

Climate Action Plan

Our 2023 Climate Action Plan shares an update on the progress we made this year and explains our future plans to advance our work on climate-related issues.



Introduction

Our approach to addressing our climate impacts is rooted in our sustainability principles, with a strong emphasis that we are learning as we go and seeking continuous improvement. This year's Climate Action Plan update is a reflection of that learning and progress we have made to address our impact on global climate change. This section outlines our efforts to reduce emissions across our business, build supply chain resilience, and reduce our environmental impact.

The viability of our Climate Action Plan depends upon many external factors that may be directly or indirectly beyond our control and include: our suppliers' ability to meet our expectations, socio-economic and public health risks, the direct and indirect impacts of global climate change on our operations and global value chain, changes in the international and national policy and regulatory landscape, permitting requirements, the availability of refrigerant equipment and low-GWP refrigerant alternatives, the availability of qualified refrigerant and HVAC service providers, requisite supply of clean energy. Supply chain volatility, energy and commodity pricing, regulatory signals, and shifting member preferences and stakeholder attitudes also are material factors that can impact our Climate Action Plan timeline. The data reported is compiled from sources that we believe are reasonable to rely on at the time of publication, may change as new information becomes available, and future reports may change accordingly.

Our Climate Action Plan:

Aligns with regulatory requirements and global standards: We incorporate regulatory requirements, certain global standards and industry guidance across measurement, disclosure and reporting and will continue to monitor evolving standards and guidance. These frameworks and standards continue to inform our approach to climate action¹.

Includes an accountability and governance model for climate progress: Our approach to governance and reporting is aligned with the Task Force for Climate-Related Financial Disclosures (TCFD) and the Sustainability Accounting Standards Board (SASB), both part of the International Sustainability Standards Board (ISSB) standards. More information can be found on the [Governance & Reporting](#) section of our Sustainability Commitment.

Governance Structure



¹ While we have not adopted Science Based Targets, we actively consider SBTi's Corporate Net Zero Standard as a framework for ambitious climate strategy and will continue to utilize SBTi's guidance. Solutions must be operationally viable and fulfill our obligations to our shareholders, employees, members, suppliers, and the communities we serve. Additional guidelines and frameworks we consider include the GHG Protocol Accounting & Reporting Standard, TCFD, TNFD, IPCC, COP, SDGs, and CDP.

Emissions Executive Summary

Provides transparent disclosure: Transparency and disclosure of our progress toward our climate goals are important. We believe in measuring our progress and sharing what we have learned with our community and stakeholders. We currently disclose to industry-wide forums, such as CDP-Climate and CDP-Forests, and we offer detailed information about our projects and efforts via our [Sustainability Commitment](#) website.

Supports a holistic approach to climate: We have aligned our sustainability efforts and initiatives related to climate using a holistic and integrated approach. Climate has a number of interdependent issues, in addition to emissions, that we consider. These include but are not limited to: water, forests, biodiversity and a just transition for people and communities. While we focus on our emissions progress in this year's update, in fiscal year (FY) 2024, we will also be working on our global water strategy and analyzing select supply chains for biodiversity risk.

Over the past few years, we have made strides in our climate journey. Our Scope 1 and 2 emissions work is more mature, having started with the inception of our STAR Program (more information can be found in the [Operations](#) section of our Sustainability Commitment) in 2021, and helps us prepare for Scope 3 improvement in a way that resonates with our culture. To meet our decarbonization goals for Scopes 1, 2 and 3, we need our employees to contribute in innovative ways, from reinforcing programs that have been in place to changing practices going forward. This requires broadening awareness and learning and implementing new policies and procedures.

We have been able to use learnings generated from work on climate within our own direct control to inform our Scope 3 emissions strategy and approach. As a result, there are common themes to our approach across all scopes, such as broadening awareness, providing education, shifting toward clean energy, and focusing on resource efficiency and efficient transportation. In addition, our approach to reducing emissions is to set targets accompanied with pragmatic action plans that we believe will help us reach these targets.

Across the entire business, notable accomplishments of the past year include:

- Launched a Global Energy Strategy to address Scope 1 and 2 emissions in our operations portfolio and a Scope 3 Energy Transition Strategy targeting our Tier 1 and 2 suppliers.
- To make progress in Scope 2, continued to increase clean energy² procurement, which as of the end of calendar year 2022 represented 19%³ of our global purchased energy and is on track to meet our 100% clean energy commitment by 2035.
- Developed a Scope 3 emissions intensity reduction target and action plan (see below).
- Reported all scopes for FY20, FY21 and FY22 (all third-party verified) to CDP Climate in July 2023 and participated in CDP Supply Chain, which requests our top 500 suppliers to disclose their Scope 1, 2 and 3 emissions to CDP.
- Submitted our CDP Forests report for the second year in a row, disclosing our metrics on key forestry commodities that are related to climate change.
- Invested in our technology and data infrastructure to build a platform for reporting and measurement across all scopes.

Our emissions footprint across all three scopes for FY22 totaled to 174M MT CO₂e, up 10% from FY21 on an absolute basis. Our Scope 1 emissions increased 15%, driven by bunker fuel related to the vessels Costco chartered due to the global pandemic. Costco has ceased this activity and will no longer incur these Scope 1 emissions in FY24. If one excludes this activity, our FY22 Scope 1 emissions were flat, despite our sales and square footage growth.

Our Scope 2 market-based emissions, despite our growth, decreased 3% over the past year, driven by purchasing more clean energy. Scope 3 emissions increased 10% — mostly driven by the increase in demand of our gas business, as well as a strong general merchandise sales growth rate.

² Clean energy for us includes solar, wind, hydroelectric, geothermal, nuclear and bioenergy.

³ Clean energy procurement shown on a calendar year basis to align with clean energy procurement contracts and U.S. grid emission factors.

Scope 1, 2, & 3 Emissions | Absolute Metrics

Metric	FY22	FY21	FY20 / CY20
Scope 1 Emissions (MT CO2e)	1,405,640	1,218,381	1,205,620
Scope 2 Emissions (MT CO2e)			
Market Based	1,375,183	1,418,244	1,408,963
Location Based	1,425,977	1,428,751	1,457,413
Scope 3 Emissions (MT CO2e)	171,274,463	155,281,141	141,812,164
Fuel	75,056,928	61,635,511	55,425,128
Non-Fuel	96,217,535	93,645,630	86,387,036
Total Emissions (Mkt Based)	174,055,286	157,917,766	144,426,747

Scope 1, 2, & 3 Emissions | Intensity Metrics

Metric	FY22	FY21	FY20 / CY20
S1 & 2 Intensity (MT CO2e / '000 Sq ft) Market	18.1	17.5	18.1
S1 & 2 Intensity (MT CO2e / \$M Net Sales) Market, inflation-adjusted ⁴	14.1	14.3	16.0
S3 Intensity (MT CO2e / \$M Net Sales) Company-wide, inflation-adjusted ⁴	867	842	869
S3 Intensity (MT CO2e / \$M Net Sales) Ex-fuel, inflation-adjusted ⁴	564	559	580

Scope 1 & 2 Emissions

We recognize the significant opportunity to decarbonize our global operations, from our warehouses to our depots and business centers. We also understand that our climate and energy-focused efforts in our operations can create near and long-term business value through lower operating costs, reliable, clean energy supply to power our warehouses, depots and business centers, and more resilient infrastructure.

⁴ Inflation adjustment is based on U.S. CPI-U Index: City Average All Items Less Energy published by the Bureau of Labor Statistics.

Our Scope 1 and 2 Reduction Target

We have committed to an ambitious Scope 1 and Scope 2 emission reduction target: 39% absolute reduction by 2030 compared to our 2020 base year. We have also committed to power our operations with 100% clean energy by 2035. To achieve these ambitious targets, we are evaluating, piloting and implementing a range of initiatives in our warehouses, expanding our procurement of clean energy and enhancing our framework to measure and monitor progress toward our goals.

Our Scope 1 and 2 Action Plan

Our Global Energy Strategy is the foundation of our Scope 1 and Scope 2 Action Plan. Led by select members of our executive leadership team, this cross-functional strategy focuses on five areas:

Energy Supply: Our priority is to purchase clean energy and integrate on-site energy generation systems when operationally and financially feasible. Since 2020, we have been using a portfolio-wide approach to procure, generate and use clean energy in our operations. Where clean energy procurement or on-site generation may not be feasible, we acquire source-specific power with the verified emissions-free certificates (EFEC, REC) to reduce our Scope 2 emissions.

Emissions-Free Energy Certificates

During 2023 we contracted to purchase certified, time-stamped 24/7 clean power for 124 warehouses across nine states. The clean power is sourced with hourly attributes, either Emissions-Free Energy Certificates (EFECs) or Renewable Energy Certificates (RECs), for 100% of the energy, 24/7. These time-stamped certificates demonstrate both where the clean energy is generated and the hour and date of production.

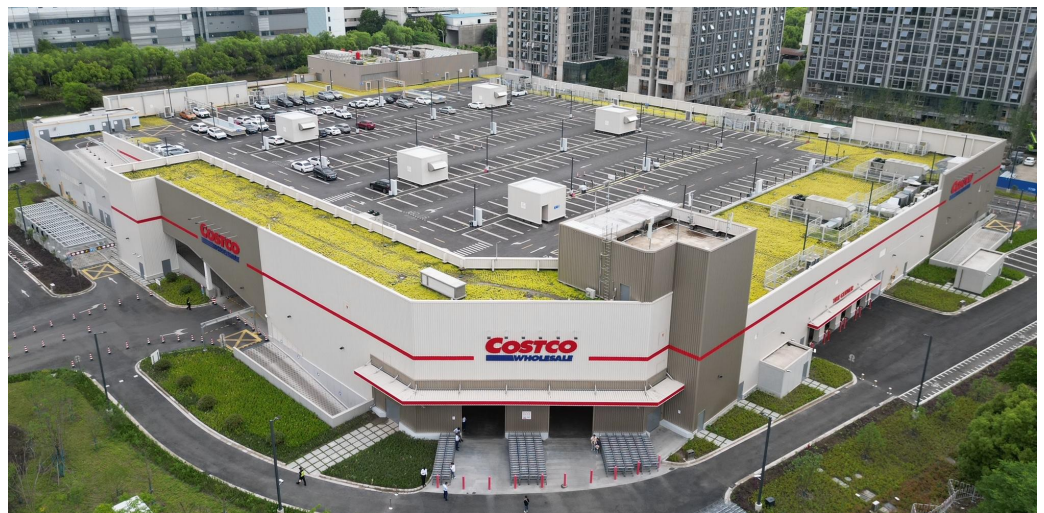


Energy Efficiency: Increasing the energy efficiency of our warehouses, depots and business centers is crucial to long-term decarbonization as well as creating energy cost savings and financial return on our investment. We are implementing programs to improve the efficiency of heating, ventilation, air conditioning (HVAC) and refrigeration systems, light fixtures and other aspects of our warehouse operations.

Refrigeration: Fugitive emissions is an area of continued focus to reduce the harmful impacts from hydrofluorocarbons and other gases from the refrigeration systems in our operations. We are committed to accelerating the phase-out of HFCs and increasing our investment in refrigeration retrofits to reduce refrigerant emission Global Warming Potential (GWP) by 30% by 2030 as compared to our 2020 baseline.

Transportation: We are exploring clean energy for our transportation equipment where it makes financial and operational sense. This includes testing and deploying electric yard goats, exploring additional fleet electrification opportunities and using renewable diesel throughout our California depots and business delivery centers. For more information, see the “Transportation & Logistics” page in the [Operations](#) section.

Design & Site Selection: We understand the impact that the materials we use in the construction of our facilities and the locations we choose for our warehouses, depots and manufacturing facilities have on our carbon footprint and the natural environment. We continue to explore ways in which we can minimize our carbon footprint and environmental impact with our design and construction choices.



Where We Are Today

Since setting our initial Scope 1 and Scope 2 absolute reduction target in 2021, we have nearly doubled our 2030 absolute reduction target during 2022. In 2023, we further expanded our decarbonization efforts across our global footprint. Here are some highlights from FY23:

- We increased the share of clean energy powering our global operations, reaching 19% of our total supply as of the end of calendar year 2022.
- We expanded our onsite generation capabilities at our Mira Loma, California, distribution center to include a solar canopy and battery storage system to charge our electric yard goats. This brings the campus to 3.3MW.
- We began using renewable diesel to power our depot and business center fleets in California, replacing over 2.4 million gallons of diesel with renewable diesel.
- We continued to reduce our use of harmful HFCs, completing 38 retrofits of our refrigeration systems, replacing harmful R-22 with lower GWP refrigerants, while also installing seven additional CO₂-based refrigeration systems globally.
- We deployed energy-efficient LED lighting to 167 warehouses across the U.S., reducing the average wattage by 35%.



Scope 3 Emissions

Costco is committed to doing our part to reduce emissions and improve the resilience of our supply chain. Scope 3 emissions, unlike Scope 1 and 2, are outside of our direct control. We will need to rely upon and partner with our suppliers to make substantial transformation. We have developed a comprehensive approach to our Scope 3 emissions that focuses on five key pillars: supplier energy transition, regenerative and deforestation-free agriculture, sustainable livestock, energy efficient items, and sustainable packaging (described in detail below). Underpinning these pillars will be a supplier engagement plan, education programs for our merchandising teams, and IT infrastructure to support reporting and measurement.

Our Scope 3 Reduction Target

We estimate that our five-pillar plan will lead to a 20% reduction in our Scope 3 emissions intensity (inflation-adjusted) by 2030 from our baseline year of FY20, excluding fuel. We recognize that this Scope 3 reduction target is not fully aligned to a 1.5-degree pathway. That pathway is not currently achievable for us if we are to continue to provide for all of our stakeholders. However, we believe this is an ambitious yet achievable target based on existing technologies, and we continue to explore opportunities for further improvement.

While we are excluding fuel from the target, we are working to develop a separate climate transition plan for our fuel business (see below).

Our Scope 3 Action Plan

We believe that the below five pillars are the best path for us to reduce our Scope 3 emissions. We hope our supplier efforts in reducing their Scope 1 and 2 emissions will lower our Scope 3 emissions and that we can learn from these successes to continue to drive change:

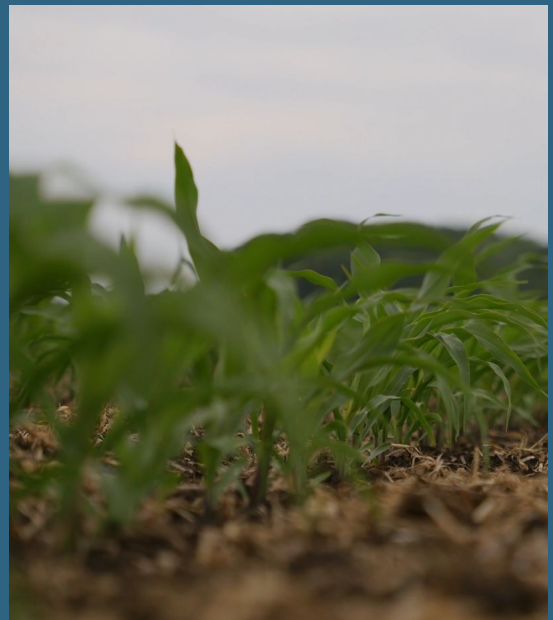
Supplier Energy Transition: One common thread throughout our supply chain is the reliance on energy. We believe that supporting our suppliers, through educational resources or direct partnership and investments to procure, generate and utilize clean energy in their operations can help them reduce their Scope 2 emissions.

Regenerative and Deforestation-Free Agriculture: A significant portion of our business is reliant on agriculture-based commodities, which are high carbon emitters. We are committed to supporting nature-based solutions, such as regenerative agriculture practices. These practices also have the benefits of protecting our soils, water and biodiversity as well as creating greater resiliency in times of more extreme weather events. In FY23, we worked on two pilot programs with Cargill and ADM related to regenerative agriculture to help us learn more about how to best support the farmers making this transition. We are also engaging our suppliers on supply chain traceability and supporting them in minimizing risk of sourcing from deforestation areas.

Sustainable Livestock: We sell foods created from animal agriculture that can carry higher carbon footprints. We want to do our part to reduce the intensity of those emissions. We will focus on collaborating with various suppliers, scientists, civil society and animal welfare experts to help accomplish this. We recognize that beef can be a driver of deforestation in certain regions, and we work to make sure our Kirkland Signature™ items containing beef are not sourced from high deforestation risk countries such as Brazil, Argentina, Colombia or Paraguay.

Regenerative Agriculture: Cargill

For an example of what one Costco supplier, Cargill, is doing to support regenerative agriculture practices, see the “Environmental Impacts & Land Stewardship” page in our [Merchandising](#) section. These practices improve crop productivity and soil health, support the livelihood of farmers and help reduce carbon emissions.



Energy Efficient Items: We sell items that consume energy. We believe that working toward greater energy efficiency with our suppliers and leveraging existing energy efficiency certifications (e.g., EnergyStar™) can help us to reduce our Scope 3 Category 11 emissions footprint.

Sustainable Packaging: We have made progress on sustainable packaging over the years and will continue to make this a focus. We will continue to work with our suppliers to find ways to reduce unnecessary packaging, implement reuse models in operations, adopt lightweight packaging optimized for shipping efficiencies, and increase recycled content opportunities.



Where We Are Today

A majority of our Scope 3 emissions come from Category 1 (Purchased Goods and Services) and Category 11 (Use of Sold Product). For Category 1, our emissions are highly concentrated in livestock, agriculture (including crops that tend to be drivers of deforestation) and manufacturing of the items we sell. For Category 11, we recognize the role that our fuel business plays (more below) and the opportunity to continue to find ways to drive energy efficiency in the items we sell.

Scope 3 | Breakdown by Business Segment¹

Metric	FY22	FY21	FY20
Upstream (MT CO ₂ e) CAT 1 & 4	94,836,137	89,894,930	83,364,674
Value Chain Operations (MT CO ₂ e) CAT 2, 3, 5, 6, & 7	1,934,563	1,799,782	1,681,152
Downstream (MT CO ₂ e) CAT 9 & 11	74,503,763	63,586,429	56,766,338
Total S3 Emissions (MT CO₂e)	171,274,463	155,281,141	141,812,164

¹ Categories 8 & 13 were considered out of scope due to materiality; Categories 10, 14, & 15 were excluded due to lack of applicability to Costco's business; Category 12 was excluded due to lack of data

Fuel Transition Plan

Emissions from our fuels business comprise ~40% of Costco's total emissions, largely Scope 3. We are taking actions to directly address these emissions, as outlined in this transition plan. At the same time, we will continue ensuring that our members have access to affordable and high-quality transportation fuels. Similarly, we're providing additional members with the necessary infrastructure to shift toward new lower-carbon transportation options such as EVs.

Overall Action Plan

We plan to take action across the entire span of the fuels business, including emissions upstream of the fuel station, at the fuel station and downstream of the station (i.e., combustion).

Upstream of the fuel station, our focus will be on procuring the lowest carbon intensity fuels available. We estimate that ~20% of fuel Scope 3 emissions stem from Costco's fuel supply, and can be reduced by purchasing from refineries that prioritize clean procurement and production. We are engaging fuel suppliers to better understand their carbon footprint, climate goals, disclosure protocols and carbon reduction initiatives. We also expect this engagement to encourage refineries to use cleaner production methods.

At the fuel station, we have a high degree of control to influence and minimize Scope 1 and Scope 2 emissions. Our efforts to date, highlighted in the next section, reflect our commitment to reducing negative environmental impact while ensuring members have continued access to affordable transportation fuels. To build on this progress, we are exploring the use of microgrids to power fuel station operations where feasible, and maintaining a focus on purchasing and maintaining state-of-the-art fueling equipment to minimize spills and vapor loss.

Emissions are also driven by combustion of fuel in members' vehicles. To combat these emissions, we will continue to use and refine proprietary additives in all gasoline fuel grades, which could provide an emissions reduction vs. LAC fuels⁶. We are also focusing on enabling members to shift toward lower carbon intensity transportation methods when they're ready. We are closely monitoring the market as new technologies evolve (e.g., battery electric vehicles, hydrogen fuel cell vehicles and plug-in hybrids) to provide our members with the infrastructure necessary to utilize their preferred transportation methods.

To support our members who have already purchased EVs and to encourage those considering a purchase, we are expanding our EV charging offering, with plans to open fast chargers at 20-plus warehouses. Our first fast EV charging station opened in Denver, Colorado, in 2023, and is serving as a pilot site to explore how to best provide EV charging services.

6 LAC = Lowest Allowable Concentration; Results shown in scenarios where Kirkland Signature™ Gasoline was tested against the minimum U.S. government-mandated detergency gasoline. Outcomes vary based on driving behaviors, engine type and vehicle maintenance intervals.



Where we are today

Current efforts to minimize emissions and environmental impact include initiatives across the fuel station value chain:

Upstream of the fuel station

Fuel procurement: We procure only from refineries that are compliant with EPA Tier-3 regulations, resulting in some Kirkland Signature fuels containing lower sulfur content.

Biofuels: We offer R99 (99% renewable diesel, 1% USLD #2) at all California fuel retail sites providing diesel, and plan to expand R99 offerings in Washington and Oregon. Renewable diesel has up to a ~65% lower carbon intensity than petroleum diesel.⁷

Fuel delivery: We deliver ~35% of fuels after warehouse close times, which reduces delivery truck delivery times and resulting emissions. Additionally, over 40,000 fuel deliveries in 2023 were performed by carriers with 90% renewable diesel penetration or greater.

At the fuel station

Station design: Stations are designed with environmental protection in mind. We use double walled and electronically monitored underground tanks and piping, continuous remotely monitored leak detection with automatic shut down, oil and water separators, trained and certified full-time attendants, and best-in-class components throughout the station.

7 [California Air Resources Board](#), LCFS Pathway Certified Carbon Intensities, [DOE](#)



Fuel storage: We upgraded our fuel storage tanks to manage tank pressure and minimize release of gasoline vapors through the installation of 393 vapor management systems. Combined, these efforts equate to an estimated reduction of 1.5k tons of volatile organic compounds, 4.6k tons of CO2 and 522k gallons of gasoline.

Spill management: We use dripless and spitless fuel nozzles that yield a 90% reduction in spills, with a corresponding reduction in volatile organic compounds released. Additionally, employing full-time attendants allows quick response to rare spills.

Downstream of the fuel station

EV fast charging: We offer EV charging at over 50 warehouses, including locations in the U.S., Canada, Spain, Korea and the United Kingdom. Charger speeds range from 7 to 350 kWh, allowing members to charge a vehicle in ~30 minutes at our fastest locations.

Residential charging: We stock residential charging products, ensuring members can purchase hardware to enable home charging, with speeds allowing vehicles to fully charge overnight.

EV sales: The Costco Auto Program offers members more than 30 different EV models through the program's approved dealer network. To date, approximately 90,000 EVs have been purchased via the Costco Auto Program.

EV rentals: Costco Travel offers a selection of electric and hybrid rental cars through our rental car suppliers at a variety of locations in the U.S., Canada and Europe. While these rentals reflect a small percentage of Costco Travel's rental car production, the category continues to grow. For a rental car on CostcoTravel.com, members can filter their search results to show "Eco friendly" options to include these car categories if available at the location they're renting from.

Electric micro-mobility: We sell multiple eBike models and eScooter models in the warehouse and on Costco.com.

Through all these efforts, our goal is to support a just transition by providing members with low-cost best-in-class fuels, and opportunities to purchase, charge and rent electric vehicles. As the energy transition progresses, we look forward to continuing to meet members' energy transportation needs for a variety of vehicle types.