



Shop

Climate Change

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SASB: CG-MR-130a.1, CG-EC-410a.2; FB-FR-110b.1
GRI: 103-1; 103-2; 103-3; 201-2; 302-1; 302-4; 305-1; 305-2; 305-3; 305-4; 305-5
TCFD: [See table](#)
UN SDGs: 7; 13

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Our Aspiration

Walmart has committed to science-based targets for emissions reduction, including achieving zero emissions in our operations by 2040 and engaging suppliers through our Project Gigaton™ initiative to reduce or avoid supply chain emissions by 1 billion metric tons by 2030. We aim to galvanize collective action across the retail and consumer goods sector through our advocacy, supplier engagement, philanthropy and innovation in product supply chain practices, while taking steps to strengthen the resilience of our business against the effects of climate change.

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; & Metrics

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Metric	FY2020	FY2021	FY2022
<p>Goal: Achieve zero emissions across global operations by 2040</p> <p> Our Aspiration Key Goals & Metrics Relevance to Our Business & Society Walmart's Approach Key Strategies & Progress Challenges Additional Resources </p>			
<ul style="list-style-type: none"> Sub-goal: Power 50% of our global operations with renewable sources of energy by 2025 and 100% by 2035 			
Annual greenhouse gas (GHG) emissions (million metric tons carbon dioxide equivalent – MMT CO ₂ e) ²	CY2019 Total: 17.20 Scope 1: 6.85 Scope 2 (market-based): 10.35	CY2020 Total: 15.93 Scope 1: 7.25 Scope 2 (market-based): 8.68	CY2021 Total: 13.99 Scope 1: 7.37 Scope 2 (market-based): 6.62
Percent change in annual scopes 1 & 2, compared to 2015 baseline ³	CY2019 11.3% decrease	CY2020 17.8% decrease	CY2021 23.2% decrease
Percent change in scopes 1 & 2 annual emissions (vs. previous year) ³	CY2019 2.7% decrease	CY2020 7.3% decrease	CY2021 6.6% decrease
Carbon intensity (scopes 1 & 2) (MT CO ₂ e per \$M revenue) ^{2, 4}	CY2019 32.83	CY2020 28.49	CY2021 24.42
Percent change in carbon intensity, per revenue (vs. previous year) ^{2, 4}	CY2019 4.8% decrease	CY2020 13.2% decrease	CY2021 14.3% decrease
Estimated percentage of global electricity needs supplied by renewable sources ⁵	CY2019 29%	CY2020 36%	CY2021 46%
<p>Goal: Reduce or avoid one billion metric tons (MT) of scope 3 CO₂e emissions by 2030 (Project Gigaton™)^{7,8}</p>			
avoided CO ₂ e emissions reported by latively since CY2017	>230 million MT	>416 million MT	>574 million MT
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Number of suppliers reporting	>1,000	>1,500	>2,500
Percentage of U.S. product net sales dollars	Not available	60%	>70%

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Relevance to Our Business & Society

Climate change is one of the greatest challenges of our time, profoundly affecting all regions of the world and all sectors of society. Without mitigation or adaptation, climate effects such as warming, flooding, drought, extreme weather events and rising sea levels are projected to reduce agricultural yields, force people from their homes, endanger livelihoods and destroy infrastructure in the coming decades.

To avoid the worst effects of climate change, the Intergovernmental Panel on Climate Change (IPCC) has called for the world to reduce global greenhouse gas (GHG) emissions to net zero by 2050. Achieving this moonshot goal requires immediate action from all parts of society, including business. Companies need to be part of the solution to manage physical and transition risk, maintain societal license to operate and create value for business and society through mitigation and adaptation initiatives that draw on unique business capabilities.

As a large omni-channel retailer with millions of customers worldwide and a global sourcing footprint, Walmart is able to lead by reducing emissions in our operations and supply chain while galvanizing collective action across our industry. We believe a strong climate action strategy will help us manage the physical and transition risks associated with climate change, strengthening the resilience of our business and helping us create value for stakeholders.

Walmart's Approach

We seek to lead on climate action. We focus on achieving our science-based targets for emissions reduction in our global operations and supply chain in ways that strengthen the performance and resilience of our business. We also advocate for and support initiatives to accelerate progress toward net zero by 2050 across the industry, and society more broadly, by drawing on our capabilities as an international retailer — our ability to engage suppliers across many categories, our retail and supply chain expertise, our digital capabilities, our leadership role in industry and multi-stakeholder coalitions and forums and strategic philanthropy through Walmart.org. Our efforts include:

- Governing our climate strategy through accountable leadership and assessing climate risk;
- Mitigating emissions through approved science-based targets, covering both our global operations (aiming for zero emissions by 2040) and suppliers (through Project Gigaton™);
- Adapting our business (e.g., facilities and sourcing) to be more resilient in the face of climate risk.

ing for 1.5°-C-aligned public policy through direct advocacy, engagement with trade unions and consortia, and corporate communication; and

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Governance

Management Oversight

Climate strategy is a key part of Walmart’s Environmental, Social and Governance (ESG) strategy. Walmart’s corporate sustainability team leads the development of the company’s climate strategy, working with a cross-functional team including finance, real estate, operations, merchandising, strategy, and public policy. Our climate strategy is reviewed at least annually by the Walmart executive leadership team.

The company assesses climate risk annually as part of our Enterprise Risk Management process. Periodically, we conduct an in-depth, scenario-based climate risk assessment (first completed in 2017; updated in 2020). Merchants and operators have goals that support our climate mitigation and adaptation strategies, including emissions reduction initiatives.

Board Oversight

The [Nominating and Governance Committee](#) (NGC) of the Board of Directors oversees Walmart’s climate strategy. In 2021, the NGC and management discussed Walmart’s climate risk assessment; integration of climate mitigation and adaptation into the company’s long-range plans, annual operating plans and Enterprise Risk Management; Walmart’s climate policy positions, advocacy strategy and external engagement; and climate disclosure strategies. Highlights of the committee’s discussions with management are shared with the full Board of Directors.

Climate Risk Assessment

To inform the company’s climate mitigation and adaptation strategies, Walmart periodically conducts a scenario-based climate risk assessment, aiming to align with the scenario guidance set forth by the Task Force on Climate-related Financial Disclosure (TCFD). We updated the physical risk analysis in 2020 with the help of a third-party consultant, considering climate-related risks in the short-, medium- and long-term.

Scope of Analysis		
Physical Risk Assessment (RCP 8.5)		
Modeled Risk	Climate Variables	Considerations for Mitigation and Adaptation

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- Increased heating and cooling cost
- Damage to buildings and inventory

- Extreme wind
- Extreme precipitation
- Flooding (riverine and coastal)

- [Disaster preparedness and response](#)
- Energy initiatives
- Refrigeration maintenance and conversions

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<p>Supply Chain</p> <ul style="list-style-type: none"> • 11 commodities (avocados, animal feed, milk, oranges, rice, coffee, cocoa, cotton, beer hops, almonds and shrimp) considered at risk from climate change • Commodity shortages due to temporary or permanent yield reductions (e.g., coffee, cotton and cocoa) • Disruption in production and distribution of products reliant on agriculture (e.g., cotton textiles) 	<ul style="list-style-type: none"> • Heat • Drought • Extreme precipitation • Flooding (riverine and coastal) • Extreme wind 	<ul style="list-style-type: none"> • Surety of supply initiatives • Local sourcing efforts • Country of origin assessments • Resilient produce sourcing • Sustainable commodities initiatives
<p>Communities</p> <ul style="list-style-type: none"> • Displaced associates and customers, reducing their proximity to retail stores • Physical and mental health impacts • Financial well-being 	<ul style="list-style-type: none"> • Flooding (riverine and coastal) • Heat • Extreme wind 	<ul style="list-style-type: none"> • Disaster preparedness and response • Selection of sites for future stores • Public policy advocacy
<p>Transition Risk Assessment</p>		
<p>Cost of scope 1 & 2 emissions</p>	<p>Price on carbon</p>	<p>Zero emissions</p>
<p>Read more about the additional factors we considered qualitatively but did not formally model below.</p>		

Methodology & Findings

To assess physical risk, we used Representative Concentration Pathway (RCP) 8.5, a GHG concentration scenario adopted by the United Nations Intergovernmental Panel on Climate Change that assumes the absence of further decarbonization on the planet (and is therefore an indicator of the inherent/unmitigated risk of climate change). We analyzed the impact of five associated climate d (riverine and coastal), heat, drought, extreme precipitation, and extreme winds – / geographies (Canada, China, India, Mexico, and the United States) for 2030 and 2050. direct impacts of climate change on Walmart’s physical assets (retail stores and retail-es), supply chain, and communities.

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limitations of the analysis mean it cannot be used to predict the net impact on Walmart's financial results of operations or business operations, and the improbable nature of the RCP 8.5 scenario mean it cannot be used to determine the materiality of climate-related risks and opportunities to the business, it nevertheless provides helpful insights into the relative impact of various climate effects and the relevance of Walmart's mitigation and adaptation strategies. And while no single climate risk

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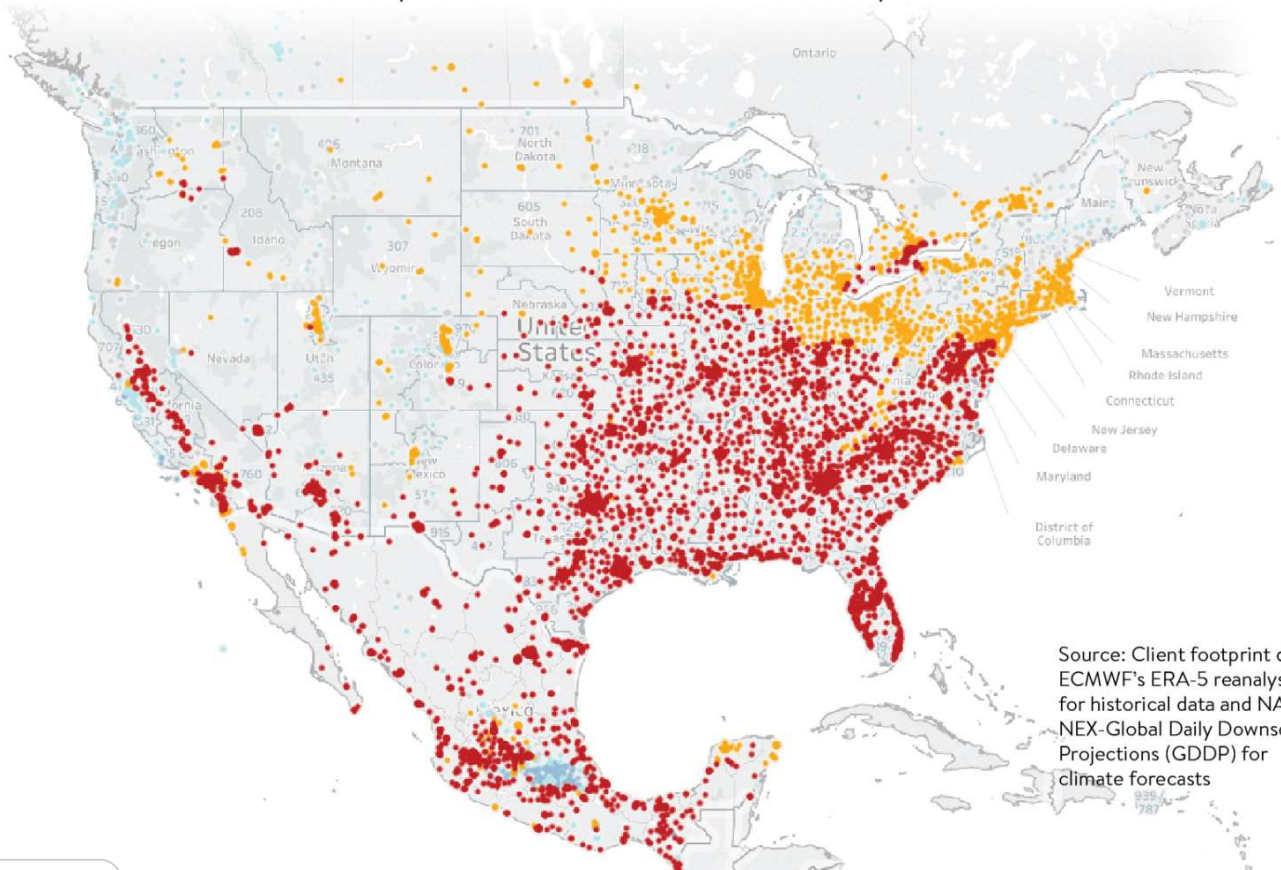
Insights provided by the climate risk assessment help us set long-term strategy and drive innovation. Leaders from across the company, including merchandising, real estate, operations, and supply chain, discussed the results of the physical risk assessment and incorporated findings into their operating plans.

Retail Stores & Retail-Related Facilities

The climate risk assessment identified potential variables that could affect Walmart's facilities over the next three decades: flooding and extreme storms, with potential damage to buildings and inventory; and temperature changes, which the modeling suggests could increase heating and cooling costs in two-thirds of Walmart locations by 2030 and 80% of locations by 2050 – underscoring the relevance of Walmart clean energy initiatives and other mitigation and adaptation efforts.

Changes to historical location heating and cooling costs¹⁰—predicted for 2050

- Increase by more than 30%
- Increase by less than 30%
- No significant change
- Decrease by less than 30%
- Decrease by more than 30%



Source: Client footprint data; ECMWF's ERA-5 reanalysis for historical data and NAEI's NEX-Global Daily Downscaled Projections (GDDP) for climate forecasts

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By 2050, climate change is likely to affect the production, distribution and (in some cases) the viability of food and other consumer products that depend on agriculture. We analyzed the potential *climate exposure of 25 commodities*. For the 11 goods that face the highest overall impact from

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feed, milk, oranges and rice) may remain largely unaffected. Our merchants and global sourcing teams are working with suppliers to implement more sustainable practices that promote resilience, such as cultivating heat resistant crops to prevent future sourcing challenges. The analysis underscores the relevance of Walmart sustainable commodity initiatives and other initiatives focused on enhancing the resilience of supply chains.

Communities

We modeled the potential impact of several climate variables on Walmart U.S. store communities: flooding (from either coastal or riverine sources), extreme wind (e.g., hurricanes) and heat. Our analysis suggests that ~50% of communities currently served by Walmart U.S. facilities may face significant, long-term disruption by 2050. If these areas become less habitable, people could be forced to relocate – creating challenges to physical, financial, and emotional well-being for our customers and associates, and potentially requiring shifts to our store and eCommerce footprint. The financial well-being of a community may deteriorate due to the loss of jobs and homes after a hurricane, and in some vulnerable U.S. counties, there could be an up to 230% increase in household power costs.

A [New York Times](#) analysis found that summer temperatures in cities such as Dallas, Miami and New York can be warmer in poorer neighborhoods than in wealthier ones, where populations are generally whiter. Our own analysis also suggests that climate change has the potential to disproportionately impact vulnerable populations, including communities of color. We continue to advocate for climate solutions that advance equity. For example, in Florida, we worked with utility companies, advocates and regulators to help negotiate the largest shared solar program in the country, which authorizes nearly 40 megawatts of clean energy for low-income Floridians.

Additional Transition Risks Considered

Regulation (current and emerging)

Examples

- Changes to carbon pricing regimes (e.g., RGGI, CA AB 32, WCI and country level carbon taxes) and federal level energy targets and requirements (e.g., Renewable Portfolio Standard (RPS), clean energy standards)
- Changes to HFC refrigerant regulations (e.g., Kigali Agreement, U.S. American Innovation and Manufacturing Act, California Air Resources Board HFC Reduction Measures Act, E.U.

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increasing usage of zero emissions vehicles and infrastructure (CA ACT rule, Interstate ZEV MOU, federal vehicle emissions standards)

- Changes to energy and water efficiency standards for buildings and equipment
- Changes to subsidies and incentives related to demand-side energy management and

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water-intensive product categories (e.g., meat, dairy, nuts, produce, appliances)

Approaches to Managing Risk

- Policy monitoring and modeling, integration into business and financial planning
- Engagement in stakeholder forums associated with regulatory processes and rulemaking
- Advocacy on climate policy proposals and creation of policy principles to assess and endorse position statements developed by external partners
- Emissions reduction initiatives; energy efficiency, renewables, phasing out of HFC refrigerants, transitioning to zero emission vehicles, Project Gigaton™

Technology

Examples

- Advances in fossil-fuel mining and petroleum production that keep fossil-fuel prices low, thereby adversely affecting the economics of emission reduction initiatives
- Changes in low-carbon technology and manufacturing that cause existing assets to decrease in value, competitiveness or become obsolete (e.g., onsite EV chargers become underutilized if hydrogen becomes dominant for passenger vehicles)
- Advances in low-carbon and renewable generation and manufacturing that bring down the levelized cost of energy (LCOE) making existing long-term power purchase agreements less valuable in comparison (e.g., older generation wind farms)

Approaches to Managing Risk

- Monitoring technology trends and forecast scenarios
- Building flexibility into infrastructure changes
- Leasing assets rather than investing directly
- Advocating for technology-neutral emission reduction policies

Legal

Examples

- Patchwork of disparate city or state level regulations (e.g., energy regulations) rather than consistent national regulations, making compliance more complex and costly
- Impact of events in the wake of climate-related extreme weather events, such as looting, to employees or customers and shareholder concerns

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- Monitoring and assessing regulations and legal risks on an ongoing basis
- Advocating for consistent, science-based, environmentally and economically effective federal level climate policy

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Examples

- Changes in energy and commodity prices driven by climate-related weather events, consumption behaviors and policies, resulting in higher costs
- Changes in refrigerant pricing and supply volumes affecting costs and availability
- Changes in consumer demand for low carbon products and services
- Changes in demand for gasoline and automotive replacement parts (e.g., motor oil) due to shifts in transportation technology mix (e.g., rising penetration of electric vehicles)
- Prolonged climate-related events affecting macroeconomic conditions with knock-on effects on consumer spending and confidence
- Changes in investment preference toward companies with leading environmental and emissions performance

Approaches to Managing Risk

- Monitoring market trends
- Emission and energy reduction initiatives; energy efficiency, renewables, phasing out of HFC refrigerants, transitioning to zero emission vehicles
- Scenario modeling as part of energy/emissions opex and capex planning
- Closely monitoring consumer trends
- Report climate and environmental performance to investors

Reputation

Examples

- Customer perception of climate issues and Walmart's climate action, including how we design and run our stores and the products we offer, affecting customer loyalty
- Stakeholder perception of Walmart's response to climate-related crisis (e.g., hurricanes, floods, fires, power outages) at community and national levels
- Stakeholder perception of Walmart's engagement in climate-related policies, affecting license to operate
- Associate perception of Walmart climate action and management of climate-related issues, affecting our ability to recruit and retain talent

Approaches to Managing Risk

Monitoring customer, investor and stakeholder sentiment via digital and traditional media
 engagement and coverage

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Engaging regularly with stakeholders to understand and address their perspectives,
 bringing awareness regarding climate strategy into communications and marketing

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Walmart's climate change mitigation strategy centers on achievement of ambitious goals:

- To achieve zero emissions across our global operations (Scopes 1 & 2) by 2040; and
- Our goal to help reduce or avoid one billion metric tons (a gigaton) of greenhouse gases in the global value chain (Scope 3) by 2030.

Emissions From Our Global Operations (Scopes 1 & 2)

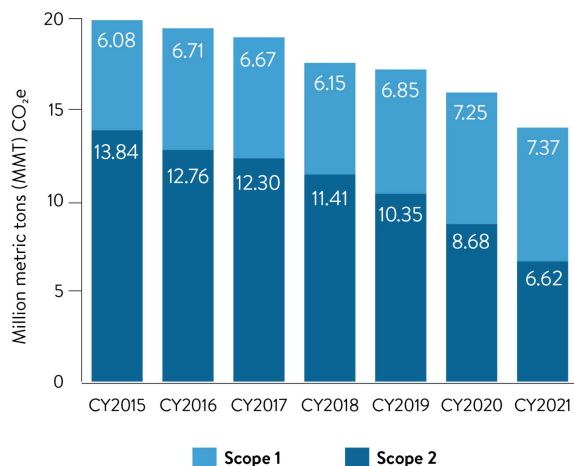
In 2020, we raised our aspiration to reduce emissions in our operations (Scopes 1 & 2) by realigning our science-based target to a 1.5-degree Celsius trajectory, the highest ambition approved by the SBTi. Our goal is to achieve zero emissions across Walmart's global operations by 2040, which includes our SBTi-approved interim goal of reducing absolute Scopes 1 and 2 GHG emissions by 35% by 2025 and by 65% by 2030 from our 2015 base year. We were the first U.S. retailer to make a [zero emissions commitment](#) that does not rely on carbon offsets. We achieved a 23.2% reduction in combined Scopes 1 and 2 emissions between our 2015 calendar year baseline and 2021.³

While Scope 2 emissions in 2021 declined by 19% over 2020, 2021 Scope 1 emissions increased by approximately 9%.³ The primary driver of the increase in Scope 1 emissions was increases in onsite refrigerants. Our plans to address these factors are addressed below.

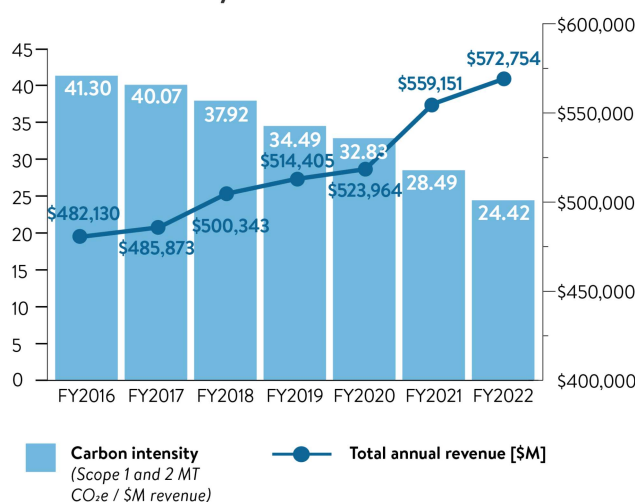
Walmart's Progress on Operational Emissions (Scopes 1 & 2)^{2, 3, 4}

Between our 2015 baseline and 2021, we reduced our absolute Scopes 1 and 2 GHG emissions by 23.2%. Over the same period, we also reduced our carbon intensity by 40.9%, as measured by MT CO₂e per \$M revenue.

Annual GHG emissions



Carbon intensity



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trajectory of our science-based target. This may not be the case each year, as the pace and scope of our investments in emissions reduction and realized reductions are not linear. To continue to move toward our science-based target, we continue to work towards reducing our emissions through five primary workstreams:

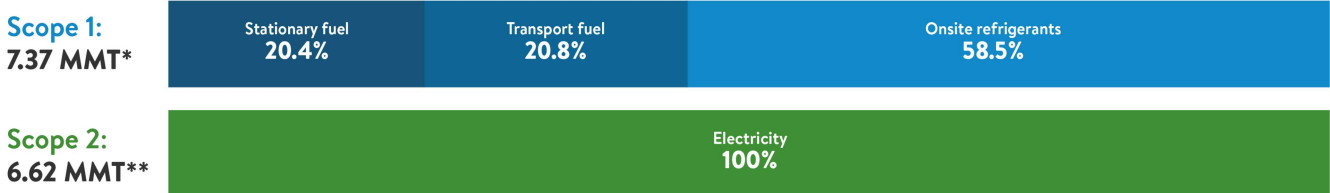
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- Transportation
- Stationary fuels

While the relative contribution of each workstream toward emissions reduction will vary over time based on operational, financial, and technological considerations, they all matter for us to achieve our zero-emissions ambition and interim targets.

Walmart's Annual Emissions

Million metric tons (MMT) CO₂e ²



*Mobile refrigerants make up 0.3% of scope 1 emissions
 **District heating makes up 0.002% of scope 2 emissions

Renewable Energy

Electricity is the biggest contributor to our operational emissions, accounting for nearly 100% of our Scope 2 emissions and approximately 47% of our overall operational emissions in 2021. To achieve our overall goal of zero emissions across global operations by 2040, we aspire to power 50% of our global operations with renewable sources of energy by 2025 and 100% by 2035. In 2021, an estimated 46% of our global electricity needs were supplied by renewable sources.⁵ Walmart directly procured an estimated 28% of our global electricity needs through Renewable Energy contracts in 2021.⁶

We make progress through a combination of onsite generation and power purchase agreements:

- As of the end of 2021, we had more than 600 onsite and offsite renewable energy projects in operation or under development in over 10 countries.⁵ According to the [U.S. EPA Green Power Partnership Top 30 Retail Ranking](#), Walmart was the top retail partner in terms of annual green power usage in the U.S. as of July 2022.
- In 2021, we contracted to purchase additional renewable energy, including 50 MW of a 129 MW community solar project in New York that will supply renewable energy to 36 facilities.

We also participate in and support coalitions like the [Clean Energy Buyers Association](#) (formerly [REPA](#) [2019](#)), and others to help shape energy policies and advance cost-effective sustainable regions where we operate.

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In September 2021, Walmart issued a \$2 billion, 10-year green bond, the first under our Green Financing Framework. The Framework outlines the types of sustainable financing Walmart can issue and the uses to which proceeds may be put with eligible spend categories including renewable energy, high-performance buildings, sustainable transport, zero waste and circular

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When published, reporting on the allocation and impact of bond proceeds can be found on our [Investor Relations site](#) for ESG Investors.

Energy Efficiency

Our energy efficiency strategy includes both new facility design and construction and retrofitting existing facilities:

- We are incorporating efficiency into new store designs in lighting, heating, ventilation and air conditioning (HVAC), refrigeration, and other categories such as plug loads.
- As our existing buildings and equipment age, we aim to replace or upgrade older equipment with the latest in high-efficiency technology.
- We use technology to monitor and optimize energy use in our buildings, and have installed energy meters at thousands of our facilities around the world. This allows energy managers to monitor energy consumption in almost real time at our retail stores and distribution centers. This data is used in several ways, including compiling monthly store reports, triggering variance alarms, diagnosing equipment problems and validating performance of new equipment tests.

Transportation

Our fleet (transport fuel and mobile refrigerants) contributed approximately 21% of our Scope 1 emissions (and approximately 11% of our overall operational emissions) in 2021. Electrifying our fleet and reaching net-zero emissions from all our vehicles and transportation network, including long-haul trucks in the U.S. and Canada, is a key priority for reaching our zero-emissions target.

In 2021, Walmart received the U.S. EPA's SmartWay Excellence Award, which honors top shipping and logistics company partners for superior environmental performance. This was the fifth year Walmart was honored.

We use four strategies to accelerate this work:

Enhancing Our Fleet: Between 2005 and 2015, we improved our truck fleet efficiency—almost doubling it in 10 years—in collaboration with equipment manufacturers, policymakers, utilities, working groups and other organizations. While efficiency remains a focus, we are now using our fleet to evaluate potential solutions to help us substantially reduce our emissions, including heavy-duty zero-emission vehicles, battery electric vehicles and hydrogen fuel cell. We test certain new technologies through conversion to low-carbon fuels and technologies—

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financial benefit for transitioning equipment.

Last Mile: As much as possible, we are seeking to electrify our last-mile offerings to customers. Walmart U.S. announced plans to purchase 1,100 Ford E-Transit electric vans in 2022 and has reserved 5,000 BrightDrop electric delivery vans, which will hit the road as early as 2023. Walmart also

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Class 8 Heavy-Duty Truck Innovations: Currently, there is no scalable solution to decarbonize long-haul/heavy-duty Class 8 tractors. We believe multiple technologies could play a role in the future, including renewable diesel, electric battery and hydrogen fuels. We support the development of these technologies by participating in feasibility testing and providing feedback to manufacturers to ensure vehicle technology meets the needs of Walmart's fleet and other large fleets. For example:

- Walmart Canada announced that it has [reserved](#) 130 Tesla Semi trucks, electric trucks that are designed to use less than two kilowatt-hours of energy per mile at Gross Vehicle Weight and highway speed.
- We are currently using seven electric yard trucks with a plan to increase the number of electric yard trucks in operation by the end of 2022. Currently, our electric yard trucks provide approximately 50% emissions reduction compared to diesel trucks.
- In 2023, Walmart plans to test several electric and hydrogen fuel powered Class 8 vehicles in its operation.

Public Policy: Walmart supports public policy that will create an enabling environment for the development, adoption and scaling of zero-emission commercial transportation fleets. Collaborating with PepsiCo, Walmart released a set of [public policy principles](#) to convey to federal and state policymakers the types of policy interventions, planning and guidance that can support this transition. These principles reflect our business strategy, promote efficiency and optimization as a reduction pathway and take a technology-neutral approach so that we can align our distribution network outcomes with environmental and community benefits.

[Read more](#) about how we are working to reduce emissions in our transportation network.

Stationary Fuels

Stationary fuels, including fossil fuels used for heating, cooling and backup power, contributed approximately 20% of our Scope 1 emissions (and approximately 11% of our overall operational emissions) in 2021. A key part of our decarbonization strategy is to reduce our dependence on these fuels by increasing efficiency, transitioning to cleaner fuels, and electrifying equipment. For example, at our U.S. stores we have added electrical connection points to power units (such as our refrigerated trailers), which provide temporary storage capacity during peak seasons.

Onsite Refrigerants

Onsite refrigerant emissions contributed approximately 58% of our Scope 1 emissions (and 31% of our overall operational emissions) in 2021. Global Scope 1 onsite refrigerant emissions increased 17% from

Our analysis suggests that the continued increase in our onsite refrigerant emissions is primarily due to ongoing maintenance of refrigeration equipment using R-404A, a widely used refrigerant introduced in the mid-1990s as a replacement for ozone-depleting refrigerants.¹¹ As it ages and is retired from service, we are replacing it with lower Global Warming

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We are addressing these emissions in three ways:

Managing Leaks: We continue working to minimize refrigerant gas leakage through repairing and maintaining our existing equipment, as well as by working with industry-leading consultants to implement innovative solutions for reuse. Such efforts have resulted in an average leak rate across our

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Implementing Low-GWP Systems: We operate more than 100 facilities (stores and distribution centers) using ultra-low GWP refrigerants including carbon dioxide (CO₂), glycol and ammonia. These systems are used in new construction where commercially available. For example, in November 2021, we opened a store in Yaphank, New York that is the first to fully utilize CO₂ technology for the store's refrigeration needs. Most systems across our U.S. retail footprint, however, currently utilize high-GWP refrigerants. Those systems still need to be converted to low-GWP systems to reach our zero emissions target. Our ongoing strategy is to replace these systems as they reach their end-of-life, balancing the investment and replacement schedule with our zero-emissions commitments.

Advocacy to Support Scaled Adoption of Low-GWP Technology: Walmart supports federal policy that would require the phasing out of high-GWP refrigerants, as that would support market changes necessary to implement low-GWP systems at scale and at reasonable cost. Walmart joined members of the Air-Conditioning, Heating, and Refrigeration Institute in endorsing a petition to the EPA regarding the adoption of rules to prohibit the use of refrigerants with high GWP. Walmart also submitted a letter to the EPA supporting regulatory actions for stationary refrigeration equipment that are environmentally effective (e.g., limiting new commercial systems with charges over 50 lbs. to use refrigerants with a GWP of 150 or less) and nationally consistent.

Supply Chain (Scope 3)

Walmart's [science-based target](#) includes Project Gigaton™, an ambitious effort to engage suppliers, NGOs and other stakeholders in climate action with a goal to reduce or avoid one billion metric tons (a gigaton) of greenhouse gas emissions in the global value chain by 2030. Aligned with the Paris Agreement's original 2-degree Celsius warming scenario and designed in consultation with World Wildlife Fund (WWF), Environmental Defense Fund (EDF) and CDP, Project Gigaton's™ success would represent a substantial reduction of Scope 3 emissions within Walmart's and our suppliers' value chains.

Beyond Project Gigaton™ action and reporting, Walmart estimates and reports certain Scope 3 categories — including purchased goods and services and use of sold products — through our annual CDP submissions; Walmart's 2021 submission can be viewed [here](#).

Project Gigaton Key Highlights [2,7,8,9](#)

- [Part of Walmart's approved science-based target](#) and aligned with the 2-degree Celsius warming scenario.
- Achieving the target would be equivalent to at least a 30% reduction of the estimated Scope 3 footprint Walmart used as the basis for the initiative.
- Target and accounting methodology developed in partnership with experts including CDP, the World Wildlife Fund (WWF) and the Environmental Defense Fund (EDF).

ded to get immediate traction with suppliers on actions to reduce and avoid
 emissions, with 2030 serving as an interim milestone toward the Paris Agreement's 2050

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product use & design.

- Annual opportunity for suppliers to report on specific actions taken that are translated via calculators into metric tons of CO₂e. Calculators created in collaboration with WWF and EDF.

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- >2,500 suppliers reporting
- Reporting from suppliers representing >70% of U.S. product net sales
- >574 MMT cumulative emissions reduced or avoided (2017 through 2021)

Project Gigaton™ and Walmart's Scope 3 Footprint

Achieving the Project Gigaton™ goal of reducing or avoiding 1 billion metric tons of CO₂e emissions by 2030 would represent a substantial, Paris-aligned reduction of Scope 3 emissions from Walmart's and our suppliers' value chains.

For a retailer like Walmart, Scope 3 emissions include multiple upstream and downstream categories, including purchased goods and services and use of sold products. Examples include the emissions associated with washing and drying an article of clothing over its lifetime or emissions from growing, harvesting, transporting, eating and disposing of fresh produce. Many factors impact an item's footprint and there are no precise ways to measure these emissions, so estimates must be employed.

Walmart's objective in creating Project Gigaton™ was to start the consumer goods industry on the path toward decarbonization by spurring immediate, concrete action to avoid or reduce upstream and downstream emissions. Methods used today to calculate Scope 3 emissions did not exist at the time; to set an ambitious and science-based target, [we began with an estimate](#) that approximately 95% of a retailer's emissions were in Scope 3. Using Walmart's 2015 Scopes 1 and 2 emissions as a baseline (originally reported to CDP as 21.04 MMT CO₂e), we assumed that our 2015 Scope 3 emissions were approximately 400 million metric tons CO₂e.¹² A Paris-aligned reduction of 2.5% per year would represent a cumulative reduction of approximately 1 billion metric tons (one gigaton) of emissions over the life of the initiative.

The Science-Based Targets initiative approved Project Gigaton™ as part of Walmart's original science-based target in 2016. We then worked with CDP, WWF, and EDF to design a methodology to capture the real-world emissions avoidance and reduction impacts of supplier action, which is set forth in the [Project Gigaton Accounting Methodology](#). Project Gigaton™ was officially launched in 2017.

We remain focused on the success of Project Gigaton™ and driving real, measurable progress with our suppliers as part of our ambition to play a leading role in helping the world achieve net zero emissions by 2050.

With respect to Walmart's own supply chain and Scope 3 footprint, Walmart has been reporting estimated Scope 3 emissions in its two largest categories — (1) purchased goods and services and (2) use of sold products — using CDP-approved methodologies and reporting them through CDP. For example, we reported that our estimated emissions for these categories for Walmart U.S. were 130.2 and 100.2 MMT CO₂e, respectively.¹⁴

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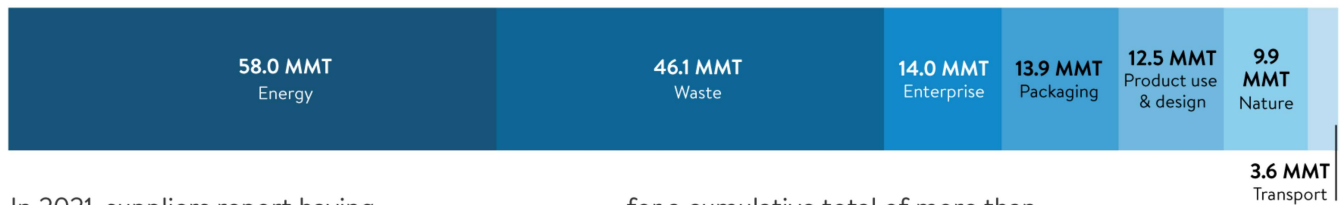
We are reassessing our overall Scope 3 footprint, action plan, measurement methodologies, and reporting.

We work with suppliers through Project Gigaton™ to set targets and take science-based, measurable action in six arenas critical to decarbonizing value chains. Since launch, more than 4,500 suppliers have signed up, making Project Gigaton™ one of the largest private sector consortia of its kind.

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- More than 2,500 suppliers reported through the Project Gigaton™ platform. WWF and EDF review select suppliers submissions under Project Gigaton™.
- Suppliers reported having reduced or avoided more than 158 MMT of CO₂e, for a cumulative total of more than 574 MMT of CO₂e since 2017.

Project Gigaton™ Action Areas¹⁴ Million Metric Tons (MMT) CO₂e



In 2021, suppliers report having reduced or avoided more than **158 MMT of CO₂e in 2021**



for a cumulative total of more than **574 MMT of CO₂e reduced or avoided since 2017**

Supplier Engagement Through Project Gigaton™

Project Gigaton™ is designed to catalyze real, measurable impact in product supply chains. It works in the following ways:

Democratizing Climate Action: The Project Gigaton™ platform is designed to accommodate suppliers who vary in their readiness and capability of undertaking intensive GHG reduction efforts. The platform offers resources such as guidance on goal-setting, workshops on best practices and playbooks and other documents that help companies get started. In 2021, suppliers reporting to Project Gigaton™ ranged in size from \$1 million to \$14 billion in U.S. product net sales.

Driving Decarbonization of the Most Critical Parts of the Supply Chain: The platform encourages suppliers to take action across the six areas that are the most critical in reaching zero emissions and most relevant to our suppliers' businesses: energy use, nature, waste, packaging, transportation and product use and design.

Providing Access to Science-Based Resources: Project Gigaton™ includes useful tools including calculators, playbooks and programs to guide action and inspire innovation. For example, suppliers can answer a series of questions about packaging changes, and our calculators will help them determine the emission factor used, enable them to report accurate information for Project Gigaton™ and provide data to spark ideas for additional improvements. We also host [workshops for suppliers](#) with coaching from NGOs on how to best use the calculators to further their efforts, co-created a [Power Purchase Agreement](#) open only to Walmart suppliers, and [worked with CDP](#) and [helped create a](#) [Supplier Climate Risk](#) [score thresholds](#) from CDP.

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status and then strive to achieve Giga Guru status.

- Sparking Change:** Suppliers that have set SMART (Specific, Measurable, Achievable, Relevant and Time-limited) goals, agreed to share them publicly and reported reducing or avoiding emissions in the most recent reporting year. In 2021, more than 750 suppliers were recognized

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year. To keep the level of ambition high, we increased the requirements to qualify for Giga Guru status in 2021 from setting goals and reporting in one pillar to setting goals and reporting in three pillars. In the 2021 reporting year, we recognized more than 1,000 suppliers as Giga Gurus.

Walmart [publicly recognizes](#) suppliers achieving these milestones to thank them for their efforts and to inspire others to join and increase their ambition.

Project Gigaton™ is designed to drive decarbonization of the most critical parts of the value chain		
Action Area	Actions We Encourage Suppliers to Take	Example Walmart Support
Energy	Avoid energy-related emissions in two ways: 1) reduce energy demand through optimization and efficiency and 2) transition to energy sources that are renewable and emit little to no carbon.	<p>Energy procurement is often a key source of a business' greenhouse gas emissions. We provide resources for suppliers to reduce energy demand through optimization and efficiency and transition to renewable energy sources.</p> <ul style="list-style-type: none"> Walmart launched the Gigaton PPA (GPPA) in 2020, an initiative to accelerate renewable energy adoption by offering suppliers the opportunity to participate in aggregate, utility-scale power purchase agreements (PPA)s. In 2021, the first Gigaton PPA cohort was formed and the project is progressing through the development process. Since 2021, the program has educated more than 100 Walmart suppliers on renewable energy topics. In late 2021, Walmart began engaging suppliers to form the second Gigaton PPA cohort. Walmart has to help companies get started on both energy efficiency and renewable energy procurement, including the Department of Energy's Better Buildings Alliance and the Clean Energy Buyers Association. Walmart developed a Factory Energy Efficiency tool to assist factories in becoming more energy efficient, tracking energy use and reductions and converting those savings to GHG reductions; over 900 factories have signed up for this tool to date.
Back to Top	Protect, manage and restore forests through certification, monitoring,	Scientists estimate that restoring, renewing and replenishing nature can provide one-third of the solution to

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Adopt regenerative agriculture and best practices in agriculture, such as manure management, methane emissions from animals' digestive processes management, feed

restore at least 50 million acres of land and one million square miles of ocean by 2030. We are using several levers to make progress toward our nature goal, including:

- [Working with suppliers](#) to improve the environmental

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		<p>pollinator health through a new Pollinator Policy.</p> <ul style="list-style-type: none"> • Hosting a sustainable row crop summit in 2021 and inviting our suppliers and others to join us in promoting more sustainable practices in animal agriculture and row crops, including through the Midwest Row Crop Collaborative (MRCC). The MRCC brings together retailers, suppliers and conservation organizations to help farmers in the U.S. heartland adopt farming practices that can reduce greenhouse emissions, improve soil health and water quality and lower costs. • In 2020, The Walmart Foundation invested over \$1 million in improvements to the World Resources Institute's (WRI) Global Forest Watch tool, a publicly accessible global platform for monitoring deforestation, and funded \$2 million for the MapBiomass project through a grant to the Institute for Climate and Society to produce more accurate estimations of land use-related GHG emissions. <p>Read more: Regeneration of Natural Resources: Forests, Land, Oceans</p>
<p>Waste</p>	<p>Address food, product and material waste that come from factories, warehouses, distribution centers and farms and contribute to GHG emissions.</p>	<p>Reducing and diverting waste from landfills can have a significant impact on GHG emissions, increase operating efficiency and in some cases, lower costs.</p> <ul style="list-style-type: none"> • In 2020, Walmart joined the "10x20x30" initiative, in which 10 of the world's largest food retailers will engage 20 of their priority suppliers to halve food loss and waste by 2030. Since joining, we have engaged 21 suppliers. • The Walmart Foundation is supporting the World Resource Institute (WRI) to provide training and technical assistance on reducing food waste and loss, and will support WRI to share learnings across the food industry. <p>Read more: Waste: Circular Economy</p>
<p>Back to Top</p>	<p>Reduce unnecessary packaging, use better packaging materials and increase packaging reuse and recycling. Walmart is taking specific</p>	<p>Walmart's efforts to reduce packaging waste directly support supplier engagement and progress in Project Gigaton™. Examples include:</p>

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private brands.

trainings and informative videos for consumer goods companies to make packaging changes that can reduce waste and emissions.

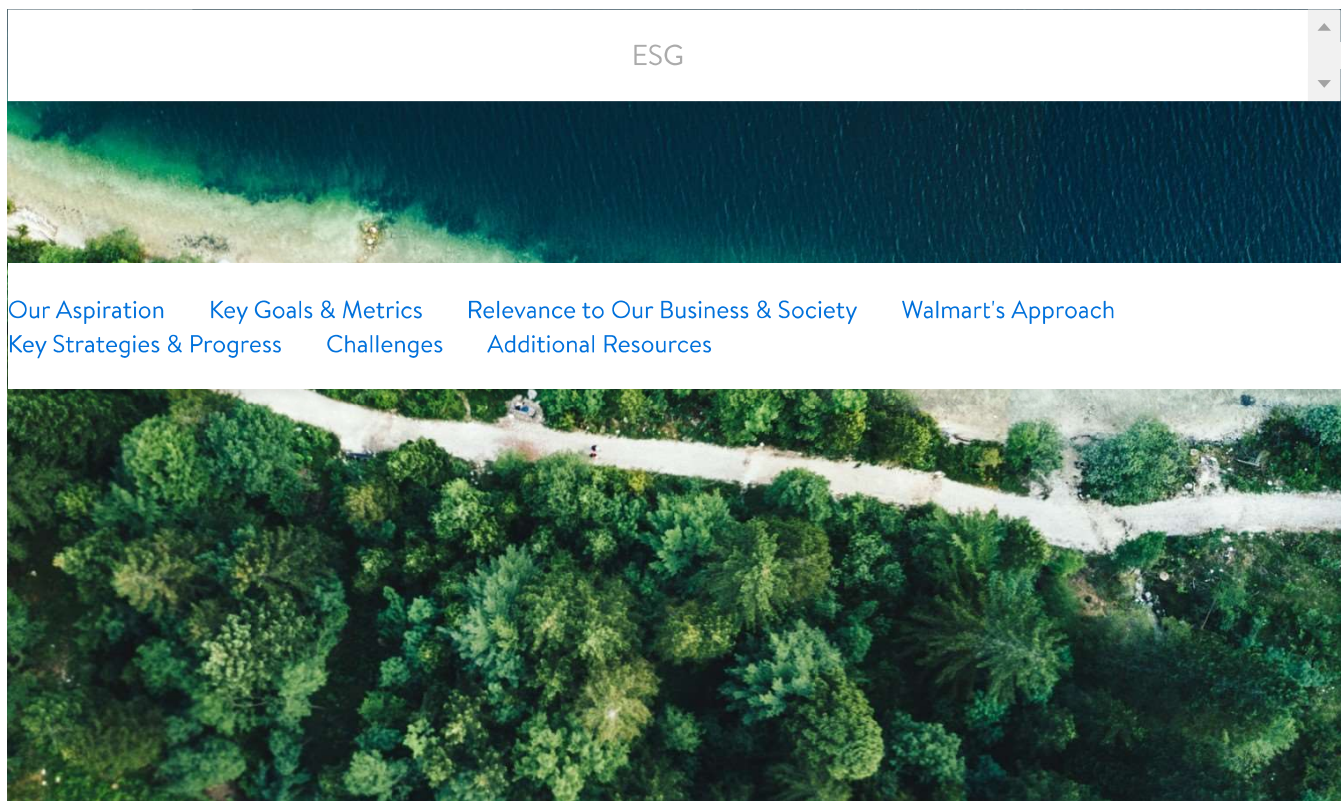
- With the support of Walmart, The Recycling Partnership and SYSTEMIQ came together to help

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		<p>effective circularity strategies.</p> <ul style="list-style-type: none"> • In 2021, we held a virtual Packaging Innovation Summit with more than 4,000 people either attending or accessing the replay online. • To reduce reliance on plastic bags, we became a Founding Partner of Closed Loop Partners' Beyond the Bag effort, a three-year initiative that aims to identify, test and implement viable design solutions and more sustainable models for retail bags. <p>Read more: Waste: Circular Economy</p>
<p>Transportation</p>	<p>Improve fleet efficiencies, optimize routes and introduce zero-emission vehicles to avoid carbon emissions in the supply chain.</p>	<p>Fossil-fuel powered vehicles produce greenhouse gas emissions during their operation and are typically a major source of value chain emissions. While Walmart has long provided references to third-party sources to help suppliers optimize efficiency through its energy pillar, Walmart introduced the transportation pillar in 2021 focusing on fleet efficiency, including reduced miles and zero-emission vehicles.</p>
<p>Product Use & Design</p>	<p>Design products to reduce emissions throughout the product lifecycle, from use of raw materials in manufacturing the product (e.g., incorporating recycled content) through consumer use (e.g., LED lightbulbs).</p>	<p>Product use and design impacts several key scope 3 categories, including use of sold products and end-of-life treatment of sold products. Walmart supports product manufacturers in their efforts to offer customers innovative, more sustainable products, including by:</p> <ul style="list-style-type: none"> • Working with suppliers to increase the use of recycled content in products and increasing energy efficiency of products (in 2021, 750 Walmart suppliers reported increasing the use of recycled content). • Creating and disseminating the Sustainable Packaging Playbook.

Read more about [Project Gigaton™](#).

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Adaptation

Our climate strategy includes adapting our operations and sourcing to enhance resilience. Examples include:

Disaster Resilience

Walmart's Emergency Management Department uses predictive analytics to gauge the path and likely severity of seasonal weather events that can impact operations and supply lines. The Emergency Management team helps our operations and supply chain teams prepare for and mitigate the effects of such events. If disaster strikes, the Emergency Management team operates out of Walmart's Emergency Operations Center, engaging associates, local governments, NGOs and others as needed. The team deploys associates with specialized expertise as well as mobile generators, fuel resources, trucks and other resources to manage crises on the ground. Storms impacting larger geographies, such as the February 2021 winter storm across the southern U.S., contributed to this trend.

Walmart and the Walmart Foundation also work to build capacity for preparedness and response in vulnerable communities through engagement of stakeholders, best practice sharing and philanthropic investments. For example, in FY2022 the Walmart Foundation granted \$3 million to build capacity in underrepresented and vulnerable communities to help them prepare and mitigate against the impact of disasters, including to BIPOC-led organizations like the Institute for Diversity and Inclusion in Emergency Management.

Read More: [Disaster Preparedness & Response](#)

Real Estate

When designing facilities in storm-prone locations, we incorporate certain precautionary measures to withstand storms and recover as quickly as possible with minimal disruption in service. To ensure access to electrical power when we need it most, we have invested in a fleet of mobile generators to support our distribution centers, stores and clubs during wildfires, winter storms and day-to-day power surges. For example, given the probability

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permanent generators are not financially justifiable at all stores, we take other measures, including staging mobile generators and refrigerated trailers, to reduce the time it takes to respond to power outages. In 2021, we proactively staged over 1,200 refrigerated trailers at over 700 locations ahead of extreme weather events. Additionally, mobile generators kept stores, clubs and distribution centers powered to serve communities for more than 10,000 hours while grid electricity was not available.

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Read More: [Disaster Preparedness & Response](#)

We have prioritized incorporating energy efficiency into new store designs and upgrading older equipment where economically feasible with higher-efficiency technology which will help us adapt to a warming climate. We also use technology to monitor and optimize energy use in our buildings. Energy—including electric and gas—is one of our top operating expenses and optimizing energy use can help us control both expense and emissions. A few degrees of rise or fall in average temperature can translate to considerable costs, as HVAC and refrigeration systems must work longer and harder to keep temperatures in stores and product cases at optimal levels.

Sourcing: Surety of Supply

Managing Day-to-Day Disruptions

Our merchants use a variety of tools to manage volatility and surety of supply day-to-day. Our sourcing teams manage food commodity supply risks by building upstream capacity, diversifying our sourcing regions and exploring new technology and innovation. For example, our merchants use predictive weather data to adjust product deployment and replenishment rates in the short term, as well as leverage historical data on sales performance and customer buying patterns to inform product assortment shifts over time. This helps ensure that as the climate changes, we continue to offer the right products for our customers at the right time.

Country of Origin Strategies

While about two-thirds of what Walmart U.S. spends on products comes from items made, grown or assembled in the U.S. (according to data from our suppliers), globally sourced items face the risk of climate-related disruption. Walmart's Global Sourcing team regularly reviews risks and opportunities related to the country of origin of the products they source. The Global Sourcing team works with Walmart merchants and third-party experts to develop mitigation strategies, including measures to enhance supply chain resilience within countries of origin, as well as diversification of sources of supply.

Transforming Product Supply Chains for Long-Term Sustainability

Because agricultural commodities can be especially susceptible to severe weather events and to climate change, Walmart has prioritized strategic initiatives to enhance commodity supply chain sustainability and resilience. Walmart's efforts include setting sourcing requirements and product specifications for suppliers, engaging suppliers in measurement and best practice sharing, supporting innovation, engaging our customers, public policy advocacy, and philanthropy.

[Back to Top](#) [Product Supply Chains: Sustainability Overview](#)

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Transitioning to a net-zero economy will bring about regulatory, technological, legal, market and reputational changes that will likely impact companies, including ours. (See [Climate Risk Assessment](#) above.) We evaluate these risks as part of the company's annual Enterprise Risk Management (ERM) process that considers strategic, operational, reputational, financial, and regulatory and compliance

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of Directors.

In addition to the ERM process, individual business segments and functions also assess climate-related policy issues as part of developing their annual strategic and operating plans. For example, regulation often affects costs in our operations and value chain. Walmart has established policy councils to assess potential new legislation/regulations and commitments within and across key markets. The policy councils include internal stakeholders from various parts of the organization (e.g., Government Affairs, Legal, Real Estate, Communications, and Compliance).

Another reputational risk comes from customer perception of Walmart's climate action, including how we design and run our stores and the products we offer. Our corporate affairs teams monitor sentiment across customers, investors, associates, and other stakeholders via digital and traditional media engagement and coverage. Our stakeholders help us understand climate risks and opportunities so that we can develop more effective solutions.

Read more about our climate risk assessment section above and in our [CDP Response](#).

Advocacy

We believe a strong climate strategy across government, business and civil society will help everyone manage the physical and transition risks associated with climate change, contributing to the resilience of our business and the communities we serve. We advocate for climate policy through engagement of policy makers, industry associations and multi-stakeholder coalitions, as well as through corporate communications.

Governance and Transparency

Climate Policy Priorities

Walmart is committed to policy advocacy aligned with the Paris Climate Agreement. Our advocacy has been consistent with that agreement since 2016. In 2021, we memorialized our commitment in a Board-approved [Statement on Climate Policy](#). The Statement frames our advocacy around achieving 1.5° Celsius-aligned, science-based national and international climate policies that are consistent with achieving net-zero emissions by 2050 and that equitably address the needs of all stakeholders.

We believe market-based and economy-wide emissions-reduction policies, like a price on carbon, are critical to achieving ambitious reductions in greenhouse gas emissions while supporting economic prosperity. We also recognize that market-based, technology-neutral approaches for hard-to-decarbonize sectors can play a valuable role in the absence of economy-wide action.

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strategies and activities, including those related to climate change. Management provides regular updates at least annually to the NGC concerning the company's public policy strategy and highlights of the committee's discussions with management are shared with the full Board of Directors. In 2021, NGC/management discussions included Walmart's planned U.S. federal government affairs and policy priorities for 2021-2022 and a review of 2020-2021 activities, including engagement with and through

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policy:

- Delineates roles and responsibilities with regard to interactions with public officials and legislative bodies;
- Sets parameters on the use of funds for political purposes;
- Defines the criteria for evaluation of trade association memberships in light of their policy positions and/or political advocacy;
- Commits the company to annual discussions between management and the NGC; and
- Commits Walmart to annual reporting on policy priorities, strategies, activities, and trade association memberships.

Transparency

Walmart is committed to transparency regarding public policy activities, including climate advocacy. Our disclosures include:

- Quarterly [reporting](#) on lobbying activities and expenditures, which include climate advocacy.
- Discussions regarding our public policy priorities, advocacy strategy and engagements in our ESG reporting (since 2013).
- State and federal lobbying information on our [Investor Relations website](#) (since 2015).
- Our philosophy on trade association memberships and approach to dealing with trade association policy misalignments (see below and our [Engagement in public policy](#) ESG brief).
- A [list of trade associations](#) to which Walmart Inc. contributes funds in an amount of \$25,000 or more; we will update this list at least annually.

Read more: [Engagement in Public Policy](#)

Direct Engagement of Policy Makers

Walmart directly engages U.S. policy makers on climate-related policy in line with our Statement on Climate Policy. We employ federal and state registered lobbyists and registered lobbyist consultants and engage in lobbying contacts as defined under the U.S. Lobbying Disclosure Act (LDA). Our [quarterly reports to Congress](#) include lobbying expenditures, the specific legislative items and public policy issues that were the topics of communication and the registered lobbyist who lobbied on behalf of the company. Review of Walmart's reports discloses direct advocacy on climate and other environmental-related topics.

Examples of our direct public policy advocacy on major climate policy debates at the federal level include:

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constructive positions on these climate provisions.

- Engaging lawmakers to support the Infrastructure Investment and Jobs Act, which our major trade associations also supported, and which includes federal investments in the energy and transportation sectors and to support climate resilience.
- [Speaking out publicly](#) and engaging lawmakers directly to emphasize the importance and

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- Recognizing bipartisan action on climate and submitting a letter of support to the U.S. Senate regarding the passage of the Growing Climate Solutions Act, which provides technical resources to farmers and ranchers to invest in nature-based climate solutions.
- Joining members of the Air-Conditioning, Heating, and Refrigeration Institute in endorsing a petition to the U.S. Environmental Protection Agency (EPA) regarding the adoption of national rules to prohibit the use of refrigerants with high global warming potential. We believe this will create a valuable national approach to phasing out the most harmful refrigerants in an expeditious fashion. Walmart also submitted a letter to the EPA supporting regulatory actions for stationary refrigeration equipment that are environmentally effective (e.g., limiting the use of refrigerants in new commercial systems with charges over 50 lbs. to those using refrigerants with a GWP of 150 or less) and nationally consistent.
- Collaborating with PepsiCo to release a set of [public policy principles](#) to convey to federal and state policymakers the types of policy interventions, planning and guidance that can support the efficient and economical transition to zero-emission commercial transportation fleets. These principles reflect our business strategy, promote efficiency and optimization as a reduction pathway and take a technology-neutral approach so that we can align our distribution network outcomes with environmental and community benefits.

Walmart has also advocated for Paris-aligned climate policy on the global stage. For example, prior to COP26, we joined key public-private sector initiatives led by U.S. Special Envoy on Climate John Kerry. The first, [Glasgow is Our Business](#), showcased strong CEO-level sector support for a successful COP26 agreement. The second, the [Clean Energy Demand Initiative](#), works to convey demand and policy signals from large private sector buyers to drive clean energy investment in crucial global markets. We actively participated in business dialogues during COP26 and represented the official business observer groups in encouraging support and action on measures to solidify global carbon market rules and other policy elements in the Glasgow Climate Pact. And Walmart is active in statehouses across the United States, including joining other businesses to [advocate for](#) net-zero emissions in Maryland by 2045.

Corporate Communications

Through corporate communications, Walmart regularly engages the public to make the case for climate action and encourage others to raise their ambitions. Recent examples include:

- Speaking with key climate reporters
- Authoring [blogs](#), [op-eds](#) and [articles](#) advocating for climate policy
- Sharing climate stories, articles and milestones via social media
- [Participating in videos](#) and [podcasts](#)
- Engaging in forums such as the [New York Times Climate Hub at COP 26](#), Greenbiz's Verge Net Conference, Fortune's Global Sustainability Forum, the WSJ Pro Sustainability Forum and Financial Times' Moral Money Summit: America's Edition.

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Through Trade Associations

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These organizations and coalitions allow us to work with other companies on issues that impact the retail sector and beyond.

Walmart's Approach to Engaging Trade Associations

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of public policy and/or general support for an organization's mission. Walmart's engagement model depends on the role the trade association plays in helping Walmart achieve its strategic objectives, and may include varying levels of financial support, involvement at the board and/or with key committees or targeted financial support for key initiatives within a broader organization.

As Walmart transforms its business and trade associations reevaluate their priorities, misalignments may occur. Where they do, we directly engage our trade associations to help them understand our priorities and positions. We also periodically reevaluate our memberships and engagement models to ensure alignment.

- **Engagement:** We communicate our strategic priorities and perspective on matters of public policy with our trade associations, policymakers and — as appropriate — the public so that our positions are known. For example, we have shared our views on climate policy with key trade associations, the public and lawmakers (see below).
- **Membership and Financial Support Reviews:** We periodically review our memberships in trade associations and determine if any adjustments are needed in our membership status or the financial support we provide to the organization. Where we generally support the organization's priorities and the positions the organization has taken on major issues, we may maintain general membership in the organization while working to influence the organization's direction as necessary. For example, we maintain general membership in the Business Roundtable and work to influence the organization as described elsewhere in this brief. In other instances, we may elect only to provide financial support for particular organizational initiatives. For example, we do not pay general membership dues to the U.S. Chamber of Commerce but financially support certain specific U.S. Chamber of Commerce initiatives including the Institute for Legal Reform, Rule of Law Coalition and Workforce Freedom Initiative. If a relationship — on balance — does not align with our priorities, we would end ties with the organization altogether.

Engagement with Major Trade Associations on Climate Policy

We have not identified any material misalignments with our [major trade associations](#) with respect to climate policy matters. Nevertheless, in line with the overall approach described above, we engage trade associations on climate and related policy issues to help them understand our perspective. Examples include:

- **Business Roundtable:** The Business Roundtable advocates for public policy that promotes the U.S. economy and expanded opportunities for Americans. Walmart President and CEO Doug McMillon served as Business Roundtable's Chairman in 2020-2021. We have endorsed Business Roundtable's call for a [U.S. national climate policy solution](#) to reduce U.S.-based emissions by at least 80% by 2050 through a market-based mechanism that includes a price on carbon. Walmart worked with Business Roundtable on its statement expressing support for the climate provisions in the [Back Better](#) and to craft a global statement on climate action that was endorsed by [business groups](#) in Australia, Canada, the European Union and Mexico.

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• **Retail Federation:** The National Retail Federation (NRF) is the largest retail trade organization in the U.S., representing large and small retailers with a variety of business models. It represents the retail industry across a broad range of policy areas including taxes,

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the NRF Sustainability Council (of which Walmart is a member). The guide makes the business case for reducing greenhouse gas emissions, provides a pathway for setting science-based greenhouse gas emission reduction targets and provides an extensive resource list to assist retailers in reaching their own sustainability goals. In January 2022, Walmart U.S. President and CEO John Furner [was elected chairman](#) of the board of NRF. In this capacity he will further the

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and operational excellence and innovation. In April 2021, [RILA released a set of climate priorities](#) that summarize the member perspective and considerations on greenhouse gas emission reduction strategies and categories that closely intersect with the industry operations and that receive policy attention at the state and federal level. Walmart provided insights to RILA to help develop this report and supported its release. In February 2022, RILA released its Retail [Climate Action Blueprint](#), which provides guidance applicable to retail organizations' climate action strategies. Walmart provided feedback on the Blueprint and was [quoted](#) in the press release announcing its release.

- **International Chamber of Commerce:** [The International Chamber of Commerce](#) (ICC) promotes international trade, responsible business conduct and a global approach to economic regulation. ICC has been the official Focal Point for Business in the United Nations Framework Convention on Climate Change (UNFCCC) process since its inception in 1992. At COP26, Walmart actively engaged and supported the Business and Industry NGO group (BINGO) managed by ICC. On behalf of this group, Walmart delivered a statement to the Parties during one of the high-level segments, which included language encouraging action on Article 6 and formalizing rules for global carbon markets.
- **Business at OECD:** Recognized as the voice of business at the Organization for Economic Cooperation and Development (OECD), [Business at OECD](#) (BIAC) conveys business perspectives and expertise to policymakers on a range of economic and policy issues. Walmart is a Vice Chair of the Environment and Energy Policy Group, which helps OECD guide member governments to design and implement evidence-based policies that address environmental challenges and promote green growth. BIAC has provided feedback to the OECD in support of international discussions on climate, including the UN Framework Convention on Climate Change (UNFCCC), the G7 and the G20. The group has also provided feedback on how governments can best align economic stimulus measures related to COVID-19 with ambitions on climate change.

Multi-Stakeholder Coalitions

In addition to working to shape climate strategies and advocacy within the groups discussed above, we are members of other coalitions advocating for an enabling policy environment, including:

- **Race to Zero – Retail Campaign:** We support [the effort](#) to achieve net zero emissions in the retail sector by 2050. That includes our role as co-lead of the Retail Race to Zero campaign along with IKEA, H&M, Kingfisher and Best Buy. In FY22, we represented the coalition at COP26 in Glasgow, where we welcomed several new signatories to the campaign and announced a new [Accelerator program](#).
- **We Are Still In:** We are a [signatory](#) to the coalition, which demonstrates our long-standing commitment to the Paris Climate Agreement. We also signed the [We Mean Business/Ceres](#) letter that supports a U.S. goal to cut emissions by at least 50% by 2030 and achieve net zero emissions by 2050. The group also endorsed the bipartisan Growing Climate Solutions Act, which reflects a valuable strategy for increasing carbon sequestration opportunities in the agricultural supply chain.

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Energy Buyers Association (CEBA): Walmart is a long-time [member of CEBA](#) (formerly a collaboration of clean energy buyers, energy providers and service providers that,

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renewables, retail access and a federal carbon green grid. We advised and endorsed CEBA's statement on Build Back Better, which emphasized market and policy-based measures to decarbonize the grid.

- **Business for Nature (BFN):** We are members of BFN, a global coalition that brings together business and conservation organizations to call for governments to adopt policies to reverse

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actively participated in the drafting and [development of these policy recommendations](#), have been a strong proponent of language that highlights that the climate and nature dialogues should be strongly linked and recognize the critical role nature plays in climate mitigation.

- **LEAF Coalition:** Walmart.org [participates in the LEAF Coalition](#), a coalition bringing together the private sector and governments to provide finance for tropical and subtropical forest conservation commensurate with the scale of the climate change challenge, to learn along with our peers.

Read More: [Engagement in Public Policy](#)

Reporting

We believe that transparency cultivates trust, helps hold ourselves accountable and – we hope – inspires others to act. We provide an annual update on our climate progress here through our ESG Reporting. [We also report to organizations such as CDP.](#) Walmart estimates its scopes 1, 2 and partial scope 3 GHG emissions in accordance with the [GHG Protocol Corporate Accounting and Reporting Standard](#) and has disclosed this and other climate-related information annually since 2006. See our third-party assurance statement for our CY2021 Scope 1 and 2 emissions verification report [here](#).

We encourage suppliers to report to CDP and have integrated CDP and Project Gigaton™ to make it easier for suppliers to report on metrics. We also support the Taskforce for Climate-related Financial Disclosure (TCFD) and use its reporting and guidance for climate risk assessment.

CDP Climate Change Questionnaire	Year			
	2018	2019	2020	2021
Walmart Inc.: Response Score	A-	A	A	A-
Walmart Inc.: Supplier Engagement Rating (SER)		A	A	A

Challenges

- Climate change is one of the greatest challenges of our time, profoundly affecting all regions of the world and all sectors of society. While Walmart can play a leading role in its own business, chain and beyond, achieving the Intergovernmental Panel on Climate Change (IPCC) goal of reducing global greenhouse gas (GHG) emissions to net-zero by 2050 requires action from all parts of society.

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available necessary technology, equipment or capabilities, and weather patterns increasing the number of days requiring facility heating and cooling.

- Achieving our targets will require innovation and technology that is not available today, including the evolution and accessibility of refrigeration, electric vehicle (including Class 8, heavy-duty, long-haul tractors), renewable energy, manufacturing and agricultural technologies.

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business partners providing clean/green services and suppliers' capacity and willingness to implement and measure emissions reductions projects.

- Public policies may not support actions aligned with Walmart's Science-Based Targets or the ambitions of the Paris Climate agreement, including by not encouraging the development and deployment of low-carbon or low-emissions technologies at scale and public policies that can negatively impact the supply or cost of renewable energy projects at scale.
- Walmart's business will continue to evolve and grow. This growth and changes in our model may require additional facilities and/or an expansion of our footprint, which may create pressure on our targets.
- The capital and operating costs of implementing projects will be a factor (e.g., transitioning to low-GWP refrigerants). Low market prices and volatility of the price of fossil fuels can complicate the cost/benefit analyses.
- Value chain (scope 3) emissions measurement and reporting remains an immature field; lack of standardized approaches and comprehensive data sets limit the ability to generate comparable, reliable and decision-useful information.
- National and global catastrophic events, including pandemics, can exacerbate many of the above factors.

Revision History:

August 2022: Updated to reflect 2021 GHG emissions and related metrics.

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1. In 2020, we raised our aspiration to reduce emissions in our operations (scopes 1 & 2) by realigning our science-based target to a 1.5 degree Celsius trajectory, the highest ambition approved by the SBTi. Our goal is to achieve zero emissions across Walmart's global operations by 2040, reducing absolute scopes 1 and 2 GHG emissions 35% by 2025 and 65% by 2030 from our 2015 base year.

2. Annual scopes 1 and 2 GHG emissions and carbon intensity metrics are updated from time to time in this ESG Climate Brief to account for changes in emission factors or the availability of more quality data. Flipkart emissions data is excluded from Walmart's Scope 1 and 2 emissions progress calculation. We believe excluding Flipkart's data will have negligible impact on reporting.

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... our operations for the period when the errors and operations in the reporting year ultimately result in updated emissions reported in the ESG Climate Brief not corresponding to results reported to CDP for our annual Climate Change questionnaire.

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“scopes”) that provide the framework for operational boundaries. The three scopes are:

Scope 1, “Direct Emissions,” represent emissions from the combustible fuels and other sources that occur directly on sites (e.g., refrigerants,) and mobile emissions sources.

Scope 2, “Indirect Emissions,” represent emissions that occur off-site to produce electricity or steam purchased for use at corporate locations.

Scope 3, “Other Indirect Emissions,” represents emissions from activities down or upstream from a company’s core business such as product use, waste disposal, commuting, and business travel.

3. Annual scopes 1 and 2 GHG emissions are updated from time to time for changes in emission factors or activity data when more accurate information become available. This may result in updated emissions reported in the ESG Climate Brief that may not correspond to results reported to CDP for our annual Climate Change questionnaire. Flipkart emissions data is excluded from Walmart’s Scope 1 and 2 emissions footprint and progress calculation. We believe excluding Flipkart’s data will have negligible impact on the overall reporting.

We engage Lucideon CICS to independently verify Walmart’s reported scope 1 and scope 2 emissions as reported to CDP annually, pursuant to ISO 14064-3 (the international standard for verification of Greenhouse Gas inventories). We follow Walmart’s Greenhouse Gas Inventory Methodology in calculating our GHG emissions, which is consistent with the principles and guidance of the World Resources Institute and the World Business Council for Sustainable Development’s Greenhouse Gas Protocol Initiative (“The GHG Protocol”) for corporate GHG accounting and reporting. Scope 2 (market-based) emissions include the carbon reduction value of renewable electricity procured from onsite and offsite projects. To account for structural changes in our business, we strive to adjust our emission reduction progress on scope 1 and 2 emissions to add or subtract emissions for entities acquired or divested in the year the acquisition or divestiture took place, including adjusting for previous years (including the baseline year).

4. Carbon intensity (scope 1 and 2 per revenue) calculation is based on calendar year emissions (January 1-December 31) and normalized by total annual revenues as measured by Walmart’s fiscal year (January 1-January 31).

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combination of power generated from on-site and on-site projects as well as renewable energy, generation feeding into the grids where our sites are located. Third-party-verified energy consumption data is one year in arrears for the CY2019 and CY2020 years. For CY2021, the latest energy consumption data was used. This was used in combination with the electricity procured from our renewable energy projects and the most recent grid fuel mix information obtained from the

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estimate.

6. Calculated in accordance with the [RE100 technical criteria](#). RE100 defines renewable electricity consumption as the ability to make unique claims on the use of renewable electricity generation and its attributes.

7. Calculated in accordance with Walmart's Project Gigaton Accounting Methodology, available on the Walmart Sustainability Hub. Suppliers submit information during a Project Gigaton™ reporting season; figures reported are for the reporting season that took place during the corresponding fiscal year.

8. Because Walmart does not restrict suppliers to reporting only on emissions avoidance and reduction efforts that are attributable to the suppliers' business with Walmart, actions taken and reported through Project Gigaton cannot be used to measure Walmart's scope 3 emissions, either absolutely or in year-over-year reductions.

9. The U.S. net sales figure used for the calculation includes Walmart U.S. and Sam's Club product net sales for the 52-week period prior to survey reporting window. The percentage represents U.S. product net sales of suppliers that reported to Project Gigaton™ in the reporting year versus all U.S. product net sales. The calculation excludes Walmart International segment product net sales from the calculation.

10. We considered each climate variable in isolation; we did not adjust for second- or third-order effects or interdependencies with other variables. We also did not consider potential offsetting impacts of new technologies, mitigating actions, or new business opportunities.

11. For additional [information on R-404A](#)

12. More recent CDP estimates for the retail sector confirm this baseline assumption. Walmart has not estimated its full, global scope 3 emissions for all scope 3 categories but has estimated scope 3 emissions for certain categories, including for two relevant categories—purchased goods and services and use of sold products—for its Walmart U.S. business using CDP methodologies. See Walmart's 2021 [CDP Climate Change Report](#) for more details on the methodologies used to prepare these estimates.

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14. For more information on the assumptions and methodologies used to prepare these estimates, see Walmart’s original CDP submissions (linked under Additional Resources at the end of this page). Walmart reserves the right to employ different methodologies in the future and may restate these

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using CDP methodologies.



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