



CARBON FOOTPRINT REPORT

01 NOVEMBER 2020 - 31 OCTOBER 2021





Carbon footprint report for CMP Products Limited 01 November 2020 to 31 October 2021

CMP Products Limited emitted 1,848,692 kgCO₂e (Kilogrammes of carbon dioxide equivalent) for 2020/21 (across scope 1 and 2). This can be presented as 1,849 tCO₂e (tonnes of carbon dioxide equivalent) with an intensity indicator of 5.78 tCO₂e per total full-time equivalent employee (FTE) and 33.61 tCO₂e per million GBP £.

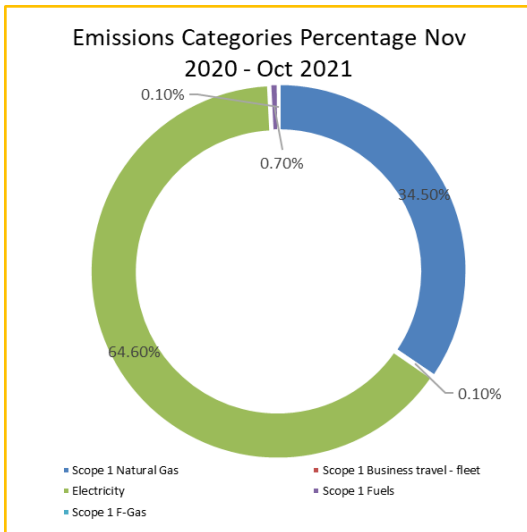
When Scope 3 is added, this brings the total to 1,960 tCO₂e.

Table 1. UK GHG emissions and energy use data for period 01 November 2020 to 31 October 2021

Emissions source	Units	kWh	Carbon (kgCO ₂ e)	Carbon (tCO ₂ e)
Scope 1				
Natural gas	3,693,011 kWh	3,693,011	676,411.89	676.41
CO2	9 kg	-	8.94	0.01
Small car (diesel)	5,271 km	2,885	725.13	0.73
Small car (hybrid)	1,168 km	499	122.61	0.12
Van diesel (average up to 3.5 tonnes)	6,854 km	6,616	1,652.96	1.65
LPG	8,267 litre	-	12,872.90	12.87
HFC-134a	2 kg	-	2,145.00	2.15
Total Scope 1			693,939	694
Scope 2				
UK National Grid electricity	5,438,482 kWh	5,438,482	1,154,752.88	1,154.75
Total Scope 1 & 2			1,848,692	1,849
Total tCO₂e per *FTE on gross scope 1 & 2				5.78
Total tCO₂e per *£m Turnover on gross scope 1 & 2				33.61
Scope 3				
Transmission and distribution of UK national grid electricity	5,903,517 kWh	5,903,517	110,927.08	110.93
Total Scope 3			110,927	111
Total Scope 1, 2 & 3			1,959,619	1,960
Total tCO₂e per *FTE on gross scope 1, 2 & 3				6.12
Total tCO₂e per *£m Turnover on gross scope 1, 2 & 3				35.63
Adjustments				

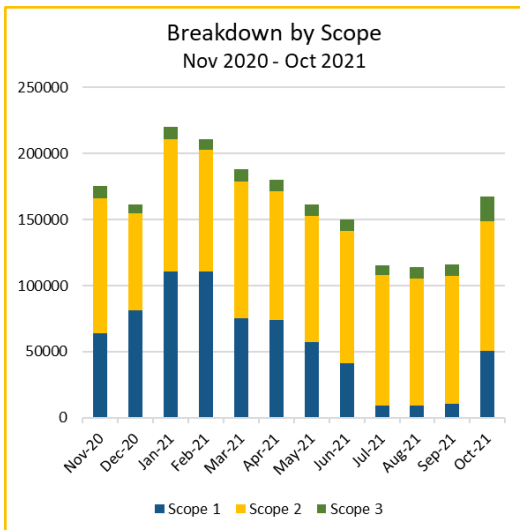
*Notes: For 01 November 2020 to 31 October 2021 the number of Full-time equivalent employees (FTE) was 320 and the Turnover was GBP £54,000,000





Graph 1. Emissions categories percentage Nov 2020 - Oct 2021

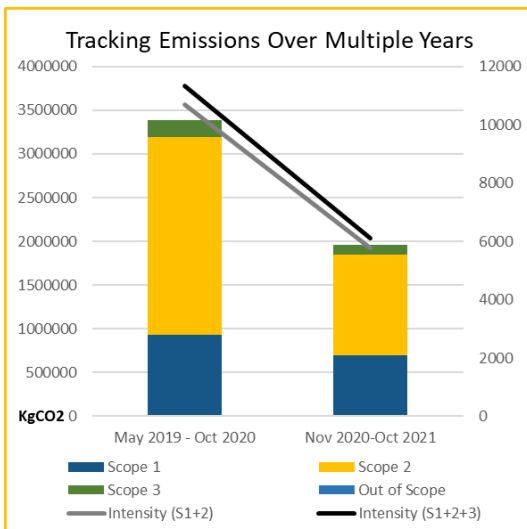
- Electricity: 64.6%
- Scope 1 Natural Gas: 34.5%
- Scope 1 Fuels: 0.7%
- Scope 1 Business travel – fleet: 0.1%
- Scope 1 F-Gas: 0.1%



Graph 2. Breakdown by Scope Nov 2020 – Oct 2021

	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21
Scope 1	63687	81400	110768	110718	74980	73904
Scope 2	102519	73567	100210	92160	103931	97262
Scope 3	9072	6510	8868	8156	9197	8607

	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21
Scope 1	57355	41528	9378	9305	10578	50340
Scope 2	95391	99553	98856	96314	96867	98124
Scope 3	8442	8810	7077	8523	8572	19092



Graph 3. Tracking Emissions Over Multiple Years

	May 2019 - Oct 2020	Nov 2020 - Oct 2021
Scope 1	931,480	693,939
Scope 2	2,259,637	1,154,753
Scope 3	193,412	110,927
Out of Scope	0	0
Intensity (S1+2) per FTE	10,681	5,777
Intensity (S1+2+3) per FTE	11,325	6,124



Carbon Footprint Detailed Breakdown by site (Unit 1)

Unit 1 emitted 194,142 kgCO₂e (Kilogrammes of carbon dioxide equivalent) for 2020/21 (across scope 1 and 2). This can be presented as 194 tCO₂e (tonnes of carbon dioxide equivalent).

When Scope 3 is added, this brings the total to 204 tCO₂e.

Table 2. Unit 1 GHG emissions and energy use data for period 01 November 2020 to 31 October 2021

Emissions source	Units	kWh	Carbon (kgCO ₂ e)	Carbon (tCO ₂ e)
Scope 1				
Natural gas	496,071 kWh	496,071	90,860.36	90.86
Total Scope 1			90,860	91
Scope 2				
UK National Grid electricity	486,420 kWh	486,420	103,281.58	103.28
Total Scope 1 & 2			194,142	194
Scope 3				
Transmission and distribution of UK national grid electricity	499,438 kWh	499,438	9,384.43	9.38
Total Scope 3			9,384	9
Total Scope 1, 2 & 3			203,526	204

Carbon Footprint Detailed Breakdown by site (Unit 3)

Unit 3 emitted 512,298 kgCO₂e (Kilogrammes of carbon dioxide equivalent) for 2020/21 (across scope 1 and 2). This can be presented as 512 tCO₂e (tonnes of carbon dioxide equivalent).

When Scope 3 is added, this brings the total to 540 tCO₂e.

Table 3. Unit 3 GHG emissions and energy use data for period 01 November 2020 to 31 October 2021

Emissions source	Units	kWh	Carbon (kgCO ₂ e)	Carbon (tCO ₂ e)
Scope 1				
Natural gas	1,085,820 kWh	1,085,820	198,878.79	198.88
Small car (diesel)	5,271 km	2,885	725.13	0.73
Small car (hybrid)	1,168 km	499	122.61	0.12
Total Scope 1			199,727	200
Scope 2				
UK National Grid electricity	1,472,102 kWh	1,472,102	312,571.48	312.57
Total Scope 1 & 2			512,298	512
Scope 3				
Transmission and distribution of UK national grid electricity	1,481,137 kWh	1,481,137	27,830.56	27.83
Total Scope 3			27,831	28
Total Scope 1, 2 & 3			540,129	540



Carbon Footprint Detailed Breakdown by site (Unit 36)

Unit 36 emitted 1,142,252 kgCO₂e (Kilogrammes of carbon dioxide equivalent) for 2020/21 (across scope 1 and 2). This can be presented as 1,142 tCO₂e (tonnes of carbon dioxide equivalent).

When Scope 3 is added, this brings the total to 1,216 tCO₂e.

Table 4. Unit 36 GHG emissions and energy use data for period 01 November 2020 to 31 October 2021

Emissions source	Units	kWh	Carbon (kgCO ₂ e)	Carbon (tCO ₂ e)
Scope 1				
Natural gas	2,111,120 kWh	2,111,120	386,672.74	386.67
CO2	9 kg	-	8.94	0.01
Van diesel (average up to 3.5 tonnes)	6,854 km	6,616	1,652.96	1.65
LPG	8,267 litre	-	12,872.90	12.87
HFC-134a	2 kg	-	2,145.00	2.15
Total Scope 1			403,353	403
Scope 2				
UK National Grid electricity	3,479,960 kWh	3,479,960	738,899.82	738.90
Total Scope 1 & 2			1,142,252	1,142
Scope 3				
Transmission and distribution of UK national grid electricity	3,922,943 kWh	3,922,943	73,712.10	73.71
Total Scope 3			73,712	74
Total Scope 1, 2 & 3			1,215,964	1,216

Energy efficiency measures taken

- CMP Products Limited has achieved the objective of reducing the average monthly electricity consumption against total hours worked across the 3 Cramlington sites (Unit 1, Unit 3 and Unit 36). The objective for this financial year was a 5% reduction of 10.9 kWh which was the result of the previous financial year. CMP Products achieved a reduction of 12.6%, achieving 9.6 kWh. In order to achieve this result, the company has:
 - o Installed electricity smart meters in the 3 factories.
 - o Installed boiling water taps.
 - o Installed lights on timers and sensors.
 - o Installed LED lighting across the offices and shop floor in the 3 sites.
 - o Installed air conditioning programme modules.
 - o Implemented a shut down procedure for manufacturing machinery and electrical equipment (i.e. computers).
 - o Installed thermostat control on all heating. It is off during summer period.
 - o Bought energy efficient equipment where possible.
 - o Put heating and tamper control in place for all shop floor areas.
 - o Installed water meters and there is a recirculation of water in the tool cleaning facility.
 - o Reduced usage through machinery change and upgrade (nickel plant).
 - o Implemented a compressed air monitoring and reduction programme.
 - o Implemented a cycle to work scheme.



- Implemented an EV Tusker scheme.
- CMP has streamlined the waste carriers.
- CMP Products has implemented a waste reduction programme which includes waste segregation and reuse/recycling.

Energy efficiency planned

- CMP Products Limited has calculated the carbon emissions included in Scopes 1 & 2 from the 3 sites located in Cramlington, UK.
- CMP Products Limited plans to reduce the energy usage per worked hour by 5% from November 2021 to October 2022. In order to achieve this objective, CMP will:
 - Improve the efficiency of the older machinery in the shop floor.
 - Replace the older machinery when possible.
 - Introduce an automatic storage system.
 - Introduce conveyors in the shop floor in Unit 3.
- CMP Products Limited plans to reduce fuel consumption by replacing the petrol/diesel vehicles with EV/Hybrid vehicles.
- The company is also planning to reduce the water used in the factory by 40% due to improvements in the effluent treatment plant and the introduction of an EDEN equipment to increase the life of the nickel baths in the plating plant.
- CMP plans to implement an energy management system (ISO 50001:2018) that will be part of the company integrated management system.
- CMP plans to install a cardboard compactor to reduce the amount of visits received by the waste management supplier.
- CMP plans to install charging points for EV.
- CMP Products is planning to reduce the FKT fleet due to the implementation of more efficient systems and processes.
- CMP plans to source and introduce renewable or green energy.
- CMP Products Limited is planning to reduce the general waste by 10% in this financial period.
- CMP will start calculating Scope 3 emissions and will be reported in this financial year (5 categories minimum).
- CMP will develop the employees of other overseas offices in order to capture their carbon footprint.
- CMP will select the top 10 suppliers and will ensure their carbon emissions are reported.

Notes about methodology:

- CMP Products Limited has adopted an operational control approach to establishing the boundary. The methodology adopted in line with the Greenhouse Gas Protocol¹ and the BEIS Environmental Reporting Guidelines². The calculations were completed on the SmartCarbon™ Calculator³ using the UK Government emissions factors⁴.
- CO₂e is the universal unit of measurement to indicate the global warming potential (GWP) of Greenhouse Gases (GHGs), expressed in terms of the GWP of one unit of carbon dioxide. There are seven main GHGs that contribute to climate change, as covered by the Kyoto Protocol: carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulphur hexafluoride (SF₆) and nitrogen trifluoride (NF₃). Different activities emit different gases. Using CO₂e allows all greenhouse gases to be measured on a like-for-like basis.
- For National grid electricity consumption, THE ORGANISATION has included factors for the transmission and distribution of electricity (T&D) losses, which occur between the power station and



site(s). The emissions from T&D has been accounted for in Scope 3. As with other Scope 3 impacts, reporting T&D is voluntary but is recommended standard practice by UK Government².

Estimations:

- It is estimated that scope 3 contains 70% of the total GHG Carbon Emissions of an organisation. CMP Products has estimated a GHG Carbon emissions up to 118.76 tCO₂e per million GBP £.

Exclusions:

- CMP Products Limited has not included the carbon emissions from Scope 3.
- CMP Products Limited has not included the carbon emissions from the overseas offices.

Carbon Footprint Verification:

This verification exercise has been undertaken by an independent third party business (Open Dorr Management Systems) in accordance with the principles contained within ‘ISO 14064-3: 2019 Specification with guidance for the verification and validation of greenhouse gas statements’, namely: impartiality, evidence-based approach, fair presentation, documentation and conservativeness.

GHG Carbon Emissions Benchmarking by Industry:

CMP Products has compared their current GHG Carbon Emissions against the industry average. This information has been taken from the UK Office for National Statistics (ONS) website, which publishes GHG emissions intensity by industry.

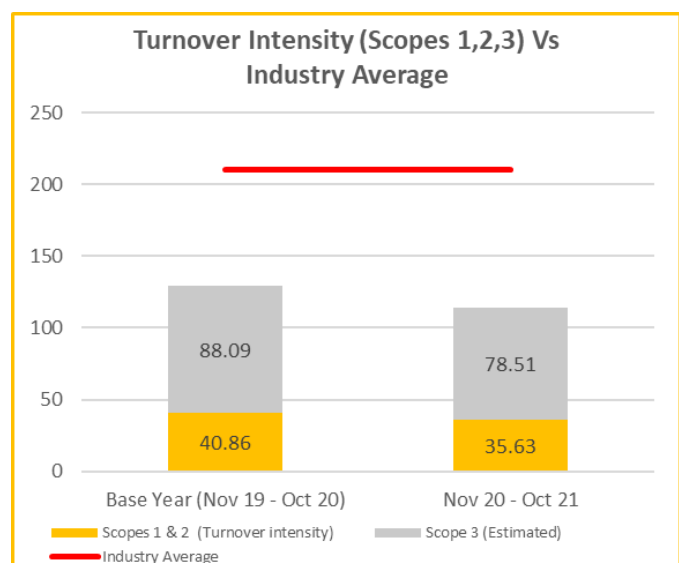
CMP Products falls under the Industry described as “Fabricated metal products, except machinery and equipment, excluding weapons and ammunition”. The industry average is 210 tCO₂e per million GBP £.

CMP Products has calculated scopes 1 and 2 mainly. The Company GHG Carbon Emissions are 35.63 tCO₂e per million GBP £.

It is estimated that scope 3 contains 70% of the total GHG Carbon Emissions of an organisation. It would bring CMP GHG Carbon emissions up to 114.14 tCO₂e per million GBP £. CMP Products is still far below the industry average.

CMP Products has reduced the GHG Carbon Emissions for Scope 1 & 2 by 12.8% in 1 year.

*Note: the latest data available is for 2019.



**GHG Verification Statement:**

It is the opinion of the Verifier that CMP Products Ltd have developed their Scope 1 and 2 GHG emissions inventory in accordance with its own procedures (based on the GHG Protocol) and through the use of the SmartCarbon Calculator. Limitations in utility data traceability in the baseline year has been addressed in Year 2 (FY20) reporting.

A pre-defined verification process was undertaken by Open Dorr Management Systems and the GHG emissions for FY20 reported through the SmartCarbon Calculator were accurate. There were no residual material issues.

GHG emissions data has been confirmed as (in kgCO₂e):

Reporting Period	Scope 1	Scope 2	Total (Scope 1 + 2)
FY 2020/21	696,939 kgCO ₂ e	1,436,713 kgCO ₂ e	1,154,753 kgCO ₂ e



Definitions:

Carbon footprint - The total set of greenhouse gas emissions (GHG) caused directly and indirectly by an individual event, organisation, or product expressed as Carbon Dioxide Equivalent (CO₂e). (Source: Greenhouse Gas Protocol).

Scope 1 (direct emissions) emissions are those from activities owned or controlled by your organisation. Examples of Scope 1 emissions include emissions from combustion in owned or controlled boilers, furnaces and vehicles; and emissions from chemical production in owned or controlled process equipment.

Scope 2 (energy indirect) emissions are those released into the atmosphere that are associated with your consumption of purchased electricity, heat, steam and cooling. These indirect emissions are a consequence of your organisation's energy use, but occur at sources you do not own or control.

Scope 3 (other indirect) emissions are a consequence of your actions that occur at sources you do not own or control and are not classed as Scope 2 emissions. Examples of Scope 3 emissions are business travel by means not owned or controlled by your organisation, waste disposal, materials or fuels your organisation purchases. Deciding if emissions from a vehicle, office or factory that you use are Scope 1 or Scope 3 may depend on how you define your operational boundaries. Scope 3 emissions can be from activities that are upstream or downstream of your organisation. More information on Scope 3 and other aspects of reporting can be found in the Greenhouse Gas Protocol Corporate Standard.

References:

1. The GHG Protocol Corporate Accounting and Reporting Standard. Revised Edition (2015) World Resource Institute and World Business Council for Sustainable Development.
2. Environmental Reporting Guidelines: Including streamlined energy and carbon reporting guidance (March 2019) UK Government Department for Business, Environment and Industrial Strategy.
3. SmartCarbon Calculator: <https://www.smartcarboncalculator.com/>
4. Greenhouse gas reporting: conversion factors - Full set (for advanced users). More at this link: <https://www.gov.uk/government/collections/government-conversion-factors-for-company-reporting>
5. Greenhouse gas emissions intensity by industry (UK Office for National Statistics (ONS)). More at this link: <https://www.ons.gov.uk/economy/environmentalaccounts/datasets/ukenvironmentalaccountsatmosphericemissionsgreenhousegasemissionsintensitybyeconomicsectorunitedkingdom>

Authors

This Carbon Footprint Report has been completed by Francisco Dominguez (Director of QHSE) and Michael Walton (HSE Manager).