

Business Travel: Commercial Rail Travel

20 mtCO2e

Year over Year Change in Emissions

Optera was also able to verify MMC's assertion that the year-on-year change in emissions, from the 2021 to 2022 inventory is as follows:

Item	2021 Quantity	2022 Quantity	% Change
Scope 1 emissions (mtCO2e)	24,152	27,036	+12%
Scope 2 emissions (mtCO2e)			
Location-based emissions	78,935	71,651	-9%
Market-based emissions	83,443	68,030	-18%
Scope 3 emissions (mtCO2e)			
Business Travel: Commercial Air travel	7,398	50,634	+584%*
Business Travel: Commercial Rail travel	N/A	20	N/A

Founded upon appropriate systems for the collection, aggregation and analysis of quantitative data for determination of Scope 1 (direct), Scope 2 (indirect) and limited Scope 3 emissions (other indirect), including only Business Travel: commercial air and rail travel;

Correct at a *limited* level of assurance;

Meets the minimum level of accuracy of at least 95 percent;

Accurate, materially correct, and a fair representation of GHG data and information; and

Prepared in accordance with ISO 14064-1 and The Climate Registry General Reporting Protocol, including associated requirements for the design, development, management, reporting and verification of an organization's GHG inventory.

Statement of Independence, Impartiality and Competence

Optera is an independently owned and operated consulting and software services company that specializes in technical analysis and innovation for efficiency and renewable resources. Optera has considerable experience in the development, reporting and verification of GHG emissions information for industrial, utility, municipal and corporate clients. Optera's verification team did not contribute to the compilation of MMC's 2022 fiscal year GHG inventory and did not work on the GHG inventory beyond what is required of this assignment. Optera has conducted this verification independently, and there has been no conflict of interest.



Miranda Davis

Lead Reviewer

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Ty Colman

Peer Review

March 29, 2023