfolio, contributing to a more precise representation of water consumption trends.
- Material use emissions increased by 29% compared to the previous year, driven by heightened production levels at African Cables: Vereeniging and CBI Low Voltage.
- Employee commute data was gathered via a survey, achieving a response rate of 21%. Using the collected responses, the average emissions per employee were calculated and extrapolated to encompass those who did not participate in the survey. Notably, the total number of employees increased by 20% in FY23.
- Emissions from waste to landfill and recycled waste experienced a slight decrease compared to the previous year. This decline can be attributed to a lower participation rate in waste reporting, with only 14% of entities submitting data in FY23, a notable drop from the 35% that reported in FY22.

BENCHMARKING

KEY PERFORMANCE INDICATORS

Emissions per square meter, 'mill revenue and per full time employee.

	2018	2019	2020	2021	2022	2023	% change
 SCOPE 1 & 2 tCO₂e PER METER SQUARED	0.19	0.21	0.20	0.22	0.22	0.14	-35%
 SCOPE 1 & 2 tCO₂e PER FULL-TIME EMPLOYEE	9.72	9.54	8.92	11.38	9.85	9.05	-8%
 SCOPE 1 & 2 tCO₂e PER 'MILL REVENUE	4.95	5.32	6.42	5.51	4.03	3.70	-8%

BENCHMARKING PER DIVISION

SCOPE 1 EMISSIONS



- 89% ● Electrical Engineering [7 050 tCO₂e]
- 4% ● Applied Electronics [320 tCO₂e]
- 6% ● ICT [466 tCO₂e]
- 1% ● Group Services ('Other') [48 tCO₂e]

SCOPE 2 EMISSIONS



- 91% ● Electrical Engineering [30 561 tCO₂e]
- 8% ● Applied Electronics [2 593 tCO₂e]
- 1% ● ICT [470 tCO₂e]
- 0.2% ● Group Services ('Other') [66 tCO₂e]

BENCHMARKING

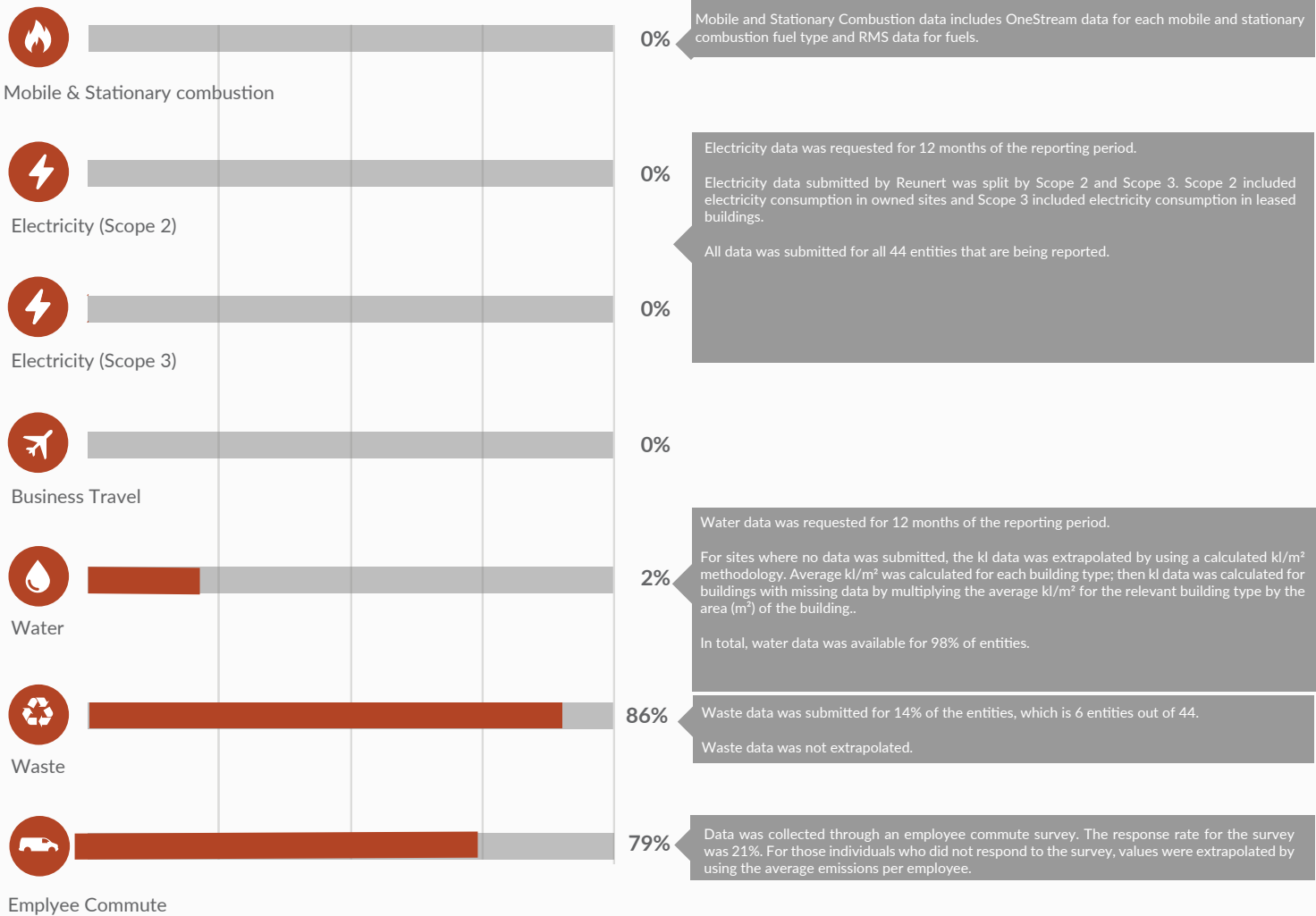
ENTITIES BENCHMARKING

Reunert's entities were benchmarked using Scope 1 and Scope 2 emissions and compared to last year's emissions. Only entities where electricity data was available (not extrapolated) were benchmarked. Also, only entities where data was available last year are compared below.

Building Name	2022 Scope 1 & 2	2023 Scope 1 & 2	
	tCO ₂ e	tCO ₂ e	% change
African Cables: Vereeniging	20 744	24 413	15%
RCC Manufacturing: Parow	13	10	-32%
CBI - America	-	-	
CBI - Australia	26	2	-960%
CBI - Australia (Perth Building)	2	0	-1025%
CBI - Lesotho	-	-	
CBI Low Voltage: Johannesburg (Head Office)	8 658	11 731	26%
CBI LV Cape Town: Parow	-	-	
ECN Midrand + Pops	583	453	-29%
Fuchs: Alrode	490	528	7%
Terra Firma Solutions - Kyalami warehouse	-	-	
Nanoteq: Centurion	3	7	58%
Nashua Cape Town	3	4	24%
Nashua Central: Ferndale	109	111	2%
Nashua Communications: Parow	-	0	100%
Nashua Durban	41	39	-6%
Nashua Durban Sales Branch	-	-	
Nashua Durban (Pinetown) Sales Branch	-	-	
Nashua Eastern Cape: Port Elizabeth	2	0	-601%
Nashua HO: Woodmead	52	60	
Nashua West Rand: Weltevreden Park	54	22	-144%
Omnigo: Waltloo	9	1	-1065%
Reutech Communications North (Centurion)	-	1	100%
Reutech Communications: New Germany (9 Valley) - Old building	2 108	1 711	-23%
Reutech Radar Systems: Stellenbosch	616	493	-25%
Reutech Solutions: Midrand	676	63	-979%
SkyWire: Cape Town	40	22	-81%
SkyWire: Roodepoort	258	199	-30%
Sterkspruit Farm	29	24	-19%
Terra Firma Solutions - Woodlands - JHB	-	-	
Terra Firma Solutions - Silverwood - CPT	-	2	100%
Zamefa Zambia	10 041	1 463	-586%
	44 556	41 360	-216%

DATA GAP ANALYSIS

The image below shows gaps in the data collection process. It is recommended that non-financial data is collected and reviewed on a monthly, or at least quarterly, basis to avoid missing data or appearance of negative values. Monthly data capture and review will enhance data quality and completeness.



DATA IMPROVEMENT RECOMMENDATIONS

DATA COLLECTION

- Include transport and distribution data in the next year's carbon footprint.
- Waste reporting should be obligatory for all facilities. Waste reporting should also capture a method of waste disposal (e.g. landfill, recycled, etc.).
- Include explanations fields in OneStream system so that those inputting data can provide explanations behind the data.
- Ensure that data is correctly captured from bills or invoices into OneStream.
- Please accurately capture and/or provide data for additional water sources such boreholes and rainwater harvesting.

DATA REPORTING

- CONTINUOUS MONITORING AND REPORTING

It is recommended that data is reviewed and captured regularly, for example each quarter. Furthermore, quarterly or half-annual data validation would allow identification and correction of any data discrepancies or insufficiencies.

This would also allow year-on-year activity data comparison for the same month and timeous identification of variances.

RECOMMENDATIONS

REDUCE AND VERIFY CARBON FOOTPRINT



ENERGY EFFICIENCY AND RENEWABLE ENERGY

Energy efficiency assessments are a valuable exercise to obtain a detailed database of energy opportunities. The assessments investigate voltage and power, lighting, heating ventilation and air conditioning (HVAC) and IT equipment to ensure the building is efficient and is being billed the correct amount.

Another great energy reduction opportunity is renewable energy. Reunert Park and Fuchs Electronics already have solar PV systems installed. Further owned sites should be considered, especially, for facilities with highest electricity consumption.

CARBON FOOTPRINT VERIFICATION

It is recommended that Reunert undertakes a carbon footprint verification. It is an independent third party Greenhouse Gas Inventory Verification which ensures that carbon emissions data is accurate and consistent over time for management decision making. It ensures transparent and credible reporting to external stakeholders and allows organisations to increase CDP Climate Change Programme score.

IMPROVE DATA QUALITY



NON-FINANCIAL DATA REPORTING

Reunert has implemented OneStream's non-financial data system. It is recommended that improvements to the system (see section on Data Gap Analysis) are implemented.

ENERGY AND WATER MONITORING AND MANAGEMENT

An automated energy and water monitoring and management system rolled out across the Reunert portfolio of businesses will enhance the accuracy of electricity and water data. In addition, monitoring consumption may highlight energy and water reduction opportunities and ensure your sites are being billed correctly by council.

SET TARGETS



tCO₂e PER SQUARE METRE, REVENUE, EMPLOYEE

Reunert already annually reports its emissions per revenue, employee and per square meter. Setting emissions reduction targets using these metrics is a representative way to monitor progress on performance over time.

SCIENCE-BASED TARGETS

Companies aiming to achieve the highest scoring in CDP submissions should be considering setting science-based targets for their emissions management.

ANNUAL REPORTING



CDP CLIMATE CHANGE AND CDP WATER DISCLOSURE

Reunert already responds to CDP Climate Change and CDP Water Programmes annually. This reporting platform houses over 765 investors holding \$92 trillion in assets to help reveal risk in their investment portfolio.

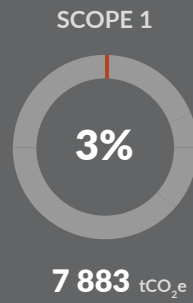
Reunert's continuous efforts around improving activity data quality for carbon footprint will enable more accurate reporting to CDP Climate Change and CDP Water Programmes.

INTEGRATED REPORTING

Integrated Reporting demonstrates the linkages between an organisation's strategy, governance and financial performance and the social, environmental and economic context within which it operates. By reinforcing these connections, Integrated Reporting can help businesses to make more sustainable decisions and enable investors and other stakeholders to understand how an organisation is really performing. Reunert already includes its carbon footprint figures annually in the organisation's Integrated Annual Report.

CONCLUSION

CARBON FOOTPRINT
 2022 - 2023 FOLLOWING THE GREENHOUSE GAS PROTOCOL
238 870 tCO₂e



ENERGY EFFICIENCY

Energy efficiency assessments are a valuable exercise to obtain a detailed database of energy opportunities. The assessments investigate voltage and power, lighting, heating ventilation and air conditioning (HVAC) and IT equipment to ensure the building is efficient and is being billed the correct amount.



RENEWABLE ENERGY

Renewable energy is a key initiative to reduce Scope 2 emissions.

Reunert has installed a 297 kWpeak solar PV system in Reunert Park, a 429 kWpeak solar PV system at Fuchs Electronics facilities as well as a 1086.75 kWpeak system at CBI Low Voltage Johannesburg.

In 2022 - 2023, Reunert generated 3 095 MWh's of renewable energy,

3 126 tCO₂e saved in 2022 - 2023.



Additional information may be provided upon the clients request.

DISCLAIMER

This report has been based on the information supplied to Terra Firma Solutions (Pty) Ltd (TFS) by the client. TFS has exercised all due care in reviewing the supplied information.

This applies to the site conditions and features as they existed at the time of TFS's investigations, and those reasonably foreseeable. This report does not necessarily apply to conditions and features that may arise after the date of this report, about which TFS had no prior knowledge nor had the opportunity to evaluate.

TFS does not accept responsibility for any errors or omissions in the supplied information and does not accept any consequential liability arising from commercial decisions or actions resulting from them.

This report is meant to be read as a whole, and sections or parts thereof should thus not be read or relied upon out of context.

TFS disclaims any liability to the Client and to third parties in respect of the publication, reference, quoting, or distribution of the report or any of its contents and reliance thereon by any third party.

A 5% threshold has been used to determine the concept of materiality.

This report is for the sole and exclusive benefit of the Client.

The carbon footprint assessment is based on data provided by the Client.

CARBON FOOTPRINT ASSUMPTIONS AND DETAILED METHODOLOGY

PROPERTIES INCLUDED IN CARBON FOOTPRINT

- For the purposes of this CFA, Reunert Limited only included entities which were deemed material.
- GLA: GLA was based on data provided in the building information section on OneStream.
- Only franchises where Reunert Limited hold a majority share has been included in the carbon footprint assessment.
- CBI Telecom Cables Brits which was previously a joint-venture and a high-emitting entity has been excluded from this year's analysis due the entity currently being sold.

ASSUMPTIONS AND METHODOLOGICAL APPROACH

- **Properties with electricity and water data gaps:** If there was a data gap in monthly electricity or water data, average monthly data for other months during FY2023 was used for the month(s) with data gaps.
- **kWh/m² or kl/m² extrapolation:** For properties where no electricity or water data was submitted, data was extrapolated using a kWh/m² or kl/m² proxy methodology. Average kWh/m² or kl/m² proxy was calculated for each division, specifically, for Electrical Engineering, Applied Electronics, ICT, and Group Services. Electricity/water data was calculated for properties with missing data by multiplying the kWh/m² or kl/m² proxy for the relevant sector by the GLA (m²) of a property.
- The grid emission factor for Eskom was obtained from the Eskom 2023 IAR.
- The emission factor for Zambia exhibits a notable reduction, signifying a drastic change in emissions. While the previous assessment relied on an outdated emission factor from 2015, our most recent evaluation for the fiscal year 2023 incorporates a more precise emission factor. This adjustment is particularly significant given that 80% of Zambia's energy now stems from renewable sources.
- **Entities or properties with no stationary combustion, mobile combustion, material use, municipal effluents, and waste data:** If a entity property did not have activity data for these categories, no data was extrapolated.