

⚡CON ⚡NJECTION  
Molding, Inc.

**ENVIRONMENTAL  
IMPACT  
ASSESSMENT  
REPORT**



2023

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# INTRODUCTION

For some time, the manufacturing industry as a whole has been much maligned for negative environmental impact, especially as worldwide industry grows in response to consumer demand. The push for cheap international manufacturing has certainly contributed to adverse environmental impact; China, the largest global contributor to greenhouse gas emissions is the world's largest manufacturer, and has little to no governmental or corporate oversight pertaining to environmental impact. As a proud American manufacturer, looking to be a part of the revolution to restore the United States as the epicenter of worldwide manufacturing, we accept the onus to operate responsibly.

**Though not subject to any governmental regulations pertaining to the report of environmental impact, ICON Injection Molding recognizes the importance of such data and thus compiles the following Annual Environmental Impact Assessment Report (AEIAR).**

A natural progression of capitalism is the improvement and innovation of industry, and while we believe many aspects of the popularized corporate "ESG" model fall short in concept and practice, we recognize the value in collecting environmental impact data (this key internal information is one factor driving continuous improvement) and in publicly reporting such data (in response to an increasing number of our customers requesting this).

The AEIAR looks at a number of factors relating to environmental impact and provides comparison, both to prior year(s) of company data and industry standards. The following factors are analyzed:

- Scope 1 & 2 GHG Emissions
- Waste Impact
- Water Usage
- Energy Consumption

The details of these factors for analysis are outlined in the company's Environmental Management System (EMS), which is available to the public at [www.iconinjectionmolding.com/environment](http://www.iconinjectionmolding.com/environment).

## **A Note on Scope 3 GHG Emissions**

ICON Injection Molding has chosen, at this time, not to collect data nor report on Scope 3 GHG emissions. A fundamental part of our business model is reduced bureaucracy, which allows us to react quickly and continually offer excellent service to our customers; as a result, we do not maintain the level of administrative staff necessary to actively acquire and report on the more comprehensive Scope 3 GHG emissions, which would require data from a wide range of vendors. However, we are happy to publicly report our own Scope 1 & 2 emissions to serve as Scope 3 emissions data for our customers who desire to collect this information.

For more information, contact the Compliance Officer by emailing [compliance@iconinjection.com](mailto:compliance@iconinjection.com).

-Nicole Kleitsch-Killam, Chief Administrative Officer

# OUR 2023 STRATEGY

Given ICON Injection Molding’s ambitious plans for continual, year-over-year growth, the natural result to be expected is increased production of waste, use of electricity, use of water, etcetera. As we evaluate our waste impact, it’s important to create and implement plans to ensure that our growth is sustainable. In the consideration of growth, company management also considers environmental impact.

Beyond general efforts favoring energy-efficient machinery in purchasing, recyclable materials, and evaluating materials reuse, the programs outlined below highlight a few projects undertaken in 2023 or which were expected to have a significant impact in 2023 and beyond.

PROJECTS	DETAILS	OUTCOME
Closed-loop water tower at each building	Completion of installation of water towers in late 2022	<ul style="list-style-type: none"> <li>• Reduced reliance on chillers</li> <li>• Estimated 30% decrease in water consumption in 2023</li> </ul>
MISys Manufacturing	Implementation of new inventory software for tracking scrap available for reuse	<ul style="list-style-type: none"> <li>• Automated production scheduling accounting for reprocessed material</li> <li>• Increased resin recycling</li> </ul>
Travel Reduction Program	Incentivizing workers to use environmentally friendly commute methods	<ul style="list-style-type: none"> <li>• Aiming for minimum 40% of commute trips to be environmentally friendly</li> </ul>

Scope 1 & 2 Greenhouse Gas (GHG) Emissions are the most widely recognized global metric of environmental impact, applied to businesses and individuals alike. Emissions are tracked by major individual outputs (CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O) and are also aggregated into the single figure (CO<sub>2</sub>e--CO<sub>2</sub> equivalent) representing metric tonnes of emissions. Additional figures are provided in terms of emissions per press (total company emissions divided equally by the number of presses in use) and emissions per square foot; both are useful for internal continuous improvement to reflect healthy and environmentally conscious business growth.

# SCOPE 1 GHG EMISSIONS

Given the specific energy requirements of our company, Scope 1 GHG emissions are only generated from the use of propane, which is very small.

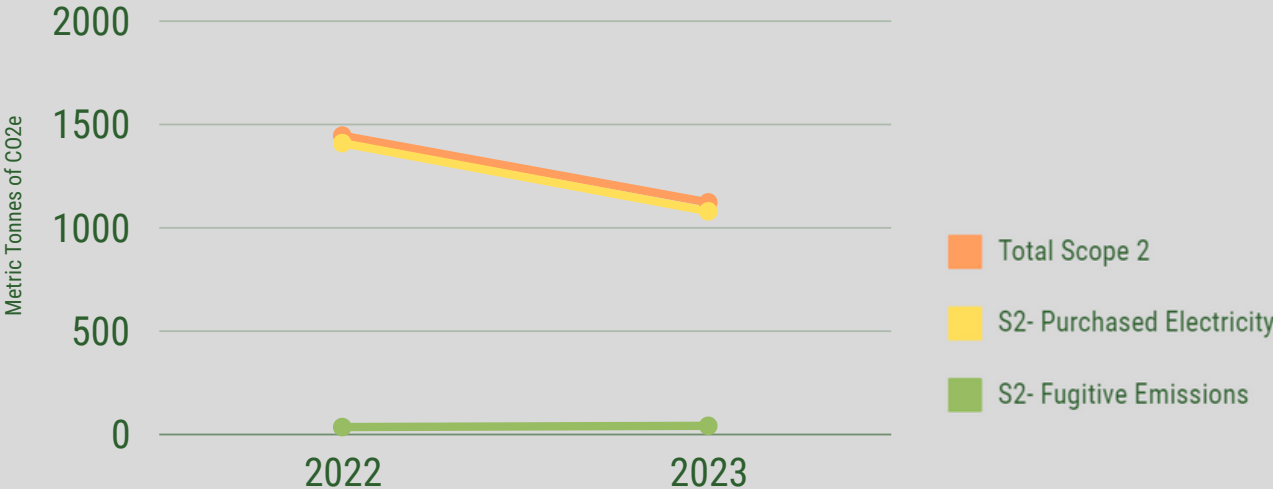
**2023: 0.164** METRIC TONNES CO<sub>2</sub>E

# SCOPE 2 GHG EMISSIONS

Scope 2 GHG emissions are a result of purchased energy and fugitive emissions from air conditioning & fire suppression systems.

**2023: 1123** METRIC TONNES CO<sub>2</sub>E

- Emissions - Direct CO<sub>2</sub>:** 1118 Metric Tonnes
- Emissions - CH<sub>4</sub>:** 2 Metric Tonnes
- Emissions - N<sub>2</sub>O:** 3 Metric Tonnes



## 26.12

metric tonnes CO<sub>2</sub> produced per press

## 0.02

metric tonnes CO<sub>2</sub> produced per sq. foot

## 20%

DECREASE in Scope 2 emissions from 2022 to 2023

ICON Injection Molding believes that our waste generation is the greatest factor of environmental impact, and the one over which we can exercise the greatest control. The Waste Diversion Rate is the overall metric by which companies evaluate the impact of their waste production on the environment. According to the EPA, all U.S. manufacturing sectors had an average Waste Diversion Rate 63.90%, as of most recently reported data in 2021. Over the last two decades, the plastics and plastics processing industry has emerged as a leader in recycling efforts; the top reported waste producer in the U.S., a large resin producer (in ICON's upstream supply chain), recycles 99% of generated waste and other industry names similarly have high Waste Diversion Rates.

**WASTE DIVERSION RATE** *This represents the percentage of total waste generated by the company which was diverted from the landfill by either internal reuse or commercial recycling.*

**2023: 82.50%**

**2022: 73.69%**

**TOTAL WASTE GENERATED**

This data looks at physical, solid waste which can take any form—ranging from office trash to scrap resin.

**2023: 79.31 METRIC TONNES**

**TOTAL WASTE DIVERTED**

This data looks at any form of waste which was recycled via traditional methods or internally reused/repurposed. This represents waste diverted from the landfill.

**2023: 65.43 METRIC TONNES**



## RECYCLING SOURCES

**22%**

traditional recycling  
(municipal or vendor)

**36%**

vendor partner for  
reprocessing/resale of scrap  
material

**42%**

internal reprocessing &  
reuse of scrap material

**98% of scrap material WAS REUSED OR RECYCLED IN 2023**

Beyond normal water usage (potable water consumption and use of water for cleaning/hygienic purposes), the injection molding process consumes water as a resource for the purpose of chilling molds. Closed-loop systems aid in the overall reduced use of water (and lower levels of energy required to chill water).

# WATER USAGE

*Energy required to chill water for the manufacturing process is accounted for in Energy Consumption/Scope 2 GHG emissions data. Otherwise, water usage is a standalone figure.*

Reduced Water Usage by

**35.73%** from 2022 to 2023      **2023: 931,260 GALLONS USED**

The primary factor in ICON's energy consumption is the energy required to power our injection molding presses, some of which run 24/7 (less planned downtime for maintenance & mold changes). Our preference for electric and hybrid injection molding presses lends to lower energy requirements when compared to injection molding operations utilizing primarily hydraulic presses.

# ENERGY CONSUMPTION

*This data is used as a component of Scope 2 GHG emissions, with calculation conversions based upon region-specific figures published by the EPA.*

Purchased Energy      **2023: 2,803,030 KILOWATT-HOURS**

ICON partners with the Maricopa County Air Quality Department to participate in the Travel Reduction Program, which is aimed at reducing the number of trips to the company's worksite for daily commuting in a Single-Occupancy, gas-powered vehicle. Employees are incentivized to use alternative methods of commuting to work (carpooling, biking, using public transportation, driving an EV, etc.) for the purpose of reducing emissions produced per person as a result of the traditional commute.

*The CO2 emissions generated from all travel to and from ICON by workers, for the purpose of commuting, are considered Scope 3 GHG emissions. Emissions produced by commuting are not tracked by ICON and the following data is provided by Maricopa County based upon estimates from annual worksite surveys and calculated miles driven per employee measured against whether the miles driven were an "environmentally friendly" commute trip or not.*

# TRAVEL REDUCTION PROGRAM

Environmentally Friendly Commute Trips Account for **32%** OF TOTAL COMMUTE TRIPS

# RESOURCES & SOURCES

<https://www.blm.gov/content/ghg/2022/>

<https://climatetrade.com/the-worlds-most-polluting-industries/>

<https://www.energy.gov/eere/iedo/manufacturing-energy-and-carbon-footprints-2018-mecs>

[https://www.energystar.gov/industrial\\_plants/decarbonizing\\_industry/sources\\_industrial\\_greenhouse\\_emissions](https://www.energystar.gov/industrial_plants/decarbonizing_industry/sources_industrial_greenhouse_emissions)

<https://epa.gov>

<https://www.epa.gov/climateleadership/ghg-emission-factors-hub>

<https://www.epa.gov/climateleadership/scope-1-and-scope-2-inventory-guidance>

<https://www.epa.gov/sites/default/files/2020-12/documents/electricityemissions.pdf>

<https://www.epa.gov/sites/default/files/2020-12/documents/fugitiveemissions.pdf>

<https://www.epa.gov/trinationalanalysis/manufacturing-waste-management-trend>

<https://www.epa.gov/trinationalanalysis/waste-managed-parent-company>

<https://ghgprotocol.org/scope-2-guidance>

