

ENVIRONMENTAL STEWARDSHIP

Shaping the future of our bioeconomy by how we make our products

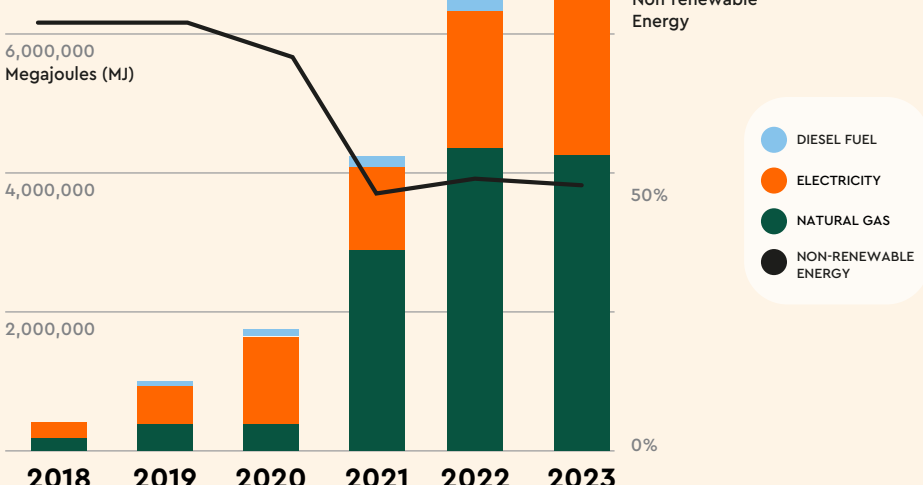
Creating a blueprint for the bioeconomy starts with being good stewards of the environment where we work, live, and play. As a Delaware public benefit corporation and Certified B Corporation™, our operations are grounded in data and transparency. We measure our progress toward our public benefit to promote environmental stewardship in our Salt Lake City Design Lab and Alameda Headquarters using key performance indicators (KPIs) of energy, GHG, water, and waste. Our goal is to transition from the “take, make, waste” paradigm of our current linear economy toward the promise of a circular one, modeled by nature.

ENERGY

Checkerspot's Design Lab manufactures with 100% renewable energy

Since we began measuring in 2018, we have decreased our proportion of non-renewable energy use from 88% to 53% in 2023. One of the largest challenges to decreasing our non-renewable energy use is related to the heating system installed in our Alameda headquarters, which runs on natural gas. We've spoken with the local energy provider, PG&E, and unfortunately they do not provide renewable natural gas. We are exploring options to improve our heating efficiency and fully electrify the building to further reduce our non-renewable natural gas use.

TOTAL ENERGY USE & PERCENTAGE OF NON-RENEWABLE ENERGY



GHG EMISSIONS

Zeroing in on projects to reduce our carbon footprint

We are committed to accurately measuring and reporting our GHG emissions using both market-based and location-based methodologies to ensure transparency and provide a comprehensive understanding of our environmental impact.

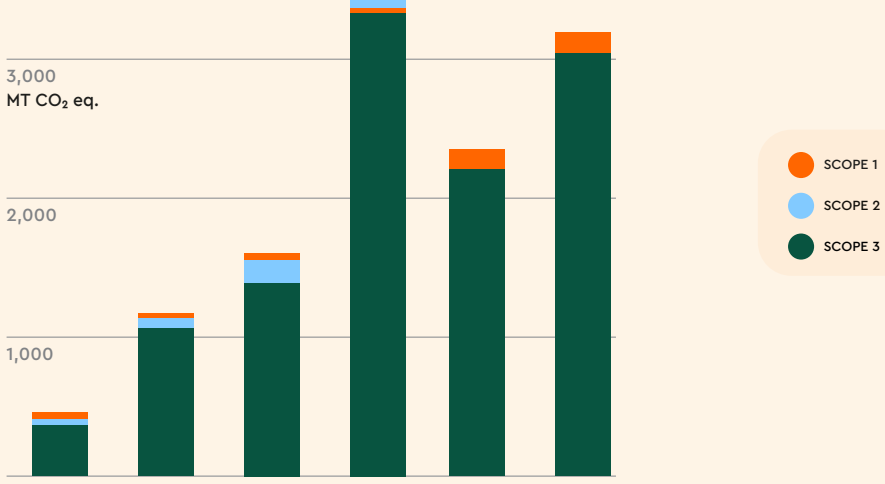
Location-based reporting utilizes the EPA grid-average emission factors to calculate our emissions based on the regional energy sources (renewable or not) available for our Alameda headquarters and Salt Lake City Design Lab. This approach measures absolute emissions from our two locations, and allows us to benchmark our performance against regional standards and helps identify areas for improvement.

A separate approach, market-based reporting, considers our organization's specific energy procurement choices, meaning our purchases of Renewable Energy Certificates (RECs) that match our total energy use. Through RECs, renewable energy is supplied to the grid, whether it's directly to our facility or to others. By incorporating contractual instruments such as RECs, we are reducing the carbon intensity of our operations as well as supporting the broader adoption of renewable energy.

To get a total sense of our emissions, we also measure Scope 3 emissions, the other indirect emissions that occur across the value chain.

[SEE GHG TABLES BELOW]

TOTAL GHG EMISSIONS



CA AB 1305 Disclosure: Total GHG Emissions and GHG Intensity figures are calculated based on the WRI GHG Protocol using Climate Neutral's Business Emissions Evaluator (BEE) tool. Emissions data, including the market-based Scope 1 and 2 results above, have been documented, analyzed, and reported by an internal team of Checkerspot employees and consultants. Neither the data nor the claims above were separately verified by an independent third-party.

In support of our goal to reduce GHG emissions, we created a Reduction Action Plan:

- Utilize the BEE model to identify our largest source of emissions. In our case, disposable plastic products consumed in Checkerspot's laboratories were the single largest source of 2021 emissions from raw material purchases (Scope 3, category 1). In 2022, we completed a project to reduce these 120 MT of CO₂ eq. emissions by developing a process to wash and reuse laboratory plastics (polypropylene 96 well assay blocks and automation pipet tips) rather than purchasing virgin petroleum-based materials. Completed 11/17/22; 12.2 MT CO₂ eq. eliminated.
- Enhance our accounting systems to quantify Scope 3 GHG emissions, the hardest to quantify because they come from indirect sources. We are now using Climate Neutral's BEE Model to calculate Scope 1-3 GHG emissions. Completed annually since 2021.

- Use Life Cycle Assessments (LCA) to assess the impact of process changes completed within 2022. Checkerspot's R&D efforts drove down the carbon footprint of our Algal Polyol by 38% which alone enabled reductions in the GHG footprints of our Cast PU sidewalls and WNDR® Alpine skis by 24% and 3%, respectively. Completed 11/14/22.
- We're investigating further innovations to reduce the carbon intensity of our CPU, with a path to reduce our baseline 56% lower (to 3.0 kg CO₂ eq./kg) by the end of 2024. In Progress.
- In 2023, algae oil was our single largest source of Scope 3, category 1 emissions. With a combination of agricultural changes already commercialized, optimization of location of operations currently under evaluation, and the use of waste outputs from one process as raw material inputs for another, we believe we have a path to carbon neutrality without the use of carbon offsets in the coming years. In progress.

WATER

Analyzing our water use

Our objective to reduce water consumption has been challenging as we moved in 2021 to a larger space to accommodate job growth. Until moving our headquarters from Berkeley to a larger space in Alameda, water consumption at Checkerspot grew annually at a rate below that of our increase in leased space. However, water usage was 32x over that observed in Berkeley and after investigating, we learned that the water meter supplying our Alameda Headquarters also supplied several adjacent properties unrelated to Checkerspot. Separate metering of these properties was completed March 4, 2022 and we saw water intensity decline in Alameda from ~1,500 L/m² x year before this work to 1,364 L/m².

Despite the initial drop in Alameda, water intensity did not continue to drop in 2022 to be closer to the levels observed in our Berkeley facility. Although the Berkeley facility was a low-flow, LEED Silver certified building with low occupancy that may have set our water use expectations unrealistically low, our water use still remains higher than expected, and water intensity in Alameda continued to grow 12% in 2023. Pending resources, we will continue to explore ways to reduce water use and improve the accuracy of this reporting.

Note: 2021 annual data and 2022 data prior to March 4th are estimated using the most recent six months of continuous data available after our water utility began metering our property separately from adjacent, unrelated properties.

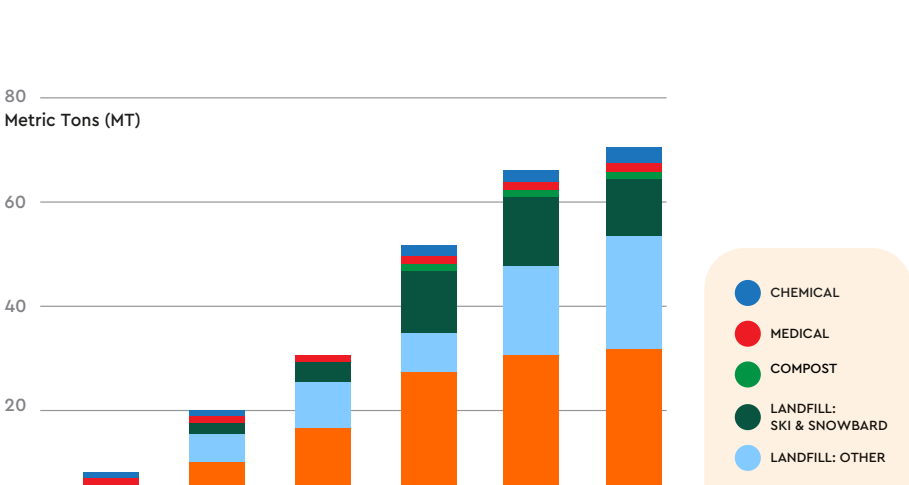
WASTE

Ramping up efforts to reduce waste

Reducing waste through source reduction, substitution, or recovery/reuse has been particularly challenging while growing as a new company. Total waste intensity in 2023 increased 9-fold since 2018, slightly less than the 12-fold increase in area leased over the same time period.

The majority of our waste is relatively evenly split between landfill and recyclables (45% each). Within the total headed for landfill, roughly a third is from ski and snowboard waste.

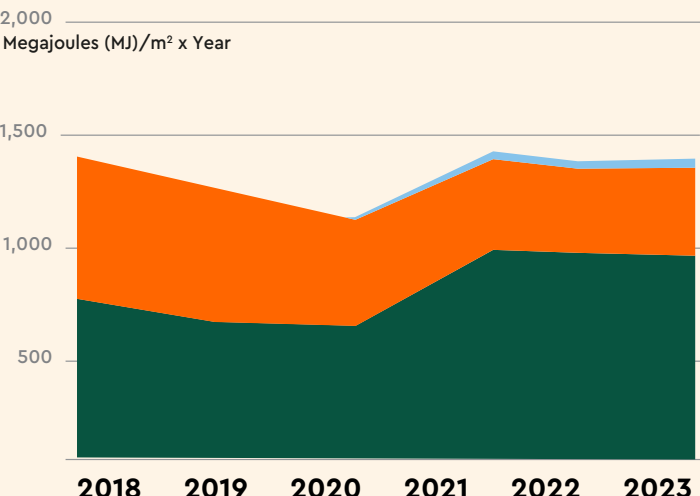
TOTAL WASTE



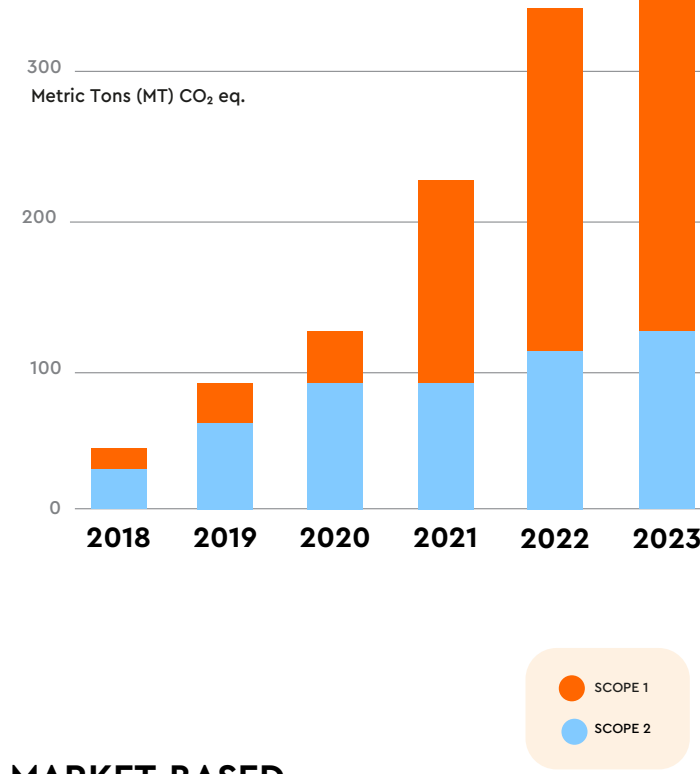
Note: Actual data from 2021 is used to estimate 2018-2020 landfill, compost, and recycle values which, due to shared facilities, had no data previously available.

ENERGY INTENSITY

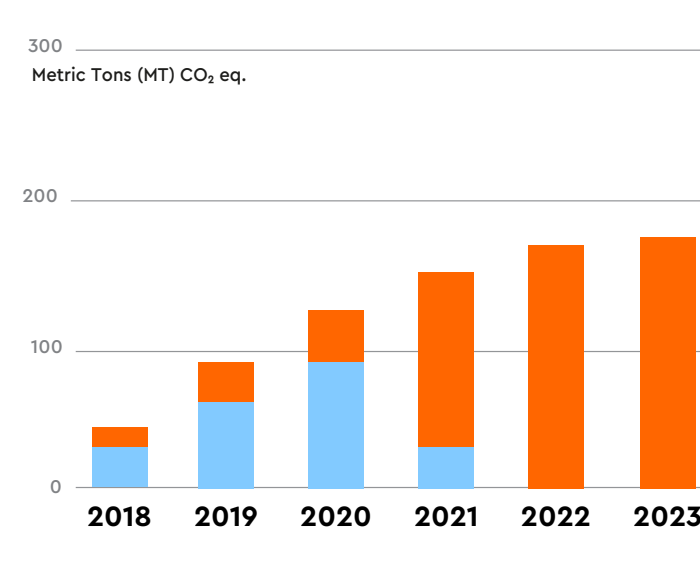
(BY SQ. METERS OF FLOOR SPACE)



LOCATION-BASED EMISSIONS REPORTING

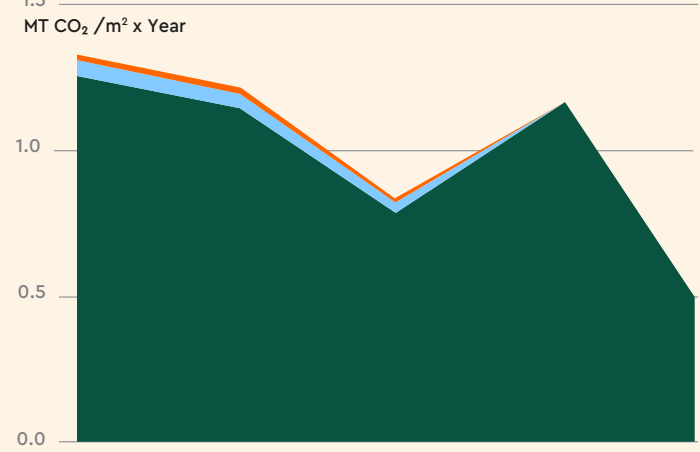


MARKET-BASED EMISSIONS REPORTING

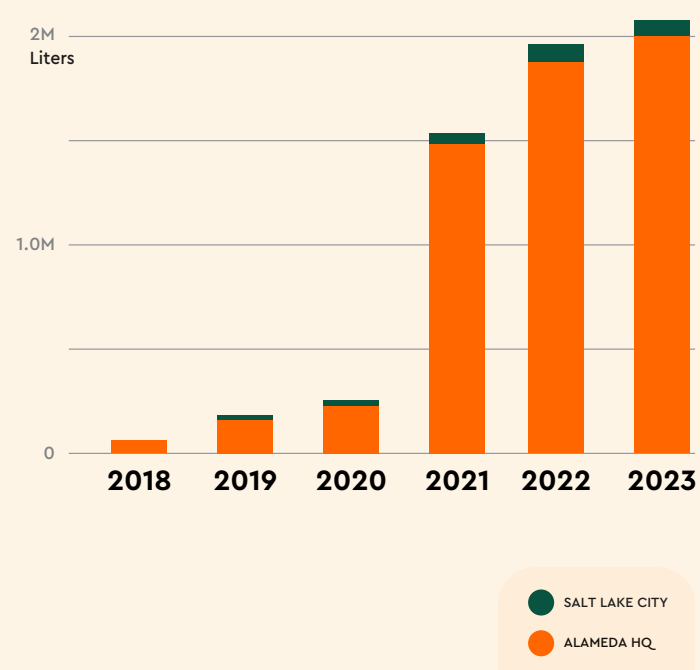


GHG INTENSITY

(BY SQ. METERS OF FLOOR SPACE)

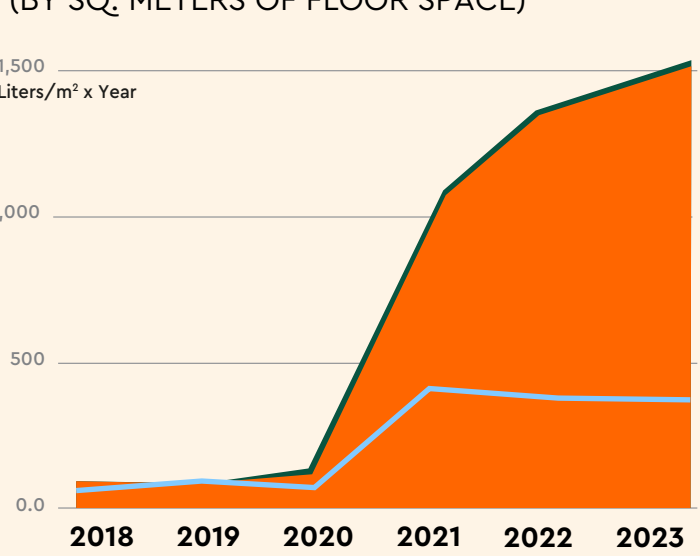


TOTAL WATER USE



WATER INTENSITY

(BY SQ. METERS OF FLOOR SPACE)



WASTE INTENSITY

(BY SQ. METERS OF FLOOR SPACE)

