



Transportation & Logistics

Optimizing and streamlining our ordering and distribution systems is critical for Costco. We aim to reduce our carbon emissions by seeking ocean, rail and road transportation efficiencies throughout operations. We also support our employees' efforts to reduce their transportation energy consumption.



Our Distribution System

Costco operates a complex distribution system to efficiently transport products in all global operations. It comprises a network of large depots and strategically located smaller distribution centers to handle products for our warehouses and e-commerce business. Throughout this distribution system, we are committed to operating procedures that reduce delivery costs, save energy and lower our emissions.

We continually evaluate other parts of our business to improve shipping efficiencies. For example, smart packaging design can mean more products on a pallet, which reduces delivery trucks on the road. Also, our plastic pallet initiative reduces the pallet weight of each truckload – lighter loads are more efficient.

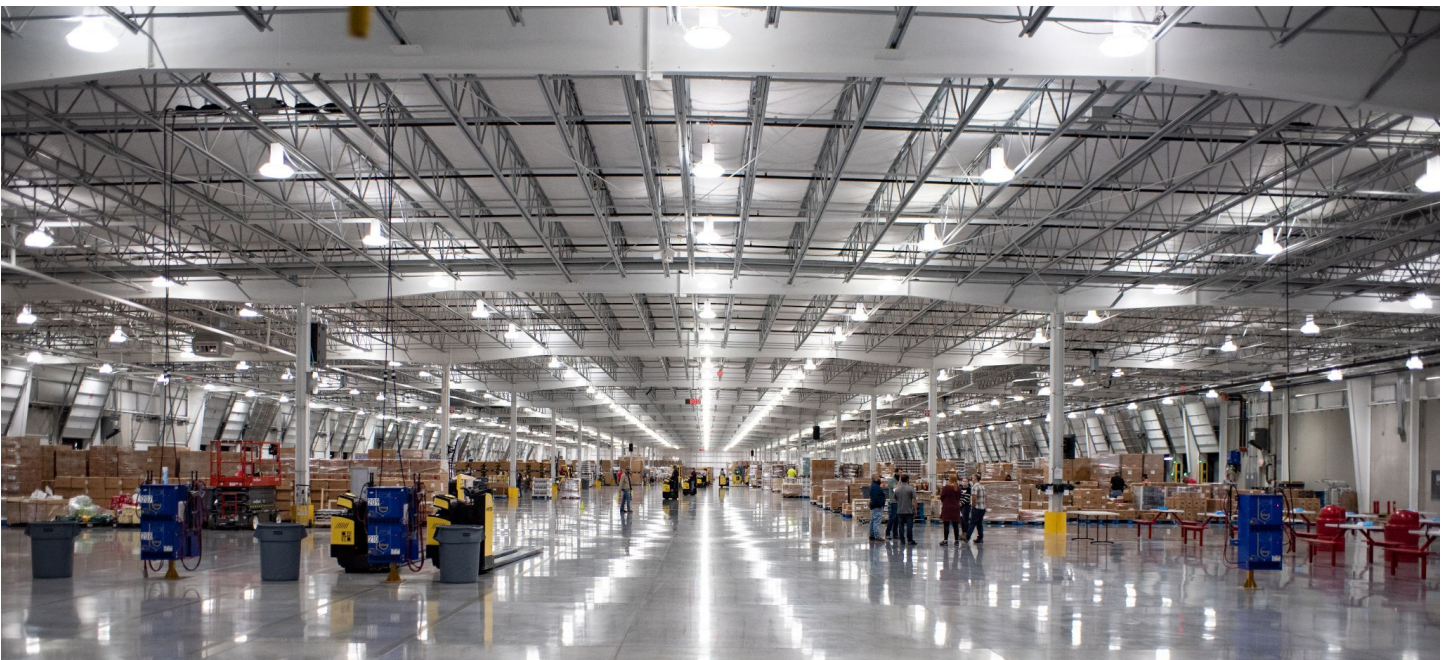
On the roads, Costco reduces costs by analyzing state weight and length oversize permits, and by using specialized equipment where geographically possible to handle heavier loads. Costco also employs longer combination vehicles to maximize trailer utilization.

Smart Logistics

In the depots, operations center around a cross-dock system for handling full pallets of merchandise from suppliers to our warehouses (selling locations). This system quickly and efficiently moves products from the depots to the warehouses, reducing labor and storage costs.

Another key is “reverse logistics” — steps we take to reduce empty trips involving trucks returning to the depots from the warehouses. The goal is to have our trucks as full as possible whenever they’re on the road in a coordinated system. For example, when we have returned goods that are headed to salvagers or need to be returned to the supplier, the shipments are consolidated into truckloads. Likewise, donated goods and materials to be recycled are staged until truck space at the warehouse is available.

This approach reduces truck trips, which lowers costs and carbon emissions. It also helps us to reduce our merchandise handling costs and helps free up sales floor space in the warehouses.



Initiatives for Improvement

We took several steps in fiscal year (FY) 2023 in our efforts to find ways to lower emissions and costs. These include:

Renewable diesel. We have begun using renewable diesel, made from biomass and other sources, on tractors that transport products from our California depots, and are exploring where we can begin using it in other states where available. Also, all trucks in our Business Delivery fleet in California are using 100% renewable diesel. We are researching expanding this program in other states where possible.

Using smaller trucks. We are leasing smaller trucks in certain metro areas for better gas mileage.

Electric yard goats. We started a pilot test at one of our depots using electric yard goats — the tractors used to tow trailers around a yard — to replace traditional diesel-powered equipment. This pilot is helping us to create a roadmap to meet our Climate Action Plan goal of electrifying this equipment systemwide by 2035. We also installed a solar energy system at the site (below) to power these new yard goats.



Our Business Delivery Fleet

For our Business Delivery fleet, we continue to expand an initiative called “Truck of the Future,” which is aimed at maximizing efficiency in our growing delivery fleets. This initiative started in 2018 with a field test of a customized vehicle that improves the payload capacity by reducing body weight. This test found that the lighter truck increased the miles per gallon, lowering our fuel costs and carbon footprint. We are now choosing these new vehicles as we add and renew fleet leases.

Additional efficiency features and pilot programs include:

- Using solar power to replace batteries on trucks. Adding a solar panel on the truck to help power equipment enables us to eliminate one battery, reducing vehicle weight.
- Using half pallets that are lighter and more efficient for delivery to small businesses.
- Implementing new coolers that reduce the amount of dry ice by replacing them with gel packs. Using these coolers lightens the weight of a truck, increasing efficiency.
- Continuing to test EV trucks and investigate onsite charging options.
- Using technology to analyze driver behavior to achieve better fuel efficiency.

Employee Transportation

- Using electric plug-in shore power, tying into the grid to allow our refrigerated trucks to maintain temperature while being loaded and stored. This eliminates the previous practice of running the diesel reefer engine, thus saving fuel and reducing emissions.
- Using telematics, a routing system now on all 2017 and newer trucks. This allows us to identify opportunities to enhance mileage consumption through efficient routing, which also decreases idle time.

Costco encourages its employees to use alternative forms of transportation with the goal of reducing energy consumption, emissions and commuter gridlock. Under the Commute Trip Reduction (CTR) program, which began more than 20 years ago at the corporate office, vans, fuel, maintenance and insurance are provided by five local transit agencies. Employees who participate in the CTR program also receive a substantial financial subsidy from Costco, which in many cases covers their entire monthly commute expenses. Employees who regularly ride the bus are also eligible for this financial subsidy. Costco also has vanpools at its San Diego, Los Angeles and Mexico City regional offices, as well as many Costco warehouses.

We also have many employees who choose to informally carpool with coworkers. We also offer secure bicycle storage facilities and locker room use for employees. Finally, charging stations are available at our corporate offices for employees who drive electric vehicles.

Charging Stations

Costco continues to increase available electric vehicle charging stations in our warehouses, corporate offices and other facilities.

