



Welcome to your CDP Climate Change Questionnaire 2019

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 (2016-2018); 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– 2017); 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 U.S., Canada and the U.K. The standard leasing business model offers customers different vehicle options (such as fuel-efficient or natural gas 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.

Ryder published an updated Corporate Sustainability Report in accordance with the Global Reporting Initiative (GRI) Standards Core option with detailed emissions and activity data (<http://rydercsr.com>). For the 2019 CDP response year, updates are provided to emission data (sections C6, C7 and C8), but at the time of CDP publication, these were not fully audited. Ryder plans to resume full CDP reporting in 2020.

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
Row 1	January 1, 2018	December 31, 2018	No

C0.3

(C0.3) Select the countries/regions 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 consolidation approach to your Scope 1 and Scope 2 greenhouse gas inventory.

Operational control

C-TO0.7/C-TS0.7

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

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
Other, please specify Board/Executive Board	i) The Board of Directors' Corporate Governance Committee, a subcommittee of the full Board of Directors, is responsible for overseeing public policy, public affairs and corporate responsibility including responsibility for Ryder's environmental programs, which address regulatory and business issues related to climate change impacts and strategy. ii) The Vice President of Environmental, Real Estate, and Fuel Services maintains day-to-day operational responsibility for Environmental Programs including climate change strategy and reports to the Executive Vice President, Chief Legal Officer and Corporate Secretary. An Environmental Report is provided annually to the 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	Ryder's Board of Directors' Corporate Governance Committee oversees major plans of action as important matters arise. For example, during the annual board meeting, environmental risk and cost dashboards are discussed and action plans related to energy and resource conservation are presented. 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's alternative fuel strategy was developed in a top down approach by Ryder's leadership team. Ryder's natural gas truck fleet has expanded into 16 states and 27 maintenance and repair shops were retrofitted for natural gas maintenance. In addition, Ryder is expanding into the electric vehicle market. In 2017, Ryder became 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 strategy and reports to the Chief Legal Officer and Corporate Secretary. The climate-related issues monitoring process includes review of scope 1, 2 and 3 emissions and identifying new opportunities for reductions and company or customer benefits. In addition, business and market opportunities are monitored for emission reductions in transportation management and supply chain solutions. An Environmental Report is provided annually to the Corporate Governance Committee.

C1.3

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

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).



Who is entitled to benefit from these incentives?

Energy manager

Types of incentives

Monetary reward

Activity incentivized

Energy reduction project

Comment

Energy 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.

Who is entitled to benefit from these incentives?

All employees

Types of incentives

Recognition (non-monetary)

Activity incentivized

Energy reduction project

Comment

Employees are encouraged to participate in Energy Conservation Challenge initiatives; since 2013 various initiatives have established best practices for energy and climate change reduction and reduced scope 2 electricity emissions by 10% and winners were rewarded with luncheons/cookouts and recognition plaques. Program was expanded in 2014 to include all FMS employees, and new incentives programs identify new targets annually to reach energy savings goals. In 2015 and 2016 new corporate conservation standards were put in place, e.g. upgrading to LED fixtures from fluorescent, including energy efficient lighting in major facility upgrades and targeting 90% of Ryder owned sites for lighting evaluations.



C2. Risks and opportunities

C2.1

(C2.1) Describe what your organization considers to be short-, medium- and long-term 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.

C2.2

(C2.2) Select the option that best describes how your organization's processes for identifying, assessing, and managing climate-related issues are integrated into your overall risk management.

Integrated into multi-disciplinary company-wide risk identification, assessment, and management processes

C2.2a

(C2.2a) Select the options that best describe your organization's frequency and time horizon for identifying and assessing climate-related risks.

	Frequency of monitoring	How far into the future are risks considered?	Comment
Row 1	Six-monthly or more frequently	>6 years	Ryder identifies and assesses climate-related risks on an annual basis with a projection of 6-10 years.



C2.2b

(C2.2b) Provide further details on your organization’s process(es) for identifying and assessing climate-related risks.

- 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 with financial incentives 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.
- b) Ryder's process for assessing the potential size and scope of identified risks is to perform annual Risk Assessment Reviews for all identified risk areas.
- c) Ryder's process for determining the relative significance of climate-related risks in relation to other risks is to review the Likelihood/Probability and Speed of Onset associated with climate change risks against other company risks taking into account current and future controls.
- d) Ryder uses the ERM (enterprise-wide risk measure) framework for classifying and defining risk types.
- e) Ryder's defines "substantive financial impact" or "strategic impact" to our business as either Moderate (1-5%), Medium (5-10%), High (10%) based on risk potential financial impact to operating revenues.

C2.2c

(C2.2c) Which of the following 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 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.
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 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.
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, we meet customer needs related to equipment efficiency, emissions reporting, and purchasing 875 natural gas trucks in 16 states and partnering to provide natural gas stations.
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.
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.
Upstream	Relevant, always included	We include the evaluation of upstream risk within the risk categories above.
Downstream	Relevant, always included	We include the evaluation of downstream risk within the risk categories above.



C2.2d

(C2.2d) Describe your process(es) for managing climate-related risks and opportunities.

a) We identify our risks and opportunities through our risk management processes. Ryder's Board of Directors' Corporate Governance Committee determines if the risks and opportunities should be mitigated, transferred, accepted, controlled, or capitalized upon based on our materiality thresholds (levels of risk). b) Priorities are determined annually by the Environmental Services (ES) Senior Management Team based on a formal review of overall company-wide risk management reviews. The ES team and Corporate Risk Managers evaluate priorities and determine materiality thresholds (levels of risk) annually to ensure appropriate risk controls and response procedures are in place, including those risks related to climate change. Changes are made annually as required. c) Ryder manages climate-related risks and opportunities through our processes for transitional and physical risks. 1. For example, some of our transitional risks include a) regulatory risk, we proactively adopt continual improvement programs for efficiencies and conservation before we are mandated to do so by regulations, b) reputation risk, we meet customer needs related to equipment efficiency and emissions reporting, purchasing 875 natural gas trucks in 16 states and partnering to provide natural gas stations, and c) technology risk, we identify efficiencies in our vehicle fleet 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. RydeSmart helps customers reduce fuel expenses by 20-25% and idle time by 20-30%. In addition, Ryder pursues investments in low carbon technologies including electric and alternative fuel vehicles such as natural gas or electric trucks. 2. For Physical climate change risks, we execute our protocols in place with our network of facilities, contingency and comprehensive EMS plans. We extend our transportation and supply chain environmental expertise, technology, and infrastructure to customers and organizations in need.

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

Transition risk

Primary climate-related risk driver

Policy and legal: Mandates on and regulation of existing products and services

Type of financial impact

Increased operating costs (e.g., higher compliance costs, increased insurance premiums)

Company- specific description

i) We anticipate regulatory risks in the United States if both pending and proposed state and 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 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 have necessitated more than \$500,000 in capital investments and increased Ryder's annual operating costs by more than \$150,000.

Ryder published an updated GRI compliant Corporate Sustainability Report in 2019 with detailed emissions and activity data (<http://rydercsr.com>). For the 2019 CDP response year, updates are provided to emission data (sections C6, C7 and C8), but at the time of CDP publication, these were not fully audited. Ryder plans to resume full CDP reporting in 2020.

Management method

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.

Cost of management

1,600,000

Comment

Our costs associated with compliance and reporting will increase, particularly if regulations increase the cost of compliance, 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.

Identifier

Risk 2

Where in the value chain does the risk driver occur?

Direct operations

Risk type

Physical risk

Primary climate-related risk driver

Acute: Increased severity of extreme weather events such as cyclones and floods

Type of financial impact

Increased operating costs (e.g., higher compliance costs, increased insurance premiums)

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.

Management method

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.

Cost of management

0

Comment

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.

Identifier

Risk 3

Where in the value chain does the risk driver occur?

Customer

Risk type

Transition risk



Primary climate-related risk driver

Reputation: Shifts in consumer preferences

Type of financial impact

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 beyond 2018 is expected to increase vehicle costs.

Management method

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.

Cost of management

0

Comment

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.

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

Type of financial impact

Increased revenue through demand for lower emissions 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.

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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.

Strategy to realize opportunity

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.

ii. To date, Ryder vehicles travelled over 150 million miles, and replaced 23.1 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.

Cost to realize opportunity

100,000,000

Comment

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 27 NGV compliant maintenance facilities and more than 6,200 NGV trained technicians and support employees in AR, AZ, CA, FL, GA, LA, MD, MI, MN, NY, PA, TN, TX, UT, WI and Canada (Ontario and Quebec).

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

Type of financial impact

Better competitive position to reflect shifting consumer preferences, resulting in increased revenues

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?

Yes, a single figure estimate

Potential financial impact figure (currency)

0



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).

Strategy to realize opportunity

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.

Cost to realize opportunity

0

Comment

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

Identifier

Opp3

Where in the value chain does the opportunity occur?

Customer



Opportunity type

Markets

Primary climate-related opportunity driver

Use of public-sector incentives

Type of financial impact

Increased revenues through access to new and emerging markets (e.g., partnerships with governments, development banks)

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 the natural gas vehicle market is an example of one such opportunity. Ryder has obtained federal and state grants for NG 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?

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

Federal and state incentive projects provided Ryder with a tremendous opportunity to expand our natural gas truck program with 830 units, generating additional revenues from these new vehicles. These 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.

Strategy to realize opportunity

i) Ryder purchased nearly 1,000 heavy-duty natural gas powered trucks for use across 16 states 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 23.1 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 52,904 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.

Cost to realize opportunity

95,000,000

Comment

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

C2.5

(C2.5) Describe where and how the identified risks and opportunities have impacted your business.

	Impact	Description
Products and services	Impacted for some suppliers, facilities, or product lines	<p>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.</p> <p>b) Ryder's low carbon products and services such efficient vehicles and alternative fuel vehicles have had a medium-high impact on business.</p>
Supply chain and/or value chain	Impacted for some suppliers, facilities, or product lines	<p>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.</p> <p>b) Ryder's logistics and transportation support services have had a medium-high impact to the business such as support to federal and state governments as well as to non-profit disaster relief agencies during times of disaster.</p>
Adaptation and mitigation activities	Impacted for some suppliers, facilities, or product lines	<p>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.</p> <p>b) Ryder's logistics and transportation support services have had a medium-high impact to the business such as support to federal and state governments as well as to non-profit disaster relief agencies during times of disaster.</p>
Investment in R&D	Impacted for some suppliers, facilities, or product lines	<p>a) Ryder invests 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.</p> <p>b) Ryder's investment in R&D for new low carbon vehicles and technologies has had a medium-high impact to the business.</p>



Operations	Impacted	a) Our operations have reduced operating costs by investing in energy efficiency projects. b) Ryder's operational risks and opportunities have had a medium impact to the business.
Other, please specify	We have not identified any risks or opportunities	No other risks or opportunities.

C2.6

(C2.6) Describe where and how the identified risks and opportunities have been factored into your financial planning process.

	Relevance	Description
Revenues	Impacted for some suppliers, facilities, or product lines	a) 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. b) This outreach strategy has had a high impact on strategy and financial planning.
Operating costs	Impacted	a) Ryder has included compliance in our operating costs planning. In addition, we include potential savings from efficiency projects. b) Operating costs have had a medium-low impact to our strategy and financial planning.
Capital expenditures / capital allocation	Impacted for some suppliers, facilities, or product lines	a) Ryder invests 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. b) Capital expenditures/capital allocation has had a medium-high impact to our strategy and financial planning.
Acquisitions and divestments	Not impacted	a) Identified risks and opportunities from acquisitions and divestments have not impacted strategy and financial planning.



		b) Acquisitions and divestments have had no impact to our strategy and financial planning.
Access to capital	Not impacted	a) Identified risks and opportunities from access to capital have not impacted strategy and financial planning. b) Access to capital has had no impact to our strategy and financial planning.
Assets	Impacted for some suppliers, facilities, or product lines	a) The Ryder Risk Management team has 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. b) Assets have had a medium impact to our strategy and financial planning.
Liabilities	Not impacted	a) Identified risks and opportunities from liabilities have not impacted strategy and financial planning. b) Liabilities have had no impact to our strategy and financial planning.
Other	We have not identified any risks or opportunities	No other risks or opportunities.

C3. Business Strategy

C3.1

(C3.1) Are climate-related issues integrated into your business strategy?

Yes

C3.1a

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

No, but we anticipate doing so in the next two years

C-AC3.1b/C-CE3.1b/C-CH3.1b/C-CO3.1b/C-EU3.1b/C-FB3.1b/C-MM3.1b/C-OG3.1b/C-PF3.1b/C-ST3.1b/C-TO3.1b/C-TS3.1b

(C-AC3.1b/C-CE3.1b/C-CH3.1b/C-CO3.1b/C-EU3.1b/C-FB3.1b/C-MM3.1b/C-OG3.1b/C-PF3.1b/C-ST3.1b/C-TO3.1b/C-TS3.1b) Indicate whether your organization has developed a low-carbon transition plan to support the long-term business strategy.

In development, we plan to complete it within the next 2 years

C3.1c

(C3.1c) Explain how climate-related issues are integrated into your business objectives and strategy.

Ryder's overall business strategy of growing fleet management and supply chain outsourcing integrates and advances our commitment to reducing greenhouse gas (GHG) emissions. With increasing business growth, we are delivering more efficient, sustainable transportation solutions resulting in emission reductions. i) Our business strategy has been influenced in our internal process for collecting and reporting information to influence energy usage and identify energy savings, which is regularly updated and occurs across multiple platforms. Energy savings are pursued through improved fuel economy, energy audits, energy tracking through internal software, employee engagement campaigns through regular communication with the field, implementation and improvement of internal equipment standards. Our business strategy has also influenced how we track potential impacts from diverse state or federal regulations, including climate change related regulations. ii) For example, since fuel usage is a fluctuating fleet expense, Ryder is identifying ways to reduce fuel costs. Ryder is working closely with manufacturers to incorporate fuel efficiencies into trucks such as aerodynamic features or researching and implementing low carbon technologies including electric or alternative fuel trucks. Through the Ryder Resource Conservation programs, we linked our business strategy to an energy reduction target of 20% below 2009 by 2020. To reduce our facility level energy usage, we launched a Ryder Energy Challenge Program in 2012 and expanded it to the Resource Conservation Program. External factors influencing our strategy include customer needs for environmental metrics such as measuring GHG outputs associated with their transportation supply chains. Our most substantial climate-related business decisions are reflected in vehicle investments, which is driven by the need for adaptation in using fuel efficient vehicles plus an opportunity to develop green business as a differentiator versus competitors. iii) Primary climate change aspects influencing our business strategy: a) Mitigating risks: reduce the potential financial impact from state or federal regulations, including climate change b) Customer compliance: support regulatory issues for our customers. iv) The most important component of our short-term strategy influenced by climate change is in response to market demands for cost-effective, environmentally friendly alternative fuel solutions. Our short-term strategy is to develop fuel-efficient and low carbon offerings for our customers and help them track their GHG performance while tracking and improving our own performance: a) Investing in fuel efficient vehicles: Our fleet provides new engine technologies and vehicles specified for optimum fuel efficiency. We



follow guidelines provided by the Environmental Protection Agency (EPA)'s SmartWay® Transport program. b) Optimize fleet performance: Ryder is improving fuel-efficient vehicle offerings such as the redesigned fuel efficient MetroVan that reports 25 miles per gallon. In addition, Ryder's fleet program implements preventive maintenance schedules for even the most routine care, including checking tire conditions and inflation rates when vehicles stop to refuel to ensure optimum performance. c) Reducing Idling time: Through Ryder's FleetCare and RydeSmart, fleet owners can optimize routes and monitor idle times, all which mitigate rising fuel costs. d) Investing in new products and technologies: Ryder was 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 110,000 metric tonnes (MT) CO2e annually. e) Recycling shop waste: We upgrade our facilities and implement new programs to reduce environmental impacts of automotive waste on the environment. In 2017, we recycled 2.4 million gallons (gal) of used oil, 811,704 gal of oily water, 10,354 drums of used oil filters, 36,780 gal of solvent and 128,912 batteries, which is a reduction of almost 20,000 MT CO2e. f) Tracking GHG and energy: 1) Vehicle GHG performance: With the help of SmartWay Verified Technologies, we offer our customers industry-leading vehicle performance, optimized fuel efficiency and reduced carbon emissions. The EPA SmartWay® Program is a key sustainability initiative to promote energy efficiency and reduce GHG emissions. 2) Facility energy use: our strategy is to monitor, track and reduce electricity use. Our Resource Conservation Program targets energy and water reduction at all Ryder facilities. Locations have committed to saving energy with energy efficient shop improvements. Each shop adopts a Statement of Commitment outlining their goals including conserve energy resources, incorporate energy efficiency into daily operations, invest in energy efficiency equipment and upgrades, and engage all employees to save energy. v) The most important components of our long-term strategy influenced by climate change are business strategies to ensure disaster preparedness, our capital investment to support and expand alternative fuel vehicles and infrastructure to service our natural gas fleet. a) Our disaster preparedness strategies include third party risk onsite audits of operating facilities. Controls mitigate risks that could lead to loss of property due to fire, windstorm, flood and other physical perils. Compliance is monitored for facility financial incentives. Our Asset Protection Manual provides guidance to maintain optimum, safe working conditions year round and prepare facilities for annual Engineering Surveys. b) Investments in low-carbon technologies include offering alternative fuel and advanced technology vehicles to our customer fleet as part of a strategic process to advance natural gas ahead of regulatory drivers. Ryder's market leadership in operating advanced vehicle technologies in commercial truck applications also includes Ryder's natural gas vehicle (NGV) and maintenance solutions offering. Ryder has made significant investments to purchase close to 1,000 alternative fuel vehicles. Natural gas vehicles reduce fuel costs and well-to-wheel CO2 emissions by 25%. In addition, Ryder will roll out electric pickup trucks to their customers in a new partnership with electric truck manufacturer Workhorse. The trucks will have an estimated 75 mpg fuel efficiency rating in all electric operation. VI) Fuel efficiency is a key strategic advantage for our business and provides us with both a short-term and long-term strategic advantage. By offering fuel-efficient vehicles and services to our customers, we develop long-standing relationships that drive future revenue and business growth. This aspect of our service offering strengthens our customer relations and business retention.

C3.1g

(C3.1g) Why does your organization not use climate-related scenario analysis to inform your business 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.

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

Scope

Scope 1+2 (location-based)

% emissions in Scope

15



Targeted % reduction from base year

20

Base year

2009

Start year

2012

Base year emissions covered by target (metric tons CO2e)

84,028

Target year

2020

Is this a science-based target?

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

% of target achieved

100

Target status

Underway

Please explain

Ryder's absolute target aims to reduce stationary emissions against a 2009 baseline and the goal is to achieve an emissions reduction of 20% by 2020 for the FMS shops, focusing on electricity and natural gas consumption. 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. Energy efficiency education increased by providing state and utility guidelines including rebate programs, allowing improved tracking, and creating energy webinars and educational materials to reduce 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

Scope

Scope 1+2 (location-based)

% emissions in Scope

15

Targeted % reduction from base year

20

Metric

Metric tons CO₂e per unit of service provided



Base year

2009

Start year

2009

Normalized base year emissions covered by target (metric tons CO₂e)

0.94

Target year

2020

Is this a science-based target?

% of target achieved

100

Target status

Underway

Please explain

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 9 years of the total time to target completion and exceeded the target (0.75 MTCO₂e/unit) with a current emission intensity of 0.47 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 62,045 MTCO₂e - already exceeded our target of 67,223 MT CO₂e 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.

% change anticipated in absolute Scope 1+2 emissions

-11

% change anticipated in absolute Scope 3 emissions

0

C4.2

(C4.2) Provide details of other key climate-related targets not already reported in question C4.1/a/b.

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 CO ₂ e savings in metric tonnes CO ₂ e (only for rows marked *)
Under investigation	0	0
To be implemented*	1	189
Implementation commenced*	1	5,887
Implemented*	5	203,620

Not to be implemented	0	0
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C4.3b

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

Initiative type

Energy efficiency: Building services

Description of initiative

Lighting

Estimated annual CO2e savings (metric tonnes CO2e)

3,342

Scope

Scope 2 (location-based)

Voluntary/Mandatory

Voluntary

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

663,787

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

6,290,784

Payback period

1-3 years

Estimated lifetime of the initiative



3-5 years

Comment

As of December 2017, Ryder had completed or in process, more than 219 projects to convert facilities from energy-intensive metal halides lighting 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 type

Process emissions reductions

Description of initiative

Changes in operations

Estimated annual CO2e savings (metric tonnes CO2e)

12,616

Scope

Scope 3

Voluntary/Mandatory

Voluntary

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

68,159,038

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

272,636,152

Payback period

4 - 10 years

Estimated lifetime of the initiative

11-15 years

Comment

Ryder reduces emissions significantly through RydeSmart. In existence since 2008, this program delivers up to a 10-15% reduction in fuel consumption through better routing, driving habits and reduced unauthorized use and idle time, directly leading to avoided scope 1 emissions for our customers. RydeSmart is a full-featured GPS fleet location, tracking, and vehicle performance system which lowers operating expenses and allows customers to know where their fleet is at all times. Vehicles can be easily monitored from a central location. RydeSmart allows customers to pinpoint their vehicle location, get accurate mileage or performance data or find out which truck is closest to their location. Ryder annually reduces approximately 12,616 MTCO₂e of customers' scope 1 emissions with the RydeSmart telematics program. Units that are equipped with RydeSmart achieved a 10% reduction in vehicle speeding, hard braking and reduced idling, resulting in 0.1 gallons/mile fuel savings. The emission reduction estimates are based on fuel savings from RydeSmart, miles travelled, and average mileage. b) Emission factors: Ryder 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.

Initiative type

Process emissions reductions

Description of initiative

Process materials selection

Estimated annual CO₂e savings (metric tonnes CO₂e)

129,561

Scope

Scope 1



Voluntary/Mandatory

Voluntary

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

8,646,713

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 130,000 metric tonnes (MT) CO₂e annually.

Initiative type

Process emissions reductions

Description of initiative

New equipment

Estimated annual CO₂e savings (metric tonnes CO₂e)

51,320

Scope

Scope 1



Voluntary/Mandatory

Voluntary

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

6,664,105

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

95,000,000

Payback period

11-15 years

Estimated lifetime of the initiative

16-20 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, has been and will continue to be Ryder's emphasis. To date, Ryder has a combined distance of over 150 million miles of natural gas vehicle experience where the Company has replaced more than 23.1 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. Ryder currently operates a fleet of 875 natural gas vehicles, and 27 natural gas compliant maintenance facilities, with 12 additional facilities scheduled for upgrades. The calculation is based on Argonne 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 since 2014. 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 (2017).

C4.3c

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

Method	Comment
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<p>Dedicated budget for energy efficiency</p>	<p>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. The environmental corporate team solicits utility rebates to offset costs and provides technical, project management support to complete upgrades. Over 219 energy efficient lighting projects have been completed at an average per project upgrade cost of \$28,725 and an average facility savings of 31,961 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.</p>
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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

The EPA SmartWay® Program is central to Ryder’s overall emission reduction strategy and is a key sustainability initiative to promote energy efficiency and reduce greenhouse gas GHG emissions (GHG). With best-in-class SmartWay Verified Technologies, Ryder offers its customers industry-leading vehicle performance, optimized fuel efficiency, and reduced carbon emissions. Ryder also reduces emissions significantly through the RydeSmart telematics program. This program is designed to deliver 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 annual reductions since its inception. RydeSmart is a full-featured GPS fleet location- tracking, and vehicle performance management system which lowers operating expenses and allows customers to know where their fleet is at all times and monitor driver performance. 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.

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

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

ANL: 0.061 g/BTU CNG vs 0.08 diesel

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

0.01

Comment

By 2017, Ryder had over 150 million miles using natural gas vehicles which is compared to the emissions created if these miles were run on diesel fuel. The calculation is based on Argonne 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 since 2014. 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 (2017). 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
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

SmartWay Tool

% 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. 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 Scope 1 and Scope 2 emissions.

The Climate Registry: General Reporting Protocol

The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)



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 Scope 1 and Scope 2 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)

749,903

Start date

January 1, 2018

End date

December 31, 2018

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

118,889

Scope 2, market-based (if applicable)

117,963

Start date

January 1, 2018

End date

December 31, 2018

Comment

We were able to obtain Market-Based factors for 17% of scope 2 emissions.

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 0.25% (2,155 MTCO₂) of our total emissions (0.29% of scope 1), including the other omissions.

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 138 facilities that have outdoor lighting meters where actual kWh usage is not provided. The emissions were estimated at 2,725 MTCO₂. This represents 0.3% of the total Scope 1 and 2 inventory (2% of scope 2), including the other omissions.

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 0.4% (3,663 MTCO₂) of the scope 1 and 2 emissions (0.5% 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 (including the other omissions).

Source

HVAC

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 1,165 A/C units (1 per site) and using R-407C refrigerants results in emissions of 17,778 MTCO₂e. This is 2% of scope 1 and 2 (2.4% 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



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

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 Scope 3 emissions, disclosing and explaining any exclusions.

Purchased goods and services

Evaluation status

Relevant, calculated

Metric tonnes CO2e

230,126

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

Explanation



Ryder customers purchase fuel through REDCO resulting in GHG emissions from extraction, production and transportation to distributor. Non-fuel 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

38,346

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

100

Explanation

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

135,559

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

Explanation

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

1,720

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



Explanation

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

3,755

Emissions calculation methodology

The average cost data method was applied to calculate category 5: Ryder waste hauling costs are approximately 0.024% 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 3,755 MTCO2e.

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

50

Explanation

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

15,492



Emissions calculation methodology

Travelers 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

Explanation

Ryder employs approximately 38,000 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, Travelers, 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

102,180

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 2018, there were 38,000 employees in North America (excluding truck drivers) resulting in 102,180 MTCO2e for commuting activities.

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

2

Explanation

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

Explanation

Ryder does not have significant upstream leased assets.

Downstream transportation and distribution

Evaluation status

Not relevant, explanation provided

Explanation

Ryder does not have significant sold products.

Processing of sold products

Evaluation status

Not relevant, explanation provided

Explanation

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

550,960

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

Explanation

The sale of used trucks was added to Ryder's scope 3 emissions. In 2018, Ryder held 6,900 trucks for sale. Based on average truck mileages, this equates to using 539,522,163 gallons. With the 22.2 lb/gal emission factor, this is 550,960 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

Explanation

Ryder does not have significant sold products.

Downstream leased assets

Evaluation status

Relevant, calculated



Metric tonnes CO2e

9,599,291

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

Explanation

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

Explanation

Ryder does not have any franchise operations.

Investments

Evaluation status

Not relevant, explanation provided

Explanation

Ryder does not own any GHG releasing investments.



Other (upstream)

Evaluation status

Not relevant, explanation provided

Explanation

Ryder does not have other scope 3 emissions.

Other (downstream)

Evaluation status

Not relevant, explanation provided

Explanation

Ryder does not have other scope 3 emissions.

C6.7

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

Yes

C6.7a

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

Row 1

Emissions from biologically sequestered carbon (metric tons CO2)

41,335

Comment



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

0.000103

Metric numerator (Gross global combined Scope 1 and 2 emissions)

868,793

Metric denominator

unit total revenue

Metric denominator: Unit total

8,409,215,000

Scope 2 figure used

Location-based

% change from previous year

9.4

Direction of change

Decreased

Reason for change



Revenue increased 9% to \$8,409,215,000 in 2018 while we realized emissions reductions from our 4 major emission reduction activities: Lighting Projects (4,927 MTCO₂e/yr), Energy Conservation Program (10,578 MTCO₂e/yr), High efficiency oil (10,672 MTCO₂e) and Natural Gas Fleet replacing diesel usage (895 MTCO₂e).

Intensity figure

21.94

Metric numerator (Gross global combined Scope 1 and 2 emissions)

868,793

Metric denominator

full time equivalent (FTE) employee

Metric denominator: Unit total

39,600

Scope 2 figure used

Location-based

% change from previous year

3.68

Direction of change

Increased

Reason for change

FTE increased 4.6% to 39,600 in 2018 while we realized emissions reductions from our 4 major emission reduction activities: Lighting Projects (4,927 MTCO₂e/yr), Energy Conservation Program (10,578 MTCO₂e/yr), High efficiency oil (10,672 MTCO₂e) and Natural Gas Fleet replacing diesel usage (895 MTCO₂e).
Natural Gas Fleet replacing diesel usage (632 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?

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	664,991
Canada	74,562
Europe	10,350

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	713,001
Fleet Management Solutions	26,459



Administration	93
International Operations	10,350

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	722,489
Fleet Maintenance activity	27,321
Administrative activity	93

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	722,489	

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 in market based approach (MWh)
United States of America	103,917	102,990	206,704	204,861



Canada	1,861	1,861	9,523	9,523
Mexico	11,341	11,341	20,620	20,620
Asia Pacific (or JAPA)	282	282	548	548
Europe	1,489	1,489	4,185	4,185

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 emissions (metric tons CO2e)	Scope 2, market based emissions (metric tons CO2e)
Supply Chain Solutions	54,707	53,080
Fleet Management Solutions	44,098	44,835
Administration	6,973	6,966
International Operations	13,111	13,111

C7.6c

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

Activity	Scope 2, location based emissions (metric tons CO2e)	Scope 2, market based emissions (metric tons CO2e)
Transportation Service/Fleet activity	54,707	53,080



Fleet Maintenance activity	57,209	57,946
Administrative activity	6,973	6,966

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	54,707	53,080	

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	6,542	Decreased	0.8	Ryder purchased 5% more biodiesel/renewable diesel from 2017 to 2018 (6,542. MTCO2e/803,307 MTCO2e 2017 Emissions = 0.8% decrease).
Other emissions reduction activities	27,072	Decreased	3.4	Ryder implemented the following emissions reduction activities in 2018 for our operations (not including



				scope 3): FMS Program, LED Lighting, RydeSmart, High efficiency oil (RIL fleet), Natural Gas Fleet replacing diesel usage (27,072 MT CO ₂ e/ 803,307MT CO ₂ e 2017 Emissions = 2.3% Decrease)
Divestment	0	No change	0	Ryder did not have any divestments in 2018.
Acquisitions	2,677	Increased	0.3	In 2018, Ryder acquired MXD group and Metro Truck and Tractor.
Mergers	0		0	Ryder did not have any mergers in 2018.
Change in output	62,727	Increased	7.8	Change in output - increased truck mileages (62,272 MTCO ₂ e /803,307 MTCO ₂ e 2017 Emissions = 7.8% increase).
Change in methodology				
Change in boundary	3,191	Increased	0.9	Additional propane accounts were added to the utility reporting (3,191 MTCO ₂ e/803,307 MTCO ₂ e 2017 emissions = 0.9% increase).
Change in physical operating conditions	6,841	Increased	0.9	Change in physical operating conditions/ weather related (6,841 MT CO ₂ e/ 803,307 MT CO ₂ e 2017 Emissions = 0.9% increase)
Unidentified	20,469	Increased	2.5	Unidentified changes (20,469 MT CO ₂ e/ 803,307 MT CO ₂ e 2017 Emissions = 2.5 % Increase)
Other	0		0	No other changes.

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 undertakes this energy related activity
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	Yes

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 MWh
Consumption of fuel (excluding feedstock)	LHV (lower heating value)	0	3,260,938	3,260,938
Consumption of purchased or acquired electricity		0	241,581	241,581



Consumption of self-generated non-fuel renewable energy		0		0
Total energy consumption		0	3,504,479	3,504,479

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

3,053,394



Comment

Fuels (excluding feedstocks)

Fuel Oil Number 2

Heating value

LHV (lower heating value)

Total fuel MWh consumed by the organization

5,156

Comment

Fuels (excluding feedstocks)

Natural Gas

Heating value

LHV (lower heating value)

Total fuel MWh consumed by the organization

190,723

Comment



Fuels (excluding feedstocks)

Propane Gas

Heating value

LHV (lower heating value)

Total fuel MWh consumed by the organization

13,625

Comment

C8.2d

(C8.2d) List the average emission factors of the fuels reported in C8.2c.

Diesel

Emission factor

22.2

Unit

lb CO₂e per gallon

Emission 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.

Fuel Oil Number 2

Emission factor

372.58

Unit

lb CO2 per million Btu

Emission factor source

UK: 372.58 lb/MMBtu - Reference: DEFRA 2018

US: 0.07396 MT/MMBtu - Reference: The Climate Registry

CAN: 199.7275 lb/MMBtu - Reference: The Climate Registry

Comment

UK emission factor (Heating Oil/Fuel Oil). We also used fuel oil number 2 emission factors for red diesel and burning oil.

Natural Gas

Emission factor

0.0531

Unit

metric tons CO2 per million Btu

Emission factor source

The Climate Registry (US/CAN) and DEFRA (UK, 118.99 lb/MMBtu).

Comment

The Climate Registry (US/CAN) and DEFRA (118.99 lb/MMBtu for UK).

Propane Gas

Emission factor

0.06171



Unit

metric tons CO2 per million Btu

Emission factor source

The Climate Registry (US/CAN/UK).

Comment

C8.2e

(C8.2e) Provide details on the electricity, heat, steam, and cooling your organization has generated and consumed in the reporting year.

	Total Gross generation (MWh)	Generation that is consumed by the organization (MWh)	Gross generation from renewable sources (MWh)	Generation from renewable sources that is consumed by the organization (MWh)
Electricity	0	0	0	0
Heat	209,504	209,504	0	0
Steam	0	0	0	0
Cooling	0	0	0	0

C8.2f

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

Basis for applying a low-carbon emission factor

Grid mix of renewable electricity



Low-carbon technology type

Other low-carbon technology, please specify
(average mix of renewable energy on grid)

Region of consumption of low-carbon electricity, heat, steam or cooling

North America

MWh consumed associated with low-carbon electricity, heat, steam or cooling

239,737

Emission factor (in units of metric tons CO₂e per MWh)

0.51

Comment

Ryder has market-based emission factors that differ from location-based emission factors but did not have specific low carbon electricity purchases in 2018.

C-TS8.4

(C-TS8.4) Provide any efficiency metrics that are appropriate for your organization's transport products and/or services.

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.

C-TO9.6/C-TS9.6

(C-TO9.6/C-TS9.6) What is your investment in research and development (R&D), equipment, products and services and which part of it would you consider a direct investment in the low-carbon transition?

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?

In progress

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 customers

Yes, other partners in the value chain

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

89

% Scope 3 emissions as reported in C6.5

89

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 since 2011. 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.



C12.1c

(C12.1c) Give details of your climate-related engagement strategy with other partners in the value chain.

- i. Ryder maintains close relationships with the Original Engine Manufacturers (OEM) who help support deployment of emerging fuel efficient technologies.ii. 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.
- ii. 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.

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 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	Ryder supports this legislation without exceptions.



		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. Ryder’s Vice President of Environmental, Real Estate, and Fuel Services maintains operational responsibility for environmental and sustainability programs including climate change strategy and Ryder’s General Counsel oversees day to day activities related to Government Affairs. 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

 ryder-csr-2017-2018-1.pdf

Page/Section reference

Page 12

Content elements

- Governance
- Strategy
- Risks & opportunities
- Emissions figures
- Emission targets
- Other metrics

Comment

C14. 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.

Ryder published an updated Corporate Sustainability Report in accordance with the Global Reporting Initiative (GRI) Standards Core option with detailed emissions and activity data (<http://rydercsr.com>). For the 2019 CDP response year, updates are provided to emission data (sections C6, C7 and C8), but at the time of CDP publication, these were not fully audited. Ryder plans to resume full CDP reporting in 2020.



C14.1

(C14.1) 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	8,409,215,000

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

Emissions in metric tonnes of CO2e

9,298

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 source for all 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 all SmartWay CO2 emission calculations.

Requesting member

Diageo Plc

Scope of emissions

Scope 3

Allocation level

Company wide

Emissions in metric tonnes of CO₂e

72

Uncertainty (±%)

2

Major sources of emissions

Stationary Scope 2 - Warehouse operation

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 one warehouse 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



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 source for all 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 all SmartWay CO2 emission calculations.

Requesting member

General Motors Company

Scope of emissions

Scope 3

Allocation level

Company wide

Emissions in metric tonnes of CO2e

1,097,032

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 all 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 all 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

Koninklijke Philips NV

Scope of emissions

Scope 3

Allocation level



Company wide

Emissions in metric tonnes of CO₂e

0

Uncertainty (±%)

0

Major sources of emissions

Ryder did not provide any Dedicated Transportation Solutions for Philips.

Verified

No

Allocation method

Other, please specify

Not applicable

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

Requesting member

Kellogg Company

Scope of emissions

Scope 3

Allocation level

Company wide

Emissions in metric tonnes of CO₂e

1,317

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 source for all 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 all SmartWay CO₂ emission calculations.

SC1.2

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

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 2019-2020 CDP Action Exchange initiative?



No

SC3.2

(SC3.2) Is your company a participating supplier in CDP’s 2018-2019 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

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

Please confirm below

I have read and accept the applicable Terms

