C.H. ROBINSON

2023 TCFD Report

Introduction

C.H. Robinson began publishing annual Environmental, Social and Governance (ESG) disclosures in 2022, highlighting the company's ESG strategy and work to address climate change as a critical component of responsible business practices. Our report emphasizes our commitment to mitigating the effects of climate change and our work to advance initiatives that support our people, our communities, and our industry in the transition to a low-carbon future.

This report is in alignment with the recommendations set forth by the Task Force on Climate-related Financial Disclosures. In accordance with the TCFD recommendations, C.H. Robinson believes our resiliency is the result of forward-thinking analyses consistent with a trajectory in line with the goals of the Paris Agreement.

This report is organized by the four TCFD recommendation pillars: Governance, Risk Management, Strategy, and Metrics and Targets.

About C.H. Robinson

Core to our sustainability program is understanding our business model. As one of the world's largest and most connected logistics platforms, we arrange the transport of our customers' freight and support supply chain optimization through data services. Industry classifications often label us as a transportation company; however, we are unique from traditional asset-owning transportation companies because we leverage a global network of logistics solutions without an owned fleet. As part of our engagement on ESG topics, we focus on the issues related to this unique business model.

Contents

Governance

Board of Directors ("Board") oversight

C.H. Robinson is committed to being a strong corporate citizen and integrity is core to our success. We believe identifying and managing critical ESG topics helps ensure the sustainability of our company, drives long term value for our stakeholders, and is a competitive advantage in today's rapidly evolving marketplace. At C.H. Robinson, our ESG efforts are focused on climate action, people empowerment, and ethical business practices. We are committed to integrating climate-related issues throughout our governance and management processes.

The Board has oversight of ESG strategy and performance, and Board committees also engage on ESG topics on the scope of their charters regularly. The Board generally meets at least four times a year to oversee; review; and, where appropriate, approve fundamental operating, financial, risk management, and other corporate strategies, as well as major plans and objectives. The full Board receives regular updates at least bi-annually from management, including our Vice President of ESG, on ESG strategy and risk management. In addition to regularly scheduled updates to the C.H. Robinson Board of Directors, we add time to review climate-related topics if they arise outside of the scheduled time.

Committees oversee specific areas of our ESG efforts. The Audit Committee has oversight of ethics and compliance, risk management, cybersecurity, data privacy, and reporting on ESG-related metrics. The Talent and Compensation Committee has oversight of talent strategies; diversity, equity, and inclusion (DEI); company culture; and other talent-related topics. The Governance Committee receives regular updates on ESG strategy and risks, and environmental sustainability.

Climate-related issues are integrated into our multi-disciplinary, company-wide risk management process

Audit Committee

The Audit Committee reviews the key risks or exposures and assesses the steps management has taken to minimize such risk on an annual basis.

Responsibilities:

- Leads risk management for the company, which is reviewed quarterly and aligned to the risk factors reported annually in our Form 10-K
- Reviews the risk management status of the company
- Provides periodic risk assessment updates to the Board and gets periodic updates from the Board regarding the company's risk management practices

Talent and Compensation Committee

The Talent and Compensation Committee has oversight responsibilities relating to overall talent strategy, compensation, succession and leadership development, and DEI.

Responsibilities:

- Periodically reviews the company's compensation programs to ensure they do not encourage excessive risk-taking
- Determines all elements of the compensation and benefits for the Chief Executive Officer and other executive officers of the company, including compensation related to achieving climate targets
- Reviews the company's policies, practices, performance, disclosures, and progress toward goals with respect to significant issues of DEI and Human Capital Management, including the alignment of such efforts with the company's overall strategy

Governance Committee

The Governance Committee adopts and revises corporate governance guidelines applicable to the company and serves in an advisory capacity to the Board on matters of organization and the conduct of Board activities.

Responsibilities:

- Periodically reviewing with the company's Chief Legal Officer developments that may have a material impact on the company's corporate governance programs, including related compliance policies
- Reviews, at least annually, the company's policies, practices, performance, disclosures, and progress toward goals with respect to significant ESG issues, including the alignment of such efforts with the company's overall strategy

Governance

Management responsibilities

Our internal audit team is responsible for our Enterprise Risk Management (ERM) program, which includes key risk identification, mitigation efforts, day-to-day management, and reporting to the Audit Committee. Our internal audit team reports to the Chief Financial Officer, who works closely with our Chief Executive Officer, Chief Legal Officer, and Chief Human Resources and ESG Officer to review climate-related issues as they arise. These individuals provide feedback on recommended actions and give final approval regarding which actions are brought to the Board.

Our ERM program is all-encompassing, with the multiple parties involved in the process with various roles and responsibilities. One specific risk can be the responsibility of a single individual, a department, or all C.H. Robinson employees. This is why we have subject matter experts (SMEs) to serve as the knowledge base and foundational understanding of a specific risk.

Subject Matter Expert

A Risk SME is a responsible point of contact for risk exposures within the enterprise, coordinating efforts to mitigate and manage risks with other relevant individuals.

Climate-related responsibilities:

- Determine risk description and scope of exposure
- Rate classification of applicable risk using defined assessment criteria
- Bear responsibility for the assessed levels of risk
- Gather/update detail to properly understand and support risk classification
- Define risk mitigation plans to bring risks within tolerance
- Develop monitoring and mitigation plans if remediation efforts are required

Operational Risk Owner

Employees involved in risk operations are responsible for managing the risk process from start to finish. This group is separated from the SMEs in order to distinguish between the different employees who could be involved in the risk management process. However, the SME and risk operations personnel can be the same individual.

Climate-related responsibilities:

- Implement, maintain, and improve the risk process

Strategy

Climate-related risks and opportunities

C.H. Robinson recognizes the importance of identifying and assessing the impacts of climate-related risks and opportunities over the short, medium, and long term. We evaluate both transitional and physical climate-related risks to determine the relative importance of each climate-related risk in alignment with our ERM framework. Transition risks are associated with the transition to a low-carbon global economy and include the assessment of current and emerging regulatory, technology, legal, market, and reputational risks. Physical risks stem from the impacts of climate change. They can be short-term events such as extreme weather events and more long-term changes in weather patterns. We consider climate-related and ESG risks and opportunities over the short-term (0–1 year), medium-term (1–5 years), and long-term (5+ years) time horizons.

The following tables outline our current understanding of the company's relevant climate-related physical and transition risks and their potential impacts to our business operations.

Physical Risks

Risk Type	Risk	Description	Time Horizon	Potential Business Impact
Acute Physical	Extreme weather events	Increasing extreme weather events, such as hurricanes and extreme precipitation, can impact transportation infrastructure, ocean freight shipping, cause damage to port locations, and damage inventory.	Short-term	Transportation routes may be impacted by severe weather, causing increased customer need for alternative transportation solutions and delays in shipping. If these extreme events become more frequent and intense, C.H. Robinson may need to provide additional support to customers through rerouting, intermodal solutions, or other tactics to continue to support shippers through extreme storms. However, C.H. Robinson offices and facilities may be damaged by extreme weather, inhibiting employees' ability to get to work and carry out their responsibilities.
Chronic Physical	Rising sea levels	As climate change exacerbates, it is expected that sea levels rise to varying degrees in coastal locations.	Long-term	Port infrastructure can become damaged, which could delay or halt operations to and from that specific port, hindering cargo from reaching and departing from ports, causing delays and disruptions in customer service.
Chronic Physical	Rising mean temperatures	Average temperatures may increase over time as long-term impacts of climate change lead to greater temperature extremes.	Long-term	Rising temperatures may increase demand for cooling, thereby increasing costs associated with facility cooling needs and transportation refrigeration costs. This may lead to higher prices for our services. Extreme temperatures impact workers who are exposed to high heat or extreme cold and can impact productivity.

Transition Risks

Risk Type	Risk	Description	Time Horizon	Potential Business Impact
Policy & legal	Increased emissions reporting requirements	Emerging emission reporting requirements around the world, such the U.S. SEC proposed climate risk disclosure regulation, would require sophisticated data collection, management, and reporting capabilities. Inadequate processes, systems, and tracking could make adjusting to these changes difficult and could require additional hiring needs and/or technology resources to meet reporting requirements. Increased collaboration with carriers may be required to gather relevant and accurate data for reporting purposes.	Short-term	Increased need for data collection for the purpose of reporting emissions could put a strain on small-scale carriers and limit the company's ability to comply with reporting requirements.
Market	Changing customer behavior	Shippers adopting emissions reduction targets will seek to work with transportation providers that can help them meet these goals and provide low carbon solutions.	Medium-term	As a non-asset owner, C.H. Robinson works with thousands of carriers, many of which are small businesses that may not have the resources to provide clean transportation options. C.H. Robinson is focused on digital innovation and developing solutions to help customers better track and monitor emissions and efficiency across their logistics solutions.
Policy & legal	Climate mandates and regulation of existing products and services	Additional climate-related mandates or regulation, such as fuel efficiency or clean vehicle adoption mandates, may make the transportation of goods more difficult or costly.	Medium-term	Mandating fuel efficiency standards and clean vehicle adoption would influence our carriers and could result in loss of carriers if they are not able to comply, resulting in decreased revenues if C.H. Robinson cannot identify alternative carriers.

Opportunities

Opportunity Type	Opportunity	Description	Potential Business Impact
Technology	Development of new products and services through research and development (R&D) and innovation	C.H. Robinson has the infrastructure and resources to continue to innovate and invest in R&D to develop solutions that meet emerging market demand for sustainable transport and logistics. C.H. Robinson can invest in the development of other products and services that support customers' sustainability goals, as many have made these targets enterprise priorities.	By driving more technology infrastructure to market, C.H. Robinson could offer solutions to help customers advance and meet their sustainability targets.
Market	Shift in consumer preferences	Consumers are increasingly interested in supporting companies with sustainability objectives, including along supply chains. Reducing emissions from upstream and downstream transportation can help companies achieve emissions reductions across the value chain. C.H. Robinson can create tailored solutions for our customers by embedding climate considerations into core services and moving toward becoming customers' sustainable logistics provider.	Working with carriers to secure a network of low emissions and more efficient transportation options can help meet shifting customer demand.
Market	Access to new markets	Corporations are rapidly adopting ambitious climate goals, including emissions reduction goals across their supply chains and actively identifying strategies to track, manage, and achieve these targets.	C.H. Robinson can continue to expand our customer reach if we can develop digital solutions that provide low carbon options for customers with emissions reduction goals and ambitions to move toward low carbon operations.

Strategy

Scenario analysis & resilience

In 2023, C.H. Robinson conducted scenario analysis for physical and transition risks to evaluate the business' resilience to various possible warming scenarios. Some findings that came out from this scenario analysis include:

1. Extreme storm events causing damage to transportation infrastructure and warehouses pose both physical impacts as well as require C.H. Robinson to provide additional support to customers through rerouting, intermodal solutions, or other tactics
2. Favorable policy and market conditions are needed to support carriers in adopting technology to meet shifting customer preferences for sustainable logistics solutions
3. Growing interest and scrutiny over greenhouse gas (GHG) emissions may drive customer demand for digital solutions to track and monitor supply chain emissions

Physical risk scenario analysis

The physical risk scenario analysis evaluated the implications to the business across three Shared Socioeconomic Pathways (SSP), as defined by the IPCC: SSP1-2.6 (below 2°C warming), SSP2-4.5 (2–4°C) and SSP5-8.5 (above 4°C). The risk of exposure to extreme precipitation, flooding, tropical cyclones, and sea level rise with storm surge was evaluated for each scenario, in time horizons 2030 and 2050, across 100 global locations important to C.H. Robinson shipping and logistics. The modeled risk exposure to each of the above types of physical risks were combined to model the company's overall exposure to extreme storm events for those 100 locations. Risks were evaluated on a scale of 1–5 (1 = very low; 5 = very high) based on thresholds set according to underlying data.

The analysis found that none of the locations included are at very high total risk of extreme storm events in 2030 across all scenarios.

This physical risk assessment will be leveraged by internal teams, such as Risk SMEs and Operational Risk Owners to determine how the business can increase resilience to extreme storm events at locations with higher levels of risk.

Strategy

Transition risk scenario analysis

The transition risk scenario analysis evaluated the implications to the business across three scenarios generated by the Network for Greening the Financial System (NGFS): Net Zero 2050, Delayed Transition, and Current Policies. The degree of impact and likelihood of occurrence was evaluated for each scenario and across the short- (2020–2030), medium- (2030–2040), and long-term (2040–2050). Below is a summary of each scenario and the possible implications to C.H. Robinson.

Net Zero 2050: An ambitious scenario that limits global warming to 1.5 °C through stringent climate policies and innovation, reaching net zero CO_2 emissions around 2050. Transition risks are likely to be driven by higher emissions costs and changes in business and consumer preferences. In a Net Zero 2050 scenario, strong policy action and technology innovation support the transition of transportation toward lower emissions. Moreover, customers will become increasingly interested in low emissions services to help them keep up with regulatory demands to reduce their own emissions. If C.H. Robinson carriers are unable to keep up with adopting more fuel and cost-effective options, C.H. Robinson risks decreasing market share of sustainability-motivated customers to providers that are able to offer low emissions services. C.H. Robinson may also need to invest more into digital products as demand for emissions tracking and reduction solutions grows. C.H. Robinson may experience higher costs associated with compliance with carbon regulation.

Summary of inherent risk (impact x likelihood) for Net Zero 2050

	Short-term (2020–2030)	Medium-term (2030–2040)	Long-term (2040–2050)	Financial Implications
Policy & legal	Very Low	Very Low	Low	• Increased compliance costs
Technology	Low	Low	Low	• Increased operating costs from R&D spend
Market	Low	Low	High	• Reduced revenue from decreased demand for services and increased competition

Strategy

Delayed Transition: This scenario assumes global annual emissions do not decrease until 2030. Strong policies are then needed to limit warming to below 2 °C. Emissions may exceed the carbon budget temporarily in the 2020's and decline rapidly after 2030. In a Delayed Transition, the medium-term is more disruptive than in the other scenarios. This is due to significant shifts required to move to a low-carbon trajectory, compensating for previous inaction. Post-2030, C.H. Robinson could face intense competition from other logistics providers in sourcing carriers that use alternative fuels and advanced technologies. Based on the drastic increase in regulatory measures and variation in approach in implementing climate policy, C.H. Robinson may incur significant compliance-related costs. All this can affect our ability to serve customers and meet their shifting demands as they struggle to quickly transition.

Current Policies: This scenario assumes only currently implemented policies are preserved, leading to higher physical risks and lower transition risks than in either the Net Zero 2050 or Delayed Transition scenarios. In the Current Policies scenario, C.H. Robinson may struggle to compete with other providers that are able to capture a niche, high margin market for customers looking for sustainable transportation options. Costs directly attributable to policy, like compliance costs and carbon taxes, are expected to be low, based on continuing public sector inaction. With limited policy support, carriers may incur high costs, or be priced out of, adopting alternative fuels or advanced energy efficient technologies. For those carriers that do choose to transition to greener fleets, these high upfront capital costs may be passed on to C.H. Robinson and increase operating costs. Physical impacts in this scenario are high and could result in severe impacts to transportation infrastructure. This could cause increased supply chain disruptions and strain our capacity to serve intermodal needs.

Summary of inherent risk (impact x likelihood) for Delayed Transition

	Short-term (2020–2030)	Medium-term (2030–2040)	Long-term (2040–2050)	Financial Implications
Policy & legal	Very Low	Moderate	Low	• Increased compliance costs • Reduced revenue from decreased demand for services and increased competition • Decreased gross profits if transportation costs increase and are not recovered through customer contracts
Technology	Very Low	Low	Moderate	
Market	Very Low	Low	Moderate	

Summary of inherent risk (impact x likelihood) for Current Policies

	Short-term (2020–2030)	Medium-term (2030–2040)	Long-term (2040–2050)	Financial Implications
Policy & legal	Very Low	Very Low	Very Low	• Reduced gross profits from increased need to provide emergency response to locations impacted by climate-related events
Technology	Very Low	Very Low	Low	
Market	Very Low	Very Low	Very Low	

Strategy

Our response

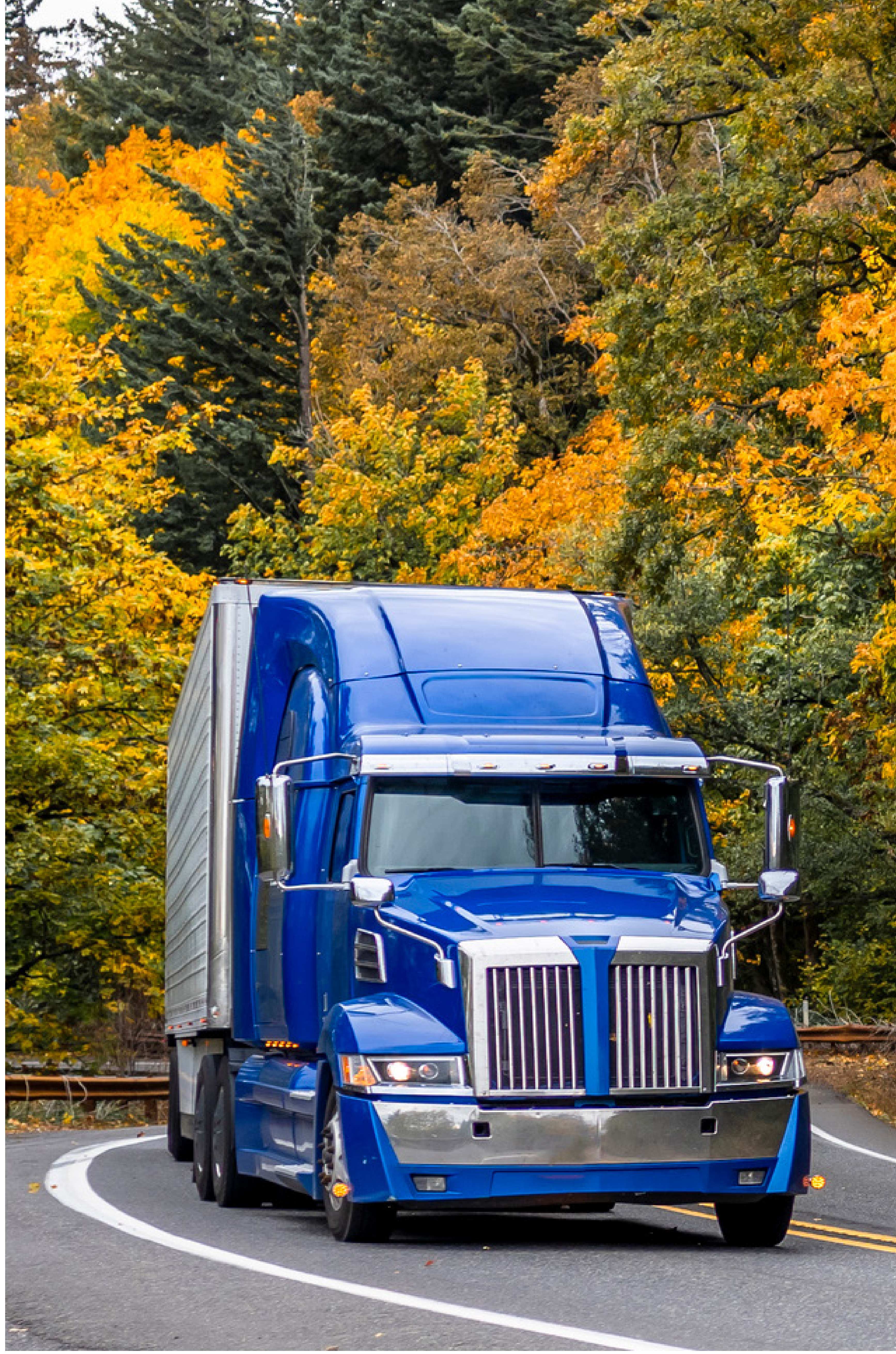
C.H. Robinson has historically been able to support its customers through emergency response situations due to climate-related events. If these extreme events become more frequent and intense, C.H. Robinson may need to provide additional support to customers through rerouting, intermodal solutions or other tactics to continue to support shippers through extreme storms. C.H. Robinson currently supports customers in providing weather alerts and advising on strategies to reroute shipments or identify alternative plans if extreme weather conditions are forecasted. C.H. Robinson plans to continue to limit organizational exposure and build resilience to climate-related risks through ongoing development of understanding how climate risks are expected to affect business units and operations. To ensure business continuity during severe weather events, C.H. Robinson plans to maintain the ability for its employees to work remotely. Another way C.H. Robinson plans to manage its exposure to climate-related risks is through continuing to place data centers in locations with relatively low risk exposure. C.H. Robinson can assist its customers in navigating climate-related impacts to their supply chains with its Navisphere® Vision tool. This tool provides C.H. Robinson clients with full supply chain visibility and information on potential supply chain disruptions, and includes information regarding the physical effects of climate change, like more frequent and severe weather events and other longer-term climate-related impacts.

For transition risks, the biggest risk C.H. Robinson faces is the interplay between shifting customer preferences toward more sustainable and low emissions transportation options and the availability and access to those technology solutions. If customers begin to seek sustainable logistics solutions, C.H. Robinson will rely on its carriers to offer those options by beginning to transition their fleets toward lower carbon fuels and technology.

C.H. Robinson has the opportunity to continue to support customers' and carriers' needs by providing digital solutions for tracking and measuring emissions across supply chain logistics and advising on efficient routing options. Since 2021, we have been an accredited partner of the Smart Freight Centre (SFC), a global non-profit organization dedicated to sustainable freight. Customer emissions reporting in our Emissions IQ™ tool is aligned with the SFC's Global Logistics Emissions Council framework, the only globally recognized methodology for harmonized calculation and reporting of the logistics GHG footprint across the multimodal supply chain.

In the transition to a low carbon economy, transportation will play a major role in achieving a net zero future. C.H. Robinson has the ability to play a critical role in supporting its customers' achievement of their own goals of reducing supply chain emissions. To advance sustainability efforts within the transportation industry, C.H. Robinson joined an effort spearheaded by the World Economic Forum and the SFC to develop a book and claim chain of custody system for tracking and accounting for freight emissions reduction actions to accelerate decarbonization. This system will allow for emissions reduction actions through cutting-edge methods, like carbon insetting, which encourages industry decarbonization through the use of alternative fuels, new technology, and more.

Since 2005, C.H. Robinson has been a member of the U.S. Environmental Protection Agency (EPA) SmartWay® program, which helps companies advance supply chain sustainability by measuring, benchmarking, and improving freight transportation efficiency. The program is a voluntary partnership between various freight industry sectors and the EPA. It establishes incentives for fuel efficiency improvements and GHG emission reductions.



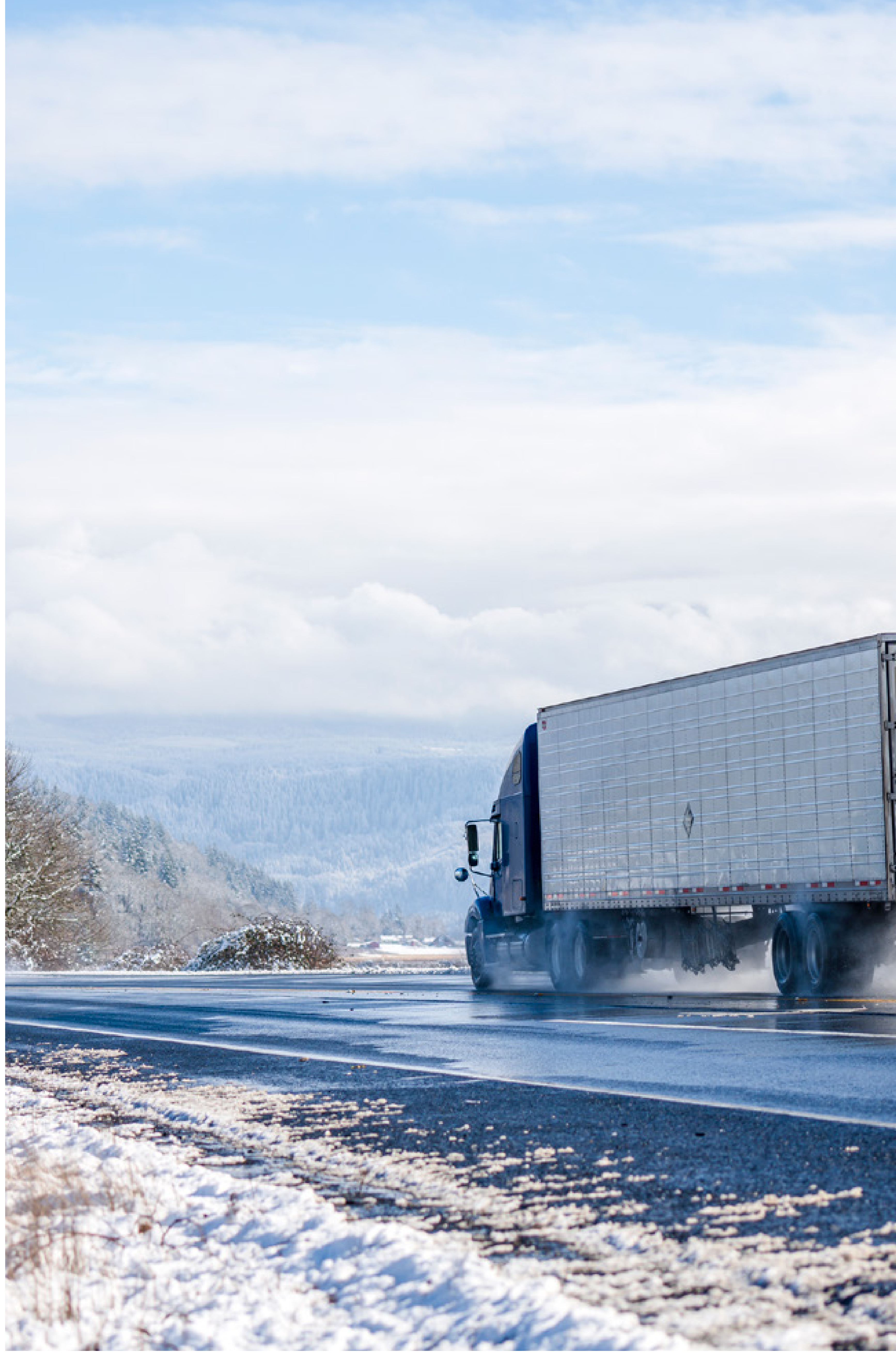
Risk Management

ESG topics and other emerging risks, including climate-related risks, are evaluated annually with company leaders as part of the company's overarching risk assessment process. Stakeholders from across the business are engaged to determine overall risk rank, heatmap placement, and risk response plans.

The C.H. Robinson internal audit team conducts an annual risk assessment process through interviewing and surveying key personnel and risk owners throughout the company to develop an in-depth understanding of the company's risk universe. The internal audit team then further classifies the identified risks into a formal risk register prioritized by impact, likelihood, vulnerability, and speed of onset. Finally, business leaders, including the senior leadership team and the Audit Committee of the C.H. Robinson Board of Directors, review and align on risk placement and tolerance.

In 2022, C.H. Robinson partnered with Anthesis, a global sustainability consulting firm, to assess climate-specific risks to the company through quantitative and qualitative analysis. A climate risk assessment was conducted, which included stakeholder engagement through a survey and workshops to assess exposure and potential impacts of climate-related risks and opportunities. Key stakeholders, including those from Business Continuity, Infrastructure, IT, Data Privacy, Cybersecurity, Enterprise Risk Management, Marketing, Communications, Human Resources, Government Affairs, our Global Forwarding business, our Europe Surface Transportation business, our TMC business, our North American Surface Transportation business, Product, Financial Operations, Enterprise Customer Strategy, Finance, Investor Relations, Legal, Financial Planning and Analysis, Facilities, and Real Estate, were engaged to elicit input on past experiences with climate risks and future vulnerability. Risks and opportunities were evaluated based on the level of impact, likelihood, and vulnerability, providing a quantitative assessment of both inherent and residual risk aligned with the C.H. Robinson ERM framework. This process, through qualitative stakeholder feedback and quantitative assessment of risk exposure assisted in the prioritization of risks.

Climate risks, like other risks relevant to the organization are assigned to organizational SMEs. These SMEs become the risk owners of specific risks that are most closely associated with their positions or departments. A Risk SME is an accountable point of contact for an enterprise risk, who coordinates efforts to mitigate and manage the risk with various individuals who own parts of the risk.



Metrics & Targets

We are doing our part to support our enterprise, industry, and stakeholders in the transition to a low-carbon economy. As part of our commitment, we set a science-aligned goal to reduce our Scope 1 and Scope 2 emissions intensity by 40% by 2025 from a 2018 baseline. As of December 31, 2022, we have exceeded our goal and reduced our emissions intensity by 47%.

C.H. Robinson conducts an annual GHG inventory through the boundary of operational control and our calculations follow the GHG Protocol, and since 2018, we have publicly reported our Scope 1 and Scope 2 emissions. In 2022, our total Scope 3 emissions were 21,359,364 MtCO2e.

In combination with significant energy reduction, renewable energy purchases represented 55% of total electricity consumed in 2022, or 17,365 MWh. We continue to evolve our annual GHG inventory process to extract critical data about our energy usage and emissions hot spots.

Scope 1 & 2 Emissions

Emission Source	2018	2019	2020	2021	2022	2022 % of Scope 1 + 2	2022 % change from 2021
Total Scope 1	2,459	2,168	2,045	2,135	3,041	13.6%	+42.4%
Total Scope 2 (MB)	39,041	22,980	25,751	24,636	19,283	86.4%	-21.7%
Total Scope 1 + 2 (MB)	41,500	25,148	27,796	26,771	22,325	100%	-16.6%

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Thank you

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