SWIRE COCA-COLA

2023
SBT Progress Report

Contents

SCIENCE BASED TARGETS
DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

1. Introduction

Swire Coca-Cola Limited (Swire Coca-Cola) is the fifth largest bottling partner of The Coca-Cola Company (TCCC) by global volume, with a franchise to manufacture, market and distribute TCCC products in Greater China, Cambodia, Vietnam and the western United States of America (U.S.). On 7 September 2023, we disposed of 100% of our equity interest in our U.S. franchise business, Swire Coca-Cola, USA (SCCU), but we continue to provide management and administrative support services to SCCU, including in areas of sustainable development.

In 2020, Swire Coca-Cola set a science-based target (SBT) to reduce greenhouse gas (GHG) emissions in line with the 1.5°C trajectory established by the Paris Agreement. It has been approved by the Science Based Targets Initiative (SBTi).

By 2030, we target to achieve the following reductions from our 2018 base year:

- **70%** reduction in emissions from **core operations (Scope 1 & 2)**; and
- **30%** reduction in emissions from **across our value chain (Scope 1,2 & 3)**.

This SBT Progress Report is intended to provide a detailed and honest account of our performance and progress towards our 2030 target, by market and by material emissions source. It covers the period from 1 January to 31 December 2023, and supplements our full Sustainable Development Report 2023.
This report, and our other sustainable development reports, can be downloaded from our corporate website: https://www.swirecocacola.com/SDR2023/en/index.html.

Acquisitions in Cambodia (completed on 25 November 2022), Vietnam and six subsidiaries of Coca-Cola Bottlers Manufacturing Holdings Limited (CCBMH) in the Chinese Mainland (all completed on 1 January 2023), as well as the sale of SCCU, have significantly changed the scope of our business. On 9 February 2024, Swire Coca-Cola announced share capital acquisitions that will further expand our operations into Thailand and Laos. We are in the process of updating our SBT to reflect these changes. For now, this progress report only covers our businesses in the Chinese Mainland, Hong Kong SAR, Taiwan Region and the U.S. that were originally included in our SBT target (our “legacy” businesses).

2. Calculating Our 2018 Baseline and Projected Emissions

2.1 Summary of our Emissions Modelling Study

Swire Coca-Cola engaged a specialist consultant, RESET Carbon (RESET), to map GHG emissions across its full value chain (Figure 1) and determine a business-as-usual (BAU) emissions scenario (Figure 3). Following intensive consultation with our internal teams and experts from the Coca-Cola Company (TCCC), RESET helped to identify the most material and impactful opportunities to reduce our GHG emissions. The 2018 baseline was recalculated in 2022 using our latest methodology to enable a more accurate assessment of our performance over time.

Figure 1: Swire Coca-Cola GHG Emissions Profile in 2018

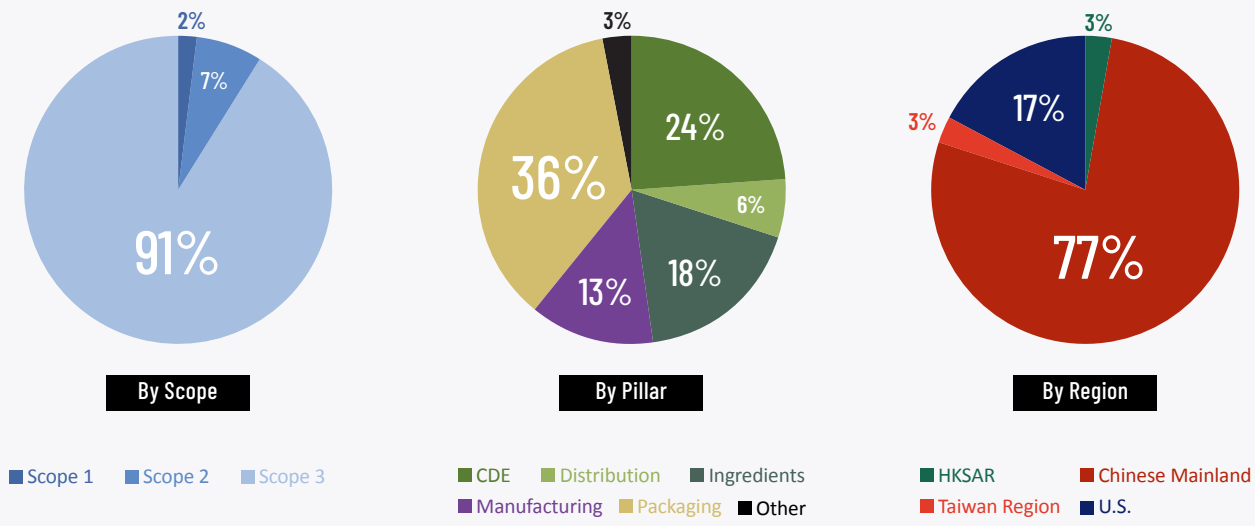


Figure 2: Breakdown of 2018 Emissions by Pillar, Emission Source and Region

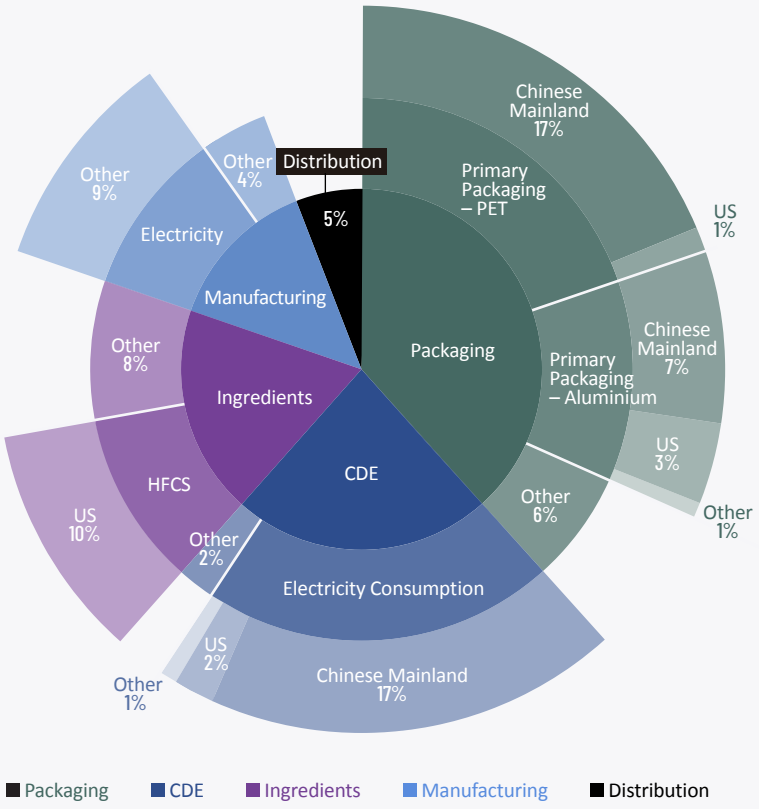
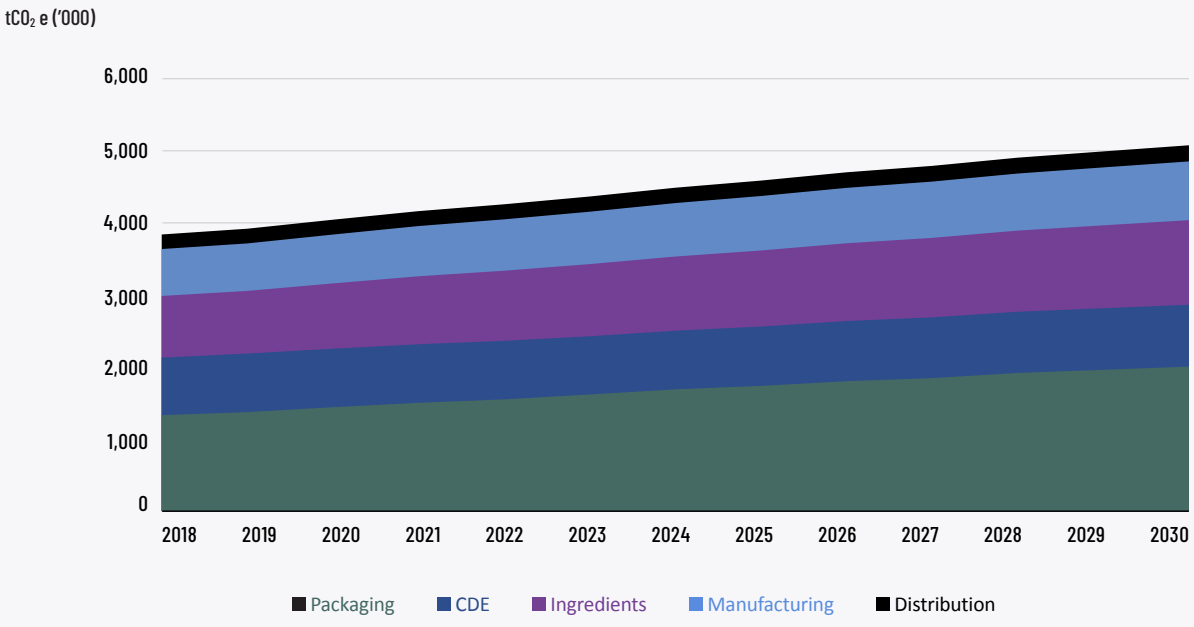


Figure 3: BAU Scenario Carbon Emissions Projection



More than 80% of our emissions are Scope 3 emissions (i.e., outside of our operational control). Working with our suppliers, customers and consumers will therefore be critical to reducing our footprint and meeting, if not exceeding, our SBT.

Key reduction opportunities include:

1 Transitioning from fossil fuel based-electricity to renewable electricity (RE) Scope 2

The biggest source of emissions in our core operations is from electricity use. We target to achieve 100% RE in our core operations by 2026. We will install RE generation systems on our sites and purchase RE from credible sources.

2 Increasing recycled content in our PET bottles and cans Scope 3

Our target projection includes 70% recycled PET and 100% recycled aluminium use in our primary packaging by 2030. A significant contribution is expected from our Chinese Mainland operations, where current regulations do not permit the use of recycled content in PET food-grade packaging. We and TCCC continue to engage with the Chinese government on this matter.

3 Increasing packaging collection and recovery rates – leading to increased recycling Scope 3

Our projection includes an increase in the recovery rate of post-consumer single-use primary packaging, in particular in the Chinese Mainland, the U.S. and the Hong Kong SAR, of up to 100% by 2030. We will work with TCCC, other bottlers and relevant government stakeholders to pilot and expand programmes to support the collection, recovery and reuse of post-consumer materials. In the Hong Kong SAR, we support the Drink Without Waste (DWW) initiative and have invested in New Life Plastics (NLP), a state-of-the-art plastics recycling facility.

4 Supplier engagement on packaging and ingredients Scope 3

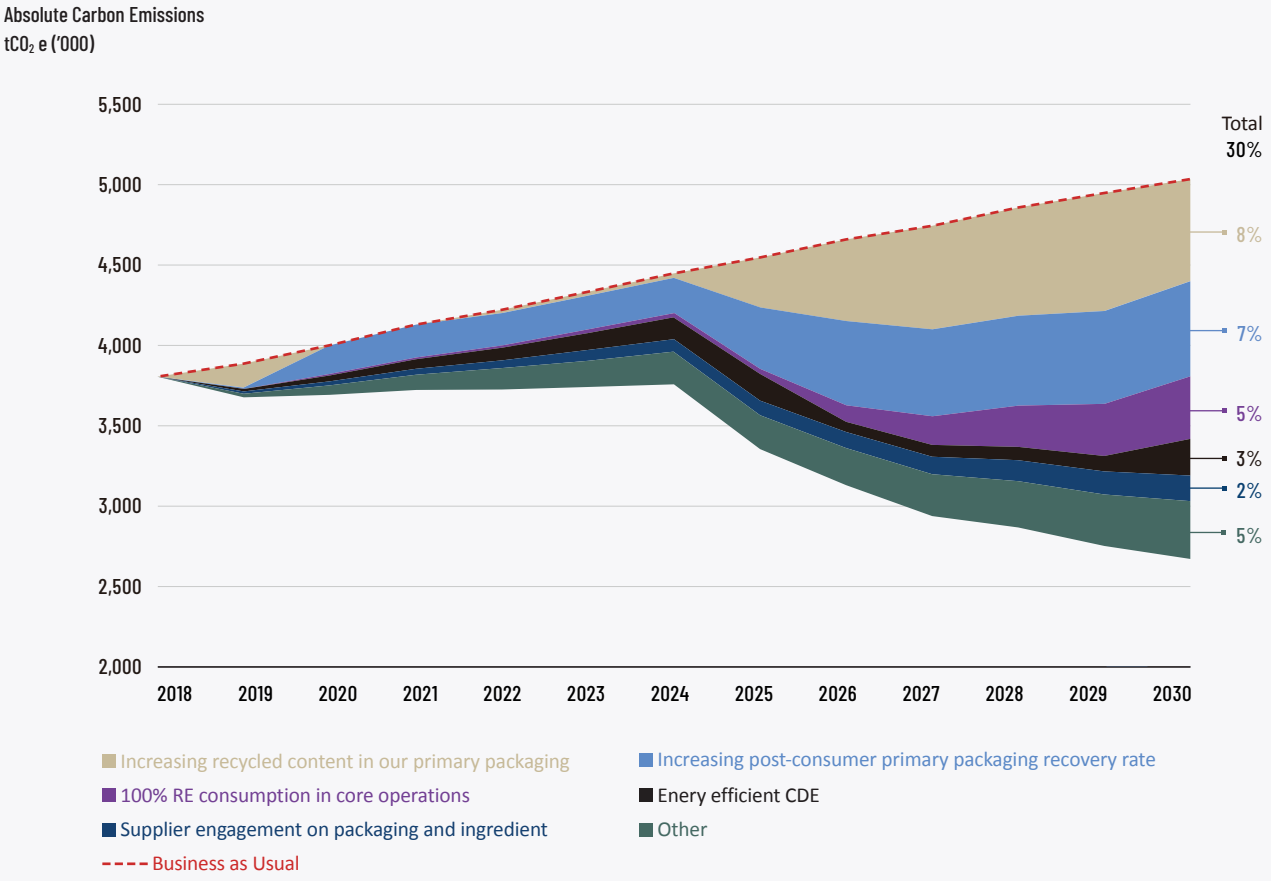
Ingredients and packaging materials we buy from our suppliers are a key source of Scope 3 emissions. We will work with TCCC to engage our suppliers to (a) produce supplier-specific emission factors and (b) develop plans to reduce their emissions by encouraging and incentivising energy efficiency and RE procurement.

5 Energy-efficient CDE Scope 3

Our projection incorporates energy efficiency gains through technological improvements to offset the expansion of our growing CDE fleet – with coolers in the Chinese Mainland being the key equipment segment.

RESET modelled the potential contribution of these reduction opportunities towards our target. We expect these opportunities, when implemented, to deliver an overall 30% absolute reduction in Scope 1, 2 and 3 emissions.

Figure 4: Emission Savings Projection by Reduction Opportunity Compared with the BAU Scenario



2.2 Limitations of the Modelling Results

The modelling results are subject to assumptions and data available at the time of calculation in 2019. This includes our forecasted business portfolio in 2030 and the projected effectiveness of identified reduction opportunities, for instance:

- Technology improvements for energy efficiency (e.g., CDE, manufacturing processes)
- Market maturity in purchased renewable electricity and recycled packaging material
- Customer preferences and our business growth
- Regulation and policy change (e.g., ability to use recycled content in PET food-grade packaging)

2.3 Updating our Projections

In these annual progress reports, we will report on material changes that impact our BAU scenario projections. To date these include:

- An 84% increase in the projected electricity consumption in the U.S. until 2026, mainly due to the addition of blow moulding capability in five bottling plants
- 10+ preform manufacturing lines will be added to our Chinese Mainland bottling plants in 2022-2030

The boundary and methodology of our baseline emissions will be adjusted along with our emissions tracking to provide better completeness and accuracy, such as moving our emission factor from a global 'proxy' to a supplier-specific one.

The calculation method for Scope 3 emissions is expected to be evolved continuously for better quality data. The current boundary and methodology for Scope 3 calculation in each pillar are described in Appendix A and B, respectively. Despite the updated Scope 3 methodology since 2021, we have still identified data limitations, deviated from the ideal data we envision. It is expected that these limitations will mostly be addressed by 2026. By then, we will recalculate all the historical years' data using a consistent methodology to demonstrate the actual reduction progress.

3. Performance Overview

3.1 Emission Reporting Scope

As described in the introduction, Swire Coca-Cola's business has changed significantly since our SBT was set in 2020. Between late 2022 and the end of 2023, we divested our U.S. business, and acquired operations in Cambodia, Vietnam and eight new facilities in the Chinese Mainland (i.e., CCBMH). The newly acquired businesses will result in an increase in our 2023 absolute GHG emissions of approximately 15-25%.

According to SBTi and the Greenhouse Gas Protocol (GHG Protocol), a recalculation of baseline inventory is required when there is a significant structural change in the business (above a 5% threshold). This may require us to update our 2030 targets. Besides, being in one of the FLAG[1]-designated sectors (Food and Beverage Processing), we are now required by the SBTi to set FLAG targets and resubmit the Scope 3 target after the separation of FLAG emissions from the Scope 3 inventory. Swire Coca-Cola is currently recalculating the emissions inventory based on the new operation boundary and plans to resubmit its SBT following the latest requirement.

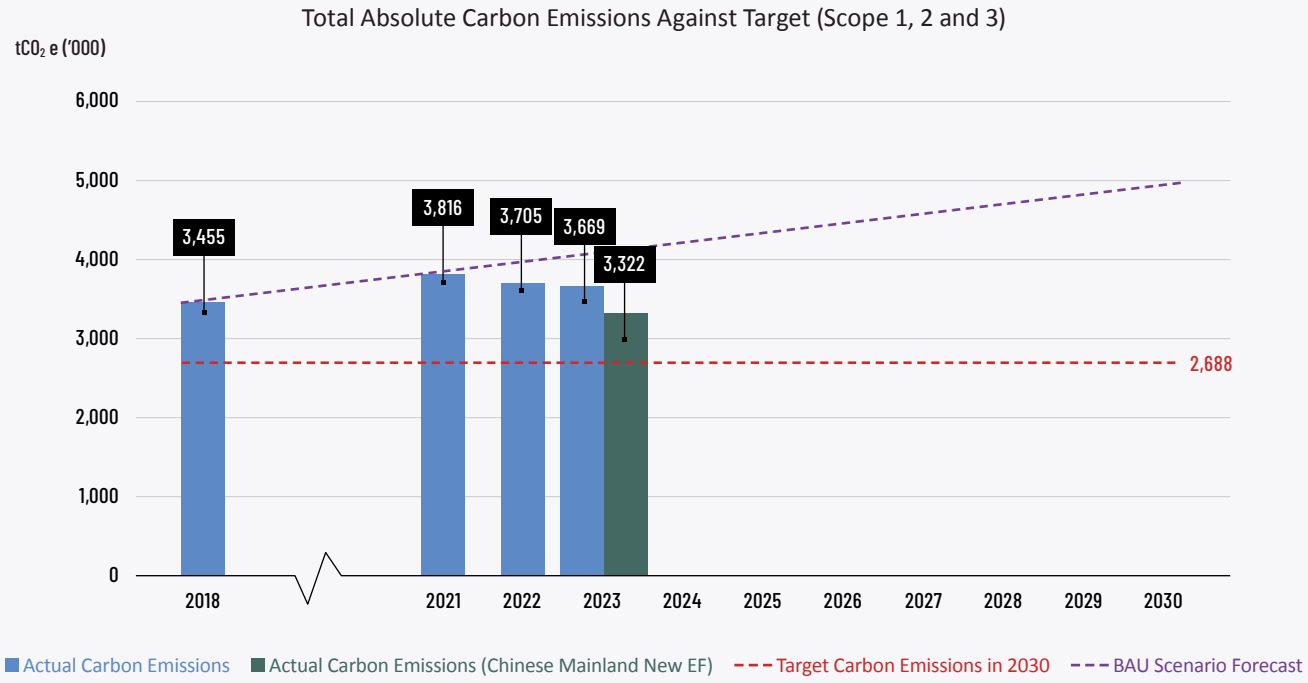
The purpose of this report is to provide an update on progress towards our existing SBT. As such, the report covers the original inventory and target boundary, i.e., full year (rather than pro-rata) data is included for our U.S. operations, and all emissions from our newly acquired businesses are excluded. Note that this report, specifically, excludes emissions from our operations in Cambodia, Vietnam and the CCBMH facilities we acquired in the Chinese Mainland. Eight CCBMH manufacturing plants that used to be co-packers (and therefore were included in our Scope 3 emissions) are now wholly owned by Swire Coca-Cola. Their scope 1 and 2 emissions will be included in our Scope 1 and 2 emissions starting in 2024.

Notes:

1 The SBTi's Forest, Land and Agriculture (FLAG) Guidance provides the world's first framework for companies in land-intensive sectors to set SBTs that include land-based emission reductions and removals.

2 All CCBMH sites except the sites in Luohe and Nanjing, as they are co-located in Swire Coca-Cola's manufacturing sites, which have been fully accounted in Swire Coca-Cola's Scope 1 and 2.

3.2 Absolute Emissions Against Targets



Remarks:

1 The Scope 3 emissions only account the five identified material pillars: Ingredients, Packaging, Manufacturing – Scope 3, Third-party Distribution and Cold Drink Equipment (CDE). For more detail of the emission boundary, please refer to Appendix A.

2 Due to limited data availability, 2019 and 2020 Scope 3 emissions are not recalculated based on the updated methodology, and will not be shown in this report.

3 For the 2018 baseline, except for the emission sources explained in the footnote[3] (~10% of the baseline emissions), the data sources of other target Scope 3 emissions are now aligned with the latest year.

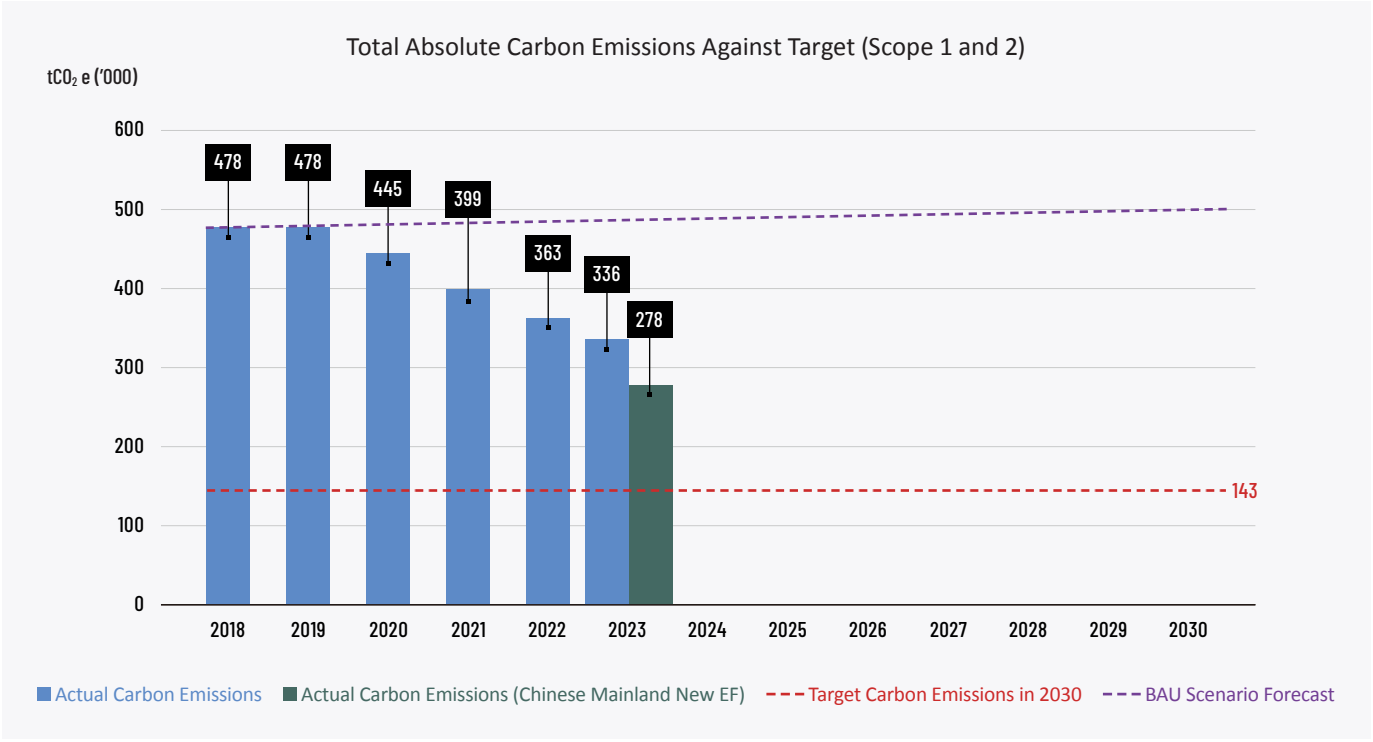
4 In February 2023, the Ministry of Ecology and Environment (MEE) in the Chinese Mainland issued a new national emission factor for the electricity grid (0.5703 tCO_2 per MWh), which is recommended for corporate reporting. Prior to 2023, we used regional grid factors in the Chinese Mainland, which range from 0.79 to 0.86 tCO_2 per MWh. We will use the national MEE emission factor moving forward as the regional grid factors are not regularly updated to reflect the greening of the grid in the Chinese Mainland. The green bar represents the emissions using the MEE emission factor to illustrate the impact with grid factor change. Given that the MEE grid factor is significantly lower than the China regional grid factor, comparing 2023 emission with previous year may lead to a misleading message of a plunging reduction in emissions. Hence, to better communicate the reduction performance, all emission comparisons in this report will be done with the result using the China regional grid factors.

Compared to the base year of 2018, total absolute Scope 1, 2 and 3 emissions in 2023 experienced an increase of 6% , or a reduction of 4% if considering the updated emission factor in Chinese Mainland. As Scope 3 emissions are contributing to the majority of the total emissions, the reasons for the changes may mainly lie within the Scope 3 emission drivers:

- **Scope 3 Packaging:** A change in PET material from vPET NCM Resin to vPET water Preform, which has a higher emission intensity, led to higher packaging emissions in 2023.
- **Scope 3 Ingredients:** Due to the increase in production volume, we are consuming more ingredients (i.e., CPS concentrate and HFCS), resulted a higher ingredients emissions in 2023.
- **Scope 2 Electricity:** Reductions have also been achieved by reduction in purchased electricity and grid improvement (refer the following page for more information).
- **Scope 3 CDE:** Reductions have also been achieved by grid improvement.

Note:

3 CDE in the Taiwan Region, Hong Kong SAR and U.S., Third-Party Distribution in all four markets; Packaging & Ingredients in the Taiwan Region

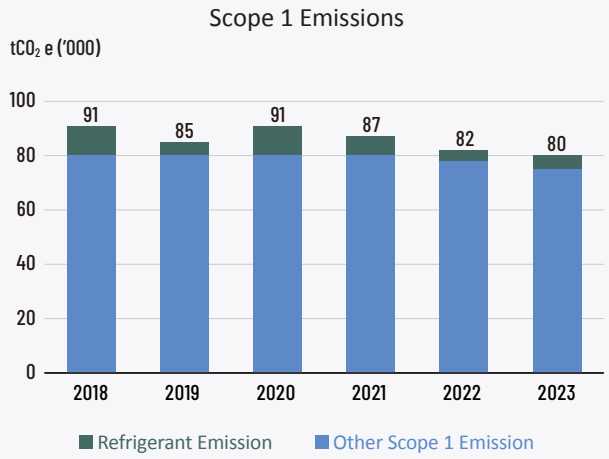


Compared to the base year of 2018, total absolute Scope 1 and 2 emissions in 2023 reduced by 30%, or 42% if considering the updated emission factor in Chinese Mainland. Given the insignificant amount of Scope 1 emissions and limited interventions on the Scope 1 emission sources, the reduction is greatly explained by the reduction initiatives in Scope 2 emissions, especially electricity.

- **Scope 2 – Electricity:** The drop in emission is greatly influenced by the expansion of the offsite renewable electricity procurement in the Chinese Mainland despite an increase in production volume.
- **Scope 2 – Electricity:** Other factors include increasing the amount of renewable electricity generated onsite in the Chinese Mainland, Taiwan Region and United States.
- **Scope 2 – Electricity:** The drop in the Chinese Mainland grid factor compared to the base year is also one of the drivers.

More details of the reduction initiatives, renewable electricity percentage change and grid factor improvement by market will be shown in Section 4.1, Appendix F and Appendix H, respectively.

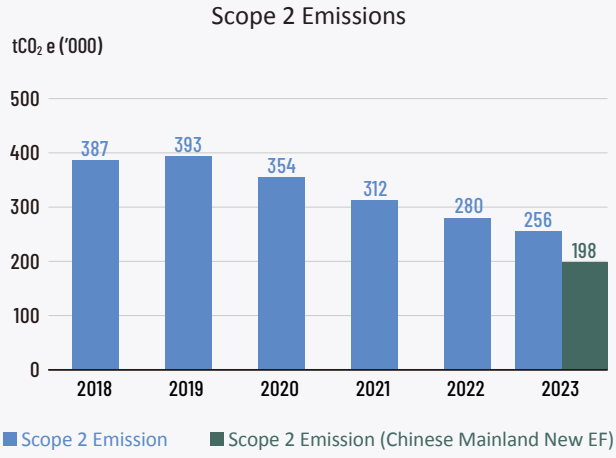
3.3 Absolute Emissions by Emissions Scope



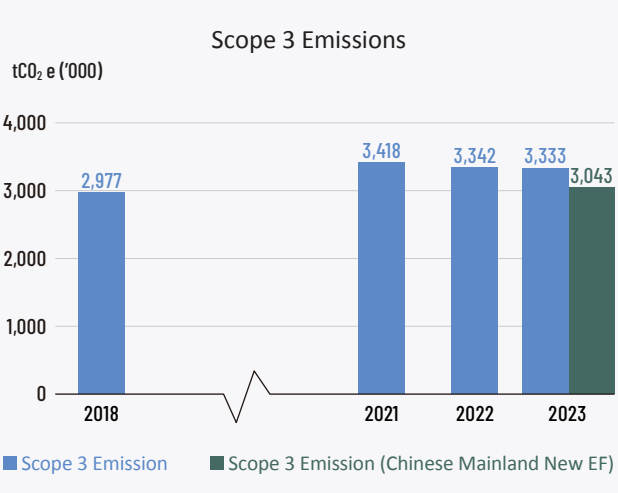
Our total Scope 1 emissions decreased 12% against the 2018 level. The reason for the annual variation of Scope 1 emissions is the fluctuation of the refrigerant refilling amount (see green area).

After excluding refrigerant, Scope 1 emissions in the past few years have been steady, with a slight increase of 4% in 2021. The reason may be the replacement of purchased steam in a few plants in the Chinese Mainland by onsite natural gas boilers since mid-2020, which is covered under Scope 1.

Comparing to the previous year, Scope 1 emission reduced primarily because of lower production volume and lower fuel consumption in 2023.

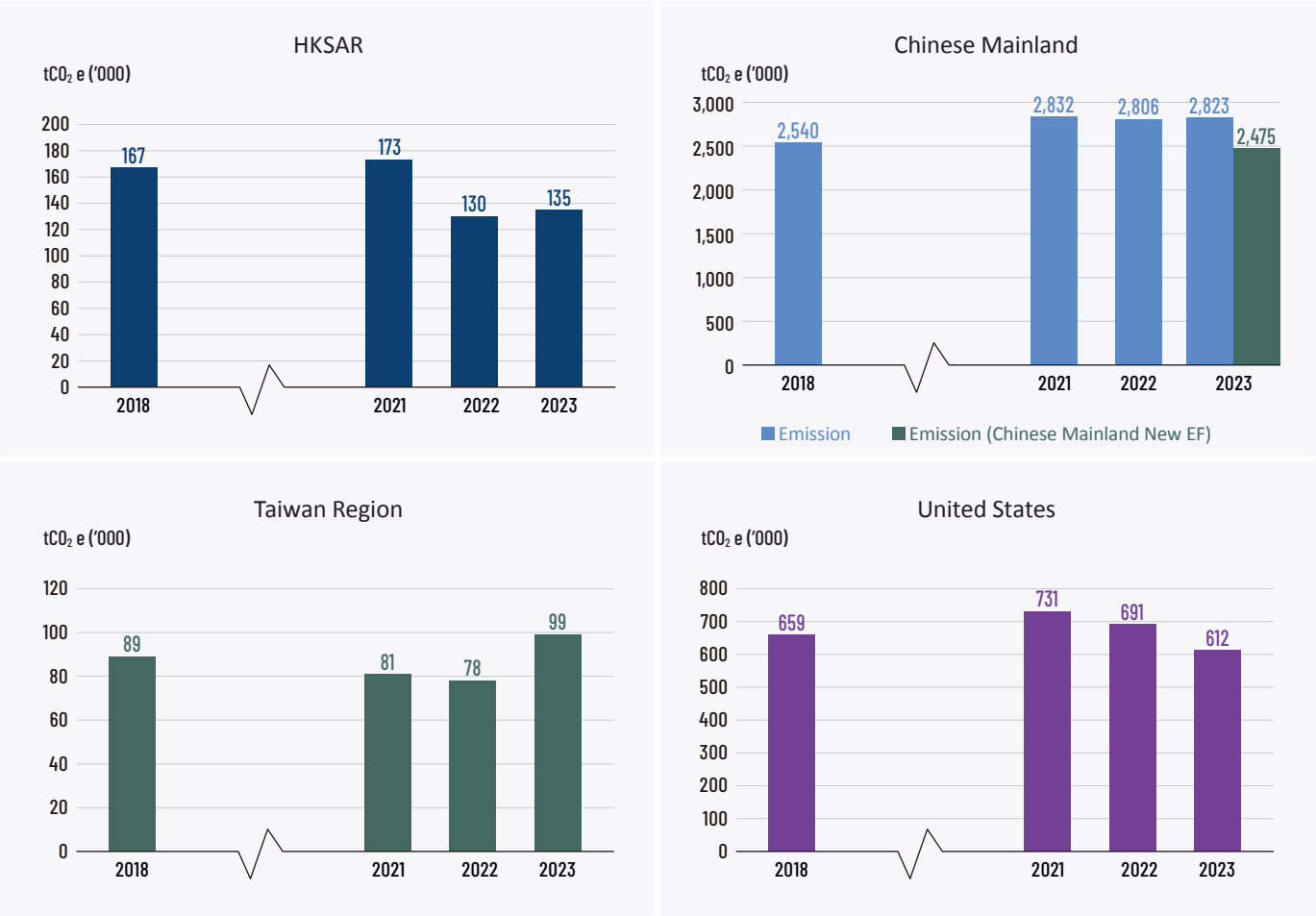


A decreasing trend is presented in our Scope 2 emissions. The reduction pattern is more obvious in 2022 and 2023 (-27% and -34% respectively vs. 2018). This is greatly contributed by the expanded renewable electricity consumption and greener electricity grid.



Scope 3 emissions contribute the majority of Swire Coca-Cola's total emissions. Details of the Scope 3 emission trend and key reduction projects can be found in Sections 5.2 and 4.2 respectively.

3.4 Absolute Scope 1, 2 & 3 Emissions by Market

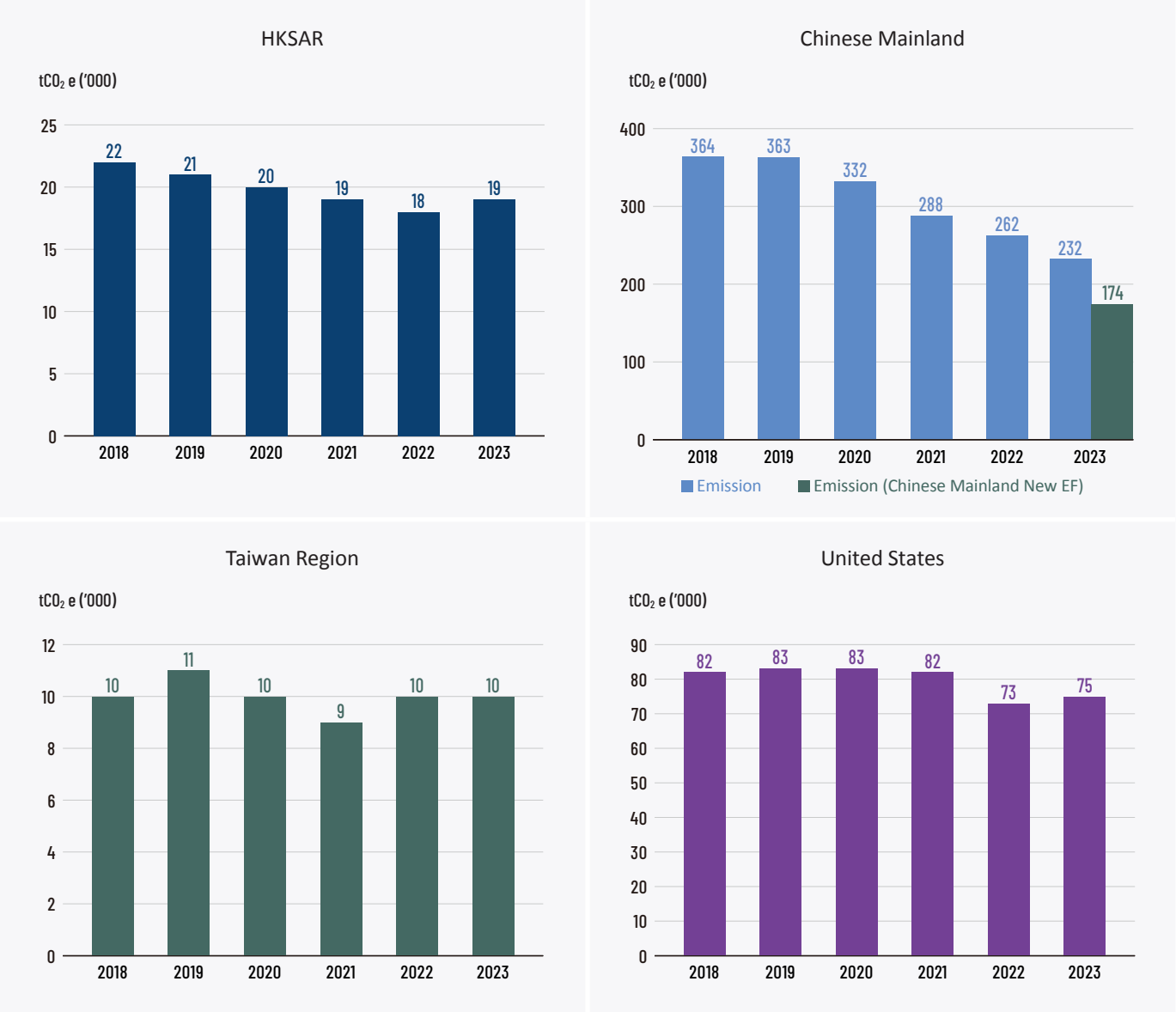


While the majority of 2018 baseline emissions are revised with improved data sources, we are still working to align our baseline methodology for certain Scope 3 emission sources[4] to enable meaningful trend analysis.

Region	Description
Hong Kong SAR	The overall reduction is largely contributed by the increased RGB and aluminium recycled content and recycling rate in the Hong Kong SAR (see Section 4.2).
Chinese Mainland	The overall increase till 2022 was mainly explained by the 1.5-fold increase in the number of CDE. On the other hand, the slight reduction in 2023 is contributed by the additional RE procurement plan and on-site PV program (i.e., solar energy generation) (see Section 4.1).
Taiwan Region	The Scope 3 baseline for the Taiwan Region was based on extrapolation, which may not be comparable to the improved methodology used in 2021 and 2022. The change in emissions versus the baseline may be due to a change in methodology.
United States	The reduction in aluminium consumption leads to overall decrease in emissions..

Note:
4 CDE in in the Taiwan Region, Hong Kong SAR and U.S., Third-Party Distribution in all four markets; Packaging & Ingredients in the Taiwan Region

3.5 Absolute Scope 1 & 2 Emissions by Market



Region	Description
Hong Kong SAR	Despite the reduction in grid factor, the trend in the emission is mainly owing to the changes in production volume in over the years. With the increased production volume in 2023, the total emissions increased slightly as well.
Chinese Mainland	Absolute Scope 1 and 2 emissions in the Chinese Mainland have plunged by 36% in 2023 against 2018. The reduction rate in 2021 was comparatively higher than the previous years, resulting from the skyrocketed volume of renewable electricity procured. The further reduction in 2023 is from the additional RE procurement plan and on-site PV program (i.e., solar energy generation) (will be explained in Section 4.1). It is noted that the Chinese Mainland contributed 69% to our total Scope 1 and 2 emissions, based on the emissions calculated with the regional EFs.
Taiwan Region	The emission trend is largely affected by changes in production volume. Energy efficiency and grid factor improvement also impacted the emissions that led to the drop in 2020 despite the production increase.
United States	The Scope 1 and 2 emissions in the United States shrunk by 8% from 2018, which is mainly led by the grid factor improvement. The other factor of the reduction is the updated proxy on energy consumption for the Sales and Distribution Centres since 2022. The updated proxy is based on the average energy consumption per floor area of each grid region in 2021.

4. Emission Reduction Projects

4.1 Key Projects for Scope 1 and 2 Emission Reduction

Scope	Reduction Measures	Progress Updates
Scope 1 and 2	**Increasing efficiency of manufacturing facilities**	**Chinese Mainland** An upgrade to the compressed air system and chilling system at our plant has continued. In this year, three of the Chinese Mainland plants are actively engaged in the air compressor waste heat recovery project. Overall, 2,600 MWh annualized savings are achieved. **Taiwan Region** A fan upgrade was done in the Taiwan plant which is expected to save close to 43,000 kWh of electricity per year. **Hong Kong SAR** Hong Kong upgraded two Towngas boilers that will reduce Towngas consumption by 5%.
Scope 1 and 2	**Implementing the Hot Water Centre**	**Chinese Mainland** Five of our plants in the Chinese Mainland implemented the phase 1.0 of the Hot Water Centre in 2023. The system captures and transfers excess heat generated by energy-intensive equipment to bottle warmers to reduce demand for purchased steam and natural gas. An average of 15% saving in steam was achieved in the year.
Scope 2	**Piloting "SubCarb" technology**	**Chinese Mainland** The "SubCarb" technology allows us to raise the filling temperature that results in significant energy and cost savings by improving energy efficiency of chillers and requiring 40% less steam to warm the product back up again. In 2023, the technology was installed on seven production lines across the Chinese Mainland operations, bringing savings of 1.15 million kWh of electricity and 1,800 tonnes of steam.

Scope	Reduction Measures	Progress Updates
Scope 2	**100% RE consumption from bottling plants**	**Chinese Mainland** Overall, on-site and off-site RE provided approximately 157,865,182 kWh of renewable electricity in 2023, equivalent to 35% of our electricity consumption in the Chinese Mainland manufacturing sites, increased from 27% in 2022. This resulted from below initiatives: New on-site PV installation projects: ▪ Rooftop solar PV generation systems across 14 plants have been installed in the Chinese Mainland, with an annual power generation capacity of 27 million kWh. ▪ In 2023, our Huizhou plant completed the grid connection of a 1.76 MW facility, which is expected to generate 2,800 MWh of RE for the plant. ▪ Please refer to Appendix G for the pipeline of on-site solar PV projects. Off-site RE agreements programs: ▪ Henan plant started procuring RE in 2023, bringing the total number of plants procuring RE to 10, with 6 plants already at 100% RE. **United States** An onsite PV installation project in United States has covered approximately 2% of the total electricity consumption in United States. Glendale solar PV came online in 2023, which can bring 1,400 MWh reduction annually. Please refer to Appendix G for the pipeline of on-site solar PV projects. **Taiwan Region** An agreement was signed to purchase 22,500 kWh renewable electricity from a local charity to which we donated solar PV panels in 2022. This generates additional funding for the charity as well as contributing towards meeting our renewable electricity goals.

4.2 Key Projects for Scope 3 Emission Reduction

Scope 3 Category	Pillar	Reduction Measures	Progress Updates
Category 1: Purchased Goods and Services	**Packaging**	Increasing recycled primary packaging content	**United States** In 2023 in the U.S., the recycled content in our aluminium cans was 72%. Since 2022, all produced Dasani bottled water 20oz is in 100% rPET. Besides, 100% recycled PET is used in Coca-Cola™ product in Pacific Northwest, while overall recycling content in bottled water and sparkling were 24% and 25.6% respectively. **Hong Kong SAR** In the Hong Kong SAR, all water except for the 4.8L and 5L bottles is now in 100% rPET. The recycled content in 330mL aluminium cans increased from 6% in 2022 to 12% in 2023. **Taiwan Region** The rPET content for water is now 100%. All aluminium can products also have 10% recycled content in 2023. **Chinese Mainland** Currently, food-grade packaging in the Chinese Mainland cannot contain recycled material, including recycled PET, but for aluminium, 14% of recycled content is permitted in 2023.
		Increasing primary packaging post-consumer recovery rates & enhancing transparency	Globally we are hindered in obtaining data that is timely and credible. Work with TCCC and the industry is ongoing in this space to try and rectify this situation. Being part of the beverage industry, SCCU supported the U.S. state of Colorado to pass the Extended Producer Responsibility (EPR) legislation (HB22-1355) in 2022.
	Packaging and Ingredients	Collecting supplier-specific data on packaging and ingredients	With the purpose of moving from the application of global emission factors to supplier and location specific emission factors, Swire Coca-Cola has started working on building a platform to collect supplier data in the Chinese Mainland.

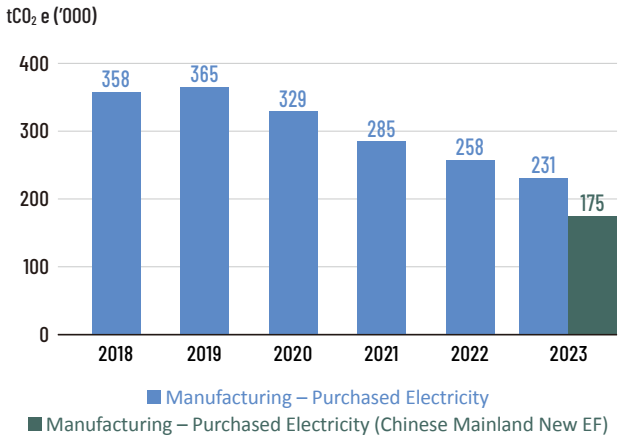
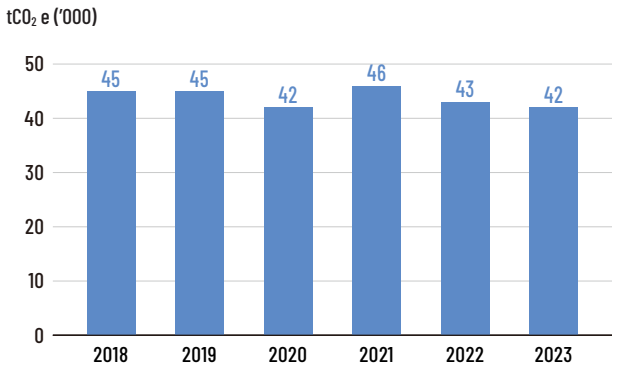
Scope 3 Category	Pillar	Reduction Measures	Progress Updates
Category 13: Downstream Leased Assets	**Cold Drink Equipment (CDE)**	Improving energy efficiency for CDE	**Chinese Mainland** Transition of the older less energy-efficient CDE to higher energy-efficient models: ▪ In 2020, one smaller cooler type (398L) was transitioned, bringing a 39% energy efficient improvement. Since 2022, through proactive collaboration between our Group Procurement team and our cooler suppliers, the 'next generation' CDE, which operates at a 50% lower energy consumption compared to the current equipment, has been identified. As the new technology is phased in across the Chinese Mainland, this will result in a significant reduction in Scope 3 emissions.
		Switching refrigerants used in CDE to low-emission refrigerants	**Taiwan Region** Since 2021, in the Taiwan Region, our CDE team innovated a technology to retrofit old CDE models to make them compatible with low-GWP refrigerants, i.e., HFO (R1234yf). We are now working with customers to transition all of our CDE to use these refrigerants by 2025. By 2023, 69% of CDE refrigerants are low-GWP refrigerants.

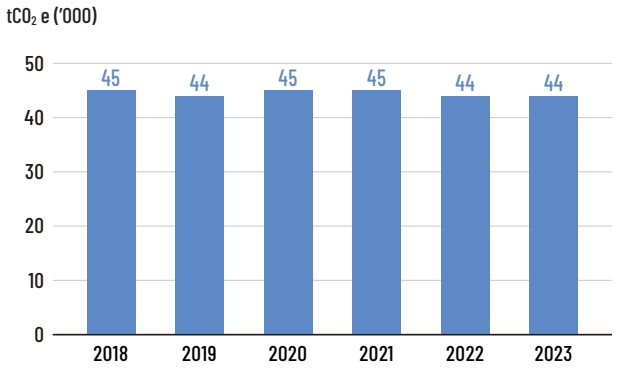
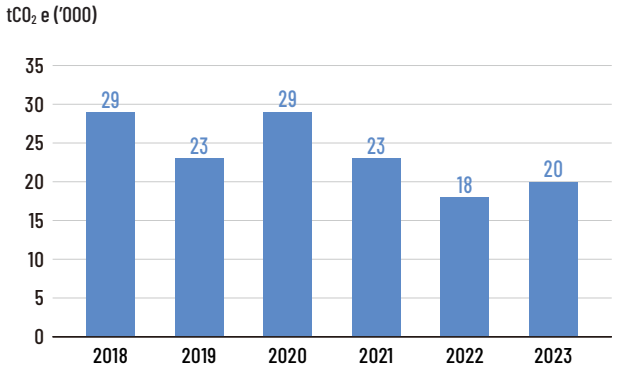
5. Performance by Emission Source

5.1 Absolute Scope 1 & 2 Emissions by Emission Source

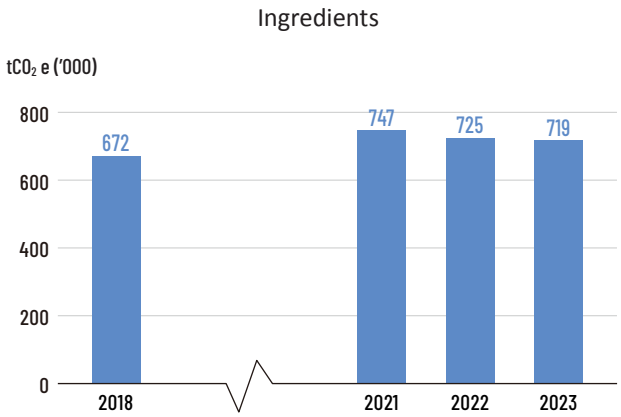
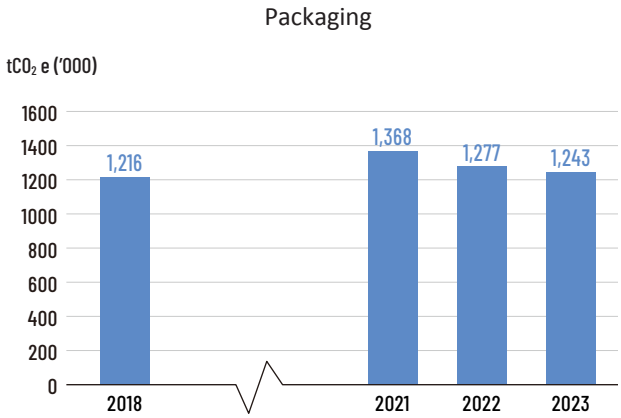
The below charts show a similar trend to Section 3.2, where the emissions associated with energy use were steadily reducing while the refrigerant emissions were fluctuating.

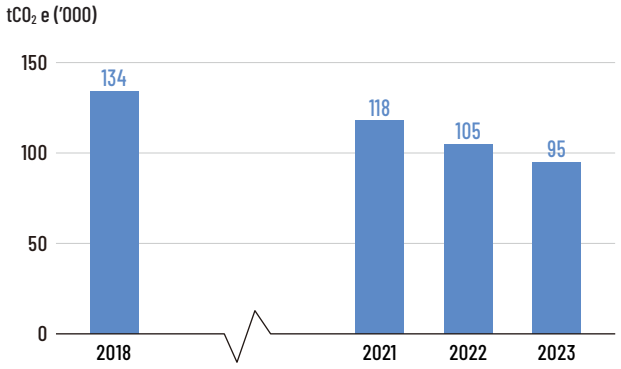
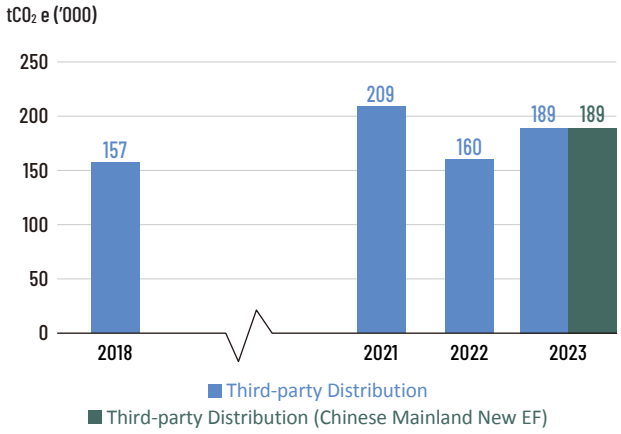
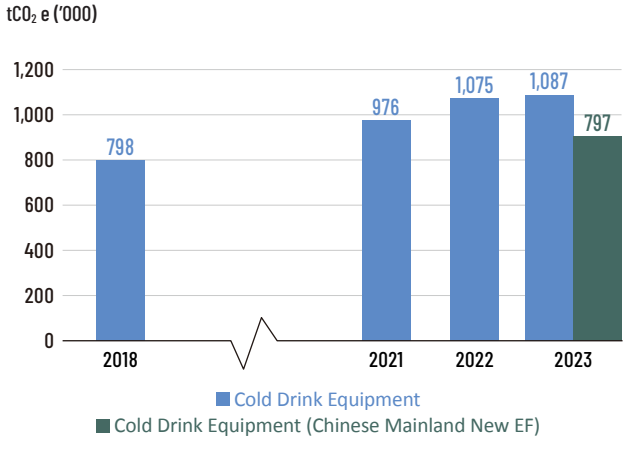
Note: A Hong Kong SAR site was reclassified as a distribution/sales centre, which may result in a slight update of the number of "Manufacturing" and "Others" emissions in previous years. The total emissions remain unchanged.

Emission Source & Description	Performance
Scope 2: Manufacturing – Purchased Electricity Emissions are associated with energy use in manufacturing plants, which is the major source of our Scope 1 and 2 emissions (69% in 2023).	Manufacturing – Purchased Electricity 
Scope 1: Manufacturing – Other Energy Use Emissions associated with energy use in boilers mainly (and other minor supporting equipment such as forklifts). A key problem area remains in finding alternative no-emission power sources for the boilers within the manufacturing plants. At best these are powered by natural gas, and at worst in 8 manufacturing plants in Chinese Mainland, we acquire steam (made centrally in industrial zones and piped to us), which is made from the combustion of thermal coal.	Manufacturing – Other Onsite Energy Use 

Emission Source & Description	Performance
Scope 1: Distribution: Mobile Fuel Combustion Emissions from the fuel (gasoline and diesel) consumed by our vehicle fleet.	Distribution: Mobile Fuel Combustion 
Other Scope 1 & 2 Emissions Emissions of refrigerant from our Cold Drink Equipment (CDE) at our own sites and the energy use in distribution centres and sales centres.	Other 

5.2 Absolute Scope 3 Emissions by Emission Source by Materiality

Pillar & Description	Performance
Ingredients **(Category 1 Purchased Goods and Services)** Emissions from extraction, processing, refining and transportation of raw ingredients such as sugar, HFCS and concentrates.	
Packaging **(Category 1 Purchased Goods and Services)** Emissions from extraction, processing, manufacturing and transportation of primary packaging materials such as PET, aluminium cans and returnable glass bottles.	

Pillar & Description	Performance
Manufacturing – Upstream (Category 1 Purchased Goods and Services & Category 3 Fuel and Energy Related Activities) Upstream emissions of purchased fuels and electricity including transmission and distribution (T&D) losses, emissions associated with key co-packer energy consumption for manufacturing (Note: this is excluded in this report) and third-party vehicle fleets for distribution.	Manufacturing – Scope 3 
Third-party Distribution (Category 4 Upstream Transportation and Distribution) Emissions from third-party fleets for distributing SCCL's products.	Third-party Distribution 
Cold Drink Equipment (Category 13 Downstream Leased Assets) Emissions from electricity consumption of CDE such as coolers and vending machines at point-of-sale.	Cold Drink Equipment 

6. Appendix

6.1 Appendix A – Target Boundary

Scope 1 & 2 Emissions Boundary

The target boundary covers all Scope 1 and 2 emissions associated with all Swire Coca-Cola wholly and majority owned operations (i.e., bottling plants, sales and distribution centres), in four markets: Chinese Mainland, Hong Kong SAR, Taiwan Region and the United States. It covers the below emission sources:

- Scope 1 – Stationary fuel combustion
- Scope 1 – Mobile fuel combustion
- Scope 1 – Fugitive emissions from refrigerants
- Scope 2 – Purchased electricity
- Scope 2 – Purchased steam
- Scope 2 – Purchased Towngas

The historical years' emission boundaries and emission have been updated when there are any changes in Swire Coca-Cola's business structure. Below are the updates as of 31 December 2023:

Year	Updates
2020	▪ Added emissions from packaging production of Luquan packaging centre in the Chinese Mainland
2021	▪ Added emissions from electricity use in sales centres in the Chinese Mainland Note: They contribute less than 1% of our total Scope 1 and 2 emissions in the Chinese Mainland, so do not materially impact the baseline
2022	No additional update
2023	No additional update in this report Note: Refer to Section 3.1, there have been changes to Swire Coca-Cola's business structure during the reporting year, but changes will not be reflected until next year's report

Scope 3 Emissions Boundary

Swire Coca-Cola's Scope 3 target covers emissions sources that contributed over 80% of its total Scope 3 emissions in 2018. Several emission sources are excluded from our target boundary because they are either not material or data is not available. For example, the emissions associated with co-packers[5] were excluded (estimated to be less than 5% of Swire Coca-Cola's total emissions). Note that the largest co-packer in the Chinese Mainland, CCBMH, was previously included in Swire Coca-Cola's Scope 3 emissions. In 2023, six major subsidiaries of CCBMH were acquired by Swire Coca-Cola. Starting in the 2024 report, these businesses will be included in Swire Coca-Cola's Scope 1, 2 and 3 emissions.

In line with the GHG Protocol, our target boundary is described below. We included the material Scope 3 emissions into the target boundary based on the 2018 Scope 3 emission mapping result. They are then grouped into five pillars following TCCC's classification system (in blue):

Scope 3 Category	Included in Target Boundary	% of 2018 Scope 3 Mapping Emissions	Target Boundary	
			Included	Excluded
1. Purchased Goods and Services	Partially	Included: 54.86% Excluded: 7.75%	**Pillar – Ingredients** Emissions from ingredients (e.g., sugar, carbon dioxide as ingredients) **Pillar – Packaging** Emissions from primary packaging (e.g., PET, aluminium, glass) **Pillar – Manufacturing** Emissions from energy use from CCBMH (Note: this will no longer apply due to boundary update and is excluded in this report)	Emissions from secondary and tertiary packaging, water, energy use from other co-packers
2. Capital Goods	No	5.42%		Manufacturing Equipment
3. Fuel and Energy Related Activities	Yes	2.67%	**Pillar – Manufacturing** Well-to-tank emissions associated with fossil fuel consumption (with transmission and distribution losses)	
4. Upstream transportation and distribution	Yes	3.69%	**Pillar – Third-party Transportation** Third party transportation and distribution	
5. Waste generated in operations	No	0.13%		Waste from our manufacturing sites (solid waste and wastewater)

Note:

5 Co-packers are third-party contract bottlers who produce and supply beverages

Scope 3 Category	Included in Target Boundary	% of 2018 Scope 3 Mapping Emissions	Target Boundary	
			Included	Excluded
6. Business travel	No	0.85%		All air and rail business travel
7. Employee Commuting	No	0.44%		Employee commuting
8. Upstream leased assets	No	0.31%		Leased office
12. End-of-life treatment of sold products	No	1.50%		End-of-life disposal of packaging by the consumer
13. Downstream leased assets	Yes	22.37%	**Pillar – Cold Drinks Equipment (CDE)** CDE electricity use	

The Scope 3 categories listed in below table are excluded from Swire Coca-Cola's target boundary due to irrelevance:

Excluded Scope 3 Category	Reason for Exclusion
9. Downstream transportation and distribution	Emissions from third-party transportation have all been included under Category 4 – Upstream transportation and distribution
10. Processing of sold products	Swire Coca-Cola has no intermediate products for downstream processing
11. Use of sold products	Swire Coca-Cola has no sold products that consume fuel or energy
14. Franchises	Swire Coca-Cola has no franchises
15. Investment	Swire Coca-Cola has no relevant investment activities Note: This category may potentially be relevant to Swire Coca-Cola with the shareholding acquisition in New Life Plastics

A point to note is that as mentioned in Section 3.1, the inventory of all scopes of the four new bottling plants in Cambodia and Vietnam as well as the new facilities in Chinese Mainland (i.e. CCBMH) are still under review. Their emissions will be measured and included starting from next year (2024), with the base year emissions updated too. This change in emission boundary would potentially affect the baseline emission and target boundary, and the update will be shown and reported in the next report.

6.2 Appendix B – Calculation Methodology

Scope 1 and 2 Calculation Methodology

Emissions are calculated in accordance with the Greenhouse Gas Protocol developed by World Resources Institute and World Business Council on Sustainable Development. Scope 1 and 2 emission-related sources are accounted, including:

Scope 1 – Direct GHG Emissions | Aggregating Scope 1 Emissions from:

- Fuels (includes Diesel – Forklift, Diesel – Stationary, Fleet – Diesel – Heavy Duty, Fleet – Diesel – Passenger Car, Fleet – Gasoline – Passenger Car, Liquefied Petroleum Gas (LPG), Natural Gas and Towngas)
- Emissions from Refrigerants (includes HFC-22, HFC-409A, HFC-134A, HFC-404A, HFC-407C and HFC-410A)

Scope 2 – Indirect GHG Emissions | Aggregating Scope 2 Emissions from:

- Electric Power
- Steam
- Towngas

The sources of emission factors for the reporting of carbon emissions are presented in the table below:

Emission Source	Source of Emission Factors
Stationary fuel combustion	**Hong Kong SAR:** Guidelines to Account for and Report on Greenhouse Gas Emissions and Removals for Buildings (Commercial, Residential or Institutional Purpose) in Hong Kong **Chinese Mainland & Taiwan Region:** DEFRA 2023 **United States:** The Climate Registry – General Reporting Protocol USA Transport Sector
Mobile fuel combustion	
Fugitive emissions from refrigerant	Guidelines to Account for and Report on Greenhouse Gas Emissions and Removals for Buildings (Commercial, Residential or Institutional Purpose) in the Hong Kong SAR
Purchased electricity	Refer to Appendix H
Purchased steam	**Chinese Mainland:** DEFRA 2023
Purchased Towngas	**Hong Kong SAR:** Guidelines to Account for and Report on Greenhouse Gas Emissions and Removals for Buildings (Commercial, Residential or Institutional Purpose) in the Hong Kong SAR

Scope 3 Calculation Methodology

<table>
<tr><th>Scope 3 Category</th><th>Pillar</th><th>Emission Sources</th><th>Methodology</th></tr>
<tr><td rowspan="3">Category 1: Purchased Goods and Services</td><td>Ingredients</td><td>Purchased ingredients</td><td>Multiply the weights of ingredients with the relevant upstream emission factors[6,7].</td></tr>
<tr><td>Packaging</td><td>Purchased primary packaging</td><td>Multiply the weights of packaging materials with the upstream emission factor.

The emission factor incorporates both the recycled content and recycling rate of the materials.</td></tr>
<tr><td rowspan="2">Manufacturing</td><td>Energy consumption in bottling plants owned by CCBMH

(Note: this will no longer apply due to boundary update and is excluded in this report)</td><td>Multiply the CCBMH energy consumption for making Swire Coca-Cola products with the fuel emission factor.</td></tr>
<tr><td>Category 3: Fuel and Energy Related Activities</td><td>Upstream emissions of fuel and electricity in bottling plants</td><td>Multiply the Swire Coca-Cola energy consumption with upstream energy emission factors[8].</td></tr>
<tr><td>Category 4: Upstream Transportation and Distribution</td><td>Distribution</td><td>Third-party distribution</td><td>Each region has a different methodology based on the data availability. We first prefer data of actual fuel consumption, to travelling distance, then lastly estimated from distribution volume, or spend. The following lists the data source of each region by year:
<table>
<tr><th>Region</th><th>2018</th><th>2021</th><th>2022</th><th>2023</th></tr>
<tr><td>HKSAR</td><td>Spend</td><td colspan="3">Distribution volume</td></tr>
<tr><td>Chinese Mainland</td><td>Spend</td><td>Spend</td><td colspan="2">Fuel consumption</td></tr>
<tr><td>Taiwan Region</td><td>Spend</td><td colspan="3">Distance</td></tr>
<tr><td>US</td><td>Spend</td><td>Spend</td><td colspan="2">Distance</td></tr>
</table></td></tr>
<tr><td>Upstream emissions of fuel and electricity in vehicles and distribution centres</td><td>Multiply the Swire Coca-Cola energy consumption with upstream energy emission factors[6].</td></tr>
<tr><td>Category 13: Downstream Leased Assets</td><td>Cold Drink Equipment (CDE)</td><td>Annual electricity consumption of CDE, consisting of coolers, vending machines and fountains</td><td>Multiply the total annual electricity consumption value (EC value) of CDE with the electricity grid factor.

Annual EC value: Multiply daily EC value[9] with the number of equipment and operating days (assumed as an all-year operation).

Remark:
In 2018, many CDEs have no supplier testing data, therefore the EC value is derived mainly with average value calculated by TCCC.</td></tr>
</table>

Notes:

6 Cradle-to-gate emission factor (i.e., from raw material extraction to factory gate)

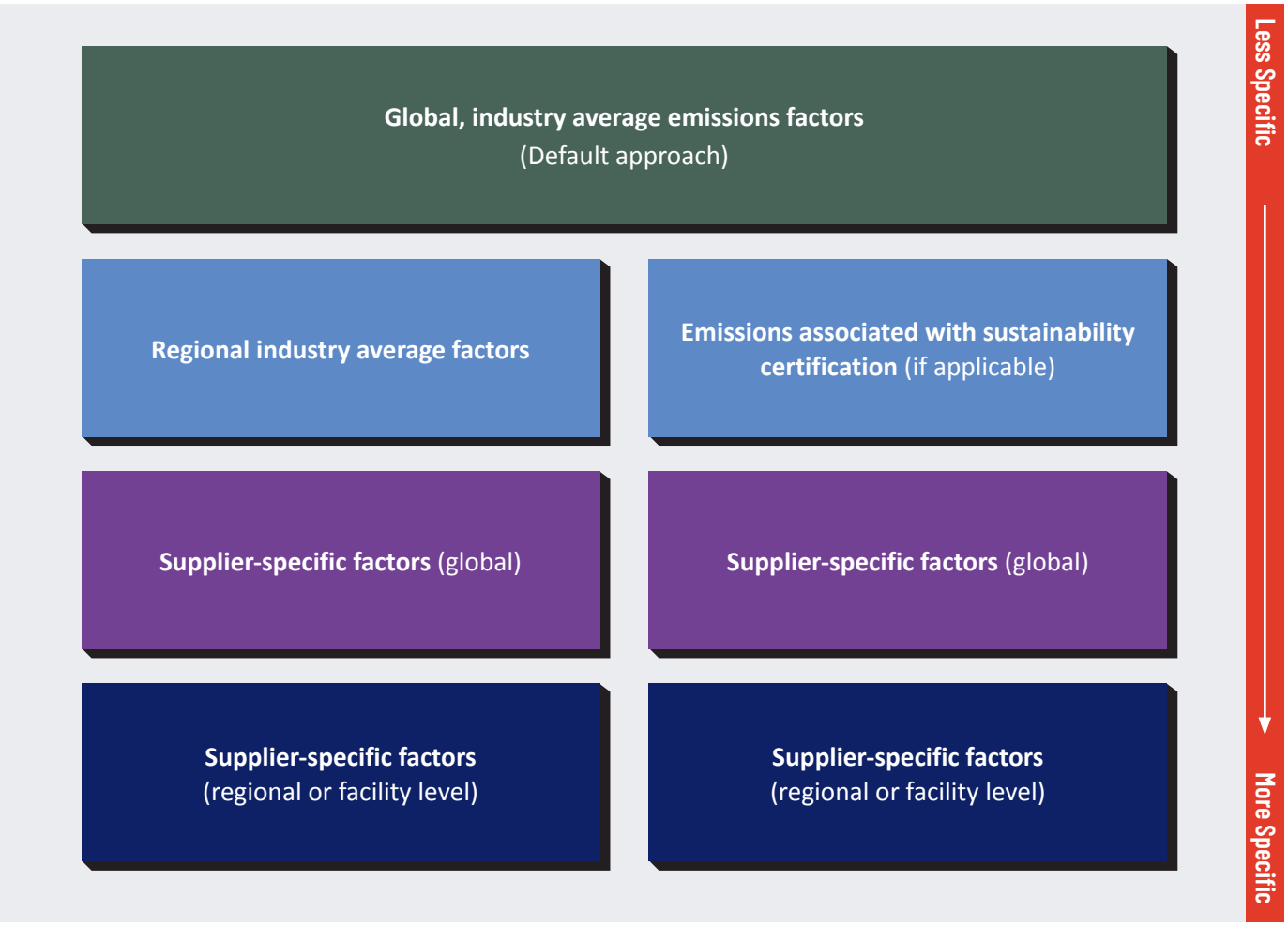
7 For CPS (Commercial Products Supply), since the weight data of CPS concentrate is not available, it is calculated by multiplying the TCCC provided average CPS emission intensity with the total production volume of non-water products

8 Well-to-Tank emission factor (including transmission and distribution loss from electricity)

9 Collected by either (1) supplier testing required by TCCC; or (2) using the average value calculated by TCCC

6.3 Appendix C – Current Scope 3 Data and Ideal Data

The level of data accuracy can be viewed in the infographic referenced to TCCCs below. Today, SCC Scope 3 data are mainly calculated by "global, industry average emissions factors". As our methodology matures, we will endeavour to drive our data from 'proxy' global data points to supplier specific data points.



To improve data accuracy, Swire Coca-Cola will work on expanding these limited assured data points to cover some of the Scope 3 emissions. The below table lists out the current data and ideal data for Scope 3 emissions:

Pillar	Current Data	Ideal Data
Ingredient	▪ Global industry average data for quantification	▪ Factory-specific emission factors from suppliers
Packaging	▪ Global industry average data for quantification ▪ Rely on the unverifiable nationally/regionally published reporting on collection rate and recycling rate	▪ Factory-specific emission factors from suppliers ▪ Collection rate and recycling rate specific to the municipality/province
Third-party Distribution	▪ Extrapolation from distribution volume for the Hong Kong SAR ▪ Actual fuel consumption data for the Chinese Mainland ▪ Distance data for the Taiwan Region and the U.S.	▪ Actual fuel consumption data/distance data
CDE	▪ Average energy consumption data value calculated by TCCC or actual energy consumption derived from supplier testing ▪ Missing data for CDE (especially for historical energy consumption data) ▪ Assumptions in energy consumption pattern by customers	▪ Actual energy consumption data from the units

Example of the Ideal Data:

The difference between the emission calculated by different data can be huge. An illustration is that the emissions of virgin aluminium produced in Northern China using intensive grid electricity compared to the emission of 100% recycled aluminium produced in Norway using 100% hydroelectricity. If using industry average data for quantification, the emission results will be underestimated or overestimated. Hence, an accurate emission for the materials used by Swire Coca-Cola cannot be illustrated. This shows the importance of using supplier-specific emission factors.

6.4 Appendix D – Production Volume by Market

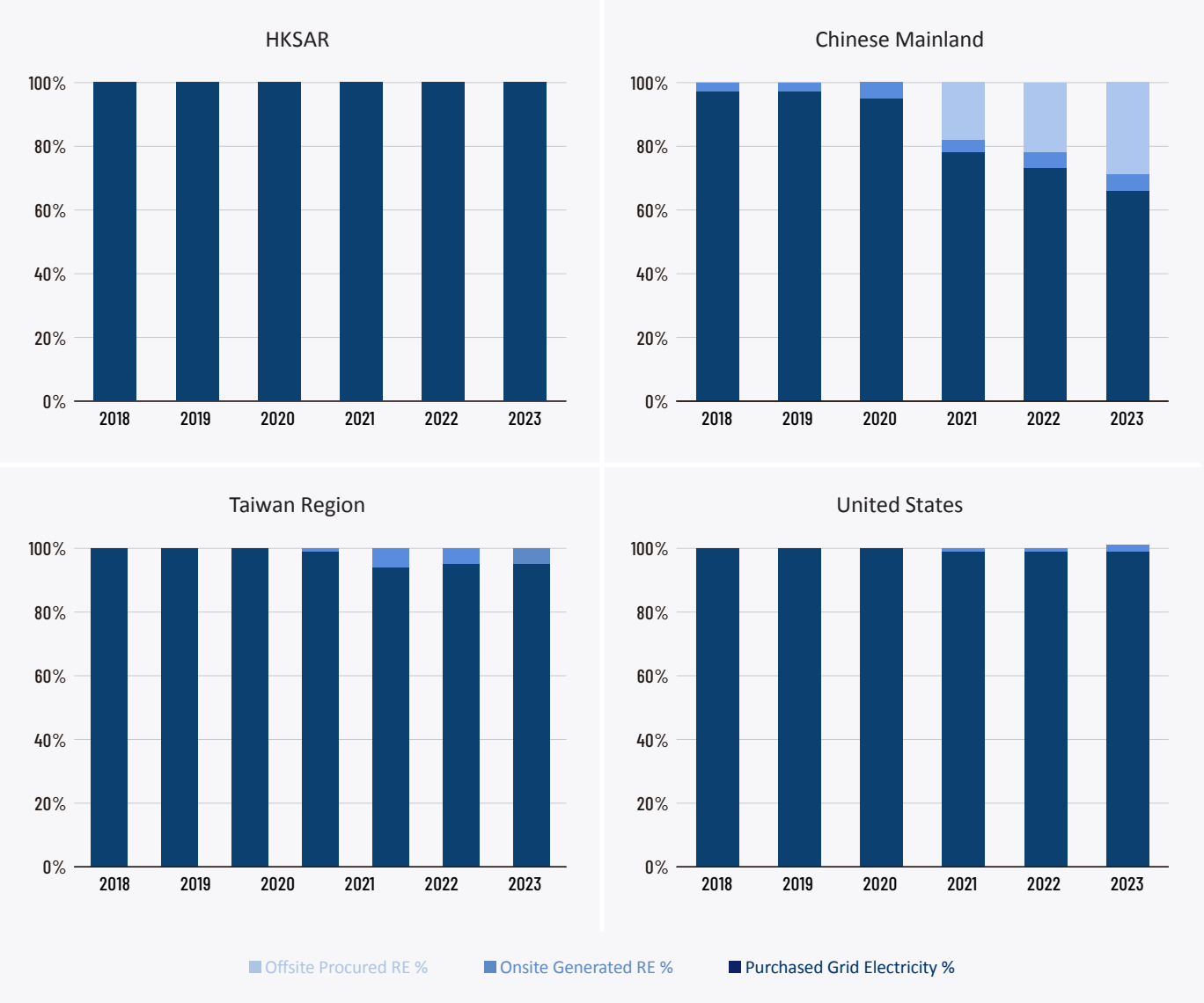
Production volume (i.e., litre of product produced) remains a key metric as our SBT is all about driving absolute emission reductions. If production volume grows greater than originally forecast, further absolute emission reductions will be required to achieve the 2030 targets.

6.5 Appendix E – Energy Use Ratio (EUR) Improvement by Market (Scope 1 & 2)

Energy use ratio (EUR) refers to the amount of energy consumed to produce one litre of product (MJ/L). The smaller the number, the more efficiently we are at producing the products. This metric is mainly driven by the change in production volume, types of products produced and the energy efficiency to produce the products.

Note: A Hong Kong SAR site was reclassified as a distribution/sales centre, which may result in a slight update of the numbers in previous years. The total emissions remain unchanged.

6.6 Appendix F – Change in Renewable Energy (RE) % by Market (Scope 2)



Refer to Section 4.1 for the details of the onsite RE generation and offsite renewable procurement programs.

6.7 Appendix G – Pipeline On-site Solar PV Project

Region	Facility	Estimated Annual Electricity Generation (MWh/year)	Expected Start Year
Chinese Mainland	Shanghai New Plant (Chinese Mainland, Jiangsu)	4,500	2025
	Guangzhou New Plant (Chinese Mainland, Guangzhou)	4,500	2025
	Zhengzhou New Plant (Chinese Mainland, Henan)	4,500	2025
United States	Tucson Sales Centre (U.S., Tucson)	793	2024
	Johnstown (U.S., Colorado)	475	2024
	Draper Headquarters (U.S., Draper)	4,541	2025
Taiwan	Taoyuan Plant (Taiwan Region)	255.5	2025

6.8 Appendix H – Grid Factor ($kgCO_2e/kWh$) Improvement by Market (Scope 2)

All regions have demonstrated improvement in their grid factors.

Market	Source of Grid Factor in 2023	2018	2019	2020	2021	2022	2023	% Change to 2018
HKSAR	CLP (2024)[10]	0.510	0.510	0.500	0.370	0.390	0.390	-24%
Chinese Mainland (East)	Baseline Emission Factors for Regional Power Grids in China (2019 Edition)[11]	0.811	0.811	0.805	0.792	0.792	0.792	-2%
Chinese Mainland (South)		0.896	0.896	0.837	0.804	0.804	0.804	-10%
Chinese Mainland (Central)		0.952	0.952	0.901	0.859	0.859	0.859	-10%
Chinese Mainland (Weighted average)		0.858	0.856	0.829	0.806	0.806	0.806	-6%
Chinese Mainland (MEE)	Ministry of Ecology and Environment (2023)[12]	–	–	–	–	–	0.573	–
Taiwan	Bureau of Energy Ministry of Economic Affairs (Taiwan) – 2022 Annual Carbon Emission Coefficient[13]	0.590	0.590	0.509	0.502	0.509	0.495	-16%
United States (WECC Northwest)	US EPA eGRID – eGRID 2023 (2021 data)[14]	0.298	0.298	0.292	0.326	0.274	0.290	-3%
United States (WECC Southwest)		0.476	0.476	0.466	0.434	0.386	0.374	-21%
United States (WECC Rockies)		0.625	0.625	0.581	0.567	0.522	0.530	-15%
United States (Weighted average)		0.409	0.409	0.394	0.398	0.347	0.353	-14%

Notes:

10 CLP (2024) 2023 Sustainability Report - page 171, retrieved from https://www.clpgroup.com/content/dam/clp-group/channels/sustainability/document/sustainability-report/2023/CLP_Sustainability_Report_2023_en.pdf.coredownload.pdf

11 Ministry of Ecology and Environment (2020) 2019 Baseline Emission Factors for Regional Power Grids in China – page 3, retrieved from http://www.mee.gov.cn/ywgz/ydqhbh/wsqtkz/202012/W020201229610353340851.pdf

12 Ministry of Ecology and Environment (2023), https://www.mee.gov.cn/xxgk2018/xxgk/xxgk06/202302/t20230207_1015569.html

13 Bureau of Energy Ministry of Economic Affairs (Taiwan), 2022, https://www.moeaea.gov.tw/ecw/english/content/Content.aspx?menu_id=24200

14 US EPA eGRID (2023) – 2021 Data, retrieved from https://www.epa.gov/system/files/documents/2023-01/eGRID2021_summary_tables.pdf

6.9 Appendix I – Recycled Content, Collection & Recovery Rate for Key Materials (Scope 3)

Recycled Content

Package Type	Market	2018	2019	2020	2021	2022	2023
Recycled Content							
PET – Water	HKSAR	0%	N/A	N/A	100%	100%	100%
	Chinese Mainland	0%	N/A	N/A	0%	0%	0%
	Taiwan Region	N/A	N/A	N/A	N/A	N/A	100%
	United States	N/A	N/A	N/A	N/A	24%	24%
PET – Other	HKSAR	0%	N/A	N/A	25%	25%	10%
	Chinese Mainland	0%	N/A	N/A	0%	0%	0%
	Taiwan Region	0%	N/A	N/A	0%	0%	0%
	United States	2%	N/A	N/A	15%	26%	26%
Aluminium	HKSAR	50%	N/A	N/A	0%	6%	12%
	Chinese Mainland	0%	N/A	N/A	10%	3%	15%
	Taiwan Region	0%	N/A	N/A	0%	0%	10%
	United States	80%	N/A	N/A	72%	72%	72%
Returnable Glass Bottle	HKSAR	0%	N/A	N/A	0%	60%	60%
	Chinese Mainland	20%	N/A	N/A	44%	40%	40%
	Taiwan Region	55%	N/A	N/A	25%	50%	50%
	United States	N/A	N/A	N/A	N/A	N/A	N/A

Collection & Recovery Rate

Package Type	Market	2018	2019	2020	2021	2022	2023
Recycled Content							
PET – Water	HKSAR	7%	N/A	N/A	15%	11%	12%
	Chinese Mainland	80%	N/A	N/A	95%	95%	95%
	Taiwan Region	72%	N/A	N/A	94%	100%	92.7%
	United States	30%	N/A	N/A	30%	30%	30%
PET – Other	HKSAR	7%	N/A	N/A	15%	11%	12%
	Chinese Mainland	80%	N/A	N/A	95%	95%	95%
	Taiwan Region	72%	N/A	N/A	94%	100%	93%
	United States	30%	N/A	N/A	30%	30%	30%
Aluminium	HKSAR	17.8%	N/A	N/A	17.8%	66%	60%
	Chinese Mainland	80%	N/A	N/A	99%	99%	99%
	Taiwan Region	72%	N/A	N/A	73%	88%	84%
	United States	49%	N/A	N/A	49%	49%	45%
Returnable Glass Bottle	HKSAR	95%	N/A	N/A	95%	83%	95.4%
	Chinese Mainland	80%	N/A	N/A	95%	95%	95%
	Taiwan Region	72%	N/A	N/A	83%	96.8%	96.9%
	United States	N/A	N/A	N/A	N/A	N/A	N/A

6.10 Appendix J – Material Emission Intensity ($kgCO_2e/kg$ of Material) (Scope 3)

Material Type	Market	Source of Emission Factor	2018	2019	2020	2021	2022	2023
PET – Water (Preform)	HKSAR	TCCC LCA packaging tool 4.6; Ifeu[15]; Global energy prechains; Plasticseurope	2.65	N/A	N/A	1.96	1.99	1.97
	Chinese Mainland		2.19	N/A	N/A	2.09	2.09	2.08
	Taiwan Region		N/A	N/A	N/A	N/A	N/A	1.46
	United States		N/A	N/A	N/A	N/A	2.34	1.86
PET – NCB (Preform)	HKSAR		2.65	N/A	N/A	2.59	2.61	2.60
	Chinese Mainland		2.19	N/A	N/A	2.09	2.09	2.08
	Taiwan Region		N/A	N/A	N/A	N/A	N/A	N/A
	United States		N/A	N/A	N/A	N/A	N/A	N/A
PET – Sparkling (Preform)	HKSAR		2.65	N/A	N/A	2.43	2.46	2.53
	Chinese Mainland		1.88	N/A	N/A	2.09	2.09	2.08
	Taiwan Region		2.08	N/A	N/A	2.09	2.05	2.09
	United States		2.51	N/A	N/A	2.40	2.33	2.32
PET – Water, NCB, Sparkling (Resin)	HKSAR		N/A	N/A	N/A	N/A	N/A	N/A
	Chinese Mainland		1.70	N/A	N/A	1.61	1.61	1.61
	Taiwan Region		N/A	N/A	N/A	N/A	N/A	N/A
	United States		N/A	N/A	N/A	N/A	N/A	N/A

Note:
15 Institute for Energy and Environmental Research

Material Type	Market	Source of Emission Factor	2018	2019	2020	2021	2022	2023
Aluminium	HKSAR	Ifeu calculation based on data from Aluminum Association	15.11	N/A	N/A	18.49	13.98	13.91
	Chinese Mainland		14.07	N/A	N/A	11.03	11.51	10.53
	Taiwan Region		14.75	N/A	N/A	13.95	12.67	12.65
	United States		9.88	N/A	N/A	10.01	9.97	10.24
Cane Sugar	HKSAR	Ifeu study for TCCC	0.59	N/A	N/A	0.59	0.59	0.59
	Chinese Mainland		0.59	N/A	N/A	0.59	0.59	0.59
	Taiwan Region		0.59	N/A	N/A	0.59	0.59	0.59
	United States		N/A	N/A	N/A	N/A	N/A	N/A
Beet Sugar	HKSAR		0.82	N/A	N/A	0.82	0.82	0.82
	Chinese Mainland		N/A	N/A	N/A	N/A	N/A	N/A
	Taiwan Region		N/A	N/A	N/A	N/A	N/A	N/A
	United States		0.82	N/A	N/A	0.82	0.82	0.82
HFCS	HKSAR		N/A	N/A	N/A	N/A	N/A	N/A
	Chinese Mainland		0.85	N/A	N/A	0.85	0.85	0.85
	Taiwan Region		0.85	N/A	N/A	0.85	0.85	0.85
	United States		0.85	N/A	N/A	0.85	0.85	0.85

6.11 Appendix K – Cooler Energy Efficiency (Scope 3)

The data of cold drink equipment (CDE) has been collected from 2021, while the collection of 2018 to 2020 CDE data is still in progress. Hence, the cooler energy efficiency values of previous years are not available.

	Market	2018	2019	2020	2021	2022	2023
Cooler Energy Efficiency (kWh/day/cooler)	HKSAR	N/A	N/A	N/A	3.47	2.77	3.39
	Chinese Mainland	N/A	N/A	N/A	3.41	3.30	3.20
	Taiwan Region	N/A	N/A	N/A	3.74	3.63	3.29
	United States	N/A	N/A	N/A	3.47	3.47	3.47

This report is prepared by RESET Carbon, a carbon consulting company on a mission to help businesses do its part in solving the environmental crisis by making meaningful reductions in their carbon, water, and waste footprint.