

## UNFCCC RACE TO ZERO – PLEDGE & PLAN



### RACE TO ZERO PLEDGE

#### Declaration of Participation – Community Member Company

Our company recognises the importance of making a full and lasting commitment to reducing the greenhouse gas emissions from our activities, in support of the wider commitment of the world to limit global temperature increases and the impact on the planet.

As a signatory member of the Network Net Zero Community, we commit to the following:

1. For our company to achieve Net Zero in line with the Science Based targets set out by the UNFCCC i.e., to achieve Net Zero no later than 2050 and target a 50% reduction in emissions by 2030.
2. To set realistic short- and long-term targets that are designed to achieve our Net Zero commitments.
3. To report the total Greenhouse Gas emissions of our business regularly and for our performance to be part of the Community’s annual reporting back to the UNFCCC.

We acknowledge that our commitment will be reported on the Network Net Zero website.

**Magma Moulding Ltd made its pledge to the Race to Zero via the Network Net Zero Community on the 29<sup>th</sup> March 2022. The record of the pledge can be found at <https://www.futurenetzero.com/un-race-to-zero/>.**

	Year	Potential Year (if ahead of target)
<b>Pledge to be Net Zero</b>	<b>2050</b>	
<b>50% Emissions Reduction</b>	<b>2030</b>	

Magma Moulding have made a good start on their journey, and have completed a number of actions as recommended. There are still a number of areas that can be addressed this coming year which include:

- A review of purchased materials with the intention of sourcing recycled or low carbon plastics.
- Continuing engagement and training of employees around sustainability and Net Zero.
- Leasing an electric forklift, rather than gas, at the end of its contract, and consider procuring green gas.
- Continue investigations into on-site generation and its viability.
- Further engagement with the supply chain, including discussing business commitments with sub-contractors, with the will to engage with suppliers who are actively looking to decarbonise their operations.
- Once a full impact measurement is established for all company activities across all scopes and emissions have been reduced as much as possible, the residual should be neutralised with a certified and verified carbon offsetting scheme, but this should be the last mechanism actioned. If offsetting is something that the business wants to do sooner, it should be done in line with mitigation and reduction.

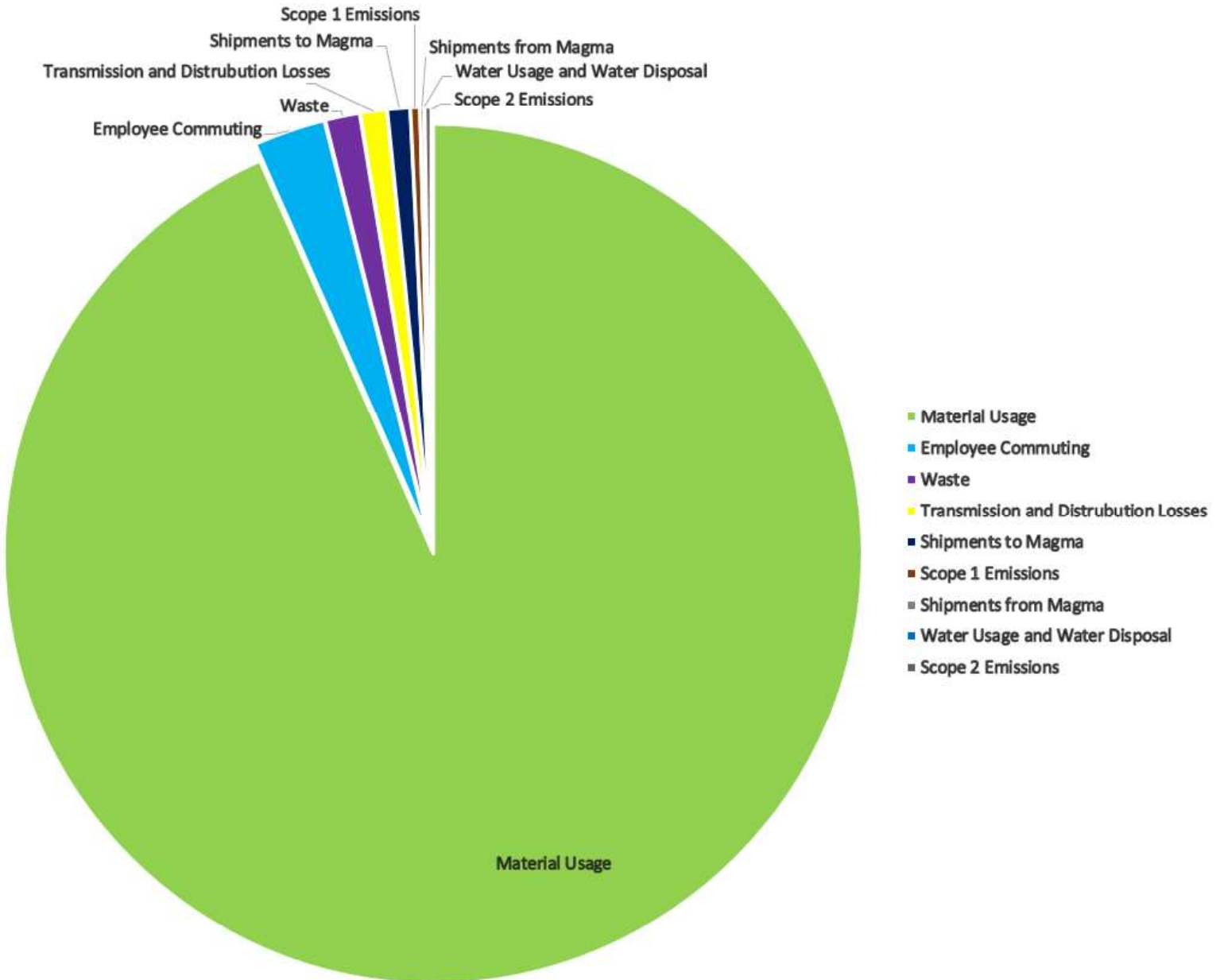
KEY HIGHLIGHTS OF OUR NET ZERO STRATEGY



**FUTURE NET ZERO STANDARD - ACCREDITATION  
REPORT- January 2022 – December 2022**

CARBON FOOTPRINT ASSESSMENT

Carbon Footprint Progression



	Benchmark 2019	Year 1 2022	Year 2 2023	Year 3 2024	Year 4 2025	Year 5 2026
CO <sub>2</sub> e	1,485,015.2kg	1,146,441.2kg				
% Change		- 22.8 %				

## HISTORIC EMISSION REDUCTION PROGRESS DURING THE REPORTING PERIOD

Emissions reduction activity is summarised below:

Emission Reduction	Benchmark Kg of CO <sub>2</sub> e	Current Kg of CO <sub>2</sub> e	% Of Carbon Footprint	Change from Benchmark	Previous Year Kg of CO <sub>2</sub> e	Change from Previous Year
Fuels burnt onsite (Scope 1)	6,045.2	4,029.8	0.35 %	- 33.34 %	N/A	N/A
Purchased Electricity (Scope 2)	186,597.4	34.6	0.25 %	- 98.48 %	N/A	N/A
Trans. & Dist. (Scope 3)	15,841.8	11,411.9	1.00 %	- 27.96 %	N/A	N/A
Material Usage (Scope 3)	1,216,889.7	1,070,607.1	93.39 %	- 12.02%	N/A	N/A
Shipments to Magma (Scope 3)	16,578.1	9,751.4	0.85 %	- 41.18%	N/A	N/A
Employee Commuting (Scope 3)	32,546.2	30,949.1	2.70 %	- 4.91%	N/A	N/A
Shipments from Magma (Scope 3)	2,718.6	1,824.2	0.16 %	- 32.90%	N/A	N/A
Waste (Scope 3)	7,183.4	14,876.2	1.30 %	107.09%	N/A	N/A
Water Usage & Disposal (Scope 3)	615	148.8	0.01 %	- 75.8%	N/A	N/A
<b>Total</b>	<b>1,485,015.2kg</b>	<b>1,143,633.6kg</b>	<b>100 %</b>	<b>- 22.99 %</b>	N/A	N/A

### Commentary

The data for this audit refers to the facilities located in Plymouth. Since the benchmark report was completed for 2019, almost all of Magma Mouldings' electricity is now supplied by Zero Carbon Tariffs, which has led to the reduction of 99.98 % of their Scope 2 emissions. The final meter for the Warehouse remains on a standard Brown tariff. The switching for the lights has also been changed, to allow Assembly and Finished Goods Stores to be switched off at the end of each 8 hour day shift, independently from the Mould Shop, which runs 24/5. This has directly contributed to the reduction of Transmission & Distribution losses.




The gas usage has greatly reduced, as there is now only 1 gas powered forklift on site, and this can be further mitigated by leasing an electric forklift, rather than gas. There are also options in the market to buy green gas, however this is currently sold at a premium.

All relevant Scope 3 emissions have been calculated for the business for 2022, with raw material remaining the highest source of emissions, due to the nature of the business activities. Magma Moulding are looking into recycled and renewable raw material sources, however these are either notoriously difficult to source or prohibitively expensive at present.

There have been significant reductions in emissions from water, as usage has reduced by ~40 %, and the BEIS coefficients have been lowered, to reflect the improved carbon efficiency associated with the supply and treatment of water across the UK.

Emissions from waste have increased by over 100 %. This leap is due to the increased BEIS landfill emission coefficients for commercial waste, as Magma Mouldings' waste production only increased by 12.7 %. By the end of this period, Magma Moulding switched to a 'Zero to Landfill' waste collector, however, the carbon reductions of this switch will not be seen until next year.

**Scope 1 and 2 emission data derived for this section was formulated using data and a sample energy bill provided by Magma Moulding.**

Intensity Metrics	Benchmark Kg of CO2e	Current Kg of CO2e	Change from Benchmark	Previous year	Change from Previous year
Per Employee 	33,000.3 Kg	22,928.8 kg	- 30.5 %	N/A	N/A
Per £1,000 Turnover 	530.4 Kg	318.5 kg	- 40.0 %	N/A	N/A
Per kwh Electricity 	2.0 Kg	1.8 kg	- 12.6 %	N/A	N/A

### Company Overview

Magma Moulding are a production facility, specialising in technical and engineering mouldings. They are also skilled in: In-mould labelling, insert moulding, two shot moulding, and have full automation capability utilising Cartesian and six axis robotics. They add further value to products by offering a full assembly process, state of the art Tampo print, and ultrasonic welding.

### Action Plan (including short term targets) to reduce carbon footprint and achieve net zero

This audit report covers the whole organisation.

Magma Moulding have made a good start on their journey to net zero, and have taken into account a number of actions we have recommended. They have also looked into improving energy and water efficiency around the factory, and switching a 'Zero to Landfill' waste provider at the end of this year. There are still a number of areas that can be addressed this coming year which include:

- Review purchased materials, with the intention of sourcing recycled or low carbon plastics.
- Continuing engagement and training of employees around sustainability and Net Zero.
- Leasing an electric forklift, rather than gas, at the end of its contract, and consider procuring green gas.
- Continue investigations into the viability of on-site generation.
- Further engagement with the supply chain, including discussing business commitments with sub-contractors, with the will to engage with suppliers who are actively looking to decarbonise their operations.
- Once a full impact measurement is established for all company activities across all scopes and emissions have been reduced as much as possible, the residual should be neutralised with a certified and verified carbon offsetting scheme, but this should be the last mechanism actioned. If offsetting is something that the business wants to do sooner, it should be done in line with mitigation and reduction.

By following this approach, it gives a clear and planned methodology to tackle emissions in a calculated way enabling the business to formulate a business plan from an environmental and CapEx perspective.

Our final recommendation would be to stress that in our view, carbon offsetting should not be used instead of mitigation. Offsetting is an important part of a Net Zero Strategy if it goes hand in hand with reduction and mitigation. The best strategies are based on cultural change and behavioural shifts, if successfully implemented into an organisation, then carbon savings and cost savings will be apparent.

**Assessor's comments**

**Magma Mouldings have clearly engaged with the net zero programme and made huge progress in the short time they have been involved.**

**The materials are still the biggest factor in creating emissions and continue to be a challenge. The move to an all-electric fleet of forklifts will continue to have a great effect, the no waste to landfill policy is another plus and the full introduction of a renewable energy contract will all have a significant and positive effect.**

**The viability of a green gas contract is also something to consider.**

**A good report with significant positive activity.**



Assessor Signature:

Assessor Name: David Roberts

Date: 20<sup>th</sup> February 2022

**Standard and methodology used**

Magma Moulding Ltd categorises its Greenhouse Gas (GHG) Emissions as Scope 1, 2 or 3 as referred to in the WBCSD

– WRI Greenhouse Gas Protocol (revised edition, dated March 2014). Emissions in Carbon Dioxide equivalent (CO<sub>2</sub>e) for all scopes are calculated using the conversion factors listed in BEIS Greenhouse Gas Conversion Factors for the relevant 12-month period over which the Carbon Footprint is calculated. Procured renewable electricity and gas is calculated in accordance with the WBCSD – WSI Scope 2 Guidance on procured renewable energy (2015).

**Data Quality / Confidence**

The data used to generate this report has been collected from various sources and converted to CO<sub>2</sub>e using the CBN Expert Dashboard. This dashboard has been Certified under the future Net Zero Standard to ensure that it is a true and fair reflection of the both the units of consumption and the resultant GHG emissions of the reporting firm.

**\*Scope 3 Emissions**

Magma Moulding Ltd is committed to measure and act to reduce its emissions in all 3 categories. This report reflects the amount of Scope 3 emissions that it has been technically feasible and cost effective to measure and take action against. Magma Moulding Ltd remains committed to work with its entire supply chain to ensure as much of its Scope 3 emissions are able to be accurately measured and to develop actions that target long term reductions in this emissions category.

**\*\* Offsets**

As part of the commitment of Magma Moulding Ltd to target reductions in its GHG emissions and, ultimately, attain Net Zero the company will review and report all offsetting that it enters into. All offsetting options will be considered and reported included, formally certificated schemes (e.g., Gold Standard) as well as more informal schemes. Where offsetting is done against informal schemes, details of the calculation logic will be reported.

**Offset schemes (if appropriate)**

Scheme name	Details including weblink

Signed on behalf of **Magma Moulding Ltd**



Name: Tony Newbold  
 Position: Technical & Commercial Manager  
 Date: 23 Feb 2023

Signed on behalf of **SWMAS**



Name: Paul Gilbert  
 Position: Net Zero Lead  
 Date: 10/02/23



The data in this report has been produced using the CBN Expert dashboard and the figures have been certified under the future Net Zero Standard. The certification and licence number for the period for this report is shown here.

**Signed for future Net Zero**



**Date: 21/02/2023**  
**Position: Founder**  
**Name: Sumit Bose**