

Group Carbon Footprint Report

2023 Calendar Year

Published September 2024

This page left intentionally blank for pagination.

Mott MacDonald
Victory House
Trafalgar Place
Brighton BN1 4FY
United Kingdom

T +44 (0)1273 365000
mottmac.com

Group Carbon Footprint Report

2023 Calendar Year

Published September 2024

Issue and Revision Record

Revision	Date	Originator	Checker	Approver	Description
1	23.09.24	BH	VB & AW	DB	For publication

Document reference:

This document is issued for the party which commissioned it and for specific purposes connected with the above-captioned project only. It should not be relied upon by any other party or used for any other purpose.

We accept no responsibility for the consequences of this document being relied upon by any other party, or being used for any other purpose, or containing any error or omission which is due to an error or omission in data supplied to us by other parties.

This document contains confidential information and proprietary intellectual property. It should not be shown to other parties without consent from us and from the party which commissioned it.

Contents

Executive summary	1
1 Introduction	2
2 Carbon reduction targets	3
3 Emissions reporting	4
3.1 Scope and boundary	4
3.1.1 Organisational boundary	4
3.1.2 Operational boundary	4
3.2 Emissions summary	5
3.3 Energy consumption	6
4 Progress against targets	7
4.1 Near-term target progress	7
4.2 Long-term target progress	9
5 Carbon reduction plan	11
5.1 Transition to low carbon energy	11
5.2 Low carbon procurement	11
5.3 Travel policy and behaviours	11
5.4 Beyond value chain mitigation	11
5.5 Beyond our corporate carbon emissions	12
6 Emissions reporting methodology	13
6.1 Methodology updates (compared to previous iteration of this report)	13
6.2 Overview of methodology	13
7 Contact details	17

Tables

Table 1: Mott MacDonald Group Limited emissions summary	6
Table 2: Mott MacDonald Group Limited energy consumption summary	6
Table 3: Progress against near-term science-based targets	8
Table 4: Progress against long-term science-based targets	9
Table 5: Overview of methodology	13

Figures

Figure 1: Operational boundary	4
Figure 2: GHG Protocol relevance criteria	5
Figure 3: Projected vs actual emissions (*including only emission sources within our near-term absolute emissions reduction target).	8
Figure 4: Summary of emissions by scope (*including only emission sources within our near-term absolute emissions reduction target).	9
Figure 5: Projected vs actual emissions (long-term absolute emissions reduction target).	10
Figure 6: Summary of emissions by scope (displaying emission sources included in our long-term absolute emissions reduction target).	10

Executive summary

Mott MacDonald Group Limited is committed to achieving net-zero emissions across our value chain by 2040 from a 2019 base year. Our net-zero target is supported by several near-term targets which cover absolute emissions reductions and engagement with our supply chain. Our emissions reduction targets are validated by the Science Based Targets initiative (SBTi) in accordance with the SBTi Net-Zero Standard.

Mott MacDonald understands the imperative to decarbonise at pace, we have therefore established a Group carbon reduction plan to:

- Set up and maintain systems which enable and encourage decarbonisation,
- Gain a better understanding of our emission sources and identify opportunities for emissions reductions, and
- Develop, implement, and monitor a series of actions to reduce our emissions.

To date, we have achieved a 20% reduction in our global carbon emissions compared to a 2019 baseline and our carbon footprint has been consistently below our targeted emissions trajectory since 2020.

This report provides further information on our commitments and progress to date, in addition to further technical detail surrounding our emissions calculation methodology.

1 Introduction

Mott MacDonald Group Limited is committed to achieving net-zero emissions across our value chain by 2040 from a 2019 base year. Our carbon reduction targets have been validated by the Science Based Targets initiative (SBTi). This document has been prepared to report on our annual emissions and show progress against our targets. We intend to update this document on an annual basis.

Mott MacDonald is a private limited company registered in the UK, providing management, engineering, and development consultancy solutions globally. As well as the consulting business, Mott MacDonald also has a contracting business, JN Bentley, which operates solely in the UK.

Overall responsibility to oversee the effective implementation of our carbon management plan lies with our Group Management Committee. Our [climate change policy](#) replaces our position papers on net-zero greenhouse gas (GHG) emissions and resilience to the physical impact of climate change, demonstrating how we are moving from ambition to action on climate change mitigation and resilience. The policy includes our commitment to the reduction of our emissions, building resilience to the physical impacts of climate change, and managing and disclosing our climate-related risks.

Mott MacDonald's carbon footprint refers to greenhouse gases (GHG) emitted directly by us or from sources over which we have control. Our emissions are reported for the calendar year as tonnes of carbon dioxide equivalent (tCO₂e) for our global business. We have undertaken the calculations following the approach set out in ISO 14064.

2 Carbon reduction targets

We have set targets for deep carbon reduction. The following targets are validated by the SBTi:

- Overall net-zero target: Mott MacDonald Group Limited commits to reach net-zero greenhouse emissions across our value chain by 2040 from a 2019 base year.
- Near-term Targets:
 - Mott MacDonald Group Limited commits to a 46.2% reduction in absolute scope 1 and 2 GHG emissions by 2030 from a 2019 base year*.
 - Mott MacDonald Group Limited also commits to a 28% reduction in absolute scope 3 GHG emissions from fuel and energy related activities, waste generated in operations, business travel, and employee commuting within the same timeframe.
 - Mott MacDonald Group Limited also commits that 70% of its suppliers by spend covering purchased goods and services, capital goods, and upstream transportation and distribution will have science-based targets by 2027.
- Long-term Target:
 - Mott MacDonald Group Limited commits to reduce absolute scope 1, 2 and 3 GHG emissions 90% by 2040 from a 2019 base year*.

**The target boundary includes land-related emissions and removals from bioenergy feedstocks.*

Our net-zero target means we must reduce our emissions across the business, with only residual emissions removed from the atmosphere (via neutralisation, as per the Net-Zero Standard). To achieve our targets, we have developed a [Group carbon reduction plan](#) which we will review on an annual basis.

WE'VE HAD OUR SCIENCE-BASED TARGET APPROVED



3 Emissions reporting

3.1 Scope and boundary

3.1.1 Organisational boundary

Our emissions reporting covers our global business. Our organisational boundary is set according to the *control* approach (as defined by the GHG Protocol), under which Mott MacDonald accounts for 100% of GHG emissions from operations over which it has control. In this way, we also have a greater level of control over the reduction efforts we put in place.

3.1.2 Operational boundary

Our operational boundary (Figure 1), has been set in accordance with the GHG Protocol¹ and was determined using the relevance criteria detailed in Figure 2. These GHG Protocol scopes have been mapped to the ISO 14064 emissions categories for auditing purposes. This mapping is available within the Appendix.

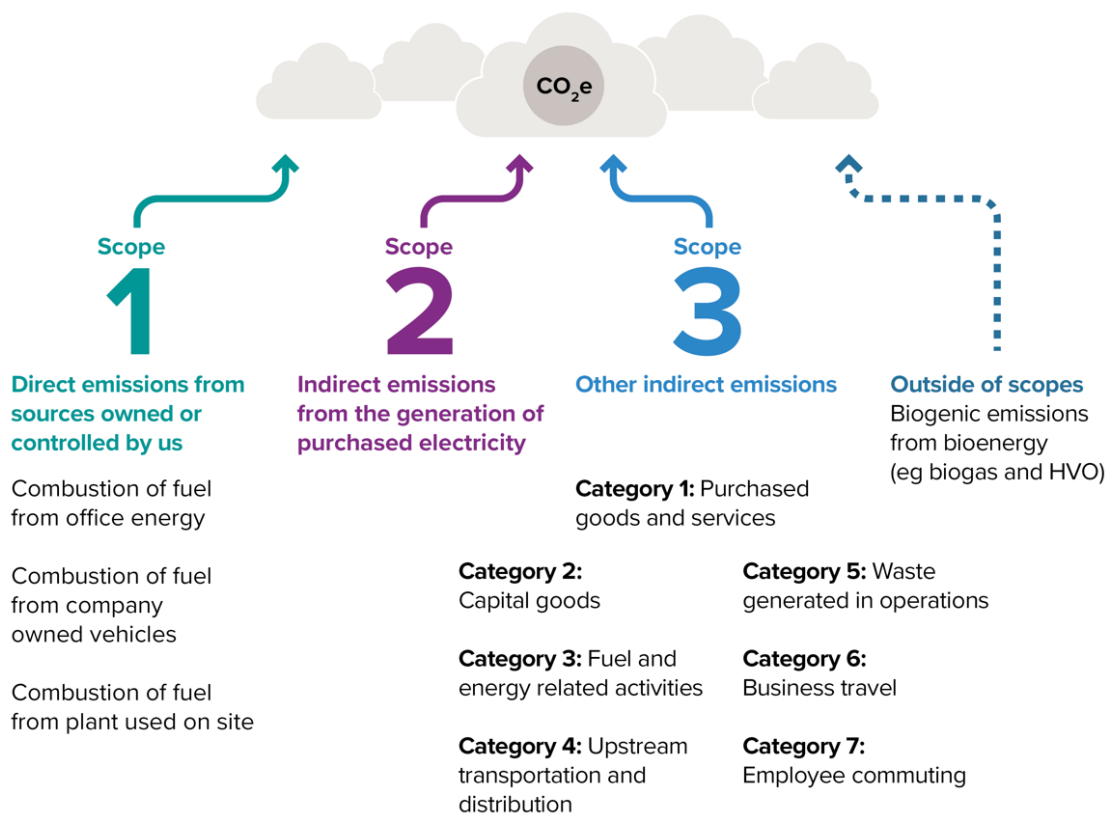


Figure 1: Operational boundary

¹ Greenhouse Gas Protocol (2015) *A Corporate Accounting and Reporting Standard. Revised Edition*. Available [online] at: [Corporate Standard | Greenhouse Gas Protocol \(ghgprotocol.org\)](https://www.ghgprotocol.org) (last accessed: March 2023).

Size	Influence	Risk	Stakeholders	Outsourcing	Sector guidance	Other
Significant contribution to total emissions	Emissions reductions can be influenced by the company	The emissions contribute to the company's risk exposure	The emissions are deemed critical by stakeholders (e.g. customers & suppliers)	Outsourced activities which were previously, or are typically performed in-house	Identified as significant in sector guidance	Meet additional relevance criteria by the company or sector

Figure 2: GHG Protocol relevance criteria

3.2 Emissions summary

A summary of our global carbon footprint from our base year (2019), our most recent year (2023) and the previous reporting year (2022) is displayed in Table 1². Our emissions are reported by source and scope.

As a result of procurement decisions to reduce our emissions, we report our scope 2 emissions using both the location-based and market-based approaches, we also report on emissions which are 'outside of scopes':

- Dual reporting of scope 2 emissions:** Mott MacDonald has been purchasing renewable energy for a portion of our offices since 2018. We therefore report our location-based scope 2 emissions using national average grid factors and market-based scope 2 emissions using supplier specific and residual grid factors. Market-based reporting reflects the impact of purchasing renewable electricity. Our science-based targets are set using market-based emissions.
- Emissions outside of scopes:** Mott MacDonald has started to purchase lower carbon sources of energy, such as Hydrotreated Vegetable Oil (HVO) which is used to fuel construction equipment on sites. According to the GHG Protocol, the biogenic emissions from the combustion of these fuels should be reported as 'outside of scopes' as a separate line item to the organisation's total emissions, as well as any removals associated with this. This is to ensure transparent and comprehensive emissions accounting. Although 'outside of scopes' emissions and removals should be reported as a separate line item within the inventory, these biogenic emissions are included within the scope of our carbon reduction targets, as per the requirements of the SBTi. After seeking guidance from the SBTi, we have assumed that the removals associated with the biogenic feedstock of the fuel we use is equal to the biogenic emissions at the point of combustion. As a result, outside of scope emissions net to 0 tCO₂e³.

Our carbon footprint has undergone external verification to ISO 14064 since 2019. However, it should be noted that as our maturity in emissions reporting has increased, so has the scope and boundaries of the verification. For example, our ISO 14064 verification has covered the full scope of emissions presented in Table 1 since our 2022 reporting year, however, our 2019 verification covers only the emissions from our consulting business for scope 1, scope 2 and select scope 3 emissions (from categories 3 and 6). To present consistency in our emissions reporting and performance tracking, we have back calculated our previous year emissions from 2019, using the same methodology as verified for our 2023 emissions, displayed within Table 1.

² The emissions displayed in Table 1 have been updated since the previous publication of this document. The updates are because of improvements to our methodology and calculation, see section 6 for further detail.

³ Note, whilst 'outside of scope' emissions were included as part of the scope and discussions within our ISO 14064 audit, the 'outside of scope' emissions are not reported as separate line items as per guidance from the independent verifiers.

Table 1: Mott MacDonald Group Limited emissions summary

Scope	Emission source	tCO ₂ e		
		2019	2022	2023
Scope 1	Office energy	1,012	801	630
	Refrigerant gases	485	941	1,008
	Fuel for business owned vehicles	2,521	1,881	2,162
	Fuel for plant on site	9,766	3,996	6,679
	Scope 1 emissions total	13,784	7,619	10,479
Scope 2	Imported electricity (location-based)	8,188	4,911	5,348
	Imported electricity (market-based)	9,031	3,841	4,246
Scope 3	Category 1 – Purchased goods and services	183,278	137,485	164,680
	Category 2 – Capital goods	3,504	3,391	5,043
	Category 3 – Fuel and energy related activities	5,287	3,768	4,441
	Category 4 – Upstream transportation and distribution	24,588	10,632	16,814
	Category 5 – Waste generated in operations	2,723	1,907	2,312
	Category 6 – Business travel	39,147	15,920	19,907
	Category 7 – Employee commuting	14,750	8,518	8,975
	Scope 3 emissions total	273,276	181,620	222,172
<i>Outside of scopes</i>	<i>Biogenic emissions</i>		4,714	3,148
	<i>Biogenic removals</i>		(4,714)	(3,148)
	In scope emissions total (location-based)	295,247	194,149	237,999
	In scope emissions total (market-based)	296,091	193,079	236,897
	Location-based tCO₂e/FTE	19.30	11.78	13.15
	Market-based tCO₂e/FTE	19.36	11.72	13.09

3.3 Energy consumption

A summary of the energy consumption for applicable scope 1 and 2 emissions is displayed in Table 2.

Table 2: Mott MacDonald Group Limited energy consumption summary

Source	2019	2022	2023
Office gas (MWh)	5,506	4,731	3,964
% Biogenic	0%	7%	10%
Fuel for business owned vehicles (MWh)	9,815	7,372	8,558
Fuel for plant on site (MWh)	32,218	32,711	36,714
% Biogenic	0%	55%	29%
Imported electricity (MWh)	23,016	14,442	15,912
% Renewable	17%	39%	37%

4 Progress against targets

This section provides an overview of progress against our science-based targets. Some emission sources are addressed by a supplier engagement target in the near-term, rather than absolute emission reductions, therefore our emissions progress has been separated between our near and long-term targets.

Whilst we endeavour to reduce all our emissions (as required by our long-term target), the impact of our engagement target- and the steps taken by our supply chain to decarbonise their products and services- will inevitably take longer to translate into carbon reduction. This is due to the accuracy of the data we currently draw upon, in many cases, utilising average data rather than product specific information. As part of our supplier engagement activities, we are investigating how to move towards a position of using more accurate scope 3 data sources, so that our actions, and the actions of our supply chain, can be reflected within our emissions reporting.

4.1 Near-term target progress

Figure 3 shows our trajectory to 2030. This includes only the emissions which are covered by an absolute reduction target in the near-term. This graph therefore excludes the following scope 3 emissions which are covered by our supplier engagement target:

- Category 1: Purchased goods and services
- Category 2: Capital goods
- Category 4: Upstream transportation and distribution

Considering the scope of emissions covered by our near-term absolute reduction targets, our emissions increased by 21% since the previous reporting year. This is due to returning to business-as-usual following the Covid-19 pandemic. However, we remain on track to meeting our carbon reduction targets, having achieved a combined **emissions reduction of 41%** since the 2019 base year (see Table 3). The reduction in scope 1 and 2 emissions is due to our ongoing programme to procure renewable electricity for our offices and low carbon fuels for our construction plant. The decrease in scope 3 emissions has been achieved by reducing business travel and office commuting.

Our supplier emissions (scope 3 categories 1, 2 and 4) make up ~80% of our total emissions. We understand the importance of our procurement decisions and the impacts they can have on the environment. As per our supply chain policy, we are committed to maintaining our reputation as a sustainable and socially responsible business by working with a supply chain that has similar values, forming resilient, mutually beneficial long-term relationships. One way in which we aim to achieve this in the near-term is through our supplier engagement target. Since setting this target, we have already achieved the following key milestones and have developed our goals for the following year:

Key achievement to date

We have conducted an in-depth analysis and review of our supply chain to generate a more comprehensive understanding and profile of our top 70% of suppliers (by spend).

Goals for next reporting period

We will continue to increase the quality of data and information gathered on our supply chain to inform more accurate progress updates and planning. We will also develop an approach to collate and utilise supplier-specific data within our scope 3 emissions calculation.

Key achievement to date

Goals for next reporting period

We are a global business with suppliers across the world, meaning a tailored approach to supplier engagement is needed. We have worked with our regional carbon reduction and procurement leads to develop localised action plans for supplier engagement.

We will continue to implement our regional supplier engagement plans (e.g., to focus on top suppliers who do not yet have carbon reduction goals to work together to align values).

We have started to integrate carbon & sustainability questions into our procurement systems, such as our due diligence processes, which will help us gain relevant information directly from our suppliers.

We will continue to embed carbon requirements into our procurement processes (e.g., contract clauses).

Table 3: Progress against near-term science-based targets

Target timeframe	Target	Progress to date 2023 reporting year	Further information
Near-term	Mott MacDonald Group Limited commits to reduce absolute scope 1 and 2 GHG emissions 46.2% by 2030 from a 2019 base year*.	35% reduction	Combined 41% reduction since the 2019 base year. See Figure 4 for year-on-year progress.
	Mott MacDonald Group Limited also commits to reduce absolute scope 3 GHG emissions from fuel and energy related activities, waste generated in operations, business travel, and employee commuting 28% within the same timeframe.	42% reduction	
	Mott MacDonald Group Limited also commits that 70% of its suppliers by spend covering purchased goods and services, capital goods, and upstream transportation and distribution will have science-based targets by 2027.	See text above for further information.	

*The target boundary includes land-related emissions and removals from bioenergy feedstocks

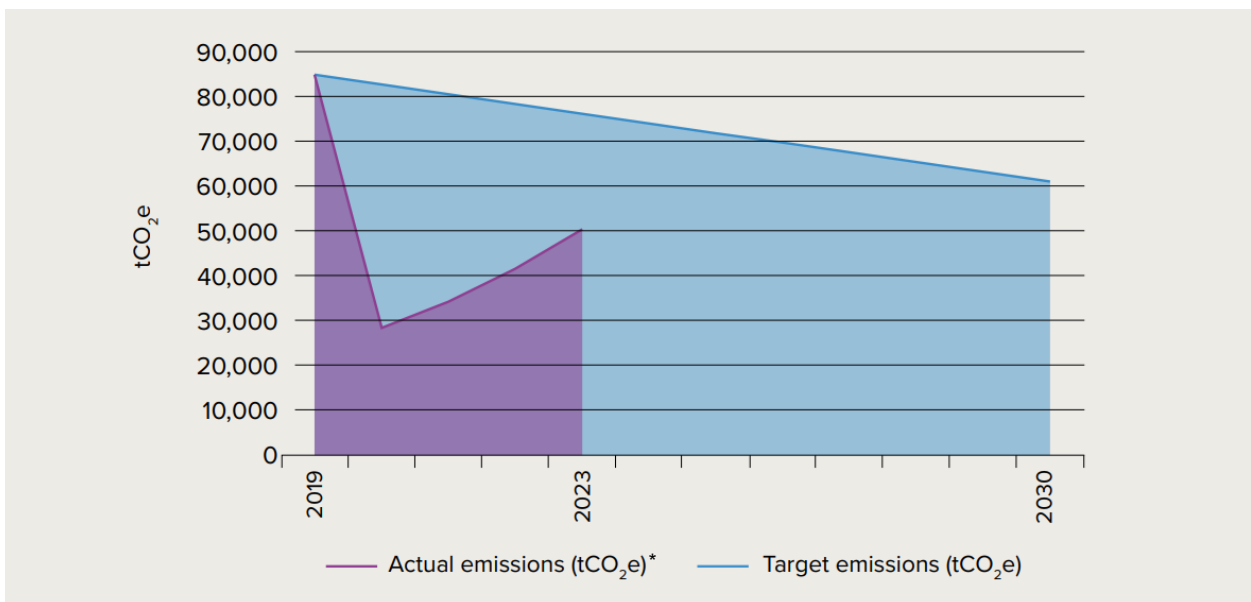


Figure 3: Projected vs actual emissions (*including only emission sources within our near-term absolute emissions reduction target).

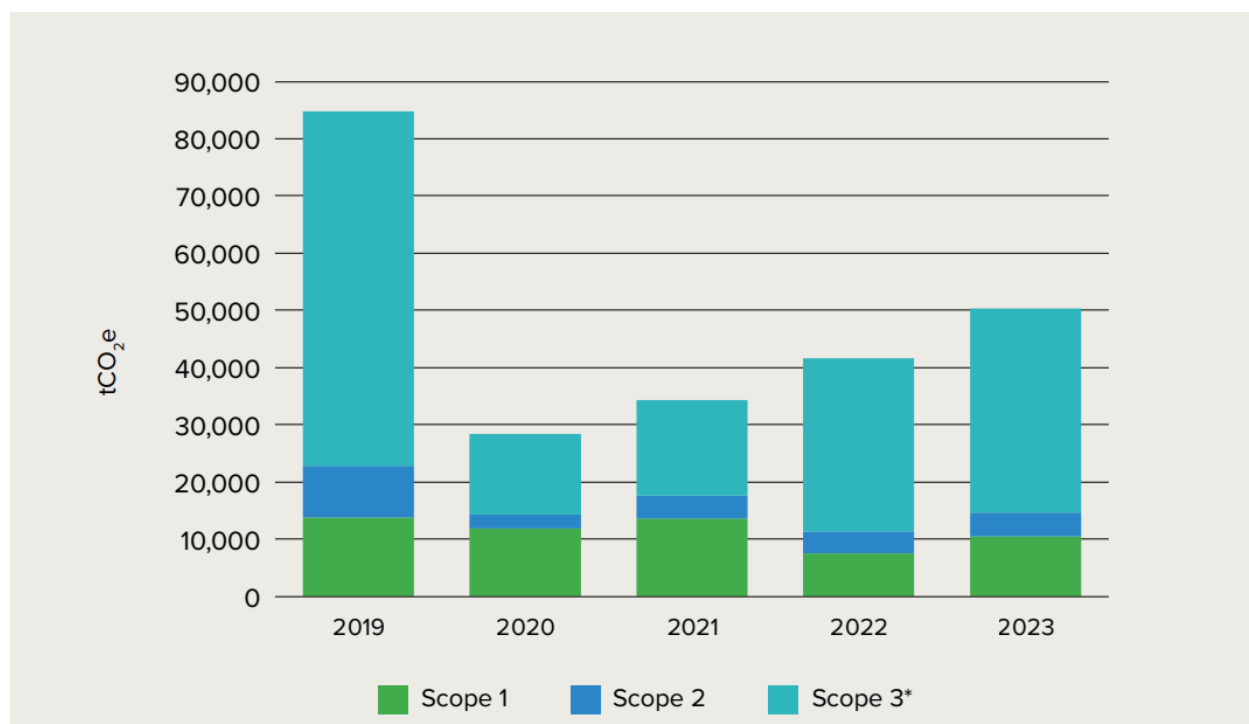


Figure 4: Summary of emissions by scope (*including only emission sources within our near-term absolute emissions reduction target).

4.2 Long-term target progress

Overall, Mott MacDonald has achieved a **20% reduction** in our global carbon emissions in 2023 compared to a 2019 baseline (this equates to a reduction of ~59,000 tCO₂e)⁴. Similar to our near-term emissions progress, our total emissions have increased by 23% since the previous reporting year.

Our annual progress can be seen in Figure 5 below. The blue lines show our committed 2030 and 2040 absolute reduction targets, while the green lines show our actual emissions in the four years since 2019 (our base year). The graph shows that our actual emissions have been consistently below our targeted emissions trajectory since 2020.

Note that Figure 5 and Figure 6 shows our trajectory to 2040. This includes our total scope 1, 2 and 3 emissions, all of which are covered by our absolute reduction target in the long-term.

Table 4: Progress against long-term science-based targets

Target timeframe	Target	Progress to date 2023 reporting year	Further information
Long-term	Mott MacDonald Group Limited commits to reduce absolute scope 1, 2 and 3 GHG emissions 90% by 2040 from a 2019 base year*.	Scope 1&2: 35% reduction Scope 3: 19% reduction	Combined 20% reduction since the 2019 base year. See Figure 6 for year-on-year progress.

*The target boundary includes land-related emissions and removals from bioenergy feedstocks

⁴ Including 'outside of scopes' emissions from bioenergy.

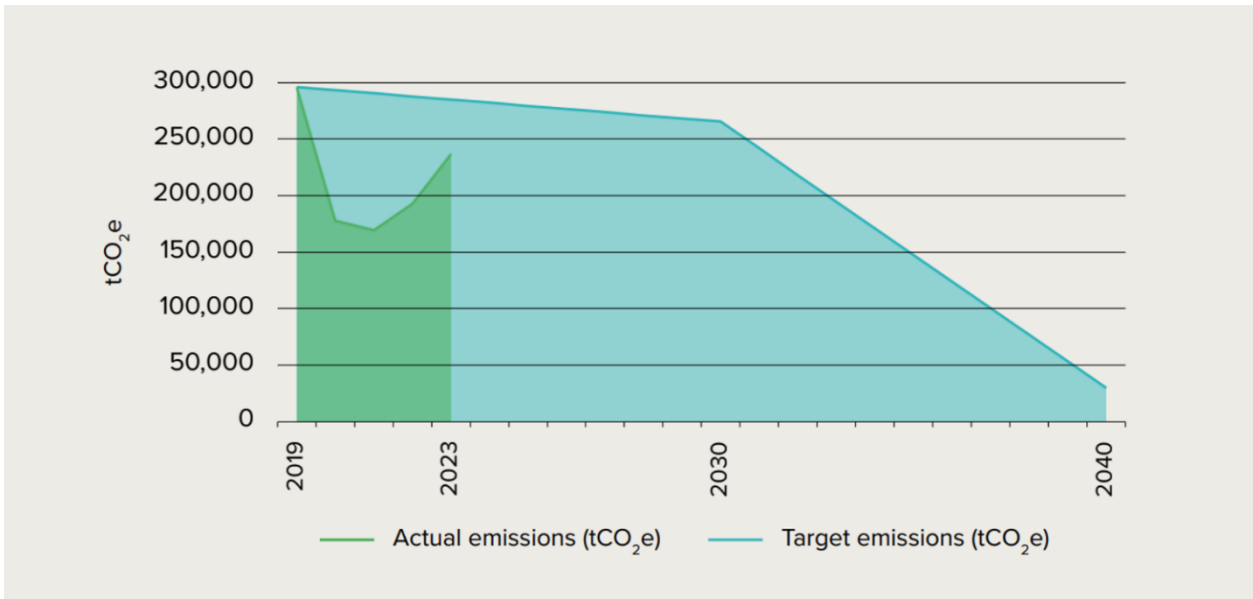


Figure 5: Projected vs actual emissions (long-term absolute emissions reduction target).

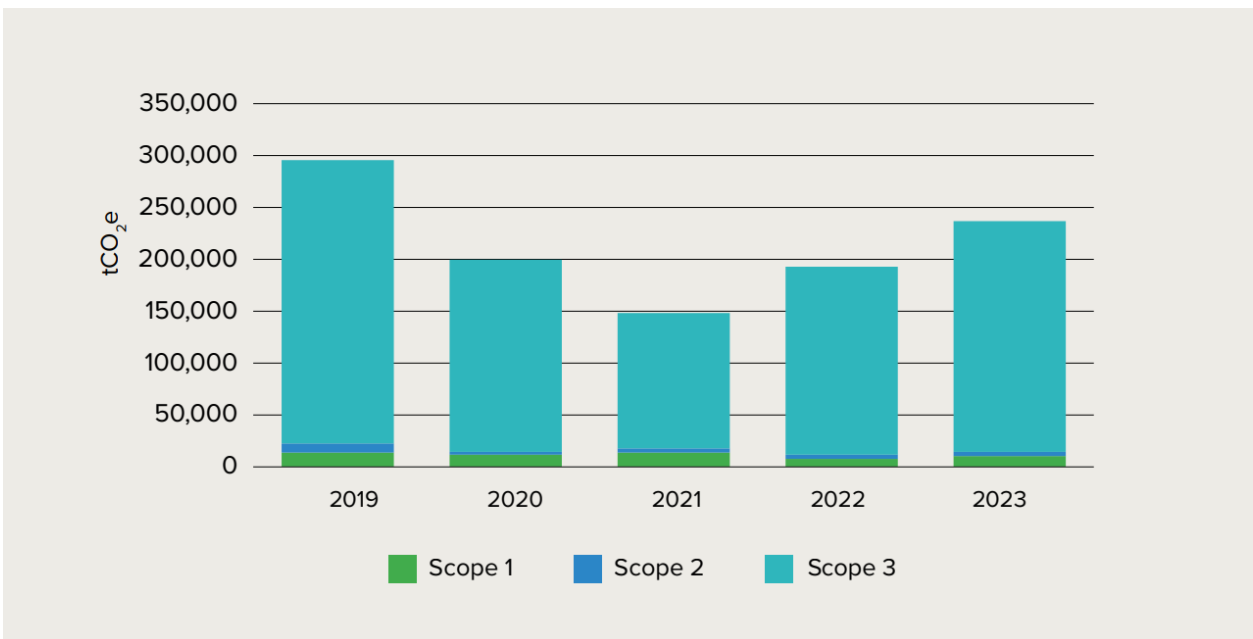


Figure 6: Summary of emissions by scope (displaying emission sources included in our long-term absolute emissions reduction target).

5 Carbon reduction plan

Our Group carbon reduction plan sets out how we will deliver our carbon reduction commitments. The actions within our plan are summarised in the paragraphs below.

5.1 Transition to low carbon energy

We will continue to procure renewable energy for our offices, driven by our regional targets to achieve 100% renewable electricity and drive energy efficiency. For example, our contracting business is generating energy efficiency improvements through switching to higher energy performance rated site cabins (e.g. A/B Energy Performance Certificate (EPC) ratings). We will also continue to work with our contracting business to explore the potential of using lower carbon fuels (such as HVO) to power plant equipment on sites.

5.2 Low carbon procurement

A key element of delivering on our near-term science-based target is to engage more closely with our suppliers on carbon reduction. Given the scale of our purchased goods and services emissions, this will also become increasingly important as we move towards reducing our emissions in line with our long-term carbon reduction target. See 'Progress against targets' section for more detailed information on our progress to date and upcoming goals related to supplier engagement.

5.3 Travel policy and behaviours

Our science-based targets require deep carbon abatement at pace. A step change in behaviour is required to manage our demand for business travel and commuting. Therefore, we are investigating and implementing initiatives, policies and/or directives to facilitate lower carbon travel across the company. In 2023, we developed an in-house solution to optimise our data collection and calculation processes. The digital solution has enabled quarterly calculation of our carbon footprint, in turn allowing us to monitor emissions more regularly. More regular emissions tracking will help inform the actions and decisions required to reduce carbon emissions in line with our target trajectory.

5.4 Beyond value chain mitigation

One of the key components of the SBTi's Net-Zero Standard is 'Beyond Value Chain Mitigation' (BVCM). BVCM supports the global transition to net-zero by contributing to reductions and removals beyond the value chain. BVCM as a concept has emerged relatively recently⁵ and therefore many actors within this space, including the SBTi, have only recently published guidance and documentation on how to implement and design a BVCM strategy and what best practice looks like. Our assessment of priorities has led us to focus on carbon reductions within our value chain. We will continue to conduct horizon scanning and identify if any opportunities emerge to integrate BVCM into our net-zero transition.

⁵ Referring to BVCM as a concept distinct from carbon neutrality or an offsetting claim from the purchase of carbon credits. We recognise that many actions that may fall under BVCM can be done via established markets (e.g., carbon credits).

5.5 Beyond our corporate carbon emissions

In addition to our efforts to reduce the carbon impact of our own corporate carbon footprint, we are also supporting the decarbonisation of industry. We have been driving change across industry for over a decade, delivering thought leadership across all sectors, contributing to the landmark Infrastructure Carbon Review in 2013, and since co-authoring the original (2016) and updated (2023) PAS 2080, the international specification for Carbon Management in Buildings and Infrastructure. We have also developed net-zero route-maps for clients within the water, transport, energy and environment sectors. We have been certified to PAS 2080 since 2017 and commit to maintaining our certification in line with the 2023 updates to PAS 2080.

6 Emissions reporting methodology

The methodology for calculating our carbon footprint is detailed within this section, the methodology follows the GHG Protocol key principles of relevance, completeness, consistency, transparency and accuracy. The methodology presents a reasonable worst-case scenario of our Group carbon footprint. This methodology was developed to be in accordance with the requirements of the GHG Protocol and was verified to ISO 14064 (to a reasonable level of assurance) for our 2023 reporting year footprint.

6.1 Methodology updates (compared to previous iteration of this report)

In 2023, we developed an internal digital solution to optimise our carbon data collection, validation and processing. As a result of this process, as well as other external factors, we have updated and improved parts of our calculation methodology. The most significant changes include:

- **Internal digital tools:** we have moved away from manual carbon calculation and instead draw upon a suite of digital tools. This has enhanced the speed, accuracy, and reliability of the calculation.
- **Emission factors:** the Scope 3 evaluator tool (by the GHG Protocol and Quantis) has now been discontinued and therefore is no longer used to estimate our purchased goods and services emissions. In the absence of supplier specific data, we have replaced this tool with the sector spend-based emission factors provided by the UK Governmental department, Defra. Our emissions from previous reporting years have been amended to align with the new methodology.
- **Emissions estimates:** as our data collection has matured, so have our emissions intensity factors which are used to provide estimates in the absence of raw data. Where we have developed more robust emissions intensity estimates, we have back-calculated previous year emissions to strengthen and align them to our current methodologies.

6.2 Overview of methodology

The table below provides a summary of our methodology and highlights any key changes compared to what has been reported in previous years.

Table 5: Overview of methodology

Category	Further information
Emission factors	<p>Key update: Change of emission factor database used to calculate purchased goods and services emissions.</p> <p>Emissions are reported in units of carbon dioxide equivalent (CO₂e), using the most recent conversion factors and are locally specific where possible. Our footprint is calculated primarily using emission factors from the UK Department for Business, Energy & Industrial Strategy (BEIS), the International Energy Agency (IEA), and the Association of Issuing Bodies (AIB). Where available, we also use national publications to source emission factors, such as from the US Environment Protection Agency (EPA) and the Australian National Greenhouse Accounts Factors. Note that we include the effect of radiative forcing in our calculations for air travel. Where more granular information is not available (i.e., for purchased goods and services), we rely upon high-level industry average emission factors.</p> <p>Most of the emission factor databases used for the calculation of our 2023 carbon footprint utilise Global Warming Potential (GWP) factors from the Fifth (AR5) IPCC Assessment</p>

Category	Further information
Scope 1, 2 emissions and biogenic emissions (outside of scopes)	<p>Report. However, the following emission factor databases either do not specify the GWP factor or use a previous Assessment Report:</p> <ul style="list-style-type: none"> • AIB – Not applicable, the emission factors only include CO₂ rather than CO₂e • eGrid (uses AR4) • IEA (“default”, could be assumed to mean AR5) • ICE (uses AR4) <p>Key updates: <i>Updates to emissions intensity factors to provide estimates in the absence of raw data. Intensity factors made more robust by increased quantity of data, as well as only considering data points that fall into the interquartile range.</i></p> <ul style="list-style-type: none"> • Fuel for equipment on site: Includes site plant and on-site generation equipment, typically gasoil based but also included HVO in 2023. This is measured via goods received notices and invoicing. • Fuel used in company-owned vehicles: Including company cars and vans, this is calculated via a combination of fuel card data and mileage claims. • Office energy (electricity and gas): We gather information using billed or metered energy consumption. Some offices are not able to meter energy use (for example charged through rent) – these are estimated based on emissions by floor area intensity metrics from known offices. In addition, there are a number of small offices where we do not collect data, instead these are included on a pro-rated basis, based on number of full-time equivalents (FTEs). • Scope 2 dual reporting: We report our emissions using both location-based (using national average grid factors) and market-based approaches (using residual emission factors for non-renewably sourced electricity). Residual emission factors are slightly higher than the corresponding grid averages as they represent the average emissions from unclaimed energy. Market-based reporting therefore reflects reductions made from purchasing renewably sourced electricity and drives the transition to low carbon electricity. • Refrigerant gases: Evidence of air conditioning service reports are collated from office managers where available. Due to limited data availability, intensity metrics are created using raw data and applied to offices where data is not available. In line with the GHG protocol, emissions from refrigerant gases cover only those detailed under the Kyoto Protocol. • Biogenic emissions: Biogenic emissions and removals are reported as outside of scopes. See section 3 for more information.
Scope 3 emissions	<p>Key updates: <i>Update to category 1 emission factors and data extraction method. Inclusion of category 4 emissions estimates from construction materials (separated from category 1 emissions). Updates to emissions intensity factors to provide estimates in the absence of raw data.</i></p> <ul style="list-style-type: none"> • Category 1 (purchased goods and services): In the absence of more granular data, most of our purchased goods and services emissions are calculated using a high-level spend-based method. Transaction records are obtained from our internal financial systems and categorised according to spend type. The majority of emissions within this category are calculated using a spend-based approach. • Within our contracting business, we use a more granular calculation method for most of the materials used on site (in-Situ Concrete, Metals, ‘Pipes, Pumps and Fittings’, Designed Pre-Cast Concrete, and 1^o and 2^o Aggregates). The emissions from these materials are calculated using actual data from goods received notices and applying BEIS and ICE emission factors. • Category 2 (capital goods): As per category 1. • Category 3 (fuel and energy related activities): Data is gathered using the approach explained above for scope 1 and 2 emissions. The emissions reported under this category reflects GHG emissions from transmission & distribution, well to tank emissions from fuel generation, and well-to-tank emissions from transmission & distribution. • Category 4 (upstream transportation of goods): For construction materials, the calculation utilises default transport scenarios as per the RICS Whole life carbon

Category	Further information
	<p>measurement guidelines. For other purchases, due to current accounting practices, emissions from transportation are captured within categories 1 and 2.</p> <ul style="list-style-type: none"> Category 5 (waste generated in operations): Office managers are asked to provide a monthly record of waste sent to landfill, recycling and other waste streams. The data is manually cleansed before ingesting into our internal digital tool. Due to limited data availability at present, waste intensity metrics are created for each waste stream based on a sample set of offices where data is available. Waste intensity metrics are used to estimate waste emissions across all offices. Site waste is measured based on actual data from purchase order registers. Category 6 (business travel): Our business travel emissions include air, rail, car, taxi, bus, motorbike, and ferry. Data is gathered from our internal financial systems and travel agencies. Emission factors are selecting according to travel mode and country. Our methodology primarily uses a distance-based approach, however where fuel data is available, this method is preferred. Equally, where distance is not provided (e.g., some expense claims), a spend-based intensity metric is applied. Category 7 (employee commute): Data is collected using a Microsoft Forms survey, the results of which are cleansed and analysed before extrapolating to account for the global business. Employee commute emissions are determined through collecting data on primary and secondary modes of transport and typical transportation distances. The respondent's average number of days working from home per week in the reporting year assists with calculating and apportioning the emissions.

Exclusions

GHG sources are excluded from the data collection process where they are deemed to contribute a non-material portion to the carbon footprint. For example, we do not collect data associated with client supplied grid electricity for plug-and-play set-up on site. This also includes emissions from some very small offices for which data is not collected and offices where we co-locate. Instead, these emissions are included on a pro-rated basis. In scenarios where we co-locate, we will always seek to influence energy and carbon policy with the landlord / operator.

Due to data collection processes, emissions from water consumption are not included within our inventory, this is expected to be immaterial compared to our total emissions. We are developing a process to include and back calculate these emissions moving forward.

Emissions from Scope 3 Category 15 (investments) are excluded from our inventory and target boundary. This emissions category was deemed appropriate to exclude in accordance with the SBTi's guidance on target coverage. We will continue monitoring our emissions from this category and will update our inventory and target boundary if the significance threshold is passed.

Our corporate emissions inventory does not include emissions associated with our client projects. Our capability to manage carbon on our projects is currently managed through our global certification to PAS 2080 (carbon management in buildings and infrastructure) as a designer.

Managing inventory quality

Our methodology has been developed to align with the GHG Protocol and ISO 14064-1. The methodology is continually reviewed, alongside data collection procedures, to reflect best-practice. Our footprint is based on reasonable worst-case assumptions and utilises primary data wherever practicable.

We have used uncertainty data from the IPCC to assess the sources of uncertainties likely to occur within our emissions inventory and calculations. The GHG Protocol uncertainty tool was used to calculate a cumulated uncertainty of +/- 11.2% (good), based on conservative confidence levels for sources of activity data and emissions factors. Our greatest sources of uncertainty are around refrigerant gases, waste, employee commute and purchased good and services emissions. We are reviewing our data sources, data collection techniques and calculation methodologies to improve our confidence in these emissions sources moving forward.

The qualitative influences of uncertainty on our GHG emissions are identified as the following:

- Source data:**
 - Travel data and purchased goods & services data that is extracted from our employee expense system is likely to contain some human error.

Category	Further information
	<ul style="list-style-type: none">- Employee commute has been collected from a colleague survey from a small sample size.- Low confidence in the data for refrigerant gases and waste, given that minimal primary data is available.• Calculation:<ul style="list-style-type: none">- Assumptions and intensity metrics applied in the absence of raw data (largest data gap currently exists for office waste).- Employee commute has been extrapolated from a small sample to estimate group emissions.- High-level spend based methodology used to estimate emissions from categories 1 and 2, which does not reflect supplier-specific information.• Inherent uncertainty in emissions factors and the metering of office energy.• Subjective component of the uncertainty assessment
Emissions monitoring	<p>Our emissions are monitored indirectly through applying emission factors to activity data (we do not conduct direct emissions monitoring). To date, our emissions have been monitored on an annual basis, however, we have introduced quarterly carbon emissions monitoring in 2024. This is a key outcome of the data optimisation and automation project that commenced in 2023. More frequent monitoring will enable us to better manage our carbon footprint moving forwards.</p>

7 Contact details

If you have any questions or would like to find out more, please contact the Group carbon reduction team at carbonreduction@mottmac.com.

A. ISO 14064 assurance statement

[Page intentionally left blank, see following pages for assurance statement]



LRQA Independent Assurance Statement

Relating to Mott MacDonald Group Limited's Group Carbon Footprint Report for the calendar year 2023

Terms of Engagement

This Assurance Statement has been prepared for Mott MacDonald Group Limited.

LRQA was commissioned by Mott MacDonald Group Limited (MMGL) to assure its Group Carbon Footprint Report for the calendar 2023, (hereafter referred to as "the Report").

The Report relates to direct GHG emissions, energy indirect GHG emissions and other indirect GHG emissions from the organisation's directly controlled activities.

MMGL's geographical boundary includes its head office operations located in Croydon, UK, and all other offices and sites in the control of Mott MacDonald Group Limited and its subsidiaries. The main activities of the organization include global engineering consultancy and a UK contracting business, and the GHG emissions have been consolidated using and operational control approach.

The following GHG emissions were excluded from the Report due to their lack of applicability to MMGL:

- ISO 14064:2018 Category 5: Indirect GHG emissions associated with the use of products from the organization.

Management Responsibility

MMGL's management were responsible for preparing the claim, report and for conformance with ISO 14064-1:2018, and for maintaining effective internal controls over the data and information disclosed. LRQA's responsibility was to carry out an assurance engagement on the Report in accordance with our contract with MMGL.

Ultimately, the Report has been approved by, and remains the responsibility of MMGL.

LRQA's Approach

Our verification has been conducted in accordance with ISO 14064-3:2019, '*Specification with guidance for verification and validation of greenhouse gas statements*' to provide reasonable assurance that GHG data as presented in the Report have been prepared in conformance with ISO 14064-1:2018, '*Specification with guidance at the organizational level for quantification and reporting of greenhouse gas emissions and removals*'.

To form our conclusions the assurance engagement was undertaken as a sampling exercise and covered the following activities:

- visited a sample of sites and offices and reviewed processes related to the control of GHG emissions data and records;
- remotely interviewed relevant staff of the organization responsible for managing GHG emissions data and records;
- remotely reviewed activity data at the source level (for reasonable assurance);
- interviewed relevant staff of the organization responsible for managing GHG emissions data and records; and
- verified historical GHG emissions data and records at an aggregated level and back to source for the calendar year 2023.



Level of Assurance & Materiality

In accordance with our contract agreement, the assurance was conducted at a reasonable level of assurance at a materiality of 5% for Categories 1, 2, 3 and 4 (GHG Protocol Scope 1, Scope 2 and Scope 3 Categories 1 to 7). The opinion expressed in this Assurance Statement has been accordingly formed.

LRQA's Opinion

Based on LRQA's approach, the GHG emissions for Category 1 (direct GHG emissions and removals), Category 2 (indirect GHG emissions from imported energy), Category 3 (indirect GHG emissions from transportation) and Category 4 (indirect GHG emissions from products used by an organisation), disclosed in the Report as summarized in Table 1 below are materially correct, and that the Report has been prepared in conformance with ISO 14064-1:2018.

LRQA's Recommendations

MMGL should:

- Review data collection processes with regards to waste (GHG Protocol Scope 3, Category 5) to ensure robust evidence is available to support waste volumes data.
- Improve the availability of data from offices to ensure consistency across all regions.

A handwritten signature in black ink that reads 'R. Oxley'. The signature is written in a cursive, slightly slanted style.

Dated: 23 February 2024

LRQA Lead Verifier
On behalf of LRQA Limited
LRQA reference number: LRQ00005373





Table 1. Summary of Mott MacDonald Group Ltd, Group Carbon Footprint Report 2023

Scope of GHG Emissions		Tonnes CO ₂ e		
GHG Protocol	ISO 14064:2018	MMGL	JNB	MML
Scope 1 - Direct GHG emissions	Category 1 – Direct GHG emissions	10,439	8,862	658
Scope 1 - Direct GHG emissions	Category 1 – Direct GHG emissions (Anthropogenic biogenic emissions of other GHGs*)	40	39	1
Scope 2 - Indirect GHG emissions from imported energy	Category 2 – Indirect GHG emissions from imported energy (Location-based)	5,348	141	1,042
Scope 2 - Indirect GHG emissions from imported energy	Category 2 - Indirect GHG emissions from imported energy (Market-based)	4,246	106	138
Scope 3 Category 1- Purchased goods and services	Category 4 – Indirect GHG emissions from products used by the organisation	164,680	86,519	36,752
Scope 3 Category 2 – Capital Goods	Category 4- Indirect GHG emissions from products used by the organisation	5,043	5,043	-
Scope 3 Category 3 – Fuel and energy related activities	Category 4- Indirect GHG emissions from products used by the organisation	4,441	2,508	418
Scope 3 Category 4-- Upstream Transportation and Distribution	Category 3 – Indirect GHG emissions from Transportation	16,814	16,814	-
Scope 3 Category 5 – Waste generated in operations	Category 4- Indirect GHG emissions from products used by the organisation	2,312	702	727
Scope 3 Category 6 – Business Travel	Category 3- Indirect GHG emissions from Transportation	19,907	1,923	7,940
Scope 3 Category 7- Employee Commuting	Category 3- Indirect GHG emissions from Transportation	8,975	701	2,979
<p>Location-based, and Market-based are terminologies from Annex E of ISO 14064-1:2018. Categories are as defined in ISO 14064-1:2018. MMGL – Mott MacDonald Group Ltd (encompasses JNB, MML and all other Mott MacDonald entities) JNB – JN Bentley (the contracting entity of MMGL). MML – Mott MacDonald Ltd (the UK entity of MMGL) *CH₄ and N₂O emissions from biogenic material as a result of human activities. In verifying this data, LRQA also reviewed GHG Protocol ‘Out of Scope’ emissions and removals.</p>				

This Assurance Statement is subject to the provisions of this legal section:

LRQA Group Limited, its affiliates and subsidiaries, and their respective officers, employees or agents are, individually and collectively, referred to in this clause as 'LRQA'. LRQA assumes no responsibility and shall not be liable to any person for any loss, damage or expense caused by reliance on the information or advice in this document or howsoever provided, unless that person has signed a contract with the relevant LRQA entity for the provision of this information or advice and in that case any responsibility or liability is exclusively on the terms and conditions set out in that contract. The English version of this Assurance Statement is the only valid version. LRQA assumes no responsibility for versions translated into other languages.

This Assurance Statement is only valid when published with the Report to which it refers. It may only be reproduced in its entirety.

Copyright © LRQA, 2024.

