



**BIRA** **91**  
*MISSION TO ZERO*

April 22, 2022

[www.bira91.com/missiontozero](http://www.bira91.com/missiontozero)



## OUR MISSION TO ZERO

For this generation of consumers, beer means flavor. More than seven pints of Bira 91 are enjoyed every second, and as we scale up, we know that besides brewing the most flavorful beers on the planet, **we can also make the greenest beers for the planet.**

Climate change is the most important challenge facing our generation and **making beer is completely dependent on the environment.**

- Wheat, barley and hops are grown in farms. Protecting specific local conditions of soil and climate is non-negotiable.
- 95% of beer is water. Preserving pristine water sources is non-negotiable.
- We need energy and fuel to make, transport and chill our beers. Using clean energy is non-negotiable.

**We're on a mission to build India's first net zero beer company by 2025.**<sup>[1]</sup>

We are doubling-down on going green with actions that will help create real, measurable impact.

**By 2025, every Bira 91 brewery will have Zero Carbon emissions.**<sup>[1]</sup>

We started the craft beer revolution in India, and the pints that the country consumes have become more flavorful, forever. We are hopeful that this mission towards Zero will spark a similar revolution, one in which **every beer company in the country becomes carbon neutral.**

**Zero has never been so flavorful.**



<sup>[1]</sup> Based on targeted Carbon emissions of Zero for Scope 1 (Direct Carbon Emissions from company locations including brewery and offices) and Scope 2 (Indirect Carbon Emissions associated with purchase of electricity, steam, heat or cooling). [Learn more about Scope 1, 2 & 3 here.](#)

## BIRA 91 HAS A PLAN TO REACH ZERO

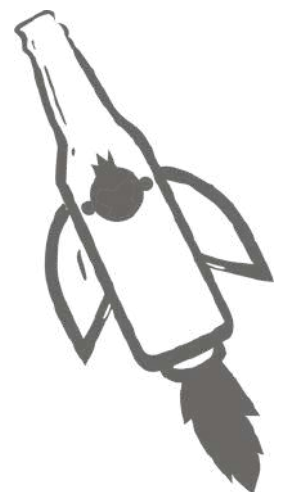
We'll get to Net Zero in 4 simple steps

1 Shift to **100% Clean Energy** <sup>[2]</sup>

2 Consume **60% Less Energy** <sup>[3]</sup>

3 Use **50% Less water** <sup>[4]</sup>

4 **Zero Waste** to Landfill <sup>[5]</sup>



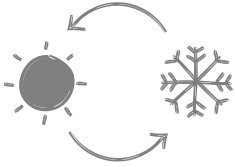
<sup>[2]</sup> Clean energy defined as thermal energy and electricity generated from solar, wind, hydro, tidal, geothermal and biofuels.

<sup>[3]</sup> All reduction targets in this report on the basis of utilization/emissions as of Calendar Year 2020 on a unit per hectolitre basis. Energy reduction target on basis of MJ/HL as of Calendar Year 2020.

<sup>[4]</sup> Water reduction target on basis of water utilization (HL/HL) as of Calendar Year 2020.

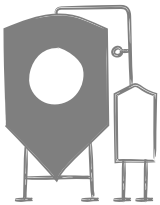
<sup>[5]</sup> Basis target to recycle or reuse 100% of waste generated during the manufacturing process.

## 2 Consume 60% Less Energy



### Feeling hot hot hot!

In the brewing process, as we boil malt and hops, more than **15% of heat energy is lost**.<sup>[7]</sup> We are investing in equipment to ensure that we recover all of the surplus heat generated and convert it into reusable energy.



### Brewing harder, faster, better and stronger

We are improving every small step of making beer. From mill to mash, boil to ferment, filter to pack, we are doing it faster and better, **using 20% less energy in the process**.<sup>[8]</sup>



### Modernizing the art of making beer

By deploying today's advances in brewing, packaging, automation, AI and advanced robotics, we expect to remove waste, improve efficiencies and **reduce energy consumption by 15%**.<sup>[9]</sup>



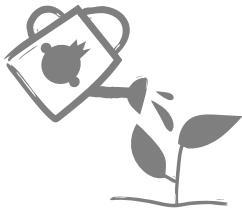
<sup>[7]</sup> Based on recovery of steam and heat energy generated during the boiling process and reused for other manufacturing processes

<sup>[8]</sup> Based on improvements in manufacturing efficiency, reduction in evaporation, reduction in beer losses and high gravity brewing

<sup>[9]</sup> Based on digitalization and automation of brewing processes, modernization of insulation and heat transfer technologies

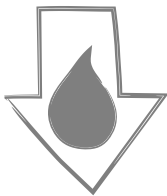
## 3 Use 50% Less water

Water is essential to every step of beer making – cleaning equipment, cleaning glass bottles, generating steam and in refrigeration. We are using smarter ways to reduce, recycle and reuse water.



### Recycle

100% of waste water is treated and converted into clean water and used for refrigeration, watering trees or generating steam.



### Reduce

By reducing evaporation during the brewing process and by using smarter processes for cleaning of equipment and glass bottles, we target reducing water usage by **25% in our breweries.**<sup>[10]</sup>



### Reuse

We are building closed-loop processes so that we do not lose water after using it for the first-time and are able to reuse it multiple times, thereby, reducing rest water usage by **250 million** litres every year.<sup>[11]</sup> That's a **billion** glasses of water saved.

<sup>[10]</sup> Reduction target based on water usage (HL/HL) as of Calendar Year 2020

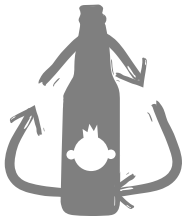
<sup>[11]</sup> 80% of brewery capacity is Zero Discharge (We do not send any wastewater outside our breweries). Target based on reuse of water through cascade and closed-loop systems in manufacturing and irrigation.

## 4 Zero Waste to Landfill



### Happy Cows (and chickens)

Once we take out the liquid gold from barley, wheat and rice to make our beers, we are left with spent grain – rich in protein, fibre and nutrients. Cows and chickens love it, and are happiest specially when it comes from a brewery that makes flavorful beers. **100% of our spent grain** is used for animal feed and some of it is also used to make cups for our offices and events.



### Packaging that is beautiful and green

95% of the materials that we use to make our beers is recyclable. **By 2024, 99% will be fully recyclable.**<sup>[12]</sup>



### Cut the scrap

We try and recycle any waste generated in the beer making process – broken glass, damaged cartons, wasted cans. By 2024, we commit to send zero waste to landfills across our breweries.

<sup>[12]</sup> Target based on re-usable/recallable packaging materials including primary packaging i.e., bottles, cans, kegs, secondary packaging i.e., cartons and multi-packs, and any other packaging materials used



# OUR PATH TO NET ZERO

**2022**  
**Mysuru goes to Zero**  
 Our flagship Mysuru brewery becomes our first carbon neutral brewery

**2024**  
**Zero waste to landfill**  
 We send no solid waste to landfills and recycle everything



**2021**  
**Zero Coal**  
 All of our breweries use no coal

**2023**  
**Half-way to Zero**  
 50% of our brewing capacity has zero carbon emissions

**2025**  
**India's first Net Zero beer company**





## OUR TO-DO LIST FOR THE PLANET IS READY. HERE'S WHAT YOU CAN DO TO HELP.



### Drink more draft

Not only is draft beer most fresh and flavorful, it also has the **50% lower carbon footprint<sup>[13]</sup>** than bottles or cans. Our steel kegs are reused over decades. Beer from a keg is chilled just before drinking, saving energy and carbon emissions.



### Recycle. Recycle. Recycle

Almost half the carbon emissions come from packaging material. **The more bottles or cans you help recycle, the more you help lower emissions.** Segregating your waste and recycling everything is the best way to reduce your footprint.



### Get creative

Our cans, bottles, crowns and cartons are beautiful. Most would already call them works of art. Get your creative juices flowing and reuse them - we've seen everything from flowerpots to lamp shades to sculptures to even jewellery from our packaging.



<sup>[13]</sup> Draft beer has 50% lower carbon footprint compared to bottles and cans as draft is packaged in bulk containers which are reused over multiple years and lower requirement of refrigeration.





In our world

**ZERO > 91**

we'll drink to that



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## THE TEAM

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**Takayuki Maeda** | B9-Kirin Center for Sustainable Growth

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**Pran Raj** | Supply Chain

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**Dhruv Malik** | Marketing

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