

MOBRUK



Report on Mo-BRUK's carbon footprint calculation

for the year 2023

TAILORS
● ● ● GROUP



Report on carbon footprint calculation



OBJECTIVE OF THE REPORT

A carbon footprint is the total amount of greenhouse gas (GHG) emissions caused directly or indirectly by an individual, organisation, event or product.

Carbon footprint includes carbon dioxide emissions as well as methane, nitrous oxide and other greenhouse gas emissions expressed in carbon dioxide equivalents (CO₂e).

The objectives underlying this report on Mo-BRUK's carbon footprint quantification are:

- management of GHG emissions and identification of emission reduction options,
- publication of the organisation's GHG emission levels.

REVIEW OF THE REPORT

The inventory presented in this report has not been reviewed by an accredited third party.

OBLIGATORY INFORMATION

No facilities, operations or emissions were excluded from the inventory.

Reporting period covered by the inventory	
Reporting period start date	1 Jan 2023
Reporting period end date	31 Dec 2023

ORGANISATIONAL LIMITS

Mark each consolidation method used for making this report. If the organisation uses more than one consolidation method to report emissions, please attach separate calculations for each consolidation method.

- Participating interest
- Financial control
- Operational control

Reporting period covered by the inventory	
Are Scope 3 emissions included in the inventory?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO

ABOUT THE GROUP

The Group has been operating in the waste management sector since 1996. Mo-BRUK S.A.'s operations focus on three areas: thermal waste disposal, RDF production, and waste solidification and stabilisation. The core business operations of the subsidiary Raf-Ekologia Sp. z o.o. include thermal disposal of industrial and medical waste, and those of the subsidiary EL-KAJO – waste consolidation and stabilisation.

The Group has 6 plants situated in Niecew, Karsy, Skarbimierz, Wałbrzych and Jedlicze in southern Poland, and in Bydgoszcz.

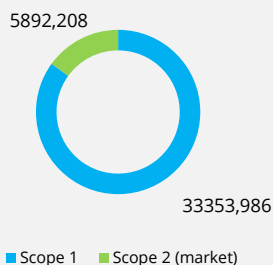
Carbon footprint calculation is a very important step towards informed management of the organisation's CO₂ emissions.

This is a first step towards reducing costs, increasing transparency to stakeholders, and bringing down the organisation's carbon footprint.

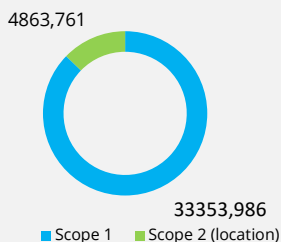


Łukasz Chojecki
Partner
TAILORS Group

MARKET



LOCATION



INFORMATION ON EMISSIONS

Emissions	Total	CO ₂	CH ₄	N ₂ O	HFC	PFC	SF ₆
	(tCO ₂ e)	(t)	(t)	(t)	(t)	(t)	(t)
Scope 1	33353.986	33332.548	0.02	0.079	0.00	0.00	0.00
Scope 2 (market)	5892.208	5892.208	0.00	0.00	0.00	0.00	0.00
Scope 2 (location)	4863.761	4863.761	0.00	0.00	0.00	0.00	0.00
Scope 3 (optional)	-	-	-	-	-	-	-
Direct CO ₂ emissions from biomass combustion (tCO ₂)							0

BASE YEAR

Base year	2022
Explanation of the organisation's base-year emission recalculation policy	The organisation's base-year emission recalculation policy refers to a situation when projected emission levels increase by more than 5%.
Context for significant changes in emission levels that require recalculating base-year emissions	<p>Significant changes in emission levels that require recalculating base-year emissions may result from:</p> <ul style="list-style-type: none"> Changes in the organisation's structure (purchase or sale of shares, organisational division) Outsourcing or insourcing of emission-generating operations Changes to the methodology for carbon footprint determination, increasing the accuracy of emission factors or the accuracy of information on activity Improving the accuracy of emission factors (primarily in the context of market-based energy footprint calculations) Identification of significant calculation errors

Base-year emissions (Disclosures 305-1 and 305-2 as per GRI Standards)							
Emissions	Total	CO ₂	CH ₄	N ₂ O	HFC	PFC	SF ₆
	(tCO ₂ e)	(t)	(t)	(t)	(t)	(t)	(t)
Scope 1	28512.284	28493.84	0.014	0.067	0.000	0.000	0.000
Scope 2 (market)	5968.201	5968.201	0.000	0.000	0.000	0.000	0.000
Scope 2 (location)	4530.287	4530.287	0.000	0.000	0.000	0.000	0.000
Scope 3 (optional)	-	-	-	-	-	-	-

METHODOLOGIES AND EMISSION FACTORS

Methodologies used for calculating or measuring emissions other than those provided for in the GHG Protocol	NOT APPLICABLE
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Optional information

ORGANISATIONAL LIMITS

Inventory of all legal persons or facilities in which the organisation has a participating interest or exercises financial or operational control	Percentage of participating interest	Does the reporting organisation exercise financial control? (YES/NO)	Does the reporting organisation exercise operational control? (YES/NO)
Niecow	100%	YES	YES
Łęka	100%	YES	YES
Skarbimierz	100%	YES	YES
Wałbrzych – Górnicza	100%	YES	YES
Wałbrzych – Moniuszki	100%	YES	YES
Karsy	100%	YES	YES
Jedlicze (Raf-Ekologia sp. z o.o.)	100%	YES	YES
Bydgoszcz – Chodkiewicza (El-Kajo sp. z o.o.)	100%	YES	YES
Bydgoszcz – Hutnicza (El-Kajo sp. z o.o.)	100%	YES	YES

If the parent company of the reporting company does not report emissions, an organisational chart should be attached with a clearly defined relationship between the reporting subsidiary and other subsidiaries.	NOT APPLICABLE
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INFORMATION ON EMISSIONS

Emissions disaggregated by source (tCO ₂ e)	
Scope 1: Direct emissions from own/controlled operations	33353.986
a. Direct emissions from stationary combustion sources	31701.918
b. Direct emissions from mobile combustion sources	1630.631
c. Direct emissions from processing sources	0
d. Direct emissions from fugitive sources	0
e. Direct emissions from agricultural sources	0
Scope 2: Indirect emissions from use of purchased electricity, steam, heating and cooling (market)	5892.208
a. Indirect emissions from purchased/acquired electricity	5887.223
b. Indirect emissions from purchased/acquired steam	0
c. Indirect emissions from purchased/acquired heating	4.987
d. Indirect emissions from purchased/acquired cooling	0
Scope 2: Indirect emissions from use of purchased electricity, steam, heating and cooling (location)	4863.761
a. Indirect emissions from purchased/acquired electricity	4858.774
b. Indirect emissions from purchased/acquired steam	0
c. Indirect emissions from purchased/acquired heating	4.987
d. Indirect emissions from purchased/acquired cooling	0

Emissions per country/location			
Location	Scope 1 (tCO ₂ e)	Scope 2 (market-based) (tCO ₂ e)	Scope 3 (tCO ₂ e)
Karsy	19202.36	4102.329	-
Niecow	582.239	272.030	-
Łęka	12.630	279.467	-
Skarbimierz	158.820	82.183	-
Wałbrzych – Górnicza	34.775	220.624	-
Wałbrzych – Moniuszki	0	50.637	-
Jedlicze	13021.115	744.907	-
Bydgoszcz – Chodkiewicza	0	0.851	-
Bydgoszcz – Hutnicza	342.047	139.180	-
Total	33353.986	5892.208	-

Emissions per country/location			
Location	Scope 1 (tCO ₂ e)	Scope 2 (location-based) (tCO ₂ e)	Scope 3 (tCO ₂ e)
Karsy	19202.36	3387.711	-
Niecow	582.239	224.643	-
Łęka	12.630	41.816	-
Skarbimierz	158.820	182.192	-
Wałbrzych – Górnicza	34.775	230.784	-
Wałbrzych – Moniuszki	0	67.867	-
Jedlicze	13021.115	616.015	-
Bydgoszcz – Chodkiewicza	0	0.685	-
Bydgoszcz – Hutnicza	342.047	112.048	-
Total	33353.986	4863.761	-

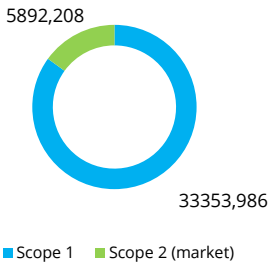
Emissions attributable to own generation of electricity, heating or cooling that are sold or transferred to another organisation (tCO ₂ e)	11978.26 (based on the emission factors in 2022).
Emissions associated with generation of electricity, heating or steam acquired for resale to non-end users	0
GHG emissions not controlled by the Kyoto Protocol (e.g., CFCs, NO _x) (tCO ₂ e)	0
Information on causes of changes in emission levels, which have not given rise to recalculation of base-year emissions (e.g., process changes, efficiency improvements, closing down of a plant)	NOT APPLICABLE
GHG emissions for all years between the base year and the reporting year (including details and reasons for recalculations as applicable)	NOT APPLICABLE
Relevant emission factor effectiveness indicators (e.g., emissions per generated kilowatt-hour, sale, etc.)	--
Summary of GHG emission management/reduction programmes or strategies	--

ADDITIONAL INFORMATION

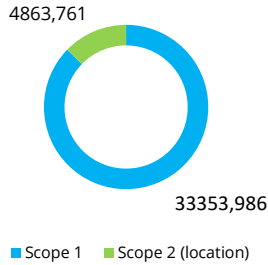
Information on contractual provisions concerning GHG emission risks and obligations	--
Summary of external assurances and copies of statements on verification of reported emission levels as applicable	--
Information on the quality of the GHG inventory (e.g., information on causes and magnitude of uncertainty of emission estimates) and an outline of policies aimed at improving the quality of the inventory	<p>Carbon footprint was calculated based on approved emission factors determined, e.g., by the GHG Protocol, DEFRA, AIB and KOBIZE [National Centre for Emissions Management].</p> <p>Carbon footprint of electricity was determined based on a residual mix due to non-compliance with the guidelines for the quality of emission factors as per the GHG Protocol Scope 2 Guidance.</p> <p>No refrigerant leaks were identified in 2023.</p> <p>As far as stationary fuel combustion during thermal waste treatment in the Karsy-based facility is concerned, the respective levels were determined based on the reporting factor used for reporting emissions to the National Centre for Emissions Management (KOBIZE). Emission levels in Jedlicze were calculated taking into account the emission factor determined from periodic measurements (2 times a year) of flue gas emissions from the facility. The actual results may vary according to batch composition.</p>
GHG emissions for all years between the base year and the reporting year (including details and reasons for recalculations as applicable)	<p>In 2023, the base year had to be recalculated due to a change in the structure of the MO-BRUK Group (acquisition of El-Kajo sp. z o.o. and Polskie Materiały Drogowe sp. z o.o.). Materiały Drogowe sp. z o.o. was not included in the calculations because the company has a technical function and does not carry out any operations resulting in Scope 1 and Scope 2 emissions.</p>
Information on GHG sequestration	--

Summary: Mo-BRUK’s carbon footprint in 2023
due to Scope 1 and Scope 2 emissions as per the GHG Protocol

MARKET



LOCATION



INFORMATION ON OFFSETS

Information on offsets purchased or developed outside the recording limits		
GHG quantity (tCO ₂ e)	Type of offset project	Have the offsets been verified/certified or approved by an external GHG programme (e.g., CDM)?
-	-	-

Information on reductions within recording limits, which were sold/transferred as offsets to a third party		
GHG quantity (tCO ₂ e)	Type of offset project	Have the offsets been verified/certified and/or approved by an external GHG programme (e.g., CDM)?
-	-	-

Certification of the reliability of the calculations

I certify that Mo-BRUK's carbon footprint was calculated using due diligence as well as the knowledge and experience of TAILORS Group and its consultants.

The calculations and the report were prepared in accordance with the standards of the international GHG Protocol.



HOW YOU CAN REACH US

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