



# GREEN BOND FRAMEWORK

NOVEMBER 2019



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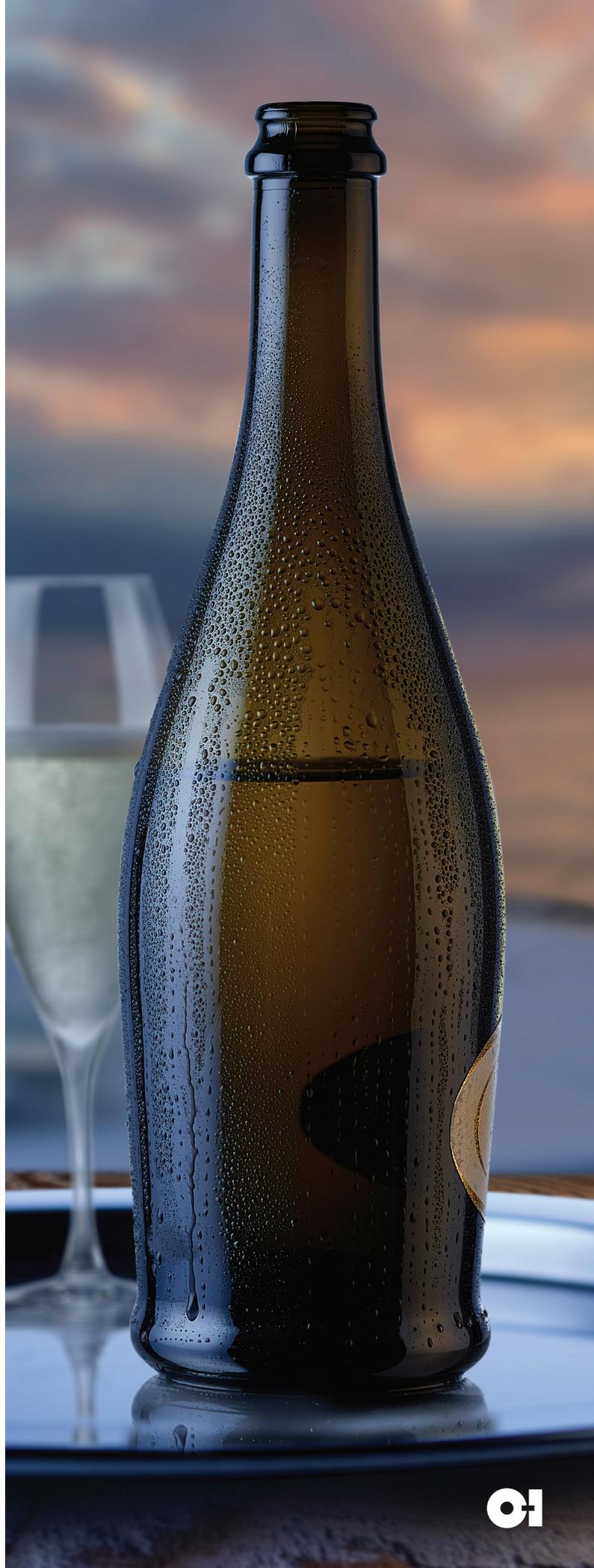
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# INTRODUCTION

## Company Overview

At Owens-Illinois, Inc. (O-I), we love glass and we're proud to make more of it than any other glass bottle or jar producer in the world. We love that it's healthy, pure and completely and infinitely recyclable into new glass containers.

We strive every day to create a better future by providing innovative, competitive and sustainable packaging for the world's leading food and beverage companies.

With global headquarters in Perrysburg, Ohio and approximately 26,500 people at more than 75 plants in 23 countries, O-I has a global impact, achieving revenues of \$6.9 billion in 2018.

To build brands, shape the future through glass and achieve success for our customers, employees and shareholders, the Company aims:

- To be the preferred partner for brand-building glass packaging in the global food and beverage industry;
- To be the most cost effective producer in the global glass packaging segment; and
- To expand its business in attractive, growing markets and segments.





## Commitment to Sustainability

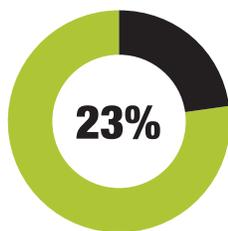
At O-I, sustainability starts with our product. Glass has stood the test of time and is the most sustainable packaging option. Made of natural, readily available raw materials, a glass container is 100% and infinitely recyclable, and can be recreated into another glass package over and over again. In fact, our glass today already contains an average 38% of post-consumer recycled glass.

In addition to being the most sustainable packaging choice, glass also offers immense health benefits, keeping your food and beverages safe, pure, and fresh. It is the only food and beverage package to be Generally Recognized As Safe (GRAS) by the U.S. Food and Drug Administration.

As a leader in the packaging industry and only global company exclusively committed to the commercialization of glass packaging, we are also striving to improve the sustainability of our processes. In fact, between 2007 and 2017 we reduced our energy usage and emissions while also increasing the use of post-consumer recycled glass.

In a quest for transparency, and continuous improvement within our sustainability work, we validate our efforts through third parties. In 2019, O-I improved its score in three out of five Cradle to Cradle Certification categories for nearly 94 percent of our global glass operations producing certain colors for the beer, food, NAB, spirit and wine markets. O-I's certified containers are now one of only two food and beverage packaging materials to receive the highest rating of Platinum in material health. Additionally, our EcoVadis certification rating, which measures corporate social responsibility, improved from BRONZE to SILVER in 2019. O-I also improved its Carbon Disclosure Project score to a B in 2018, based on the independent international organization's evaluation.

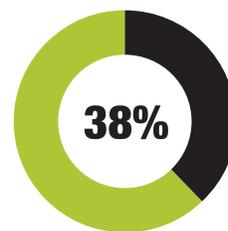
Being safe, responsible and active in the community is a core part of who we are. For more on how O-I puts sustainability into action read our [Corporate Social Responsibility Update](#).



**ENERGY**  
Reduction in absolute energy, or a 14% reduction per container packed



**EMISSION**  
Reduction in absolute tonnes of CO<sub>2</sub> equivalent emissions, or a 14% reduction per container packed



**RECYCLED GLASS**  
Global average for post-consumer recycled glass (cullet) use



## O-I's Sustainability Strategy and Goals

As O-I works to improve our environmental profile aligned with our customers' ambitions, we have exponentially grown our sustainability agenda over the past several years. The most fundamental priorities for O-I are climate change and waste management. Goals around these two priorities were established as part of our Corporate Social Responsibility Update released in 2018. Those goals are:

- Achieve a 25% reduction in greenhouse gas emissions by 2030;
- Increase the global average of post-consumer recycled content in our products from 38% to 50% by 2025
- Implement glass container collection programs in 75% or more of the communities we serve by 2025.

### O-I is also contributing to global sustainability efforts.

In fact, our goal around greenhouse gas emissions makes O-I one of more than 460 global companies that have committed to implement science-based targets for emissions reduction. By committing to these targets, we are taking a public stand to do our part in helping achieve the level of decarbonization required to maintain a global temperature increase below 2 degree Celsius from pre-industrial levels in alignment with the Paris Accord of 2015.

To achieve these goals, we aim to increase the percentage of renewable energy consumed at our facilities, increase energy efficiency in our plants, and encourage post-consumer recycling of glass in order to increase the use of recycled content in our containers. We also, along with the glass industry, are leading the transition to a circular economy by constantly seeking out innovative engineering and market based solutions throughout our value chain.

Additionally, in accordance with the United Nations Sustainable Development Goals (SDGs), O-I is focused on six of the 17 goals which are most closely aligned with our core business and objectives. These focus areas provide O-I with a foundation to help the communities in which we operate be more sustainable, through a responsible management of their activities and a solid culture of sustainability. The six we are focused on advancing are:



As a forward-looking company, O-I is focused on the future. We are working hard to set ambitious goals, embrace technology, build partnerships, and reward innovation as we strive to create a better planet.



# O-I'S GREEN BOND FRAMEWORK

O-I believes the issuance of Green Financing Instruments could contribute to fostering the transition to a low-carbon economy, as it aligns our financing needs with specific investing activities

O-I has decided to commit to the Sustainable Capital Markets as a way of financing Green projects and has created this Green Bond Framework.

The Green Bond Framework has been designed using the Green Bond Principles, updated in June 2018, published by the International Capital Markets Association (ICMA). The Green Bond Framework has been reviewed by Sustainalytics. O-I intends to follow best market practice and will communicate in a transparent manner on:

- 1 – Use of Proceeds**
- 2 – Process for Project Evaluation and Selection**
- 3 – Management of Proceeds**
- 4 – Reporting**

## **1 – Use of Proceeds**

O-I will allocate an amount equal to the net proceeds from the sales of the Green Bonds to finance and/or refinance new and/or existing Eligible Green Projects in:

- A.** Improvement of the environmental performance of production facilities and processes: **Sustainability in O-I Operations**
- B.** Glass products or solutions with environmental considerations: **Sustainable Products**

## A. Sustainability in O-I Operations

ELIGIBLE CATEGORY	SCOPE AND DEFINITION FOR ELIGIBLE GREEN EXPENDITURE	EXAMPLES OF PROJECTS	SDGS
<b>Renewable Energy</b>	Project and investments aimed at replacing fossil fuel energy with renewable energy (wind and solar)	<ul style="list-style-type: none"> <li>On-site and off-site solar panel / wind installation</li> </ul>	
<b>Energy Efficiency</b>	Investments in energy efficient solutions, such as LED lighting	<ul style="list-style-type: none"> <li>LED lighting in offices, plants and warehouse</li> </ul>	
<b>Sustainable Water and Wastewater Management</b>	Use of new technologies aimed at reducing water consumption in the manufacturing process	<ul style="list-style-type: none"> <li>Installation of closed loop systems that reuse water</li> </ul>	
<b>Environmentally friendly production technologies and processes</b>	Projects, investments, and R&D aimed at improving the production technologies and processes in manufacturing facilities, and facilitating the use of alternative resources	<ul style="list-style-type: none"> <li>Automatic process control for furnaces</li> <li>Alternative fuel sources: Oxygen, hydrogen, biogas, synthetic gas</li> <li>Dust collection, including filter/abate dust (carbonates/silicates)</li> <li>Abatement Equipment (i.e. scrubbers)</li> <li>Projects aimed at optimizing combustion (to minimize energy consumption and emissions)</li> <li>Projects aimed at minimizing and/or re-using wasted heat</li> <li>Sensors to monitor/test emission control/compliance (including investments with third party to find ways to reduce emissions)</li> </ul>	 

## B. Sustainable Products

ELIGIBLE CATEGORY	SCOPE AND DEFINITION FOR ELIGIBLE GREEN EXPENDITURE	EXAMPLES OF PROJECTS	SDGS
<b>Circular Economy</b>	Projects aimed at using circular economy programs, including waste collection and/or glass recycling processing facilities	<ul style="list-style-type: none"> <li>Investments in cullet processing capacity and glass recycling processing facilities</li> <li>Purchase of raw material from crushed glass (i.e., cullet or other glass derived from solar panels)</li> <li>Using a waste product from another industry as an alternative source of recycled content, such as foundry sand (from aluminum casting)</li> <li>Returnable packaging projects and investments (i.e. technologies that enable O-I's customers to track bottles to facilitate reusing returnable packaging)</li> </ul>	 
<b>Environmentally Friendly Adapted Products</b>	Projects aimed at decreasing the use of raw material, and using sustainable raw material to produce environmentally friendly products	<ul style="list-style-type: none"> <li>Light weighting bottles: <ul style="list-style-type: none"> <li>investments to optimize the shape of bottles</li> <li>R&amp;D in glass chemistry and treatment to optimize right mix of material use</li> </ul> </li> </ul>	

Eligible Green Projects may include capital expenditures, operating expenditures notably related to the purchase of crushed glass (cullet), and research and development.

If for any reason a project is no longer eligible, O-I will use its best efforts to substitute any assets that are no longer eligible, as soon as practical once an appropriate substitution option has been identified.

Eligible Green Projects may include new projects or existing projects with disbursements not earlier than 36 months before the issuance date of the Green Bonds.



## 2 – Process for Project Evaluation and Selection

O-I identifies and assesses environmental, health and safety (EH&S) risks and opportunities in the course of evaluating new projects and/or investments, as well as when monitoring, maintaining, or upgrading existing assets and processes, in accordance with our internal investment guidelines and policies. This includes completing an EH&S checklist at each milestone step of the capital allocation approval process. Further, O-I employs a robust internal audit process where each facility is evaluated on at least a 3 year cycle to ensure compliance with both internal policies and the rules/regulations of the countries where we operate.

In the near term, O-I's Vice-President in charge of Sustainability, our Vice President responsible for Global Technology and R&D, and the Corporate Treasurer will meet on a quarterly basis to identify, evaluate and select Eligible Green Projects based on the Eligibility Criteria, from the list of approved projects. In the long-term, O-I will seek to adapt its existing capital allocation process to include questions and scoring related to whether or not a new project qualifies under this Green Bond Framework.

We believe our focus on risk management throughout the investment process helps reduce risk and improve financial performance over the long-term.

## 3 – Management of Proceeds

The net proceeds from O-I's Green bonds will be deposited in a general bank account and an amount equal to the net proceeds will be earmarked for allocation to the Eligible Green Projects, in accordance with O-I's Green Bond Framework.

O-I will establish a Green Bond Register to record on an ongoing basis the allocation of net proceeds from our Green Bond Framework to Eligible Green Projects. The Green Bond Register will be monitored by O-I's Treasury team in conjunction with the Sustainability team, and will be updated on a quarterly basis. O-I will track the asset/investment's location, the amount financed, and the applicable eligible category. The Green Bond Register will form the basis for the Impact Reporting.

Pending the allocation or reallocation, as the case may be, of the net proceeds, O-I will invest the balance of the net proceeds, at its own discretion, in cash or cash equivalents, or in other short-term liquid marketable instruments, or to repay existing external debt obligations of the company, as per the company's liquidity management policy.

O-I intends to allocate the full amount of proceeds within the next 36 months following the issuance of the Green Bond.





## 4 – Reporting

O-I will report on the allocation of net proceeds and associated impact metrics of the Green Bond within one year from the issuance date and annually thereafter until the proceeds have been fully allocated, and as necessary thereafter in the event of material development.

This report will be published as part of O-I’s Corporate Social Responsibility Report or in a separate press release, published on O-I’s website.

The report will include:

- The aggregated amount of allocation of the net proceeds to the Eligible Green Projects at each category level, including a brief description of the largest and most representative projects from each category
- Confirmation that the net proceeds were allocated (in part or in full) to Eligible Green Projects
- The proportion of the net proceeds used for financing versus refinancing; and,
- Where feasible, O-I will intend to report environmental metrics associated with the Eligible Green Projects

### Examples of KPIs that may be used:

GREEN BOND CATEGORY	IMPACT MEASUREMENT METRICS – EXAMPLES
<b>Sustainability in O-I operations</b>	
Renewable Energy	<ul style="list-style-type: none"> <li>• Capacity of renewable energy installed / purchased (MW)</li> <li>• GHG emissions avoided (tCO2 avoided)</li> </ul>
Energy Efficiency	<ul style="list-style-type: none"> <li>• Energy savings (in MJ)</li> </ul>
Sustainable Water and Wastewater Management	<ul style="list-style-type: none"> <li>• Water consumption reduced / water savings (m3 or % compared with 2010 baseline)</li> <li>• Reduction of pollutants discharge (% compared with baseline)</li> </ul>
Environmentally friendly production technologies and processes	<ul style="list-style-type: none"> <li>• Reduction in GHG emissions</li> </ul>
<b>Sustainable Products</b>	
Circular Economy	<ul style="list-style-type: none"> <li>• Volume of crushed glass used (kg or % of total glass raw material)</li> <li>• Volume of waste/bottles collected and recycled (kg or % of total waste)</li> </ul>
Sustainable and Efficient Packaging	<ul style="list-style-type: none"> <li>• Reduction of raw material use (% compared with baseline)</li> </ul>



## 5 – External Review

### Pre-issuance

O-I has appointed Sustainalytics to review the Eligible Green Projects and to provide a Second Party Opinion on its Green Bond Framework.

The Second Party Opinion and the Green Bond Framework will be made available on O-I's website.

### Post-issuance

The allocation of Green Bond proceeds, adherence to asset selection criteria, and environmental metrics, if any are reported, will be reviewed by an independent auditor who will provide a report that O-I is in compliance with the intended use of proceeds on Eligible Green Projects as defined in this Framework. The auditor's report will be made available on O-I's website.





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