



# PAS 2060 Qualifying Explanatory Statement for Metso Brazil - Sorocaba Foundry and Rubber

1st Application Period: January - December 2023

This is PAS2060 Qualifying Explanatory Statement to demonstrate that Metso Brazil (Foundry and Rubber plants – CNS BA) has committed to carbon neutral in accordance with PAS2060:2014 reporting.

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## 1. Purpose and objective

This is PAS 2060 Qualifying Explanatory Statement to demonstrate that Metso Brazil (Foundry and Rubber plants – CNS BA) have achieved carbon neutrality and is committed to being carbon neutral in line with PAS 2060:2014 standard.

## 2. Scope and interfaces with other processes

This qualifying explanatory statement (QES) is applicable to Metso Brazil (Foundry and Rubber plants – CNS BA) with a direct connection with CNS Sustainability Strategy and CO2 roadmap.

1st application period: January – December 2023

## 3. Responsibilities

CNS Leadership Team	Support the Carbon Neutrality in all CNS locations; Approve the resources to implementing, achieving, and maintaining the Carbon Neutrality; Conduct annual Management Reviews.
CNS EHS	Region validation of Environmental reports; Prepare, sign, and maintain the Carbon neutrality declaration updated; Monitoring and support the implementation of CO2 roadmap in CNS's operational sites; Coordinate the Carbon Neutral verification process.
Plant Manager	Check and validate the environmental reports (site level); Conduct management reviews annually; Lead the implementation of CO2 roadmap and other environmental initiatives.
Local EHS	Report the environmental figures according to internal guidelines; Facilitate the implementation of local CO2 roadmap and other environmental initiatives.

## 4. Definitions and abbreviations

BA	Business Area
BSI	British Standard Institution
CNS	Consumables
EHS	Environment, Health & Safety
GHG	Greenhouse Gases
GO	Guarantee of Origin
LT	Leadership Team
QES	Qualifying Explanatory Statement
Scope 1	Greenhouse gas emissions from sources that are owned or controlled by the entity (described as direct emissions)
Scope 2	Greenhouse gas emissions from the generation of energy utilized in direct connection to the activities of a particular entity/subject but occurring at sources owned or controlled by another entity (described as indirect emissions)
Scope 3	Greenhouse gas emissions that are a consequence of the activities of an entity/subject but occur at sources owned or controlled by another entity and which are not classified as Scope 2 emissions (described as indirect emissions)

## 5. Declaration of achievement of carbon neutrality

### Carbon Neutrality Declaration

*"Carbon neutrality of scope 1 and 2 achieved by of Metso Brazil (Foundry and Rubber plants) in accordance with PAS 2060:2014 for the period 1 Jan 2023 - 31 Dez 2023, with a commitment to maintain the carbon neutrality until 31 Dez 2025, by BSI verification process.*

**Heikki Metsala**  
President, CNS BA  
22 May 2024

**Metso**

The Qualifying Explanatory Statement (QES) contains all the required information on the carbon neutrality of the given subject. All information provided within this report has been reviewed by a third party and is believed to be correct.

If provided with any information affecting the validity of the following statements, this document will be updated accordingly to reflect Metso Brazil Industria e Comercio Ltda (Foundry and Rubber plants) current status towards carbon neutrality. This report will be made publicly available on Metso's webpage: [Environmental operations - Metso](#).

This is Metso Brazil's (Foundry and Rubber plants) first declaration of commitment to carbon neutrality for Scope 1 & 2 GHG emissions.

Metso Brazil's (Foundry and Rubber plants) carbon neutrality declaration has been reviewed and verified by an independent third party, BSI Group the Netherlands B.V.. The Verification Opinion Statement can be found in Annex 8 of this report.

## 6. Description

### 6.1 Introduction

Metso is a frontrunner in sustainable technologies, end-to-end solutions and services for the aggregates, minerals processing and metals refining industries globally.

We offer technologies and services that improve our customer's energy and raw material efficiency, water resources management and safety. Our extensive offering for the full plant, from equipment to a broad range of services, helps our customers improve their profitability and lower their operating costs and risks. We have strong R&D and innovation power, and we are continuously looking for new ways to introduce innovations for our customers' benefit.

Sustainability is our strategic priority. We are one of the enablers of modern life and society: Working toward decarbonization and a safer working environment together with our customers, communities, suppliers and other partners.

The global energy transition requires minerals, and our customer industries' energy-intensive processes have significant environmental footprints. Our customers must meet the growing minerals demand while managing decreasing ore grades and stricter sustainability requirements. That's why we invent more sustainable ways to help our customers.

We must also take care of our own emissions footprint. We target net zero emissions by 2030: An ambitious target for which we have a strategic commitment and roadmaps. We work together with our suppliers and logistics chain to build more sustainable value chains. We also have zero-harm ambition. Preventing injuries applies to people, products and services. Safety is our utmost priority.

We understand our customer's world and the daily challenges they face. Together, we can partner for positive change.

### 6.2 Metso Brazil Industria e Comercio Ltda (Foundry and Rubber plants)

Metso Brazil - Sorocaba Foundry is located in Sorocaba city (Fernando Stecca avenue, 5501, Sorocaba - SP, Brazil) and produces a wide range of metallic parts - from small to large - intended to fulfill the needs of large mining enterprises and industries – see Fig. 1.



**Figure 1** – Overview of Metso Brazil - Sorocaba Foundry

Below there is a snapshot of key information from Sorocaba Foundry:

- Headcount: 344 employees
- Production capacity: 27.120 ton annually
- Production: 2.400 ton/ monthly
- Area:
  - Total Ground: 140,720.00 m<sup>2</sup>
  - Built: 27,692.06 m<sup>2</sup>
- Products:  
PG mantles, Mantles & MX mantles; Bowl liners; Concaves; Jaw plates & MX jaws; Metallic Mill Liners; VTM's

Metso Brazil - Sorocaba Rubber is also located in Sorocaba city (Independencia avenue, 2500, Sorocaba-SP, Brazil) and produces rubber and polyurethane wear parts for mining and construction industries – see Fig. 2.

The Rubber plant be part of Sorocaba Manufacturing site where there are multiple businesses, hosted by AGG business area (Metso) and including 2 buildings under responsibility of Valmet company. In the same site, there is a “sport area” called Metso ADC. Only the rubber plant is within the operational boundary of the PAS 2060:2014 verification, all other businesses are in exclusion of the PAS 2060:2014 operational boundary.



**Figure 2** – Overview of Metso Brazil - Sorocaba Rubber

Below there is a snapshot of key information from Sorocaba Rubber:

- Headcount: 55 employees (3 shifts)
- Area: 2.462 m<sup>2</sup>
- Production capacity:
  - Rubber: 100 tons/month
  - Polyurethane (PU): 20 tons/month
- Main Products:  
Mill Lining; Screening Media; Poly-cer (plates & sheets); Truck Lining; Lining (Rubber & Polyurethane in general)

From report perspective, the environmental figures from Rubber plant are reported separately, excluding the consumptions from other businesses.

Sorocaba Foundry and Rubber be part of CNS Supply Chain which the organization chart is showed below (Fig. 3):

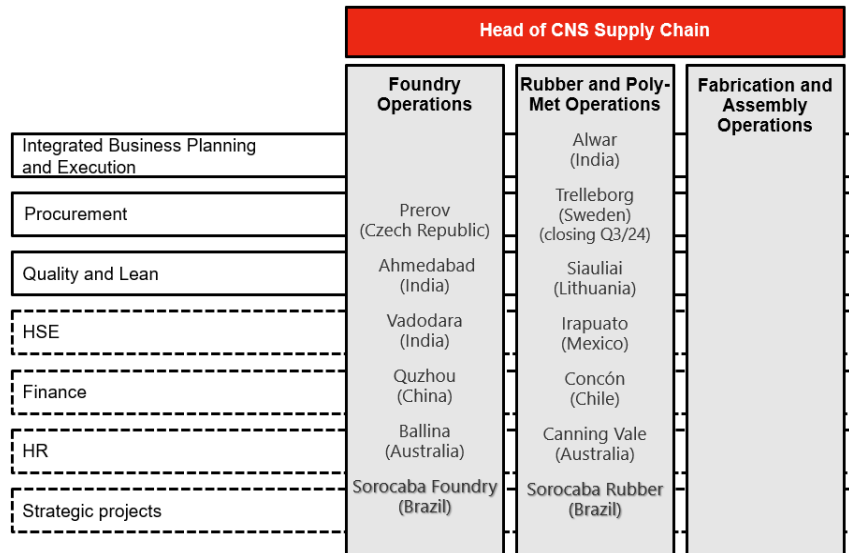


Figure 3 – CNS Supply Chain global organization

### 6.3 Energy consumption in Sorocaba sites

In Sorocaba Foundry the main energy sources are Electricity and Natural Gas representing 47% and 53% respectively (ref. 2023) as showed in Figure 4.

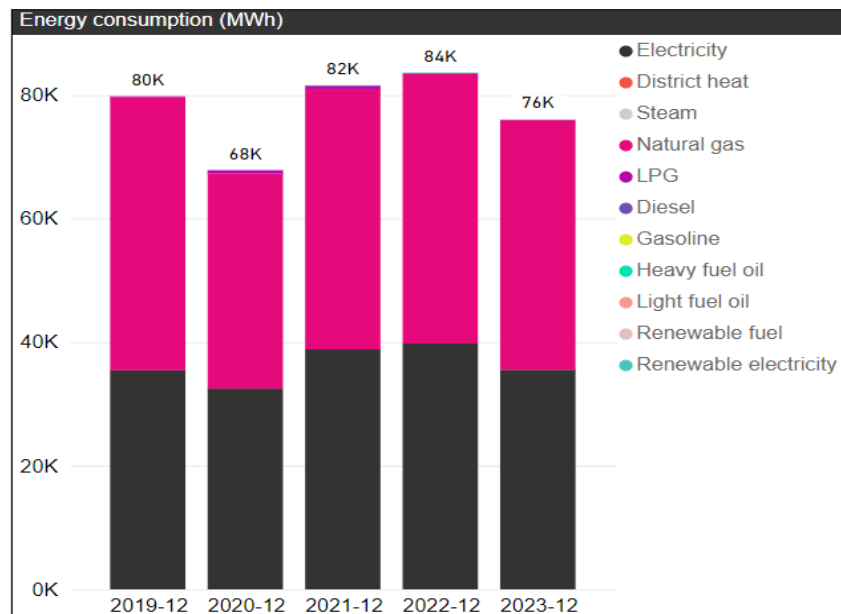
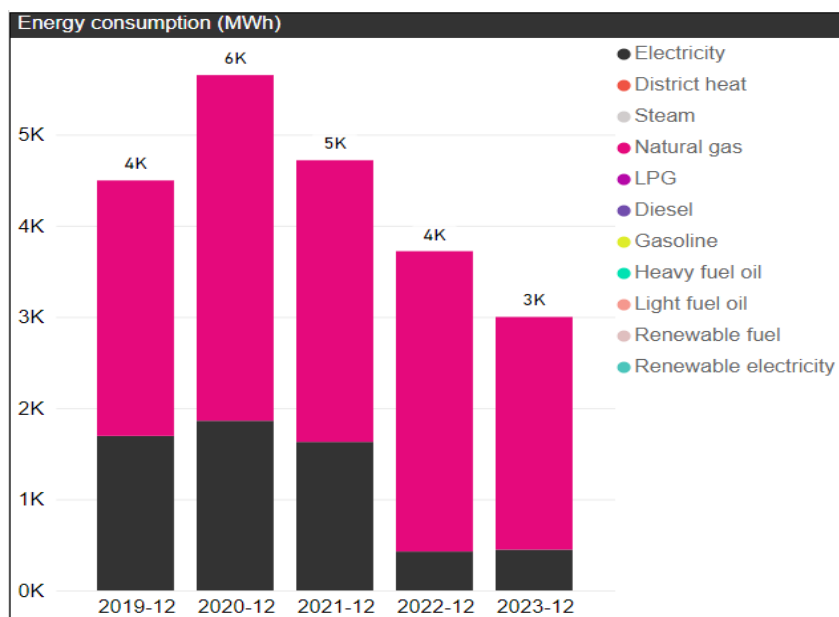


Figure 4 – Annual energy consumption in Sorocaba Foundry (MWh) - data from HSE Dashboard

In Sorocaba Rubber the main energy sources is Natural Gas representing 85% of total energy consumption (ref. 2023) as showed in Figure 5.



**Figure 5** – Annual energy consumption in Sorocaba Rubber (MWh) - data from HSE Dashboard

Basically, in Sorocaba Foundry the Natural Gas is used for Heat Treatment and Ladle pre-heating processes and in Sorocaba Rubber for steam boiler operation.

Electricity is consumed in the whole sites: Administrative areas (general use, lighting, computers, etc.) and Production processes (melting furnaces, fettling, welding, electric machines and equipment, lighting, air compressors, etc.).

In Sorocaba Foundry, the volume of Diesel and LPG used for internal transportation (forklifts and trucks) were 58.5 m<sup>3</sup> (587 MWh) and 39740 Kg (522 MWh) respectively (annex 1), which represents 1.4% of total energy consumption and 2.3% of total CO<sub>2</sub>e emissions (275 tCO<sub>2</sub>e - location-based).

Due to small share and aligned with corporate directive the “Fuels used for internal transportation” are not included in the Environmental reports (annex 3) and consequently in the Annual GRI Supplement.

For Sorocaba Rubber, the volume of Diesel used for internal transportation (forklifts and trucks) was 899 L (9 MWh) (annex 2), which represents 0.3% of total energy consumption and 0.4% of total CO<sub>2</sub>e emissions (2.4 tCO<sub>2</sub>e - location-based).

In Sorocaba Foundry the total electricity and natural gas figures are collected directly from the suppliers’ invoices and reported in HSE24, on a monthly basis.

For Sorocaba Rubber, the natural gas figures are extracted from the whole site’s invoice, but it’s deducted 5.5%, based on estimate and spot measurements of kitchen’s consumption, as there are only 2 consumers in the Manufacturing site (kitchen and rubber plant) and 94.5% of consumption belongs to Sorocaba Rubber plant.

The electricity figures are also extracted from the total site’s invoice, and it’s deducted 91.9%, based on the measurements by internal meters, and only 8.1% of total consumption belongs to Sorocaba Rubber plant.



Historic data and types of energy consumption are presented in the Table 1 and 2.

**Table 1** - Energy consumption within the Sorocaba Foundry, MWh

	2019	2020	2021	2022	2023
<b>Direct energy consumption by source</b>					
Natural gas	44,224	34,792	41,981	43,755	40,410
Coal	0	0	0	0	0
Heavy fuel oil (HFO)	0	0	0	0	0
Diesel	0	0	0	0	0
Liquefied petroleum gas (LPG)	128	552	664	12	3.56
Internal solar power	0.00	0.00	63.39	100.61	99.4
<b>Indirect energy consumption</b>					
Electricity	35,442	32,490	38,862	39,770	35,544
District heat	0	0	0	0	0
Steam	0	0	0	0	0
<b>Total energy consumption</b>	<b>79,794</b>	<b>67,834</b>	<b>81,570</b>	<b>83,637</b>	<b>76,057</b>

**Table 2** - Energy consumption within the Sorocaba Rubber, MWh

	2019	2020	2021	2022	2023
<b>Direct energy consumption by source</b>					
Natural gas	2,802	3,791	3,089	3,294	2,555
Coal	0	0	0	0	0
Heavy fuel oil (HFO)	0	0	0	0	0
Diesel	0	0	0	0	0
Liquefied petroleum gas (LPG)	0	0	0	0	0
Internal solar power	0	0	0	0	0
<b>Indirect energy consumption</b>					
Electricity	1,695	1,861	1,629	427	448
District heat	0	0	0	0	0
Steam	0	0	0	0	0
<b>Total energy consumption</b>	<b>4,497</b>	<b>5,652</b>	<b>4,718</b>	<b>3,721</b>	<b>2,999</b>

## 6.4 CO2 emissions – reports and calculations

In CNS BA the Energy figures are reported monthly in HSE24 (Metso's software for EHS data management) by each location and this is the main data source for CO2 emission calculations.

CO2 emissions are calculated in accordance with the GHG protocol and GHG emissions reporting covers CO2e. These methods are widely recognized and recommended for the reporting of GHG emissions for PAS 2060.

The reported emissions are based on invoicing and converted from MWh to CO2e emissions.

The conversion factors are based on GHG Protocol – Table 3

**Table 3** - Standard conversion factors based on GHG Protocol

Fuel	Unit	Factor
Diesel	MWh / liter diesel	0.0100333
LPG	MWh / kg LPG	0.0131389
Natural Gas	MWh / m3 natural gas	0.0093333

Metso uses emission factors based on GHG Protocol (IPCC), CBAM and local Suppliers as demonstrated in Table 4 (data sources: [GHG Protocol](#)).

All these information are available in HSE Dashboard: [D2 EnvironmentalReporting](#)

**Table 4** - Emission factors for Direct emissions

Fuel	Unit	Emission factor
Natural Gas	tCO <sub>2</sub> e / MWh	0.202

The source for location-based emission factor is the IEA Emission Factors 2023 (see on table 5).

**Table 5** - IEA Emissions Factors 2023

Country	Emissions	Unit	Emission factor (location-based)
Brazil	CO <sub>2</sub>	tCO <sub>2</sub> e / MWh	0.1339

However, in the calculations for market-based emissions we used supplier-specific emission factors, and we consider the Renewable Energy Certificates – RECs (annex 4) for Electricity and GAS-RECs for Natural Gas (annex 5) provided by local suppliers.

All energy data are collected from invoices provided by the Electricity and Gas suppliers and the uncertainties are considered and presented in the tables 6 and 7.

## 6.5 GHG emissions (scope 1 and 2)

The CO<sub>2</sub> emissions are calculated by Corporate QEHS team of Metso taking into consideration the energy consumptions (in MWh) multiplied by the respective emission factor of each energy source (market and location-based).

Based on the methodology and information described above the consolidated CO<sub>2</sub>e emissions for Sorocaba Foundry and Sorocaba Rubber are presented in the Tables 6 and 7, respectively.

**Table 6** – Direct (Scope 1) and Indirect (Scope 2) GHG emissions, tCO<sub>2</sub>e – Sorocaba Foundry, 2023.

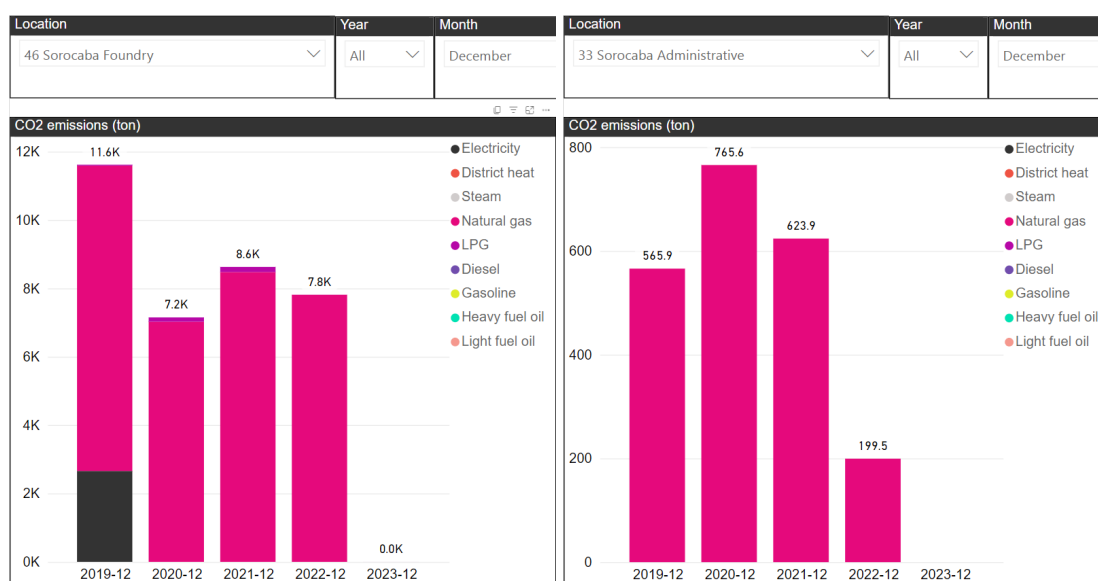
CO <sub>2</sub> emissions - 2023	Market-based ( tCO <sub>2</sub> e )	Location-based ( tCO <sub>2</sub> e )	Uncertainty (estimated)	Remarks
<b>Scope 1 - Direct</b>				
Natural Gas	0	8,162.82	1%	100% of GAS-RECs (market-based)
<b>Scope 2 - Indirect</b>				
Electricity	0	4,759.34	1%	RECs for 100% of electricity (market-based)
Internal solar power	0	0	1%	Own generation by internal solar panels
<b>Total emissions</b>	0	12,922.16	1%	

**Table 7** – Direct (Scope 1) and Indirect (Scope 2) GHG emissions, tCO<sub>2</sub>e – Sorocaba Rubber, 2023.

CO <sub>2</sub> emissions - 2023	Market-based ( tCO <sub>2</sub> e )	Location-based ( tCO <sub>2</sub> e )	Uncertainty (estimated)	Remarks
<b>Scope 1 - Direct</b>				
Natural Gas	0	516.06	10% *	100% of GAS-RECs (market-based) * Uncertainty associated with estimated consumption based on spot measurement of kitchen's consumption and total invoice.
<b>Scope 2 - Indirect</b>				
Electricity	0	59.99	1%	RECs for 100% of electricity (market-based)
<b>Total emissions</b>	0	576.05	1%	

As demonstrated in the tables 6 and 7, Metso Sorocaba Foundry and Rubber plants achieved “**net zero**” emissions of CO<sub>2</sub>e related to the scope 1 and 2 (market-based).

These results were possible thanks the implementation of several initiatives since 2019 (baseline) regarding Energy efficiency and renewable energy sources. It means that both sites together reduced 100% of its CO<sub>2</sub>e emissions vs 2019 which represent 12,183.91 tCO<sub>2</sub>e – see on Figure 6.



**Figure 6 – Annual CO2 emissions in Sorocaba sites (Foundry and Rubber) - tCO2e**

## 6.6 Scope 3 emissions and exclusions

Metso conducted an analysis of all Scope 3 emission categories. Based on that analysis, six emission categories were identified: purchased goods and services, fuel- and energy-related emissions, upstream transportation, business travel, downstream transportation, and use of sold products.

In Sorocaba Foundry, there is a small LPG consumption in Molding area which represents 0.006% of total CO2 emissions and for this reason it was excluded from scope 1 emissions calculation.

Metso has assessed its Scope 3 emissions based on the GHG Protocol's Corporate Value Chain Accounting and Reporting Standard. GHG emissions reporting covers only CO2. Metso does not have any biogenic CO2 emissions in its operations.

The annual figures for Scope 3 (company level) can be found in the GRI Supplement 2023 (annex 6).

The Scope 3 calculation cover the whole organization and the information are not deployed at site level. It means that the Scope 3 for Sorocaba sites is not available at this moment.

However, the company is working and developing some internal tools in order to allow the calculations and tracking of total CO2 emissions per product and site level.

For this reason, the boundary of this report and PAS 2060 verification should be limited by Scope 1 and 2.

## 6.7 CO2 reduction targets and carbon neutrality commitment

Metso aims for net zero in its own operations by 2030. This target is aligned with its science-based targets. Metso's solutions to reduce CO2 emissions include the extended use of renewable energy, environmental improvement actions in our production processes and facilities, and investments in own energy generation i.e., solar power systems and ground heat.



During 2020, Metso - Consumables Business Area implemented nearly 180 eco-efficiency projects to reduce CO2 emissions and waste and increase energy and water efficiency. Around 60 new initiatives are already planned for the coming years. We have almost doubled the number of solar panels at our sites compared to the beginning of 2021. Our long-term goal is to switch heating systems from fossil fuels to electricity. In our foundries, we are working to find alternatives to natural gas and LPG. We are also exploring alternatives to buying biogas directly from the grid and obtaining green gas certificates.

On that way CNS BA set ambitious targets towards Net Zero by 2030 in alignment with corporate objectives and directives as presented in the below chart (Fig. 7):

#### CNS targets for each corporate metric

	KPIs	2021A	2022A	2023A	Target 2024	Target 2025	Target 2026 / 30	Goals
Handprint	R&D spend on projects with sustainability target(s)	95%	98%	99.8%	100%	100%	100%	All R&D projects to contribute to energy, emissions, water, circularity or safety.
	80% of our R&D spend on Planet Positive products and services offering development	-	72%	78%	74%	75%	80% by 2030	R&D contributes to Planet Positive sales growth
	Planet Positive sales growth (% PP sales)	10%	+27%	+11%	total sales growth + 7%	TBD (review in 2024)	>50% by 2030 (review in 2025)	PP sales growing faster than total sales.
E Footprint	Suppliers' set CO2 targets (% of direct spend)	10%	16%	33%	28%	30%	To be defined	30% of spend have a CO2 target by the end of 2025 and 90% by 2050
	Logistics CO2 emissions reduction (%)	-18%	-8%	-7%	-20%	-20%	-20% by 2030	Logistics -20% CO2 by 2025 vs 2019
	CO2 emissions in operations (% of reduction or max tons) vs. 2019	-61% 37.3K tCO2	-64% 34.5K tCO2	-76% 22.8K tCO2	-72% 27.1K tCO2	-76% 23.2K tCO2	-80% / -100%	Net Zero 2030 requires -100% CO2 (offsetting max 10%)
	Water index reduction* All locations (m <sup>3</sup> /headcount) Water stressed	-	-8% -16%	-3% -5%	-4% -7%	-5% -8%	- 10% by 2030 -15% by 2030	Improve water efficiency in own operations
	Landfill waste % (landfill/total wastes; annual YoY)	7%	4%	4.2%	4.7%	3.9%	3.1% / 0%	Zero Landfill by 2030
Safety (w/ contractors)	LTIF (R12)		2.2	3.3	0.8	0.6	Year on year improvement	Zero Harm
	TRIF (R12)	6.5	4.1	8.1	4	2.5		

\* Baseline: 2021

Figure 7 – CNS BA Sustainability targets

CNS BA is also committed to achieving and maintaining the carbon neutrality in all manufacturing sites by 2030 once it's directly connected to its Net Zero targets.

On that way Metso Sorocaba (Foundry and Rubber) were the 2<sup>nd</sup> manufacturing sites at Metso to achieve Carbon Neutrality for scope 1 and 2 and it has maintained this performance since 2023 (see on Fig. 4) and the site is committed to continuing with that performance level by 2030.

This is the main reason to select Sorocaba sites as the 2<sup>nd</sup> sites in CNS BA to be Carbon Neutral certified, according to PAS 2060:2014.

Despite the great performance related to CO2 emissions, Sorocaba sites (Foundry and Rubber) have been permanently studying and defining new initiatives to develop their Energy and CO2 aspects as demonstrated in the CO2 Roadmaps (annex 7).

## 6.8 Performance monitoring

The CO2 performance of all CNS sites is periodically assessed to check if it's according to the plan and to identify corrective actions needs to achieve the targets.

Basically, the CO2 performance is monitored in all organization levels and the most important events are listed in the below table:

Organization level	Forum/event
Metso Corporation	QEHS Leaders Quarterly Meeting Quarterly reviews Annual report
CNS BA	CNS EHS monthly report CNS Leadership Team meeting CNS QEHS Management review
Foundry and RuPo Operations	Monthly Process Review - EHS
Sorocaba sites	Local monthly meetings EHS quarterly reviews QEHS Management review CO2 roadmap follow-up sessions

CO2 emissions performance are also tracked monthly, and the results be part of CNS EHS Monthly reports and it's shared with all Plant Managers, Supply Chain Heads and CNS EHS organization by mail and by Viva Engage.

A third-part assessment should be performed annually in order to identify opportunities for improvement and the conformity of CO2 management plan according to "PAS 2060:2014 – Specification for demonstration of carbon neutrality" standard.

## 6.9 Offsetting of remaining CO2 emissions

Although the carbon credit or offsetting are accepted and valid instruments to reduce the carbon footprint, in CNS BA them are considered as the last alternative to achieve carbon neutrality.

When needed - for any specific reason or purpose - the carbon credits shall be "Verified Emissions Reductions" (VERs) or "Certified Emissions Reductions" (CERs) types such as: CCB, VCS, GS, ACR, CAR, CDM, others equivalent.


All kinds of carbon credits shall be approved by CNS BA EHS team.

## 7. Contact and feedback

Felipe M Antunes - Environment Director – CNS - felipe.m.antunes@metso.com  
Claudio Ledier - EHS Coordinator – Sorocaba Foundry – claudio.ledier@metso.com  
Gustavo Lage - EHS Coordinator – Sorocaba Manufacturing – gustavo.lage@metso.com

## 8. Annexes

### Annex 1 - Diesel and LPG consumption in 2023 – Sorocaba Foundry

  
Annex 1 - Diesel  
and LPG consumptio



### Annex 2 - Diesel consumption in 2023 – Sorocaba Rubber

  
Annex 2 - Diesel  
consumption in 202

### Annex 3 - Corporate QEHS guideline for Environmental reports








  
10\_How to report  
environmental indic








### Annex 4 – Renewable Energy Certificates (REC) – Metso Brazil (ref. 2023)


 REC - Metso Oyj  
Brazil 24.pdf  REC - Metso Oyj  
Brazil 23.pdf

### Annex 5 - Biogas certificates (GAS-REC)

#### Sorocaba Foundry (ref. 2023):

 Setembro  
Fundição\_compleme  
 Outubro  
Fundição\_compleme  
 Dezembro  
Fundição\_compleme  
 12. Metso  
Dezembro 23 Fundi  
 11. Metso  
Novembro 23 Fundi  
 10. Metso Outubro  
23 Fundição.pdf  9. Metso Setembro  
23 Fundição.pdf

 8. Metso Agosto 23  
Fundição.pdf  7. Metso Julho 23  
Fundição.pdf  6. Metso Junho 23  
Fundição.pdf  5. Metso Maio 23  
Fundição.pdf  4. Metso Abril 23  
Fundição.pdf  3. Metso Março 23  
Fundição.pdf  2. Metso Fevereiro  
23 Fundição.pdf

 1. Metso Janeiro 23  
Fundição.pdf

#### Sorocaba Rubber (ref. 2023):

 Setembro  
Borracha\_compleme  
 Outubro  
Borracha\_compleme  
 12. Metso  
Dezembro 23 Borrac  
 11. Metso  
Novembro 23 Borrac  
 10. Metso Outubro  
23 Borracha.pdf  9. Metso Setembro  
23 Borracha.pdf  8. Metso Agosto 23  
Borracha.pdf

 7. Metso Julho 23  
Borracha.pdf  6. Metso Junho 23  
Borracha.pdf  5. Metso Maio 23  
Borracha.pdf  4. Metso Abril 23  
Borracha.pdf  3. Metso Março 23  
Borracha.pdf  2. Metso Fevereiro  
23 Borracha.pdf  1. Metso Janeiro 23  
Borracha.pdf

## **Annex 6 – Metso Annual report: GRI Supplement 2023**



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## **Annex 7 - CNS CO2 Roadmap towards Net Zero (2020-2030)**



CNS BA -  
Scope\_1\_2\_3\_roadm

## **Annex 8 – Verification Opinion Statement from BSI Group the Netherlands B.V.**



metso brazil 2023 -  
pas2060 VOS v2.pdf



### Annex 8 - PAS 2060 checklist

1	Define standard and methodology used to determine its GHG emissions reductions.	Section 6.4
2	Confirm that the methodology used was applied in accordance with its provisions, and principles set out in PAS 2060 were met.	Section 6.4
3	Provide justification for the selection of the methodologies chosen to quantify the reductions in the carbon footprint, including all assumptions and calculations made and any assessments of uncertainty.	Section 6.4
4	Describe the means by which reductions have been achieved and any applicable assumptions or justifications.	Sections 6.3, 6.4 and 6.5
5	Ensure that there has been no change to the definition of the subject.	Section 2
6	Describe the actual reductions achieved in absolute terms.	Section 6.5
7	State the baseline/qualification date.	Section 2
8	Record the percentage economic growth rate for the given application period used as a threshold for recognizing reductions in intensity terms.	N/A
9	Provide an explanation for circumstances where a GHG reduction in intensity terms is accompanied by an increase in absolute terms for the determined subject.	N/A
10	Select and document the standard and methodology used to achieve carbon offset.	Section 6.9
11	Confirm that: <ul style="list-style-type: none"> <li>– Offsets purchased or allowance credits surrendered represent genuine, additional GHG</li> <li>– Projects involved in delivering offsets meet the criteria of additionality, permanence, leakage and double counting.</li> <li>– Carbon offsets are verified by an independent third-party verifier</li> <li>– Credits from carbon offset projects are only issued after emission reduction has taken place</li> <li>– Credits from carbon offset projects are retired within 12 months from the date of the declaration of achievement</li> <li>– Credits from carbon offset projects are supported by publicly available project documentation on a registry which shall provide information about the offset project, quantification methodology and validation and verification procedures</li> <li>– Credits from carbon offset projects are stored and retired in an independent registry</li> </ul>	Section 6.9
12	Document the quantity of GHG emissions offset and the type and nature of offsets actually purchased including the number and type of credits used and the time period over which credits were generated including: <ul style="list-style-type: none"> <li>– Which GHG emissions have been offset</li> <li>– The actual amount of carbon offset</li> <li>– The type of offset and projects involved</li> <li>– The number and type of carbon offset credits used and the time period over which the credits have been generated</li> <li>– Information regarding the retirement/cancellation of carbon offset credits to prevent their use by others including a link to the registry where the offset has been retired</li> </ul>	Section 6.9
13	Specify the type of conformity assessment.	Other party validation
14	Include statements of validation where declarations of achievement of carbon neutrality are validated by a third-party certifier or second-party organizations.	Section 5
15	Date the QES and have it signed by the senior representative of the entity concerned.	Section 5
16	Make QES publicly available and provide a reference to any freely accessible information upon which substantiation depends (e.g., via websites).	Website published

Metso is a frontrunner in providing sustainable technologies, end-to-end solutions and services for the aggregates, minerals processing and metals refining industries globally. By helping our customers increase their productivity, improve their energy and water efficiency and environmental performance with our process and product expertise, we are the **partner for positive change**.