



2022 Emissions by Scope <sup>(1)(2)(3)</sup>		
Scope	Primary (MB) mtons CO2e	Secondary (LB) mtons CO2e
Scope 1	154	154
Scope 2	579	6,824
<b>Total</b>	<b>733</b>	<b>6,979</b>

2022 Scope 3 Emissions by Category <sup>(1)(2)(3)</sup>	
Source	mtons CO2e
C1 - Purchased Goods & Services	33,377
C3 - Fuel & Energy-Related Activities	2,331
C5 - Waste generated in operations	190
C6 - Business travel	1,929
C7 - Employee commuting	1,664
C11 - Use of sold products	2,883
C13 - Downstream leased assets	316
<b>Total</b>	<b>42,690</b>

2021 Emissions by Scope <sup>(1)(2)(3)</sup>		
Scope	Primary (MB) mtons CO2e	Secondary (LB) mtons CO2e
Scope 1	160	160
Scope 2	964	6,480
<b>Total</b>	<b>1,124</b>	<b>6,640</b>

2021 Scope 3 Emissions by Category <sup>(1)(2)(3)</sup>	
Source	mtons CO2e
C1 - Purchased Goods & Services	30,156
C3 - Fuel & Energy-Related Activities	1,878
C5 - Waste generated in operations	202
C6 - Business travel	399
C7 - Employee commuting	1,539
C11 - Use of sold products	3,044
C13 - Downstream leased assets	413
<b>Total</b>	<b>37,631</b>

2020 Emissions by Scope <sup>(1)(2)(3)</sup>		
Scope	Primary (MB) mtons CO2e	Secondary (LB) mtons CO2e
Scope 1	230	230
Scope 2	3,507	7,360
<b>Total</b>	<b>3,737</b>	<b>7,590</b>

2020 Scope 3 Emissions by Category <sup>(1)(2)(3)</sup>	
Source	mtons CO2e
C1 - Purchased Goods & Services	27,349
C3 - Fuel & Energy-Related Activities	1,273
C5 - Waste generated in operations	158
C6 - Business travel	1,499
C7 - Employee commuting	1,506
C11 - Use of sold products	1,938
C13 - Downstream leased assets	417
<b>Total</b>	<b>34,140</b>

2019 Emissions by Scope <sup>(1)(2)(3)</sup>		
Scope	Primary (MB) mtons CO2e	Secondary (LB) mtons CO2e
Scope 1	272	272
Scope 2	4,196	7,767
<b>Total</b>	<b>4,468</b>	<b>8,039</b>

2019 Scope 3 Emissions by Category <sup>(1)(2)(3)</sup>	
Source	mtons CO2e
C1 - Purchased Goods & Services	27,762
C3 - Fuel & Energy-Related Activities	609
C5 - Waste generated in operations	676
C6 - Business travel	4,417
C7 - Employee commuting	2,568
C11 - Use of sold products	1,938
C13 - Downstream leased assets	417
<b>Total</b>	<b>38,387</b>

<sup>1</sup> As of July 2023, MSC-I is in the process of recalculating base-year emissions and re-verifying scope 3 purchase goods and services emissions for the years 2019 (base year), 2020 and 2021 in accordance with our practice of adjusting historical emissions data to account for significant changes and in line with the GHG Protocol Guidance: A Corporate Accounting and Reporting Standard.

Based on initial estimates, we currently anticipate significant changes in previously reported 2019-2021 Scope 3 emissions data, including base-year data, compared to the previously disclosed values, which changes may be material. We plan to disclose on this website page the recalculated emissions data once verified.

<sup>2</sup> Carbon footprint metrics for 2019, 2020, 2021 and 2022 verified with limited assurance. Subsequently, 2019 and 2020 emissions have been re-baselined for the RCA acquisition. They may differ from those previously published due to retroactive recalculations made in accordance with the GHG Protocol. (Greenhouse Gas Protocol A Corporate Accounting and Reporting Standard REVISED EDITION. World Resources Institute. Copyright © World Resources Institute and World Business Council for Sustainable Development, March 2004. Page 35-37). <https://ghgprotocol.org/sites/default/files/standards/ghg-protocol-revised.pdf#page=37>

<sup>3</sup> MB or market-based: A method to quantify the scope 2 GHG emissions of a reporter based on GHG emissions emitted by the generators from which the reporter contractually purchases electricity bundled with contractual instruments, or contractual instruments on their own.

LB or location-based: A method to quantify scope 2 GHG emissions based on average energy generation emission factors for defined geographic locations, including local, subnational, or national boundaries.

Source: GHG Protocol Scope 2 Guidance, An amendment to the GHG Protocol Corporate Standard, World Resource Institute, 2015. Page 26. Scope 2 Guidance\_Final\_Sept26.pdf

[https://ghgprotocol.org/sites/default/files/standards/Scope%20%20Guidance\\_Final\\_Sept26.pdf](https://ghgprotocol.org/sites/default/files/standards/Scope%20%20Guidance_Final_Sept26.pdf)



MSCI 2019-2021 Emissions <sup>(1)(2)(3)</sup>	2022	2021	2020	2019	2022 YoY Change	2021 YoY Change	2020 YoY change	2019-2022 Change
Primary (MB) mtons CO2e	733	1,124	3,737	4,468	-35%	-70%	-16%	-84%
Secondary (LB) mtons CO2e	6,979	6,640	7,590	8,039	5%	-13%	-6%	-13%
Scope 3 Total	42,690	37,631	34,140	38,387	13%	10%	-11%	11%

<sup>1</sup> As of July 2023, MSCI is in the process of recalculating base-year emissions and re-verifying Scope 3 purchase goods and services emissions for the years 2019 (base year), 2020 and 2021 in accordance with our practice of adjusting historical emissions data to account for significant changes and in line with the GHG Protocol Guidance: A Corporate Accounting and Reporting Standard. Based on initial estimates, we currently anticipate significant changes in previously reported 2019-2021 Scope 3 emissions data, including base-year data, compared to the previously disclosed values, which changes may be material. We plan to disclose on this website page the recalculated emissions data once verified.

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