Welcome to your CDP Climate Change Questionnaire 2020

C0. Introduction

C0.1

(C0.1) Give a general description and introduction to your organization.

Ryder System, Inc. (Ryder), a Florida corporation founded in 1933, is a global leader in commercial fleet management and supply chain solutions. We operate primarily in three business segments: Fleet Management Solutions (FMS), Dedicated Transportation Services (DTS) and Supply Chain Solutions (SCS). Ryder has received significant awards and recognition from customers, leading transportation and logistics industry associations, business and regulatory communities. Recent examples include: Forbes: America's Best Employers in Transportation and Logistics industry category (2016-2018); FORTUNE: World's Most Admired Companies Award in Trucking Industry (2016-2019); SupplyChainBrain - 100 Great Supply Chain Partners award (2017); Trucking HR Canada – Top Fleet Employers (2018); Carbon Disclosure Project Carbon Disclosure Leadership Index (2012, 2015); Food Logistics: Top Green Providers award for green transportation and logistics solutions (2012 – 2017); Inbound Logistics - top 75 Green Supply Chain Partners by Inbound Logistics (2009– 2020); Supply & Demand Chain Executive: Green Supply Chain Award for meeting green or sustainable supply chain goals (2016-2017); 2020 Women on Boards W Company – Ryder was named a "W" company for having a board with more than 20 percent women (2013, 2017); CivilianJobs.com's Most Valuable Employers (MVE) for Military (2013 - 2017); Florida Diversity Council: Most Powerful and Influential Women Award (2017); SmartWay Excellence Award (2017). The FMS business provides full service leasing (long-term), commercial rental (short-term), as well as contract maintenance of trucks, tractors and trailers to customers principally in the US, Canada and the UK. The standard leasing business model offers customers different vehicle options (such as fuel-efficient or natural gas/electric powered vehicle packages) with attractive financing mechanisms. Because of increased demand for vehicle efficiency and reliability, companies that own and manage their own fleet of vehicles have put greater emphasis on the quality of preventative maintenance for their vehicles. In addition, several trends have been increasing the need for outsourcing: increased complexity and cost of buying and maintaining vehicles including technology, diagnostics, and training; labor issues including a shortage of qualified truck drivers and mechanics; as well as increased regulation – e.g. more expensive emission controls needed for EPA-compliant engines - and enforcement of safety requirements. The Dedicated Transportation Service (DTS) option provides vehicles and drivers as part of a dedicate transportation solution in the US. Customers directly manage their overall freight movement but Ryder provides the equipment, maintenance, and administrative services (including driver hiring, training, routing and scheduling, and fleet sizing) associated with maintaining the customer's private fleet. This combination of services allow us to provide high service levels and the most efficient routing to lower fuel costs due to less idle time and fewer empty miles. A key difference between Dedicated Transportation Services and Full

Service Lease is Ryder provides the drivers for Dedicated. The SCS supply chain solution provides Distribution and Transportation Management services in North America and Asia. SCS customers are looking for a total integrated solution that includes managing outsourced vehicles, drivers, freight routing, IT integration, warehouse and distribution management, as well as other logistics engineering services. SCS provides a wide range of services relating to a customer's distribution operations, from designing the distribution network to managing distribution facilities. Customers can more precisely align inbound and outbound shipments, synchronize returns with optimized fleet use and arrange backhauls to offset transportation costs and minimize empty miles that will directly help lowering GHG emissions. The SCS Transportation Management business offers services relating to all aspects of a customer's transportation network. Ryder's transportation specialists provide shipment planning and execution, through a series of technological and web-based solutions.

C0.2

(C0.2) State the start and end date of the year for which you are reporting data.

	Start date	End date	Indicate if you are providing emissions data for past reporting years
Reporting year	January 1, 2019	December 31, 2019	No

C0.3

(C0.3) Select the countries/areas for which you will be supplying data.

Canada
China, Hong Kong Special Administrative Region
Germany
Mexico
United Kingdom of Great Britain and Northern Ireland
United States of America

C0.4

(C0.4) Select the currency used for all financial information disclosed throughout your response.

USD

C0.5

(C0.5) Select the option that describes the reporting boundary for which climate-related impacts on your business are being reported. Note that this option should align with your chosen approach for consolidating your GHG inventory.

Operational control

C-TO0.7/C-TS0.7

(C-TO0.7/C-TS0.7) For which transport modes will you be providing data?

Heavy Duty Vehicles (HDV)

C1. Governance

C1.1

(C1.1) Is there board-level oversight of climate-related issues within your organization?

Yes

C1.1a

(C1.1a) Identify the position(s) (do not include any names) of the individual(s) on the board with responsibility for climate-related issues.

Position of individual(s)	Please explain
Board-level committee	i) Management of Ryder's fundamental governance policies and practices are overseen by Ryder's Board of Directors Corporate Governance Committee., They are responsible for reviewing and informing on matters relating to public policy, public affairs and corporate responsibility including Ryder's environmental & sustainability programs, which address regulatory and business issues such as climate change impacts and strategy. ii) The Board periodically reviews and decides on a variety of issues related to sustainability and climate change opportunities, throughout the year including: in its review of environmental issues related to Proxy statements and disclosures; as part of periodic changes to our Corporate Sustainability Reporting; and when reviewing and deciding on changes to improve Ryder's ESG (Environmental, Social & Governance) priorities, disclosures and performance rankings throughout the year. In addition, the Board is updated periodically on enterprise risks, including climate related impacts. ii) The Vice President of Environmental, Real Estate, and Fuel Services maintains day-to-day operational responsibility for Environmental Programs including climate change impacts and strategy and then reports to the Executive Vice President, Chief Legal Officer and Board Corporate Secretary. Once a year, a broader Environmental Program Report is provided to the Board of Directors Corporate Governance Committee.

C1.1b

(C1.1b) Provide further details on the board's oversight of climate-related issues.

Frequency with which climate-related issues are a scheduled agenda item	Governance mechanisms into which climate-related issues are integrated	Please explain
Scheduled – all meetings	Reviewing and guiding major plans of action Monitoring and overseeing progress against goals and targets for addressing climate-related issues	Ryder's Board of Directors' Corporate Governance Committee oversees major plans of action as important matters arise. For example, periodically throughout the year and during the annual board meeting, environmental risks and costs are reviewed to identify potential business opportunities and action plans to assist with reductions related to energy and resource conservation. This includes both specific program updates (e.g. energy efficiency projects) and a general overview of greenhouse gas target performance.
Sporadic - as important matters arise	Reviewing and guiding business plans	Ryder's Board of Directors' Corporate Governance Committee oversees reviewing and guiding business plans as important matters arise. For example, over the last 6 years, Ryder has expanded its alternative fuel strategy to include increased investments to develop business opportunities related to electric vehicles, such as EV charging stations at our locations, and offering energy management services to our Customers. This was developed in a top down approach, reviewed and adopted by Ryder's leadership team and Board. Previously Ryder's natural gas truck fleet offerings were expanded into 16 states and 61 maintenance/repair shops were retrofitted to accommodate maintenance of natural gas vehicles. In addition, Ryder is committed and investing in equipment at FMS shops that will expand its ability to accommodate and support the expansion of electric vehicle markets in key geographic areas. Ryder is the exclusive sales and lease partner of electric trucks for Chanje.

C1.2

(C1.2) Provide the highest management-level position(s) or committee(s) with responsibility for climate-related issues.

Name of the position(s) and/or committee(s)	Responsibility	Frequency of reporting to the board on climate-related issues

Other C-Suite Officer, please specify • Other: Chief Legal Officer	Both assessing and managing climate-related risks and opportunities	More frequently than quarterly

C1.2a

(C1.2a) Describe where in the organizational structure this/these position(s) and/or committees lie, what their associated responsibilities are, and how climate-related issues are monitored (do not include the names of individuals).

The Vice President, Environmental, Real Estate, and Fuel Services, maintains day-to-day operational responsibility for Environmental Programs including climate change impacts, reduction strategies and performance reporting to the Chief Legal Officer and Corporate Secretary. Our monitoring of climate-related issues includes a review of Ryders's scope 1, 2 and 3 GHG emissions and identifying new opportunities for reductions, as well as customer emission reduction benefits. In addition, business and market opportunities are explored to assist customers with emission reductions resulting from improved transportation management and supply chain solutions. An Environmental Report of our progress in these areas is reviewed annually with our Board of Directors Corporate Governance Committee.

C1.3

(C1.3) Do you provide incentives for the management of climate-related issues, including the attainment of targets?

	Provide incentives for the management of climate-related issues	Comment
Row 1	Yes	

C1.3a

(C1.3a) Provide further details on the incentives provided for the management of climate-related issues (do not include the names of individuals).

Entitled to incentive	Type of incentive	Activity inventivized	Comment
Energy manager	Monetary reward	Energy reduction project Energy reduction target Efficiency project	Facility Managers are incentivized to measure, track and attain targets for energy use reductions and associated greenhouse gas (GHG) emissions reductions from conservation programs, awareness campaigns and other activities.
All employees	Non-monetary reward	Behavior change	Employees are encouraged to participate in numerous Energy Conservation Challenge initiatives; since 2013 various initiatives have been

		related indicator	established to promote best practices for energy and climate change reduction. Ryder's emission reduction goal (first piloted in 2010) was to reduce scope 2 electricity emissions by 10% and employees who submitted 'winning' solutions were rewarded with luncheons/cookouts and recognition plaques. The program was further expanded in 2014 to include all FMS employees and new incentive programs added to identify targets annually to reach energy savings goals is select areas. In 2015 and 2016 new corporate conservation standards were put in place, including energy efficient LED lighting in major facility upgrades and targeting 90% of Ryder owned sites for lighting evaluations which were replaced in late 2019 and early 2020.
Buyers/purchasers	Monetary reward	Energy reduction project	Facility maintenance contractors as well as 3rd party suppliers are incentivized to identify, propose and implement energy reduction opportunities. Several large scale programs have been developed and launched that reduce energy use and provide financial benefit to our supplier partners for service/materials. These programs include shop lighting upgrades, energy efficient HVAC replacements and preventative maintenance initiatives that financially encourage suppliers to find improved energy management solutions. In 2018, Ryder began assigning an annual building maintenance budget to each facility based on operating footprint and building square footage. This serves to benchmark each facility's performance & utility usage, thereby improving employee management and investment decisions that result in facility upgrades that promote energy efficiency and resource conservation.

C2. Risks and opportunities

C2.1

(C2.1) Does your organization have a process for identifying, assessing, and responding to climate-related risks and opportunities?

Yes

C2.1a

(C2.1a) How does your organization define short-, medium- and long-term time horizons?

	From (years)	To (years)	Comment
Short-term	0	5	SBTi recommends these time horizons for short-term, medium-term, and longer-term targets.
Medium-term	5	15	SBTi recommends these time horizons for short-term, medium-term, and longer-term targets.
Long-term	15	30	SBTi recommends these time horizons for short-term, medium-term, and longer-term targets.

C2.1b

(C2.1b) How does your organization define substantive financial or strategic impact on your business?

Ryder is a global leader in transportation and supply chain management solutions. Ryder's mission is to provide innovative fleet management and supply chain solutions that are reliable, safe and efficient, enabling our customers to deliver on their promises. We seek to deliver valuable solutions that will compel customers to outsource their fleet management and supply chain needs to us. As such, we closely monitor, respond to, and mitigate climate-related risks, such as severe weather and other natural occurrences, that reduce efficiencies in or cause significant business disruptions to our customers' and our fleet utilization and operations. Many of our customers operate in cyclical or seasonal industries, or operate industries, including the food and beverage industry, that may be impacted by unanticipated weather, growing conditions (such as droughts, insects or disease), natural disasters and other climate-related conditions. These impacts can result in reductions to freight volume shipped or to their need for our services, which could materially affect our operating results and financial condition. Similarly, our operations may be affected by climate-related factors such as increased severe weather, including floods, fires, hurricanes and earthquakes at operating locations where we have vehicles, warehouses and other facilities. These weather events can adversely affect the performance of our fleet, result in damage to our vehicles and facilities, make our workforce temporarily unavailable in impacted areas, cause fuel costs to rise, as well as result in other significant business interruptions. Insurance to protect against loss of business and other related consequences resulting from these natural occurrences is subject to coverage limitations, depending on the nature of the risk insured. This insurance may not be sufficient to cover all of our damages or damages to others and this insurance may not continue to be available at commercially reasonable rates. Even with insurance, if any natural occurrence leads to a catastrophic interruption of service, we may not be able to mitigate a significant interruption in operations.

C2.2

(C2.2) Describe your process(es) for identifying, assessing and responding to climate-related risks and opportunities.

Value chain stage(s) covered

Direct operations

Risk management process

A specific climate-related risk management process

Frequency of assessment

More than once a year

Time horizon(s) covered

Short-term
Medium-term
Long-term

Description of process

a) Ryder's process for identifying and assessing climate-related risks includes evaluation, management, and on-going review of financial, regulatory, customer, employment, insurance, and environmental risks, among others at both a company level and an asset level:
i) Company level, we utilize insurance risk management modelling systems used by underwriters and an integrated Environmental Management System (EMS) to manage climate change risks; ensure compliance; promote business opportunity and growth; and create a competitive advantage with environmental programs consistent with Ryder's long-term business strategy.
ii) Asset level, we apply formal identification processes and assess climate change risks and opportunities of our assets: a) Facilities, we contract with third party risk consulting firms to perform onsite surveys of operating facilities to support compliance.
b) Vehicle fleet, we identify efficiencies through our participation in the EPA SmartWay® Program and Ryder's RydeSmart fleet tracking system. RydeSmart is an integrated telematics platform helps customers monitor key vehicle attributes such as location, speed and idle time and real-time performance metrics. In addition, Ryder pursues investments in low carbon technologies including electric and alternative fuel vehicles such as natural gas or electric trucks.

Value chain stage(s) covered

Upstream

Risk management process

Integrated into multi-disciplinary company-wide risk management process

Frequency of assessment

More than once a year

Time horizon(s) covered

Short-term
Medium-term
Long-term

Description of process

Ryder buys vehicles and related equipment from a relatively small number of original equipment manufacturers (OEMs) in our FMS business. Some of our vehicle manufacturers rely on a small concentration of suppliers for certain vehicle parts, components and equipment. Ryder maintains strong partnerships with our OEMS to ensure our fleet is optimum to keep our Customer businesses moving smoothly, using best in class advanced vehicle technologies and operating at lower costs. Through these partnerships Ryder is able to identify, assess and respond to supply chain disruptions that may impact truck availabilities. In addition, Ryder leverages third party consultants to help track pending regulations related to climate change that may require changes to truck technologies to meet emission standards.

Value chain stage(s) covered

Downstream

Risk management process

Integrated into multi-disciplinary company-wide risk management process

Frequency of assessment

More than once a year

Time horizon(s) covered

Short-term
Medium-term
Long-term

Description of process

In recent years, our industry has been characterized by rapid changes in customer demand for low carbon technologies as a result of emission reduction programs. Ryder is actively engaged in developing strategic partnerships with new technology providers, developing new products, and evaluating emerging technology. However we cannot be certain that such initiatives will be successful or timely, and our failure to implement any of these initiatives successfully or in a timely manner could have an adverse impact on our financial condition or results of our operations.

For example, new concepts are currently under development for more advanced low carbon or alternative fuel transportation options including electric vehicles, automatic or semi-automatic self-driving vehicles, connected vehicle platforms, and drones.

Additional innovations impacting the transportation, trucking and supply chain/logistics industries are likely that we cannot yet foresee.
Our inability to quickly adapt to and adopt new innovations in products and processes desired by our customers may result in a significant loss of demand for our service offerings. In addition, advances in low carbon technology may require us to increase investments in order to remain competitive, and our customers may not be willing to accept higher prices to cover the cost of these investments. Our lease and rental fleets could become unfavorable with our customers or obsolete within a relatively short period of time, and we may no longer be able to find buyers for our used vehicles. An increase in customer use of electric vehicles could reduce the demand for our vehicle maintenance services, diesel vehicles and related offerings. Likewise, self-driving vehicles may reduce the demand for our dedicated service offerings, where, in addition to a vehicle, Ryder provides a driver as part of an integrated, full service customer solution.

C2.2a

(C2.2a) Which risk types are considered in your organization's climate-related risk assessments?

	Relevance & inclusion	Please explain
Current regulation	Relevant, always included	We determine that current regulation risk is relevant to our organization because it has financial and strategic impacts to our business. For example, the climate change regulations adopted and proposed in California have had significant financial costs to our organization and our customers.
Emerging regulation	Relevant, always included	We determine that emerging regulation risk is relevant to our organization because it has financial and strategic impacts to our business. For example, fuel and vehicle efficiency regulations are relevant to our organization and our customers and new technologies.
Technology	Relevant, always included	We determine that technology risk is relevant to our organization because it has financial and strategic impacts to our business. For example, new vehicle and fuel technologies, such as alternative fuels are relevant to our organization and our customers.
Legal	Relevant, always included	We determine that legal risk is relevant to our organization because it has financial and strategic impacts to our business. For example, changes in the regulatory environment can result in increased fuel efficiency mandates, accelerated deployment of alternative fuel vehicles or carbon taxes all of which will directly impact our industry.
Market	Relevant, always included	We determine that market risk is relevant to our organization because it has financial and strategic impacts to our business. For example, market changes in fuel costs could influence our business and financials.

Reputation	Relevant, always included	We determine that reputation risk is relevant to our organization because it has financial and strategic impacts to our business. For example, increased shareholder and customer expectations regarding greenhouse gas reductions can directly impact Ryder's reputation and reduce customer demand for our transportation services.
Acute physical	Relevant, always included	We determine that acute physical risk is relevant to our organization because it has financial and strategic impacts to our business. For example, during natural disasters or other extenuating circumstances, we extend our transportation and supply chain environmental expertise, technology, and infrastructure to customers and organizations in need. On the other hand, Ryder could also experience supply chain disruptions, particularly due to the small pool of Original Equipment Manufacturers (OEM).
Chronic physical	Relevant, always included	We determine that chronic physical risk is relevant to our organization because it has financial and strategic impacts to our business. For example, extreme weather events can influence our operations and the operations of our customers.

C2.3

(C2.3) Have you identified any inherent climate-related risks with the potential to have a substantive financial or strategic impact on your business?

Yes

C2.3a

(C2.3a) Provide details of risks identified with the potential to have a substantive financial or strategic impact on your business.

Identifier

Risk 1

Where in the value chain does the risk driver occur?

Direct operations

Risk type & Primary climate-related risk driver

Emerging regulation

Mandates on and regulation of existing products and services

Primary potential financial impact

Increased direct costs

Company-specific description

i) We anticipate regulatory risks in the United States if both pending and proposed state-specific or increased federal regulations move forward. This includes state or federal

changes in all areas including engine or emission standards for vehicles, particularly related to vehicle efficiency. ii) In the case of changes in emissions or engine standards, we anticipate these changes could lead to increases in the cost of operating Ryder's fleet and an increase in operating costs for our Customers. We monitor, evaluate and help influence legislative and regulatory activities through our government relations program that includes active participation in diverse business, professional and trade groups.

Time horizon

Medium-term

Likelihood

More likely than not

Magnitude of impact

Medium-low

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

150,000

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

We continue to anticipate that the costs and complexities of compliance with the future climate change regulatory reporting responses and/or mandated carbon caps will increase Ryder's operating costs. Enacted legislation that directly or indirectly affects our equipment, cost of fuel, or operations could influence our business and financials. The climate change regulations adopted in California over the past 10 years have necessitated more than $500,000 in capital investments and increased Ryder's annual operating costs by more than $150,000.

Cost of response to risk

1,600,000

Description of response and explanation of cost calculation

Our costs associated with compliance and reporting will continue to increase, particularly if regulations mandate compliance thresholds, fuel or electricity or the cost associated with maintaining and servicing our vehicles due to new vehicle technologies and engines or emission control devices. Ryder retains professional environmental consulting and legal expertise to measure, track, assess, and report implement programs to mitigate the direct potential impact of regulations to Ryder and our customers, which cost more than $1.6 Million annually.

Ryder proactively addresses regulatory risks by implementing continual improvement management programs designed to improve efficiencies and by implementing energy conservation efforts before they are mandated by regulations. For example, we have implemented an energy tracking and reporting tool that allows us to measure energy use and GHGs associated with our operations. By continually working to improve energy efficiency, we are reducing emissions and exposure to fuel-related regulatory costs. Ryder is always striving to improve our customer's fleets, our relationships with the Original Engine Manufacturers (OEM) help support our goals of accelerated deployment of emerging technologies. This will help facilitate the validation of the technology and allow it to gain widespread industry acceptance. The relationships also ensure that integration is looked at through the lens of a fleet operator and not a truck manufacturer. Ryder has recognized the value of making investments in advanced fuel equipment, technologies, and processes to improve fuel economy for our Customers, enhance safety, and reduce operating costs as part of an overall strategy to improve transportation efficiencies. In addition to these risk management programs, we manage potential regulatory risks by collaborating with trade and business associations to shape pending climate change- legislation and regulations at the state, provincial, and federal level.

Comment

Identifier

Risk 2

Where in the value chain does the risk driver occur?

Direct operations

Risk type & Primary climate-related risk driver

Acute physical

Increased severity and frequency of extreme weather events such as cyclones and floods

Primary potential financial impact

Increased indirect (operating) costs

Company-specific description

i) We consider our company to be exposed to physical risks such as natural disasters (e.g. flooding, tropical cyclones and storms, etc.) or changing weather patterns that may be associated with climate change. There are no specific geographical areas that are more affected by these physical risks than others, although our operations in coastal and near coastal areas (particularly in the Gulf or East Coast regions of U.S.) may be at higher risk for hurricanes and tropical cyclones.

ii) Our company is exposed to physical risks such as tropical cyclones in a number of ways: a) increased costs and business disruption because our facilities or equipment (vehicle fleet) could be damaged during a disaster, b) we may need to increase

resources and modify operations in order to support our customers in the event of a disaster, or c) our larger supply chains may be disrupted as a result of natural disasters that will temporarily interfere with our ability to maintain operations.

Time horizon

Medium-term

Likelihood

About as likely as not

Magnitude of impact

Medium

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

0.02

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

If these events should occur, they would present a direct risk and financial impact to our operations of 2% of operational costs. The financial implications would include damage to our facilities, vehicles, or other equipment that would increase our operational cost. For example, in 2012, Ryder incurred a charge of $8 million for property damage to vehicles owned by full service lease customers due to superstorm Sandy. Additionally, company-owned units with a carrying value of $15.7 million were damaged or completely destroyed as a direct result of the storm. Likewise, our customer's business may be financially impacted as well and we will be required to execute emergency contingency plans to ensure our customers will be able to operate. Risks could be greater than 2% of the expected business for any site for each week of downtime.

Cost of response to risk

0

Description of response and explanation of cost calculation

There are zero ($0) added costs associated with methods used to prepare and implement plans for potential physical climatic risks because responding to natural disaster risks is fundamental to the services Ryder already provides to its customers.

Ryder has multiple protocols in place, ready to execute when natural disasters strike. We actively manage risks with an extensive network of facilities, contingency plans and comprehensive emergency management plans. We update plans annually, perform third party risk assessments of our facilities, and have dedicated property risk control

specialists inspect and recommend improvements. Compliance to the engineering controls and recommendations is strongly monitored and locations receive financial incentives to comply with necessary improvements. The Ryder Risk Management team has also developed an Asset Protection Manual for Ryder operating facilities. The manual provides guidance on how to maintain optimum, safe working conditions year round and to prepare the facility for the annual Engineering Surveys. We have a comprehensive fuel supply network through Ryder's Energy Distribution Company (REDCO), which responds quickly to man-made or natural disruptions in fuel supply. For example, Ryder helps customers get ready for hurricanes and other approaching storms by implementing contingency plans in storm areas that include fuel management. Critical freight loads are moved early and inventory loads repositioned in advance to avoid potential storm impacts.

Comment

Identifier

Risk 3

Where in the value chain does the risk driver occur?

Downstream

Risk type & Primary climate-related risk driver

Reputation

Shifts in consumer preferences

Primary potential financial impact

Decreased revenues due to reduced demand for products and services

Company-specific description

i) A potential risk is the need to expand existing business services to support customer-driven initiatives related to the measurement, reduction, and reporting of their own emission outputs. ii) As our customers increasingly consider and quantify the direct and indirect impacts associated with their carbon emissions, as a transportation service provider, our company is required to respond with emission outputs related to the services we provide and to assist customers to also measure the emissions associated with the movement of inbound raw materials and outbound products within their supply chain network. Our company’s response has taken varied forms including responding to supplier questionnaires or assisting Customers in specifying the most fuel efficient vehicles or options to reduce fuel usage by using alternative powered vehicles.

Time horizon

Medium-term

Likelihood

Likely

Magnitude of impact

Medium-low

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

0.15

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

The financial implications of these identified risks are impossible to quantify long-term as much depends on other risk areas previously discussed (i.e., regulatory risks). However, the impact of risks that are not planned for will certainly be significantly greater than those that are anticipated. For example, low carbon fuel standard regulations in CA that mandate use of new fuels could increase fuel costs 5-15% and new federal fuel efficiency standards for heavy duty trucks in the future are expected to increase vehicle costs.

Cost of response to risk

0

Description of response and explanation of cost calculation

Costs associated with risk management efforts have been minimal ($0) as efforts have not required additional resources or significant investments. By leveraging existing management and reporting tools, Ryder is able to provide customers visibility into the "carbon footprint" associated with their transportation activities. In the future, there may be increased costs associated with supporting customer-driven initiatives, depending on the complexity of regulatory requirements that are adopted.

We manage the inherent risks through multiple approaches including education, reduced emissions equipment purchases, and by tracking and reducing emissions for our clients. Our investment in diverse types of fuel-efficient equipment plays an important role in helping customers reduce emissions. To advance alternative fuels, Ryder educates its customers with email, electronic and social media communications. Ryder works with many customers to quantify transportation carbon emissions and to develop carbon reduction strategies that work for their business. For example, Ryder helped a customer to reduce their carbon footprint by 7% through implementation of a lean supply chain design. Complexity of new technologies and how they interact with each other will create many challenges from uptime to reliability to cost. With our combination of know-how, relationships, and experience, Ryder enables private fleet operators and companies to outsource these challenges to us in order to drive fleet efficiency and compliance. Ryder has experience in deploying these technologies in different types of duty cycles, as well as understanding the operating cost and residual

value impacts this has. This is bundled together in the Ryder ChoiceLease product giving operators the best of that industry knowledge, maintenance capabilities, and asset disposition to help them get the best value and recognize the efficiencies.

Comment

Identifier

Risk 4

Where in the value chain does the risk driver occur?

Upstream

Risk type & Primary climate-related risk driver

Acute physical

Increased severity and frequency of extreme weather events such as cyclones and floods

Primary potential financial impact

Decreased revenues due to reduced production capacity

Company-specific description

Increasing weather-driven disruptions associated with climate change, may impact a particular OEM's or supplier's industry or location. These events may result in adverse regional economic conditions impacting an OEM or supplier's ability to provide vehicles or a particular component. All of these could adversely impact our FMS business and profitability. Our suppliers may also be affected by changes in the political and regulatory environment, particularly with regards to climate change related legislation, both in the U.S. and internationally. Negative impacts on our suppliers could result in disruptions in the supply and availability of equipment or services needed for our business that could in turn affect our ability to operate and serve our customers as planned.

Time horizon

Medium-term

Likelihood

Likely

Magnitude of impact

Medium-low

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

Cost of response to risk

Description of response and explanation of cost calculation

Insurance to protect against loss of business and other related consequences resulting from these natural occurrences is subject to coverage limitations, depending on the nature of the risk insured. This insurance may not be sufficient to cover all of our damages or damages to others and this insurance may not continue to be available at commercially reasonable rates. Even with insurance, if any natural occurrence leads to a catastrophic interruption of service, we may not be able to mitigate a significant interruption in operations without financial impact, but this risk is not classified as a material risk.

Comment

C2.4

(C2.4) Have you identified any climate-related opportunities with the potential to have a substantive financial or strategic impact on your business?

Yes

C2.4a

(C2.4a) Provide details of opportunities identified with the potential to have a substantive financial or strategic impact on your business.

Identifier

Opp1

Where in the value chain does the opportunity occur?

Direct operations

Opportunity type

Products and services

Primary climate-related opportunity driver

Development and/or expansion of low emission goods and services

Primary potential financial impact

Increased revenues resulting from increased demand for products and services

Company-specific description

i. Increasing complexity of vehicle technologies, continually changing maintenance requirements, and new United States federal and state regulatory, fuel, and emissions standards will drive more companies to outsource their transportation needs to a third party like Ryder that has the technical knowledge and expertise to handle these areas.
ii. Ryder helps customers manage and reduce their own risks and costs by providing guidance and direction to our customers on regulatory rules and regulations that may impact their business. For example, a small to medium size fleet client may not have dedicated environmental and regulatory personnel, and it will be advantageous to this client to have our compliance specialists stay abreast of frequent regulatory changes rather than attempting to monitor these changes themselves.

Time horizon

Medium-term

Likelihood

Likely

Magnitude of impact

Medium-low

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

0.24

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

The increased complexity associated with responding to new regulations may create new opportunities in outsourced transportation management and network optimization services. New fuel economy and fuel efficiency standards could impact vehicle performance, fuel costs, and overall operating costs of our vehicles. For example, new vehicle emissions standards will increase equipment costs and estimated fuel consumption of tractor-trailers could drop as much 24%. This decrease could in turn increase Ryder revenues associated with leasing this new fuel efficient equipment.

Cost to realize opportunity

100,000,000

Strategy to realize opportunity and explanation of cost calculation

i) Ryder has operated successfully in a highly regulated environment for years. We expect to see more GHG emissions regulations and are well positioned to service our customers with expertise and support. Starting in 2009, we assembled an Alternative Fuels and Vehicles Strategy Team to review alternative fuel platforms and to identify new market opportunities. In 2010, Ryder expanded these efforts with an Alternative Fuel Natural Gas Council. In 2015, Ryder announced one of the largest investments in its advanced energy portfolio: the launch of a new online NGV maintenance training program for its entire North American maintenance network. The program provides the technician workforce with knowledge of NGV platforms and configurations to better serve customers who commit to converting all or part of their fleets. And in 2019, Ryder committed to investing in electric vehicle technology vehicles and infrastructure at its FMS locations.

ii) To date, Ryder NG vehicles travelled over 280 million miles, and replaced over 42 million gallons of diesel fuel with lower emission natural gas. Ryder partnered with Anheuser-Busch to replace 66 of the beer company's diesel tractors with compressed natural gas (CNG) powered engines. With one of the largest fleets in the US, Ryder plays a leadership role in the natural gas market. Additionally, Ryder added certified clean idle vehicles to its fleet meeting the EPA 2010 emissions standard. Ryder invests in purchasing strategies including evaluation of the environmental and performance standards of suppliers.

We will continue to invest in state-of-the-art vehicles, fleet management and diagnostic technologies that expand these capabilities and maximize vehicle performance, cargo routing, fuel usage, and driving skills. For example, Ryder has invested $100 million to offer customers natural gas vehicles; has 61 NGV compliant maintenance facilities and more than 6,200 NGV trained technicians and support employees across the US and Canada.

Comment

Identifier

Opp2

Where in the value chain does the opportunity occur?

Direct operations

Opportunity type

Products and services

Primary climate-related opportunity driver

Development of new products or services through R&D and innovation

Primary potential financial impact

Increased revenues through access to new and emerging markets

Company-specific description

i) Changing consumer behavior, particularly interest in full-service transportation solutions, has increased interest in environmentally-sound transportation solutions, presenting future business opportunities for Ryder.
ii) Ryder provides full-service transportation solutions, which helps customers outsource their transportation needs and lower their carbon emissions.

Time horizon

Medium-term

Likelihood

About as likely as not

Magnitude of impact

Medium

Are you able to provide a potential financial impact figure?

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

Ryder is continually developing new services for our outsourced transportation management and network optimization services customers. New technologies including the new application RyderGyde, offering Uber Solutions for Business, and Ryder COOP will add new revenue from these services. The potential financial impact will be indirect ($0).

Cost to realize opportunity

0

Strategy to realize opportunity and explanation of cost calculation

i) Ryder proactively invests developing new services for our outsourced transportation management and network optimization services customers. We help customers manage and reduce their own emissions and climate change risks through new technologies, market leadership, and research and development For example, Ryder developed the RyderGyde application for customers to allow them to manage their fleet or a single vehicle anywhere and anytime using a customized Ryder phone app. This helps our customers more efficiently identify Ryder locations, view fleet details and compare fuel rates.

Comment

The cost to realize the opportunity is $0 as it is built into Ryder's service offerings and represents an optimization of current services.

Identifier

Opp3

Where in the value chain does the opportunity occur?

Direct operations

Opportunity type

Markets

Primary climate-related opportunity driver

Use of public-sector incentives

Primary potential financial impact

Increased access to capital

Company-specific description

i) Changing consumer behavior, particularly related to business demand for energy efficient technologies, has increased interest in environmentally sound transportation solutions, presenting future business opportunities for Ryder.

ii) The growth of demand for alternative fueled trucks including both electric and the natural gas vehicle market is an example of one such opportunity. Ryder has obtained federal and state grants for both electric and natural gas equipment, and has used that funding to offset incremental costs associated with NG vehicle technologies for our Customers.

Time horizon

Medium-term

Likelihood

Virtually certain

Magnitude of impact

Medium-low

Are you able to provide a potential financial impact figure?

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

Federal and state incentive projects provided Ryder with a tremendous opportunity to expand our alternative fueled fleet including electric and natural gas truck program, generating additional revenues from these new vehicles. Natural gas vehicles will be 15-19% more fuel efficient for our rental and commercial full service lease customers to operate than diesel-powered units.

Cost to realize opportunity

95,000,000

Strategy to realize opportunity and explanation of cost calculation

i) Ryder has over 600 active heavy-duty alternative fuel powered trucks for use across the US and Canada and has transitioned more than 70 Customers into NG equipment. In MI, one of the state's largest recycling companies is leasing natural gas powered trucks from Ryder. Ultra-low LNG / CNG emission trucks were deployed into Ryder's US based leasing and rental operations network. To support these trucks, Ryder has partnered with its fuel suppliers to provide new natural gas refueling stations and works closely with its customers to identify and utilize existing natural gas refueling infrastructure. As part of Ryder's core product offering, the Company maintains these vehicles at their FMS maintenance facilities. Each maintenance facility is properly equipped for the repair of natural gas vehicles. ii) Today, Ryder's natural gas fleet has replaced more than 42 million gallons of diesel fuel with domestically produced low-carbon LNG / CNG. Based on estimates using CA's Carl Moyer program guidelines, the use of these natural gas vehicles has also reduced emissions by more than 83,000 MT CO2e. Ryder has assisted more than 70 Customers converting to NG vehicles including Anheuser Busch, Blu LNG, CEVA, Dean Foods, Golden Eagle Distributing, Northeast Foods and more. Ryder has developed a "Go To Market" outreach strategy that targets key national accounts and customers and has delivered joint training with OEMs to national and local Ryder sales teams.

Comment

Ryder invested more than $95 million in Maintenance infrastructure associated with NG vehicles combined.

C3. Business Strategy

C3.1

(C3.1) Have climate-related risks and opportunities influenced your organization's strategy and/or financial planning?

Yes

C3.1a

(C3.1a) Does your organization use climate-related scenario analysis to inform its strategy?

No, but we anticipate using qualitative and/or quantitative analysis in the next two years

C3.1c

(C3.1c) Why does your organization not use climate-related scenario analysis to inform its strategy?

i. Ryder is not using a single analysis specifically targeted at climate-related scenarios, because we implement a wide-ranging risk assessment program that considers financial, market, weather and sustainability and other risks that are fully integrated in the business strategy review.

ii. Ryder is not planning to add a stand-alone climate related scenario analysis in the near future since our company is already applying a multi-prong strategy approach. However, Ryder is continuously reviewing opportunities to improve current risk programs.

C3.1d

(C3.1d) Describe where and how climate-related risks and opportunities have influenced your strategy.

	Have climate-related risks and opportunities influenced your strategy in this area?	Description of influence
Products and services	Yes	a) Ryder has assisted more than 70 Customers converting to NG vehicles including Anheuser Busch, Blu LNG, CEVA, Dean Foods, Golden Eagle Distributing, Northeast Foods and more. b) Ryder's low carbon products and services, such as efficient vehicles and alternative fuel vehicles, have had a medium-high influence on business.
Supply chain and/or value chain	Yes	a) We have a comprehensive fuel supply network through Ryder's Energy Distribution Company (REDCO), which responds quickly to man-made or natural disruptions in fuel supply. For example, Ryder helps customers get ready for hurricanes and other approaching storms by implementing contingency plans in storm areas that include fuel management. Critical freight loads are moved early and inventory loads repositioned in advance to avoid potential storm impacts. b) Ryder’s logistics and transportation support services have had a medium-high influence on the business such as support to federal and state governments, as well as to non-profit disaster relief agencies during times of disaster.
Investment in R&D	Yes	a) Ryder invests in state-of-the-art vehicles, fleet management and diagnostic technologies that expand transportation capabilities and maximize vehicle

		performance, cargo routing, fuel usage, and driving skills. b) Ryder's investment in R&D for new low carbon vehicles and technologies has had a medium-high influence on the business.
Operations	Yes	a) Our operations have reduced operating costs by investing in energy efficiency projects. b) Ryder's operational risks and opportunities have had a medium influence on the business.

C3.1e

(C3.1e) Describe where and how climate-related risks and opportunities have influenced your financial planning.

	Financial planning elements that have been influenced	Description of influence
Row 1		

C3.1f

(C3.1f) Provide any additional information on how climate-related risks and opportunities have influenced your strategy and financial planning (optional).

C4. Targets and performance

C4.1

(C4.1) Did you have an emissions target that was active in the reporting year?

Both absolute and intensity targets

C4.1a

(C4.1a) Provide details of your absolute emissions target(s) and progress made against those targets.

Target reference number

Abs 1

Year target was set

2012

Target coverage

Business division

Scope(s) (or Scope 3 category)

Scope 1+2 (location-based)

Base year

2009

Covered emissions in base year (metric tons CO2e)

84,028.13

Covered emissions in base year as % of total base year emissions in selected Scope(s) (or Scope 3 category)

15

Target year

2020

Targeted reduction from base year (%)

20

Covered emissions in target year (metric tons CO2e) [auto-calculated]

67,222.504

Covered emissions in reporting year (metric tons CO2e)

66,790.89

% of target achieved [auto-calculated]

102.5682708874

Target status in reporting year

Achieved

Is this a science-based target?

No, and we do not anticipate setting one in the next 2 years

Please explain (including target coverage)

Ryder's absolute target aims to reduce stationary emissions against a 2009 baseline and the goal was to achieve an emissions reduction of 20% by 2020 for the FMS shops, focusing on electricity and natural gas consumption. The target was achieved ahead of time and we are working on setting new targets in 2020 for 2030. As a background, FMS shops represent 71% of the Ryder portfolio facility count. FMS 2009 Scope 1 and 2 emissions represent 15% of the total 2009 Scope 1 and 2 emissions. In 2012, Ryder launched a pilot energy challenge for high energy use locations. Then in 2013, the Resource Conservation Program (RCP) was initiated to target FMS, SCS and Admin locations across the US and Canada. Currently, we are expanding internal processes to facilitate emission reduction projects on a larger strategic scale for all owned sites being upgraded or newly constructed. A primary goal is to identify best practices for electricity and natural gas reductions. The RCP framework includes three program keystones that will help managers reduce energy, water, sewer, and waste costs. The first keystone is designed to implement resource saving programs; the second keystone will make resource use more efficient in operations and processes while the third keystone will prepare for future business needs. The program encourages behavioral

changes through employee engagement and energy champions. No/Low cost changes are continually reviewed to encourage energy savings such as efficient shop lighting. Shop Managers are constantly encouraged to adopt routine repair and maintenance programs, and utility energy audits are regularly conducted. Employees are provided checklists and guidelines to stay current on energy saving measures including but not limited to: temperature control for HVAC and appliances, lighting management tips, and equipment maintenance. The tools are distributed at monthly meetings, dedicated energy conservation websites and targeted email roll-outs. Several campaigns have been designed to focus on seasonal energy management improvements. Dashboards are provided to locations with current energy use. In 2017, Ryder began a zero-based budgeting process to increase resource conservation which includes energy saving and conservation initiatives.

C4.1b

(C4.1b) Provide details of your emissions intensity target(s) and progress made against those target(s).

Target reference number

Int 1

Year target was set

2012

Target coverage

Business division

Scope(s) (or Scope 3 category)

Scope 1+2 (location-based)

Intensity metric

Metric tons CO2e per unit of service provided

Base year

2009

Intensity figure in base year (metric tons CO2e per unit of activity)

0.94

% of total base year emissions in selected Scope(s) (or Scope 3 category) covered by this intensity figure

15

Target year

2020

Targeted reduction from base year (%)

20

Intensity figure in target year (metric tons CO2e per unit of activity) [auto-calculated]

0.752

% change anticipated in absolute Scope 1+2 emissions

14

% change anticipated in absolute Scope 3 emissions

0

Intensity figure in reporting year (metric tons CO2e per unit of activity)

0.417

% of target achieved [auto-calculated]

278.1914893617

Target status in reporting year

Achieved

Is this a science-based target?

No, and we do not anticipate setting one in the next 2 years

Please explain (including target coverage)

Ryder's intensity target is to reduce emissions 20% by 2020 per unit of service provided (owned trucks). This target is measured by calculating FMS business Scope 1 (stationary) and Scope 2 emissions – representing operations - divided by our total number of owned vehicles, described as our "unit of service provided." This target does not include our mobile scope 1 or scope 3 emissions. Ryder is currently investigating science-based target methods for future greenhouse gas reduction goals.
Ryder completed 10 years of the total time to target completion and exceeded the target (0.75 MTCO2e/unit) with a current emission intensity of 0.417 MTCO2e/unit compared to the 2009 baseline (0.94 MTCO2e/unit).
Intensity target reductions will be obtained even if absolute emissions are increased due to our business growth in fleet services provided, which is approximately 3.1% annually. Our absolute emissions include operation scope 1 stationary and scope 2 emissions, which – at 66,790.89 MTCO2e - already exceeded our target of 67,222.51 MTCO2e in 2020. Our original 20% intensity reduction target results in an absolute emission decrease of 16,806 MTCO2e (or 3% reduction) and an intensity emission decrease of 0.19 MTCO2e per unit of service provided.

C4.2

(C4.2) Did you have any other climate-related targets that were active in the reporting year?

Target(s) to increase low-carbon energy consumption or production
Other climate-related target(s)

C4.2a

(C4.2a) Provide details of your target(s) to increase low-carbon energy consumption or production.

Target reference number
Low 1

Year target was set
2019

Target coverage
Business division

Target type: absolute or intensity
Absolute

Target type: energy carrier
Electricity

Target type: activity
Consumption

Target type: energy source
Low-carbon energy source(s)

Metric (target numerator if reporting an intensity target)
MWh

Target denominator (intensity targets only)

Base year
2019

Figure or percentage in base year
19,527.04

Target year
2020

Figure or percentage in target year
16,207.44

Figure or percentage in reporting year
17,407.6

% of target achieved [auto-calculated]
63.8462465357

Target status in reporting year

Underway

Is this target part of an emissions target?

Over the past 2 years, Ryder began implementing an expanded and far-reaching corporate framework to reduce energy consumption and utility spend for FMS operations. The framework targets several areas including electricity and natural gas saving initiatives (e.g. LED upgrades, HVAC replacements). The LED upgrade program targeted all owned locations and identified 130 shops, aiming for an electricity reduction of at least 17% per shop. In 2019, 83 of the 130 shop upgrades were completed and the remainder of shops were upgraded in 2020. The program concluded in the first half of 2020. Phase II of the LED upgrade program will include exterior lighting, parking lots and office areas as well as selected lease locations with cooperating landlords.

Is this target part of an overarching initiative?

Other, please specify

Please explain (including target coverage)

Over the past 2 years, Ryder began implementing an expanded and far-reaching corporate framework to reduce energy consumption and utility spend for FMS operations. The framework targets several areas including electricity and natural gas saving initiatives (e.g. LED upgrades, HVAC replacements). The LED upgrade program targeted all owned locations and identified 130 shops, aiming for an electricity reduction of at least 17% per shop. In 2019, 83 of the 130 shop upgrades were completed and the remainder of shops were upgraded in 2020. The program concluded in the first half of 2020. Phase II of the LED upgrade program will include exterior lighting, parking lots and office areas as well as selected lease locations with cooperating landlords.

C4.2b

(C4.2b) Provide details of any other climate-related targets, including methane reduction targets.

Target reference number

Oth 1

Year target was set

2019

Target coverage

Company-wide

Target type: absolute or intensity

Absolute

Target type: category & Metric (target numerator if reporting an intensity target)

Engagement with suppliers

Percentage of suppliers disclosing their GHG emissions

Target denominator (intensity targets only)

Base year

2019

Figure or percentage in base year

8

Target year

2022

Figure or percentage in target year

20

Figure or percentage in reporting year

8

% of target achieved [auto-calculated]

0

Target status in reporting year

New

Is this target part of an emissions target?

In 2019, Ryder started a company-wide supplier initiative to review current supplier code of conducts, sustainability programs and opportunities to reduce emissions. Ryder has been working with a number of suppliers in the past and will now review select strategic suppliers to drive toward increased reporting and scoping of beneficial emission reduction opportunities. As part of this initiative, Ryder will develop supplier specific greenhouse gas reduction strategies and targets.

Is this target part of an overarching initiative?

Other, please specify

Please explain (including target coverage)

Since 2009, Ryder has included sustainability questions in its RFP and Sourcing information to help in the qualifying and selection process for key suppliers. For environmental service and product providers, responses were weighted and included in the selection criteria. For other suppliers, responses were considered but were not always determinative. In 2019, Ryder started a broad-based company-wide supplier initiative to review current supplier code of conducts, sustainability programs and begin discussion on opportunities to reduce emissions. Ryder Environmental Services and Procurement teams have been working with a number of suppliers in those efforts to advance emission reduction benefits. Going forward, Ryder will now review select strategic suppliers to drive toward increased reporting and scoping of beneficial

emission reduction opportunities. As part of this initiative, Ryder will develop supplier specific greenhouse gas reduction performance targets and standard reporting.

C4.3

(C4.3) Did you have emissions reduction initiatives that were active within the reporting year? Note that this can include those in the planning and/or implementation phases.

Yes

C4.3a

(C4.3a) Identify the total number of initiatives at each stage of development, and for those in the implementation stages, the estimated CO2e savings.

	Number of initiatives	Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked *)
Under investigation		
To be implemented*	1	357
Implementation commenced*	1	66,132
Implemented*	5	257,213
Not to be implemented		

C4.3b

(C4.3b) Provide details on the initiatives implemented in the reporting year in the table below.

Initiative category & Initiative type

Energy efficiency in buildings

Lighting

Estimated annual CO2e savings (metric tonnes CO2e)

6,262.76

Scope(s)

Scope 2 (location-based)

Scope 2 (market-based)

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

1,171,224

Investment required (unit currency – as specified in C0.4)

9,378,312

Payback period

4-10 years

Estimated lifetime of the initiative

3-5 years

Comment

As of Dec 2019, Ryder has completed, or has in process, in excess of 437 projects to convert facilities from energy-intensive metal halides fixtures to efficient LED technology. In researching the optimal lighting specification, Ryder determined that the energy efficiency of the metal halide declines by 30% after the 1st year of operation and continues to decline over the life of the lamp. This loss in energy efficiency results in reduced lumens and lower light levels. LED lights last 5 times as long as fluorescent lights and use at least 75% less energy than incandescent lighting and have an approximately 40% longer lifetime than fluorescent lights. LED lamps do not contain mercury, which is an added benefit in environmental impacts. Therefore, Ryder's customers, shareholders, and employees all benefit from initiatives that produce significant reductions in energy consumption and therein reduced scope 2 GHG emissions.

Initiative category & Initiative type

Company policy or behavioral change
Resource efficiency

Estimated annual CO2e savings (metric tonnes CO2e)

8,695.66

Scope(s)

Scope 1
Scope 2 (location-based)
Scope 2 (market-based)

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

45,654

Investment required (unit currency – as specified in C0.4)

9,200

Payback period

1-3 years

Estimated lifetime of the initiative

6-10 years

Comment

In 2012/2013, Ryder started the Energy Challenge to reduce electricity usage and greenhouse gas emissions through employee created energy reduction projects. The program targets scope 2 emissions as part of a voluntary effort. In 2014, the program was expanded to all of Ryder facilities.

Initiative category & Initiative type

Transportation

Other, please specify

Company and customer fleet efficiency

Estimated annual CO2e savings (metric tonnes CO2e)

12,616

Scope(s)

Scope 1

Scope 3

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

22,079,230

Investment required (unit currency – as specified in C0.4)

88,316,919

Payback period

4-10 years

Estimated lifetime of the initiative

11-15 years

Comment

Ryder reduces emissions significantly through the RydeSmart program, a software-as-a-service (SAAS) product, making it even easier for customers to access and monitor their fleets anytime, anywhere. This program is designed to deliver delivers up to a 10-15% reduction in fuel consumption through improved routing, driving habits and reduction of unauthorized use and idle time, which directly leads to avoided scope 1 emissions for our customers. The program has been in existence since 2008, delivering reductions since its inception. RydeSmart is a full-featured GPS fleet location, tracking, and vehicle performance management system lowers operating expenses and provides better customer service allows customers to know where their fleet is at all times. Vehicles can be easily monitored from a central location, anytime, anywhere. RydeSmart provides customers with the ability to pinpoint their vehicle location, get accurate mileage or performance data or find out which truck is closest to their location. Ryder

reduces approximately 12,616 MTCO2e of scope 1 emissions for our customers annually through the RydeSmart telematics program.

Initiative category & Initiative type

Transportation

Company fleet vehicle efficiency

Estimated annual CO2e savings (metric tonnes CO2e)

145,076.97

Scope(s)

Scope 1

Scope 3

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

9,692,821

Investment required (unit currency – as specified in C0.4)

16,551,553

Payback period

<1 year

Estimated lifetime of the initiative

3-5 years

Comment

Ryder is the first national maintenance service provider to convert its entire bulk oil program to low viscosity, high efficiency 10W-30 grade engine oil. Using the more efficient oil, enables customers to achieve up to a 1.5 percent improvement in fuel economy translating into a collective reduction of 145,052 metric tonnes (MT) CO2e annually for both Ryder's scope 1 and scope 3 emissions .

Initiative category & Initiative type

Transportation

Company fleet vehicle efficiency

Estimated annual CO2e savings (metric tonnes CO2e)

84,586.41

Scope(s)

Scope 1

Scope 3

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

2,870,744

Investment required (unit currency – as specified in C0.4)

95,000,000

Payback period

16-20 years

Estimated lifetime of the initiative

11-15 years

Comment

Value-added differentiation of the full service leasing, maintenance and commercial rental services, as well as continued commitment to offer innovative products and solutions, such as natural gas vehicles, electric and potentially other alternative fueled vehicles, has been and will continue to be Ryder's emphasis. To date, Ryder has a combined distance of over 280 million miles of natural gas vehicle experience where the Company has replaced more than 42 million gallons of diesel fuel with lower emission domestically produced natural gas. In markets where Ryder has natural gas vehicles running in customer operations, the company has engineered its maintenance facilities to be compliant for the indoor services of natural gas vehicles.

C4.3c

(C4.3c) What methods do you use to drive investment in emissions reduction activities?

Method	Comment
Dedicated budget for energy efficiency	Ryder's on-going commitment to assist companies, across multiple industries reduce fuel costs, lower carbon output, and meet their environmental objectives, is achieved through tracking emerging fleet technologies, incentive programs and government rebates to deliver competitive rates for customers interested in alternative fuel vehicles. As an example, Ryder facility lighting upgrade projects are incentivized by providing corporate project management support to supervise the projects, retain the contractors, and secure government/utility incentives to reduce the costs. The corporate environmental corporate team solicits utility rebates to offset costs and provides technical, project management support to complete upgrades. Over 437 energy efficient lighting projects have been completed yielding an average facility savings of 35,857 kWh. Facility lighting upgrades result in safer and more efficient work spaces. Cost savings and incentives to operating facilities are sustained with oversight of project budget estimates and management by the corporate environmental team.

C4.5

(C4.5) Do you classify any of your existing goods and/or services as low-carbon products or do they enable a third party to avoid GHG emissions?

Yes

C4.5a

(C4.5a) Provide details of your products and/or services that you classify as low-carbon products or that enable a third party to avoid GHG emissions.

Level of aggregation

Company-wide

Description of product/Group of products

Ryder reduces approximately 12,616 MTCO2e of scope 1 emissions for our customers annually through the RydeSmart telematics program. Emissions reductions are calculated based on the following methodology and assumptions: Ryder Full Service Lease units that are equipped with RydeSmart achieved a 10% reduction in vehicle speeding and hard braking, and a 10% reduction in reduced idling, resulting in 0.1 gallons/mile fuel savings improvement. RydeSmart applications track multiple key driver behaviors which is used to coach drivers to achieve better fuel economy. The applications track the following behaviors: 1) idling - % of time the unit idled, 2) hard braking events, 3) # of times brake was used, 4) % of time spent in top gear, 5) number of shifts and average road speed and percentage of time over a certain speed. It is often reported that driver behavior accounts for as much as 35% of fuel economy and for a conservative estimate it is assumed that RydeSmart applications achieve 10% improvement in fuel economy. The emission reduction estimates are based on fuel savings from RydeSmart vehicles, calculated based on total annual miles travelled, average miles per gallon of fuel use, and applying the 0.1 gallons/mile fuel savings. Ryder has established the SmartWay Tool as the technical basis and source for all mobile diesel emission factors. Scope 1 and Scope 3 mobile emissions are based on a factor of 22.2 lbs of CO2 per gallon of diesel fuel, as documented in the US EPA Office of Transportation and Air Quality EPA 420-F-05-001 dated February 2005, and which is the basis for all SmartWay CO2 emission calculations. Ryder is computing CO2 emission reductions only. CO2 has a GWP of 1.

Are these low-carbon product(s) or do they enable avoided emissions?

Avoided emissions

Taxonomy, project or methodology used to classify product(s) as low-carbon or to calculate avoided emissions

Other, please specify

EPA SmartWay Tool

% revenue from low carbon product(s) in the reporting year

0.1

Comment

Ryder reduces approximately 12,616 MTCO2e of scope 1 emissions for our customers annually through the RydeSmart telematics program. Emissions reductions are calculated based on the following methodology and assumptions: Ryder Full Service Lease units that are equipped with RydeSmart achieved a 10% reduction in vehicle speeding and hard braking, and a 10% reduction in reduced idling, resulting in 0.1 gallons/mile fuel savings improvement. The emission reduction estimates are based on fuel savings from RydeSmart vehicles, calculated based on total annual miles travelled, average miles per gallon of fuel use, and applying the 0.1 gallons/mile fuel savings. Ryder has established the SmartWay Tool as the technical basis and source for all mobile emission factors. Scope 1 and Scope 3 mobile emissions are based on a factor of 22.2 lbs of CO2 per gallon of diesel fuel, as documented in the US EPA Office of Transportation and Air Quality EPA 420-F-05-001 dated February 2005, and which is the basis for all SmartWay CO2 emission calculations. Ryder is computing CO2 emission reductions only. CO2 has a GWP of 1.

Level of aggregation

Group of products

Description of product/Group of products

Alternative Fuel Fleet: Ryder has built an extensive natural gas vehicle network that allows customer to lease alternative fuel vehicles and use Ryder natural gas fueling stations and repair facilities. Natural gas vehicles are built from the ground up to deliver better emissions performance than conventional diesel vehicles. A natural gas fleet can help cut fuel costs, reduce carbon footprint and tap into more predictable fuel pricing. In addition to lowering fuel costs, natural gas vehicles can reduce well-to-wheel CO2 emissions by as much as 25% and are powered by a more secure source of domestic energy.

Are these low-carbon product(s) or do they enable avoided emissions?

Avoided emissions

Taxonomy, project or methodology used to classify product(s) as low-carbon or to calculate avoided emissions

Other, please specify

Argonne national Laboratory GREET Model

% revenue from low carbon product(s) in the reporting year

0.01

Comment

As of 2019, Ryder has confirmed over 280 million miles using natural gas vehicles. Miles travelled with natural gas are compared relative to the emissions created if these same miles were run on diesel fuel. The calculation is based on Argonne National Lab

Data assuming 0.061 g/BTU for CNG versus 0.08 g/BTU for diesel. The differential results in emission reductions of 20% less emissions between 2014 and 2019. Savings were calculated by comparing costs of diesel versus CNG energy equivalent basis using the U.S. Department of Energy Clean Cities Alternative Fuel Price Report (2019). Revenue was 0.0001%, which did not fit in the field above.

Level of aggregation

Group of products

Description of product/Group of products

Supply Chain Solutions (SCS): Through Ryder SCS services, customers can more precisely align inbound and outbound shipments, synchronize returns with optimized fleet use and arrange backhauls that offset transportation costs and minimize empty miles.

Are these low-carbon product(s) or do they enable avoided emissions?

Avoided emissions

Taxonomy, project or methodology used to classify product(s) as low-carbon or to calculate avoided emissions

Other, please specify

EPA SmartWay Tool

% revenue from low carbon product(s) in the reporting year

0.02

Comment

Ryder helped a customer to reduce their carbon footprint by 7% through implementation of a lean supply chain design that includes optimal transportation and fleet solutions, including the use of a dedicated fleet. Through multi-stop truckload routing, total miles driven were reduced by nearly 50%.

Level of aggregation

Group of products

Description of product/Group of products

Preventative Maintenance: Ryder offers customers quality preventive and ongoing maintenance to optimize vehicle and fleet performance. Better-maintained vehicles are more efficient and burn less fuel. Ryder has an extensive program that implements rigorous preventive maintenance schedules for even the most routine care by checking tire conditions and inflation rates every time vehicles stop to refuel.

Are these low-carbon product(s) or do they enable avoided emissions?

Avoided emissions

Taxonomy, project or methodology used to classify product(s) as low-carbon or to calculate avoided emissions

Other, please specify

Internal asset management database

% revenue from low carbon product(s) in the reporting year

0.07

Comment

Ryder's Total Tire Management program utilizes low rolling resistance fuel efficient original tires and retreads to meet our customer's requirements for energy savings vehicles. We outfit all of our trailers and most of our rental tractors with the same fuel efficient tires. Additionally, Ryder's vehicle preventative maintenance and 5-point inspection process ensures that Ryder vehicles are operated with optimum air tire inflation during operation. Operating on properly inflated fuel efficient tires can represent up to 4% in fuel savings compared to a similar vehicle operating on on-fuel efficient tires.

C5. Emissions methodology

C5.1

(C5.1) Provide your base year and base year emissions (Scopes 1 and 2).

Scope 1

Base year start

January 1, 2009

Base year end

December 31, 2009

Base year emissions (metric tons CO2e)

473,934

Comment

Scope 2 (location-based)

Base year start

January 1, 2009

Base year end

December 31, 2009

Base year emissions (metric tons CO2e)

96,177

Comment

Scope 2 (market-based)

Base year start

January 1, 2009

Base year end

December 31, 2009

Base year emissions (metric tons CO2e)

96,177

Comment

C5.2

(C5.2) Select the name of the standard, protocol, or methodology you have used to collect activity data and calculate emissions.

Defra Voluntary 2017 Reporting Guidelines
IPCC Guidelines for National Greenhouse Gas Inventories, 2006
The Climate Registry: General Reporting Protocol
The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)
US EPA Center for Corporate Climate Leadership: Direct Fugitive Emissions from Refrigeration, Air Conditioning, Fire Suppression, and Industrial Gases
US EPA Center for Corporate Climate Leadership: Indirect Emissions From Purchased Electricity
Other, please specify
US EPA Office of Transportation and Air Quality Emission Facts EPA420 -F-05-001

C5.2a

(C5.2a) Provide details of the standard, protocol, or methodology you have used to collect activity data and calculate emissions.

US EPA Office of Transportation and Air Quality Emission Facts EPA420 -F-05-001

C6. Emissions data

C6.1

(C6.1) What were your organization's gross global Scope 1 emissions in metric tons CO2e?

Reporting year

Gross global Scope 1 emissions (metric tons CO2e)

792,121.72

Comment

C6.2

(C6.2) Describe your organization's approach to reporting Scope 2 emissions.

Row 1

Scope 2, location-based

We are reporting a Scope 2, location-based figure

Scope 2, market-based

We are reporting a Scope 2, market-based figure

Comment

We continue our due diligence to obtain as much Market-Based information as possible from suppliers and from publicly available information.

C6.3

(C6.3) What were your organization's gross global Scope 2 emissions in metric tons CO2e?

Reporting year

Scope 2, location-based

99,935.45

Scope 2, market-based (if applicable)

101,365.07

Comment

C6.4

(C6.4) Are there any sources (e.g. facilities, specific GHGs, activities, geographies, etc.) of Scope 1 and Scope 2 emissions that are within your selected reporting boundary which are not included in your disclosure?

Yes

C6.4a

(C6.4a) Provide details of the sources of Scope 1 and Scope 2 emissions that are within your selected reporting boundary which are not included in your disclosure.

Source

Heating Oil

Relevance of Scope 1 emissions from this source

Emissions are not relevant

Relevance of location-based Scope 2 emissions from this source

No emissions from this source

Relevance of market-based Scope 2 emissions from this source (if applicable)

No emissions from this source

Explain why this source is excluded

Heating oil usage for 8 locations was not available at the time we submitted this report and they represent approximately 0.24% (2,155 MTCO2) of our total emissions (0.27% of scope 1).

Source

Lighting Flat Rate Meters

Relevance of Scope 1 emissions from this source

No emissions from this source

Relevance of location-based Scope 2 emissions from this source

Emissions are not relevant

Relevance of market-based Scope 2 emissions from this source (if applicable)

Emissions are not relevant

Explain why this source is excluded

There are approximately 147 facilities that have outdoor lighting meters where actual kWh usage is not provided. The emissions were estimated at 3,071 MTCO2. This represents 0.3% of the total Scope 1 and 2 inventory (3% of scope 2).

Source

Refrigerants

Relevance of Scope 1 emissions from this source

Emissions are not relevant

Relevance of location-based Scope 2 emissions from this source

No emissions from this source

Relevance of market-based Scope 2 emissions from this source (if applicable)

No emissions from this source

Explain why this source is excluded

Relevance was determined from estimating the size of refrigerants emissions as compared to a materiality threshold of 5%. Since refrigerant emissions make up 0.2% (1,825 MTCO2) of the scope 1 and 2 emissions (0.23% of scope 1), they are considered not material and therefore not relevant. Ryder also considers if emissions are relevant by determining if Ryder can drive reductions, the cost-benefit of gathering data, stakeholder expectations, and potential uses of the data.

Source

Refrigerants from HVAC usage in buildings

Relevance of Scope 1 emissions from this source

Emissions are not relevant

Relevance of location-based Scope 2 emissions from this source

No emissions from this source

Relevance of market-based Scope 2 emissions from this source (if applicable)

No emissions from this source

Explain why this source is excluded

HVAC emissions are excluded as they are not relevant to our emissions. Using TCR GRP's screening method and assuming a conservative 1,178 A/C units (1 per site) and using R-407C refrigerants results in emissions of 17,976 MTCO2e. This is 2% of scope 1 and 2 (2.3% of scope 1) emissions and does not cause the materiality threshold of 5% to become exceeded (including the other omissions).

Source

CH4/N2O Emissions

Relevance of Scope 1 emissions from this source

Emissions are not relevant

Relevance of location-based Scope 2 emissions from this source

Emissions are not relevant

Relevance of market-based Scope 2 emissions from this source (if applicable)

Emissions are not relevant

Explain why this source is excluded

CH4 and N2O emissions are not estimated as they are considered de minimis. They represent approximately 0.1% of scope 1 and 2 emissions (including the other omissions).

C6.5

(C6.5) Account for your organization's gross global Scope 3 emissions, disclosing and explaining any exclusions.

Purchased goods and services

Evaluation status

Relevant, calculated

Metric tonnes CO2e

256,168.817

Emissions calculation methodology

The WRI/WBCSD Scope 3 average-data method and supplier specific method were applied to calculate the category 1: purchased goods and services. This category includes GHG emissions associated with the extraction, production and transportation of fuel purchased by Ryder through REDCO. Fuel production and transportation emission factors from the Ecoinvent V3 database were generated in the SimaPro life cycle assessment software using the IPCC 2007 GWP 100a characterization method.

Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

Please explain

Ryder customers purchase fuel through REDCO resulting in GHG emissions from extraction, production and transportation to distributor. Nonfuel purchased goods (e.g., tires, motor oil) are not relevant and not included in emissions calculations.

Capital goods

Evaluation status

Relevant, calculated

Metric tonnes CO2e

28,909.47

Emissions calculation methodology

The WRI/WBCSD Scope 3 average-data method was applied to calculate the category 2: Capital Goods. This category includes GHG emissions associated with the production of trucks purchased by Ryder during the reporting year. The WRI/WBCSD Scope 3 average product method was applied estimating emissions from purchased trucks using industry average lifecycle emission factors published by Ecoinvent V3.2 Truck Lifecycle Dataset.

Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

Please explain

This includes upstream emissions from new trucks added to the Ryder fleet.

Fuel-and-energy-related activities (not included in Scope 1 or 2)

Evaluation status

Relevant, calculated

Metric tonnes CO2e

140,871.931

Emissions calculation methodology

The WRI/WBCSD Scope 3 average-data method and supplier-specific method were applied to calculate the category 3: fuel and energy related activities not included in scope 1 or scope 2 emissions. This category assesses GHG emissions associated with fuel distributed to the Ryder fleet using gallons of fuel retrieved through the internal database and used for scope 1 calculations. We used the average-data method to calculate the upstream emissions of Ryder fuels used in their operations including extraction, production, and transportation to storage. We used the supplier-specific method to calculate the upstream distribution of Ryder fuels used in their operations from the bulk supplier to Ryder. Fuel production and transportation emission factors from the Ecoinvent V3 database were generated in the SimaPro life cycle assessment software using the IPCC 2007 GWP 100a characterization method.

Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

Please explain

Ryder's owned fleet consumes fuel in their U.S. and Canadian Operations. This accounts for GHG emissions from extraction, production and transport to distributor and to Ryder locations for the RIL fleet.

Upstream transportation and distribution

Evaluation status

Relevant, calculated

Metric tonnes CO2e

1,915.121

Emissions calculation methodology

The WRI/WBCSD Scope 3 distance-based method was applied to calculate the category 4: upstream transportation and distribution emissions from fuel Ryder sold to customers. This category assesses GHG emissions associated with fuel usage by customer fleet that is distributed through Ryder REDCO. Excluded are emissions for fuel used in the Ryder owned fleet (this is included in category 3). Transportation emission factors from the Ecoinvent V3 database were generated in the SimaPro life cycle

assessment software using the IPCC 2007 GWP 100a.

Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

Please explain

This is the transportation of customer sold fuels provided through REDCO in the U.S. and Canada. It includes GHG emissions from the transportation from distributor to Ryder locations.

Waste generated in operations

Evaluation status

Relevant, calculated

Metric tonnes CO2e

3,336.777

Emissions calculation methodology

The average cost data method was applied to calculate category 5: Ryder waste hauling costs are approximately 0.021% of the waste vendor's total revenue. The vendor's scope 1 and 2 emissions are 15,934,821 MTCO2e and therefore Ryder's scope 3 category is approximately 3,337 MTCO2e.

Percentage of emissions calculated using data obtained from suppliers or value chain partners

50

Please explain

Ryder generated mixed solid waste is tracked and annual cost is reported. The scope 3 emissions are based on scope 1 and 2 emissions that are reported by the waste hauler. The current cost incurred is approximately 66% of all company-wide MSW disposal and is extrapolated to all operations.

Business travel

Evaluation status

Relevant, calculated

Metric tonnes CO2e

19,749.986

Emissions calculation methodology

TraveLeaders provides annual reporting that categorizes air travel as short, medium and long haul flights and computes varying amounts of GHG emitted based on air mileage. The calculation methodologies are based on various widely accepted protocols that can

all be traced back or related to the GHG Protocol. They include The Climate Registry General Reporting Protocol and the EPA GHG Calculator. Also included in this category are GHG emissions based on annual mileage and mpg reports from Ryder's preferred rental car partners.

Percentage of emissions calculated using data obtained from suppliers or value chain partners

100

Please explain

Ryder employs approximately 38,600 full time employees in North America. Ryder has made significant progress reducing air miles travelled each year and reducing GHG emissions associated with employee travel miles. Ryder's travel partner, TraveLeaders, developed real-time measurements of each traveller based on airline travel. Ryder's preferred rental car companies provided the vehicle rental miles travelled.

Employee commuting

Evaluation status

Relevant, calculated

Metric tonnes CO2e

104,331.212

Emissions calculation methodology

Employee commuting patterns were surveyed in 2012 (Miami HQ). The responses showed that approximately 98.2% of HQ employees drive to work alone/carpool with an average commuting distance of 42 miles. Assuming an average fuel efficiency and EPA gasoline emission factor of 8.78 kg/gal this translates into 3.65 MTCO2e/year/employee. In 2019, there were 38,600 employees in North America (excluding truck drivers) resulting in 104,331 MTCO2e for commuting activities.

Percentage of emissions calculated using data obtained from suppliers or value chain partners

2

Please explain

The calculation is only a high level approximation based on a single commuter survey. Actual commuting patterns will vary significantly from state to state.

Upstream leased assets

Evaluation status

Not relevant, explanation provided

Please explain

Ryder does not have significant upstream leased assets.

Downstream transportation and distribution

Evaluation status

Not relevant, explanation provided

Please explain

Ryder does not have significant sold products. Ryder sold fuel is included as a fuel purchased option with their leased vehicles and is included in category 13 in addition to fuel purchased elsewhere (not from Ryder).

Processing of sold products

Evaluation status

Not relevant, explanation provided

Please explain

Ryder does not have significant sold products. Ryder sold fuel is included as a fuel purchased option with their leased vehicles and is included in category 13 in addition to fuel purchased elsewhere (not from Ryder).

Use of sold products

Evaluation status

Relevant, calculated

Metric tonnes CO2e

759,531.889

Emissions calculation methodology

The category includes the emissions from the use of used trucks sold by Ryder in the reporting year. The trucks consumed energy resulting in direct use-phase emissions. Ryder has established the SmartWay Tool as the technical basis and source for all mobile emission factors. Scope 1 and Scope 3 mobile emissions are based on a factor of 22.2 lbs of CO2 per gallon of diesel fuel, as documented in the US EPA Office of Transportation and Air Quality EPA 420-F-05-001 dated February 2005, and which is the basis for all SmartWay CO2 emission calculations.

Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

Please explain

The sale of used trucks was added to Ryder's scope 3 emissions. In 2019, Ryder held 9,400 trucks for sale. Based on average truck mileages, this equates to using 75,428

gallons. With the 22.2 lb/gal emission factor, this is 759,532 MT CO2e. Ryder does not have any other significant sold products. Ryder sold fuel is included as a fuel purchased option with their leased vehicles and is included in category 13 in addition to fuel purchased elsewhere (not from Ryder).

End of life treatment of sold products

Evaluation status

Not relevant, explanation provided

Please explain

Ryder does not have significant sold products.

Downstream leased assets

Evaluation status

Relevant, calculated

Metric tonnes CO2e

8,918,856.885

Emissions calculation methodology

The WRI/WBCSD Scope 3 direct use-phase emissions method was applied to calculate the category 13: downstream leased assets emissions from fuels combusted in Ryder leased vehicles. This category assesses fuel combustion and lifecycle GHG emissions associated with customer trucks fuel usage. The category includes the emissions from the use phase of the leased products (combustion) and life cycle emission factor for diesel production. Ryder has established the SmartWay Tool as the technical basis and source for all mobile emission factors. Scope 1 and Scope 3 mobile emissions are based on a factor of 22.2 lbs of CO2 per gallon of diesel fuel, as documented in the US EPA Office of Transportation and Air Quality EPA 420-F-05-001 dated February 2005, and which is the basis for all SmartWay CO2 emission calculations.

Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

Please explain

This category accounts for GHG emissions resulting from the combustion of fuel used in customer leased vehicles in the U.S. and Canada.

Franchises

Evaluation status

Not relevant, explanation provided

Please explain

Ryder does not have any franchise operations.

Investments

Evaluation status

Not relevant, explanation provided

Please explain

Ryder does not own any GHG releasing investments

Other (upstream)

Evaluation status

Not relevant, explanation provided

Please explain

Ryder does not have any other scope 3 upstream emissions.

Other (downstream)

Evaluation status

Not relevant, explanation provided

Please explain

Ryder does not have any other scope 3 downstream emissions.

C6.7

(C6.7) Are carbon dioxide emissions from biogenic carbon relevant to your organization?

Yes

C6.7a

(C6.7a) Provide the emissions from biogenic carbon relevant to your organization in metric tons CO2.

	CO2 emissions from biogenic carbon (metric tons CO2)	Comment
Row 1	40,764	

C6.10

(C6.10) Describe your gross global combined Scope 1 and 2 emissions for the reporting year in metric tons CO2e per unit currency total revenue and provide any additional intensity metrics that are appropriate to your business operations.

Intensity figure

0.0001

Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO2e)

892,057.17

Metric denominator

unit total revenue

Metric denominator: Unit total

8,925,801,000

Scope 2 figure used

Location-based

% change from previous year

3

Direction of change

Decreased

Reason for change

Revenue increased 6% to $8,925,801,000 in 2019 while we realized emissions reductions from our 4 major emission reduction activities: Lighting Projects (6,263 MTCO2e/yr), Energy Conservation Program (8,696 MTCO2e/yr), High efficiency oil (11,270 MTCO2e) and Natural Gas Fleet replacing diesel usage (941 MTCO2e).

Intensity figure

22.36

Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO2e)

892,057.17

Metric denominator

full time equivalent (FTE) employee

Metric denominator: Unit total

39,900

Scope 2 figure used

Location-based

% change from previous year

2.7

Direction of change

Decreased

Reason for change

FTE increased 1% to 39,900 in 2019 while we realized emissions reductions from our 4 major emission reduction activities: Lighting Projects (6,263 MTCO2e/yr), Energy Conservation Program (8,696 MTCO2e/yr), High efficiency oil (11,270 MTCO2e) and Natural Gas Fleet replacing diesel usage (941 MTCO2e).

C-TS6.15

(C-TS6.15) What are your primary intensity (activity-based) metrics that are appropriate to your emissions from transport activities in Scope 1, 2, and 3?

HDV

Scopes used for calculation of intensities

Report just Scope 1

Intensity figure

1,400

Metric numerator: emissions in metric tons CO2e

Metric denominator: unit

Metric denominator: unit total

% change from previous year

Please explain any exclusions in your coverage of transport emissions in selected category, and reasons for change in emissions intensity.

Ryder DTS Fleet provides annual updates to the EPA SmartWay Carrier Tool. The tool generates greenhouse gas and other emission data with scientifically-based methods using EPA emission factors, and provides consistent and comparable metrics for freight emissions across all industry sectors. In 2019, Ryder DTS generated approximately 1,400 grams of CO2 per mile as calculated by the Carrier tool.

ALL

Scopes used for calculation of intensities

Intensity figure

Metric numerator: emissions in metric tons CO2e

Metric denominator: unit

Metric denominator: unit total

% change from previous year

Please explain any exclusions in your coverage of transport emissions in selected category, and reasons for change in emissions intensity.

C7. Emissions breakdowns

C7.1

(C7.1) Does your organization break down its Scope 1 emissions by greenhouse gas type?

No

C7.2

(C7.2) Break down your total gross global Scope 1 emissions by country/region.

Country/Region	Scope 1 emissions (metric tons CO2e)
United States of America	710,814.23
Canada	70,683.44
Europe	10,624.05

C7.3

(C7.3) Indicate which gross global Scope 1 emissions breakdowns you are able to provide.

By business division

By activity

C7.3a

(C7.3a) Break down your total gross global Scope 1 emissions by business division.

Business division	Scope 1 emissions (metric ton CO2e)
Supply Chain Solutions	752,503.7

Fleet Management Solutions	28,906.38
Administration	87.59
International Operations	10,624.05

C7.3c

(C7.3c) Break down your total gross global Scope 1 emissions by business activity.

Activity	Scope 1 emissions (metric tons CO2e)
Transportation Service/Fleet activity	762,324.29
Fleet Maintenance activity	29,709.85
Administrative activity	87.59

C-CE7.4/C-CH7.4/C-CO7.4/C-EU7.4/C-MM7.4/C-OG7.4/C-ST7.4/C-TO7.4/C-TS7.4

(C-CE7.4/C-CH7.4/C-CO7.4/C-EU7.4/C-MM7.4/C-OG7.4/C-ST7.4/C-TO7.4/C-TS7.4) Break down your organization's total gross global Scope 1 emissions by sector production activity in metric tons CO2e.

	Gross Scope 1 emissions, metric tons CO2e	Comment
Transport services activities	762,324.29	

C7.5

(C7.5) Break down your total gross global Scope 2 emissions by country/region.

Country/Region	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)	Purchased and consumed electricity, heat, steam or cooling (MWh)	Purchased and consumed low-carbon electricity, heat, steam or cooling accounted for in Scope 2 market-based approach (MWh)
United States of America	85,552.68	86,982.3	192,948.79	192,948.79
Canada	1,403.9	1,403.9	8,831.44	8,831.44
Mexico	10,993.78	10,993.78	19,994.37	19,994.37
Asia Pacific (or JAPA)	436.67	436.67	545.99	545.99
Europe	1,548.42	1,548.42	4,657.35	4,657.35

C7.6

(C7.6) Indicate which gross global Scope 2 emissions breakdowns you are able to provide.

By business division

By activity

C7.6a

(C7.6a) Break down your total gross global Scope 2 emissions by business division.

Business division	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
Supply Chain Solutions	40,457.26	41,133.315
Fleet Management Solutions	40,057.67	40,727.047
Administration	6,441.655	6,549.298
International Operations	12,978.87	12,978.87

C7.6c

(C7.6c) Break down your total gross global Scope 2 emissions by business activity.

Activity	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
Transportation Service/Fleet activity	40,457.258	41,133.315
Fleet Maintenance activity	53,036.54	53,705.92
Administrative activity	6,441.65	6,549.3

C-CE7.7/C-CH7.7/C-CO7.7/C-MM7.7/C-OG7.7/C-ST7.7/C-TO7.7/C-TS7.7

(C-CE7.7/C-CH7.7/C-CO7.7/C-MM7.7/C-OG7.7/C-ST7.7/C-TO7.7/C-TS7.7) Break down your organization's total gross global Scope 2 emissions by sector production activity in metric tons CO2e.

	Scope 2, location-based, metric tons CO2e	Scope 2, market-based (if applicable), metric tons CO2e	Comment
Transport services activities	99,935.45	101,365.07	

C7.9

(C7.9) How do your gross global emissions (Scope 1 and 2 combined) for the reporting year compare to those of the previous reporting year?

Increased

C7.9a

(C7.9a) Identify the reasons for any change in your gross global emissions (Scope 1 and 2 combined), and for each of them specify how your emissions compare to the previous year.

	Change in emissions (metric tons CO2e)	Direction of change	Emissions value (percentage)	Please explain calculation
Change in renewable energy consumption	571.36	Decreased	0.1	Decrease - Biodiesel usage increase; Ryder purchased 5.5% more biodiesel/renewable diesel from 2018 to 2019 (571.36 MTCO2e/868,793 MTCO2e 2018 Emissions = 0.1%)
Other emissions reduction activities	27,169.07	Decreased	3.1	Ryder implemented the following emissions reduction activities in scope 1 and 2): FMS Program, LED Lighting, RydeSmart, High efficiency oil (RIL fleet), Natural Gas Fleet replacing diesel usage (27,169.07 MT CO2e/ 868,793 MT CO2e 2018 Emissions = 3.1% Decrease)
Divestment	0	No change	0	Ryder did not have any divestments in 2019.
Acquisitions	0	No change	0	Ryder did not have any acquisitions in 2019.
Mergers	0	No change	0	Ryder did not have any mergers in 2019.
Change in output	39,559.37	Increased	4.6	Change in output - increased truck mileages (39,559.37 MTCO2e /868,793 MTCO2e 2018 Emissions = 4.6% increase).
Change in methodology	6,995.48	Decreased	0.8	Ryder updated all emission factors to current eGrid and other emission factors (6,995.48/868,793 MTCO2e 2018 Emissions = -0.8% Decrease)

Change in boundary	0	No change	0	Ryder did not have any changes in boundary in 2019.
Change in physical operating conditions	2,385.06	Increased	0.3	Change in physical operating conditions/ weather related (2,385.06 MTCO2e/ 868,793 MT CO2e 2018 Emissions = 0.3% increase)
Unidentified	16,055.81	Increased	1.8	Unidentified changes (16,055.81 MT CO2e/ 868,793 MT CO2e 2017 Emissions = 1.8 % Increase)
Other	0	No change	0	Ryder had no other changes in 2019.

C7.9b

(C7.9b) Are your emissions performance calculations in C7.9 and C7.9a based on a location-based Scope 2 emissions figure or a market-based Scope 2 emissions figure?

Location-based

C8. Energy

C8.1

(C8.1) What percentage of your total operational spend in the reporting year was on energy?

More than 0% but less than or equal to 5%

C8.2

(C8.2) Select which energy-related activities your organization has undertaken.

	Indicate whether your organization undertook this energy-related activity in the reporting year
Consumption of fuel (excluding feedstocks)	Yes
Consumption of purchased or acquired electricity	Yes
Consumption of purchased or acquired heat	No
Consumption of purchased or acquired steam	No
Consumption of purchased or acquired cooling	No

Generation of electricity, heat, steam, or cooling	No

C8.2a

(C8.2a) Report your organization's energy consumption totals (excluding feedstocks) in MWh.

	Heating value	MWh from renewable sources	MWh from non-renewable sources	Total (renewable and non-renewable) MWh
Consumption of fuel (excluding feedstock)	LHV (lower heating value)	0	3,435,249	3,435,249
Consumption of purchased or acquired electricity		0	226,978	226,978
Total energy consumption		0	3,662,227	3,662,227

C8.2b

(C8.2b) Select the applications of your organization's consumption of fuel.

	Indicate whether your organization undertakes this fuel application
Consumption of fuel for the generation of electricity	No
Consumption of fuel for the generation of heat	Yes
Consumption of fuel for the generation of steam	No
Consumption of fuel for the generation of cooling	No
Consumption of fuel for co-generation or tri-generation	No

C8.2c

(C8.2c) State how much fuel in MWh your organization has consumed (excluding feedstocks) by fuel type.

Fuels (excluding feedstocks)

Diesel

Heating value

LHV (lower heating value)

Total fuel MWh consumed by the organization

3,212,852

Emission factor

22.2

Unit

lb CO2e per gallon

Emissions factor source

U.S. EPA Office of Transportation and Air Quality Emission Facts document EPA 420-F-05-001 dated February 2005

Comment

Ryder has established the SmartWay Tool as the technical basis and source for all mobile emission factors. Diesel emissions are based on a factor of 22.2 lbs of CO2 per gallon of diesel fuel, as documented in the US EPA Office of Transportation and Air Quality EPA 420-F-05-001 dated February 2005, and which is the basis for all SmartWay CO2 emission calculations.

Fuels (excluding feedstocks)

Fuel Oil Number 2

Heating value

LHV (lower heating value)

Total fuel MWh consumed by the organization

5,024

Emission factor

163.0539

Unit

lb CO2 per million Btu

Emissions factor source

US: 163.0539 lb/MMBTU, 2019 TCR
Canada: 115.719 lb/MMBTU, 2019 TCR
Burning Oil UK: 298.1152 lb/MMBTU, 2019 DEFRA
Gas Oil UK: 349.1537 lb/MMBTU, 2019 DEFRA

Comment

Fuels (excluding feedstocks)

Natural Gas

Heating value

LHV (lower heating value)

Total fuel MWh consumed by the organization

208,341

Emission factor

116.9773

Unit

lb CO2e per million Btu

Emissions factor source

Natural Gas
US: 116.9773 lb/MMBTU, 2019 TCR
Canada: 115.719 lb/MMBTU, 2019 TCR
UK: 132.05 lb/MMBTU, 2019 DEFRA

Comment

Fuels (excluding feedstocks)

Propane Gas

Heating value

LHV (lower heating value)

Total fuel MWh consumed by the organization

9,032

Emission factor

136.0473

Unit

lb CO2 per million Btu

Emissions factor source

Propane:
US: 136.0473 lb/MMBTU, 2019 TCR
Canada: 178.0199 lb/MMBTU, 2019 TCR
UK: 178.55 lb/MMBTU, 2019 DEFRA

Comment

C8.2e

(C8.2e) Provide details on the electricity, heat, steam, and/or cooling amounts that were accounted for at a zero emission factor in the market-based Scope 2 figure reported in C6.3.

Sourcing method

None (no purchases of low-carbon electricity, heat, steam or cooling)

Low-carbon technology type

Country/region of consumption of low-carbon electricity, heat, steam or cooling

MWh consumed accounted for at a zero emission factor

Comment

C-TS8.5

(C-TS8.5) Provide any efficiency metrics that are appropriate for your organization's transport products and/or services.

Activity

Heavy Duty Vehicles (HDV)

Metric figure

1,400

Metric numerator

Other, please specify

CO2 Grams per Mile

Metric denominator

Other, please specify

Metric numerator: Unit total

Metric denominator: Unit total

% change from last year

Please explain

Ryder DTS Fleet provides annual updates to the EPA SmartWay Carrier Tool. The tool generates greenhouse gas and other emission data with scientifically-based methods using EPA emission factors, and provides consistent and comparable metrics for freight emissions across all industry sectors. In 2019, Ryder DTS generated approximately 1,400 grams of CO2 per mile as calculated by the Carrier tool.

C9. Additional metrics

C9.1

(C9.1) Provide any additional climate-related metrics relevant to your business.

C-TO9.3/C-TS9.3

(C-TO9.3/C-TS9.3) Provide tracking metrics for the implementation of low-carbon transport technology over the reporting year.

Activity

Heavy Duty Vehicles (HDV)

Metric

Fleet adoption

Technology

Battery electric vehicle (BEV)

Metric figure

500

Metric unit

Units

Explanation

Ryder ordered 500 Chanje commercial electric vehicles which will be deployed by FedEx. The initiative will enable a broader adoption of electric trucks in the U.S. Market.

C-CE9.6/C-CG9.6/C-CH9.6/C-CN9.6/C-CO9.6/C-EU9.6/C-MM9.6/C-OG9.6/C-RE9.6/C-ST9.6/C-TO9.6/C-TS9.6

(C-CE9.6/C-CG9.6/C-CH9.6/C-CN9.6/C-CO9.6/C-EU9.6/C-MM9.6/C-OG9.6/C-RE9.6/C-ST9.6/C-TO9.6/C-TS9.6) Does your organization invest in research and development (R&D) of low-carbon products or services related to your sector activities?

	Investment in low-carbon R&D	Comment
Row 1	Yes	

C-TO9.6a/C-TS9.6a

(C-TO9.6a/C-TS9.6a) Provide details of your organization's investments in low-carbon R&D for transport-related activities over the last three years.

Activity

Heavy Duty Vehicles (HDV)

Technology area

Electrification

Stage of development in the reporting year

Pilot demonstration

Average % of total R&D investment over the last 3 years

R&D investment figure in the reporting year (optional)

Comment

C10. Verification

C10.1

(C10.1) Indicate the verification/assurance status that applies to your reported emissions.

	Verification/assurance status
Scope 1	No third-party verification or assurance
Scope 2 (location-based or market-based)	No third-party verification or assurance
Scope 3	No third-party verification or assurance

C10.2

(C10.2) Do you verify any climate-related information reported in your CDP disclosure other than the emissions figures reported in C6.1, C6.3, and C6.5?

No, but we are actively considering verifying within the next two years

C11. Carbon pricing

C11.1

(C11.1) Are any of your operations or activities regulated by a carbon pricing system (i.e. ETS, Cap & Trade or Carbon Tax)?

No, and we do not anticipate being regulated in the next three years

C11.2

(C11.2) Has your organization originated or purchased any project-based carbon credits within the reporting period?

No

C11.3

(C11.3) Does your organization use an internal price on carbon?

No, and we do not currently anticipate doing so in the next two years

C12. Engagement

C12.1

(C12.1) Do you engage with your value chain on climate-related issues?

Yes, our suppliers

Yes, our customers

C12.1a

(C12.1a) Provide details of your climate-related supplier engagement strategy.

Type of engagement

Information collection (understanding supplier behavior)

Details of engagement

Collect climate change and carbon information at least annually from suppliers

% of suppliers by number

0.01

% total procurement spend (direct and indirect)

3.12

% of supplier-related Scope 3 emissions as reported in C6.5

4.2

Rationale for the coverage of your engagement

Direct supplier engagement and forming lasting partnerships has mutual benefits. Ryder has recognized the value of establishing strong partnerships with strategic suppliers such as Original Engine Manufacturers (OEMs) as it encourages cost and resource efficiencies. Ryder maintains close relationships with all major suppliers, but particularly with the OEMs who are critical for our business and help support deployment of emerging fuel efficient technologies. For example, Ryder and Freightliner have supplied compressed natural gas-fueled trucks to Indian River Transport Company. The CNG trucks are used for 10 to 12 runs a day and run 24 hours a day. This was the request of Indian River Transport customers who were looking for smaller carbon footprints, lower fuel costs and reduced noise level in the communities where these trucks are operating.

Impact of engagement, including measures of success

Since 2009, Ryder has included sustainability questions in its RFP and Sourcing information to help in the qualifying and selection process for key suppliers. For environmental service and product providers, responses were weighted and included in the selection criteria. For other suppliers, responses were considered but were not always determinative. In 2019, Ryder started a broad-based company-wide supplier initiative to review current supplier code of conducts, sustainability programs and begin discussion on opportunities to reduce emissions. Ryder Environmental Services and Procurement teams have been working with a number of suppliers in those efforts to advance emission reduction benefits. Going forward, Ryder will now review select strategic suppliers to drive toward increased reporting and scoping of beneficial emission reduction opportunities. As part of this initiative, Ryder will develop supplier specific greenhouse gas reduction performance targets and standard reporting.

Comment

C12.1b

(C12.1b) Give details of your climate-related engagement strategy with your customers.

Type of engagement

Collaboration & innovation

Details of engagement

Run a campaign to encourage innovation to reduce climate change impacts

% of customers by number

86

% of customer - related Scope 3 emissions as reported in C6.5

86

Please explain the rationale for selecting this group of customers and scope of engagement

Ryder engages with its customers on GHG emissions and climate change strategies through several initiatives and offerings. i) Ryder's innovative ChoiceLease offers our customers the option to convert some or all of their fleet to greener, more fuel-efficient vehicles at any time. Ryder's alternative fuel fleet includes compressed and liquid natural gas vehicles, which are offered in select markets as well as hybrid vehicles, which are available in most U.S. markets. Ryder customers are educated and provided a menu of green-to-greener services, with some solutions requiring a higher initial capital investment to produce the maximum amount of emission reductions long-term. Customers can also select optimum network designs for maximum fuel savings and emission reduction, and they can incorporate carbon offsets to neutralize their transportation related emissions. Ryder's strategy for prioritizing engagements is to meet customer demand for low carbon solutions.

Impact of engagement, including measures of success

i. The impact of the engagement has been the successful creation of business opportunities and reduction in emissions. For example, Michigan based beverage container recycling company UBCR, LLC has operated its Ryder NGV fleet for more than 7 million miles from 2011 to 2019. As an early adopter of Ryder's NGV solution, UBCR has reduced its greenhouse gas emissions by approximately 2,704 MTCO2e and replaced more than one million gallons of diesel fuel with lower-emission, domestically produced natural gas. Sixteen compressed natural gas vehicles, designed with the latest modifications and technological advances, will replace UBCR's entire truck fleet.
ii. Ryder measures success as expanding business opportunities.

C12.3

(C12.3) Do you engage in activities that could either directly or indirectly influence public policy on climate-related issues through any of the following?

Direct engagement with policy makers

C12.3a

(C12.3a) On what issues have you been engaging directly with policy makers?

Focus of legislation	Corporate position	Details of engagement	Proposed legislative solution
Energy efficiency	Support	(a) Ryder directly supported advocacy efforts with policy makers on tax, vehicle GHG emission standards and other incentives to	Ryder supports this legislation without exceptions.

		promote the development and adoption of new federal engine emission standards & the use of alternative truck technologies to reduce fuel consumption (b) Ryder has worked with federal and state policy makers throughout the US and Canada to recommend and define alternative fuel legislation. Ryder works closely with government as well as trade associations like NGVA, ATA, TRALA, US Chamber of Commerce, Business Round Table and other organizations to provide policy makers with legislative comments that support the needs of both business and the environment.	
Mandatory carbon reporting	Support	Ryder advocates directly with U.S policy makers on the NHTSA/EPA GHG standards through its network of professional & trucking trade associations to provide for emissions mitigation through decreased fuel consumption standards	Ryder supports federal, universal standard and legislation for carbon reporting versus state-specific standards and requirements.

C12.3f

(C12.3f) What processes do you have in place to ensure that all of your direct and indirect activities that influence policy are consistent with your overall climate change strategy?

Ryder's Executive Vice President, Chief Legal Officer and Corporate Secretary is responsible for overseeing the company's direct and indirect activities that influence public policy development and government relations that are related to Ryder's business across all services and geographies. The Vice President, Environmental, Real Estate, and Fuel Services, maintains day-to-day operational responsibility for Environmental Programs including climate change impacts, reduction strategies and performance reporting to the Chief Legal Officer and Corporate Secretary. Our monitoring of climate-related issues includes a review of Ryders's scope 1, 2 and 3 GHG emissions and identifying new opportunities for reductions, as well as customer emission reduction benefits. In addition, business and market opportunities are explored to assist customers with emission reductions resulting from improved transportation management and supply chain solutions. An Environmental Report of our progress in these areas is reviewed annually with our Board of Directors Corporate Governance Committee. This executive reporting alignment ensures that all of our direct and indirect activities that influence policy are integrated, aligned and consistent with our overall climate change strategy.

C12.4

(C12.4) Have you published information about your organization's response to climate change and GHG emissions performance for this reporting year in places other than in your CDP response? If so, please attach the publication(s).

Publication

In voluntary sustainability report

Status

Complete

Attach the document

Page/Section reference

http://rydercsr.com/

Content elements

Governance
Strategy
Risks & opportunities
Emissions figures
Emission targets
Other metrics

Comment

C15. Signoff

C-FI

(C-FI) Use this field to provide any additional information or context that you feel is relevant to your organization's response. Please note that this field is optional and is not scored.

C15.1

(C15.1) Provide details for the person that has signed off (approved) your CDP climate change response.

	Job title	Corresponding job category
Row 1	Vice President, Environmental, Real Estate and Fuel Services	Other, please specify Vice President at Corporate Headquarters

SC. Supply chain module

SC0.0

(SC0.0) If you would like to do so, please provide a separate introduction to this module.

Ryder provides customized Ryder Dedicated Transportation Solutions (DTS) and Supply Chain Solutions (SCS). These customized solutions determine which party controls the source of the emissions, which party has access to the source data on which to compute the emissions, if the emissions are Scope 1, 2, or 3, and therefore how they should be allocated and reported.
In the Ryder Dedicated Transportation Solutions, our customers direct their product movement but Ryder owns and controls the equipment, fuel, and administrative services (including driver hiring, training, routing, scheduling, and fleet sizing). As Ryder provides the fuel, hires the driver, and controls the vehicle, the emissions originating from the vehicle fuel consumption are allocated to, and reported by, Ryder as Scope 1. These same emissions would be reported as Scope 3 by our customers.
Ryder also provides Supply Chain Solutions (SCS). SCS product offerings include three categories: 1) Professional Services to identify efficiencies and opportunities for supply chain integration; 2) Distribution Management to manage warehouse operations, product distribution networks, and 3) Transportation Solutions which provide 3rd party freight and carrier management services.
Within Distribution Management, Ryder's client often owns or leases the physical brick and mortar distribution center. In these customer controlled facilities, all utilities will be in the name of, and paid by, the client. In these cases, Ryder would not report Scope 1 and 2 utility-related emissions and actually does not even have access to the source data on which to compute it.
Ultimately, the customized solutions determine which party controls, computes, and reports the respective emissions. Ryder will therefore report all client emissions based on the specifics of these customized solutions.

SC0.1

(SC0.1) What is your company’s annual revenue for the stated reporting period?

	Annual Revenue
Row 1	8,584,653,000

SC0.2

(SC0.2) Do you have an ISIN for your company that you would be willing to share with CDP?

Yes

SC0.2a

(SC0.2a) Please use the table below to share your ISIN.

	ISIN country code (2 letters)	ISIN numeric identifier and single check digit (10 numbers overall)
Row 1	US	7835491082

SC1.1

(SC1.1) Allocate your emissions to your customers listed below according to the goods or services you have sold them in this reporting period.

Requesting member

AT&T Inc.

Scope of emissions

Scope 3

Allocation level

Company wide

Allocation level detail

Emissions in metric tonnes of CO2e

9,099

Uncertainty (±%)

2

Major sources of emissions

Ryder Dedicated Transportation Solutions - Fleet Operations

Verified

No

Allocation method

Allocation not necessary due to type of primary data available

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Ryder has established the SmartWay Tool as the technical basis and main source for mobile emission factors. The AT&T Scope 3 emissions are based on a factor of 22.2 lbs of CO2 per gallon of diesel fuel, as documented in the US EPA Office of Transportation and Air Quality EPA 420-F-05-001 dated February 2005, and which is the basis for SmartWay CO2 emission calculations.

Requesting member
Diageo Plc

Scope of emissions
Scope 3

Allocation level
Company wide

Allocation level detail

Emissions in metric tonnes of CO2e
854.15

Uncertainty (±%)
2

Major sources of emissions
Stationary Scope 2 - Warehouse operations

Verified
No

Allocation method
Allocation not necessary due to type of primary data available

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made
Ryder operates two warehouses for Diageo which is considered under operational control. We receive electric utilities for this warehouse. Emissions were calculated using the Mexico emission factor for electricity.

Requesting member
Fiat Chrysler Automobiles NV

Scope of emissions
Scope 3

Allocation level
Company wide

Allocation level detail

Emissions in metric tonnes of CO2e
1,630

Uncertainty (±%)

2

Major sources of emissions

Ryder Dedicated Transportation Solutions - Fleet Operations

Verified

No

Allocation method

Allocation not necessary due to type of primary data available

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Ryder has established the SmartWay Tool as the technical basis and main source for mobile emission factors. The FIAT CHRYSLER Scope 3 emissions are based on a factor of 22.2 lbs of CO2 per gallon of diesel fuel, as documented in the US EPA Office of Transportation and Air Quality EPA 420-F-05-001 dated February 2005, and which is the basis for SmartWay CO2 emission calculations.

Requesting member

General Motors Company

Scope of emissions

Scope 3

Allocation level

Company wide

Allocation level detail

Emissions in metric tonnes of CO2e

932,780

Uncertainty (±%)

2

Major sources of emissions

3rd Party Carrier Managed Transportation for Powertrain Stamping and Assembly, and Ryder Operated Equipment assigned to the Material Optimization Centers.

Verified

No

Allocation method

Allocation not necessary due to type of primary data available

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Ryder has established the SmartWay Tool as the technical basis and source for mobile emission factors. GM Scope 3 emissions for Ryder operated equipment are based on a factor of 22.2 lbs of CO2 per gallon of diesel fuel, as documented in the US EPA Office of Transportation and Air Quality EPA 420-F-05-001 dated February 2005, and which is the basis for SmartWay CO2 emission calculations. 3rd Party Carrier Managed Transportation emissions are based on CO2 grams/mile as documented in the US EPA SmartWay Carrier Performance data.

Requesting member

Grupo Bimbo, S.A.B. de C.V.

Scope of emissions

Scope 3

Allocation level

Company wide

Allocation level detail

Emissions in metric tonnes of CO2e

7,789

Uncertainty (±%)

2

Major sources of emissions

Ryder Dedicated Transportation Solutions - Fleet Operations

Verified

No

Allocation method

Allocation not necessary due to type of primary data available

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Ryder has established the SmartWay Tool as the technical basis and main source for mobile emission factors. The Grupo Bimbo Scope 3 emissions are based on a factor of 22.2 lbs of CO2 per gallon of diesel fuel, as documented in the US EPA Office of Transportation and Air Quality EPA 420- F-05-001 dated February 2005, and which is the basis for SmartWay CO2 emission calculations.

Requesting member

Hewlett Packard Enterprise Company

Scope of emissions

Scope 3

Allocation level

Company wide

Allocation level detail

Emissions in metric tonnes of CO2e

24,191

Uncertainty (±%)

2

Major sources of emissions

Ryder Dedicated Transportation Solutions - Fleet Operations.

Verified

No

Allocation method

Allocation not necessary due to type of primary data available

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Ryder has established the SmartWay Tool as the technical basis and main source for mobile emission factors. The HP Scope 3 emissions are based on a factor of 22.2 lbs of CO2 per gallon of diesel fuel, as documented in the US EPA Office of Transportation and Air Quality EPA 420-F-05-001 dated February 2005, and which is the basis for SmartWay CO2 emission calculations.

Requesting member

Kellogg Company

Scope of emissions

Scope 3

Allocation level

Company wide

Allocation level detail

Emissions in metric tonnes of CO2e

1,978

Uncertainty (±%)

2

Major sources of emissions

Ryder Dedicated Transportation Solutions - Fleet Operations.

Verified

No

Allocation method

Allocation not necessary due to type of primary data available

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Ryder has established the SmartWay Tool as the technical basis and main source for mobile emission factors. The Kellogg's Scope 3 emissions are based on a factor of 22.2 lbs of CO2 per gallon of diesel fuel, as documented in the US EPA Office of Transportation and Air Quality EPA 420-F-05-001 dated February 2005, and which is the basis for SmartWay CO2 emission calculations.

SC1.2

(SC1.2) Where published information has been used in completing SC1.1, please provide a reference(s).

US EPA Office of Transportation and Air Quality EPA 420-F-05-001 dated February 2005
GHG Protocol Table 14 Carbon Emissions Factors by Weight Distance

SC1.3

(SC1.3) What are the challenges in allocating emissions to different customers, and what would help you to overcome these challenges?

Allocation challenges	Please explain what would help you overcome these challenges
Other, please specify Determining emission factors.	The challenge is not in allocating emissions to different customers. The challenge is in determining the appropriate emission factors for ocean, air, and package transportation. Our primary 3rd party carriers are Less-Than-Truckload, Truckload, InterModal, and Rail. Our data points are # of freight bills, weight, and miles. These are not the appropriate data points for air, ocean, and package. Separating downstream transportation activity by transportation mode, and establishing standardized emission factors by mode, would bring consistency to the methodology and allow for evaluating transportation emissions across modes, industries, and sectors.

SC1.4

(SC1.4) Do you plan to develop your capabilities to allocate emissions to your customers in the future?

Yes

SC1.4a

(SC1.4a) Describe how you plan to develop your capabilities.

Ryder System has the capability to capture, measure, track, and analyze 3rd party carrier transportation management data for all of our clients and, as such, is able to report Scope 3 downstream transportation emissions.

SC2.1

(SC2.1) Please propose any mutually beneficial climate-related projects you could collaborate on with specific CDP Supply Chain members.

Requesting member

General Motors Company

Group type of project

Relationship sustainability assessment

Type of project

Assessing products or services life cycle footprint to identify efficiencies

Emissions targeted

Actions that would reduce both our own and our customers' emissions

Estimated timeframe for carbon reductions to be realized

1-3 years

Estimated lifetime CO2e savings

Estimated payback

Details of proposal

Ryder Supply Chain Solutions has the technical expertise and capabilities to provide GM with carbon footprint metrics that will allow it to measure, track, and monitor GHG by carrier and by mode. We would welcome the opportunity to incorporate these carbon footprint metrics in the GM reporting platform.

SC2.2

(SC2.2) Have requests or initiatives by CDP Supply Chain members prompted your organization to take organizational-level emissions reduction initiatives?

No

SC3.1

(SC3.1) Do you want to enroll in the 2020-2021 CDP Action Exchange initiative?

No

SC3.2

(SC3.2) Is your company a participating supplier in CDP's 2019-2020 Action Exchange initiative?

No

SC4.1

(SC4.1) Are you providing product level data for your organization's goods or services?

No, I am not providing data

Submit your response

In which language are you submitting your response?

English

Please confirm how your response should be handled by CDP

	I am submitting to	Public or Non-Public Submission	Are you ready to submit the additional Supply Chain Questions?
I am submitting my response	Investors Customers	Public	Yes, submit Supply Chain Questions now

Please confirm below

I have read and accept the applicable Terms