

**Module: Introduction****Page: Introduction**

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**CC0.1****Introduction**

Please give a general description and introduction to your organization.

Cummins Inc., a global power leader, is a corporation of complementary business units that design, manufacture, distribute and service diesel and natural gas engines and related technologies, including fuel systems, controls, air handling, filtration, emission solutions and electrical power generation systems. Headquartered in Columbus, Indiana, (USA) Cummins currently employs approximately 47,900 people worldwide and serves customers in approximately 190 countries and territories through a network of approximately 600 company-owned and independent distributor locations and approximately 6,500 dealer locations. Cummins earned \$1.48 billion on sales of \$17.3 billion in 2013. Press releases can be found on the Web at [www.cummins.com](http://www.cummins.com).

Our 2013-2014 Sustainability Report this year celebrates our six core values: Integrity, Innovation, Delivering Superior Results, Corporate Responsibility, Diversity and Global Involvement. Our leaders have embraced these values to guide the Company in good times and bad. Just since their adoption in the year 2000, they have helped Cummins successfully navigate multiple recessions, tremendous technological changes in our industry and the advent of fierce global competition. Cummins' values provide us with a foundation that enables our Company to look at challenging times not as a moment to stand still, but rather as an opportunity to position ourselves for a bright future, relying on our values to guide us more than ever.

Collectively, they are integral to everything we do, rooted in a 95-year tradition of partnering in our customers' success by providing innovative solutions to their power needs.

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**CC0.2****Reporting Year**

Please state the start and end date of the year for which you are reporting data.

The current reporting year is the latest/most recent 12-month period for which data is reported. Enter the dates of this year first.

We request data for more than one reporting period for some emission accounting questions. Please provide data for the three years prior to the current reporting year if you have not provided this information before, or if this is the first time you have answered a CDP information request. (This does not apply if you have been offered and selected the option of answering the shorter questionnaire). If you are going to provide additional years of data, please give the dates of those reporting periods here. Work backwards from the most recent reporting year. Please enter dates in following format: day(DD)/month(MM)/year(YYYY) (i.e. 31/01/2001).

Enter Periods that will be disclosed
Tue 01 Jan 2013 - Tue 31 Dec 2013

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### CC0.3

#### Country list configuration

Please select the countries for which you will be supplying data. This selection will be carried forward to assist you in completing your response.

Select country
United States of America
Australia
Brazil
China
India
Mexico
South Africa
United Kingdom
Rest of world

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### CC0.4

### Currency selection

Please select the currency in which you would like to submit your response. All financial information contained in the response should be in this currency.

USD(\$)

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### CC0.6

#### Modules

As part of the request for information on behalf of investors, electric utilities, companies with electric utility activities or assets, companies in the automobile or auto component manufacture sectors, companies in the oil and gas industry, companies in the information technology and telecommunications sectors and companies in the food, beverage and tobacco sectors should complete supplementary questions in addition to the main questionnaire.

If you are in these sectors (according to the Global Industry Classification Standard (GICS)), the corresponding sector modules will not appear below but will automatically appear in the navigation bar when you save this page. If you want to query your classification, please email [respond@cdp.net](mailto:respond@cdp.net).

If you have not been presented with a sector module that you consider would be appropriate for your company to answer, please select the module below. If you wish to view the questions first, please see <https://www.cdp.net/en-US/Programmes/Pages/More-questionnaires.aspx>.

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### Further Information

**Module: Management**

**Page: CC1. Governance**

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### CC1.1

**Where is the highest level of direct responsibility for climate change within your organization?**

Individual/Sub-set of the Board or other committee appointed by the Board

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### CC1.1a

**Please identify the position of the individual or name of the committee with this responsibility**

The Safety, Environment and Technology Committee of the Cummins Board of Directors. This committee met four times in 2013. The Committee advises senior leaders and the technical leadership of Cummins regarding: Environmental and technological strategies including climate change, compliance programs and major projects as they relate to the Company and its products; public policy developments, strategies and positions taken by the Company with respect to safety, environmental and technological matters that significantly impact the Company or its products; progress of strategic environmental programs and policies.

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**CC1.2**

**Do you provide incentives for the management of climate change issues, including the attainment of targets?**

Yes

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**CC1.2a**

**Please provide further details on the incentives provided for the management of climate change issues**

<b>Who is entitled to benefit from these incentives?</b>	<b>The type of incentives</b>	<b>Incentivized performance indicator</b>
Executive officer	Other non-monetary reward	Communicating climate change issues
Management group	Other non-monetary reward	Communicating climate change issues
Business unit managers	Other non-monetary reward	Communicating climate change issues
Energy managers	Recognition (non-monetary)	Meeting greenhouse gas reduction targets
Environment/Sustainability managers	Recognition (non-monetary)	Meeting greenhouse gas reduction targets
Facility managers	Other non-monetary reward	Meeting greenhouse gas reduction targets
Process operation managers	Other non-monetary reward	Meeting greenhouse gas reduction targets
All employees	Recognition (non-monetary)	Meeting greenhouse gas reduction targets
Chief Executive Officer (CEO)	Other non-monetary reward	Communicating climate change issues

Who is entitled to benefit from these incentives?	The type of incentives	Incentivized performance indicator
Facility managers	Recognition (non-monetary)	Superior performance in energy reduction contest

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**Further Information**

**Page: CC2. Strategy**

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**CC2.1**

**Please select the option that best describes your risk management procedures with regard to climate change risks and opportunities**

Integrated into multi-disciplinary company wide risk management processes

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**CC2.1a**

**Please provide further details on your risk management procedures with regard to climate change risks and opportunities**

Frequency of monitoring	To whom are results reported	Geographical areas considered	How far into the future are risks considered?	Comment
Six-monthly or more frequently	Individual/Sub-set of the Board or committee appointed by the Board	all areas in which Cummins has operations	3 to 6 years	The Board of Directors

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**CC2.1b**

**Please describe how your risk and opportunity identification processes are applied at both company and asset level**

At a company level, the Enterprise Risk Management group, which reports to the Vice President of Corporate Strategy, maintains a risk map to identify all potential risks (and to an extent, potential opportunities) the company faces, including strategic, operational, compliance and financial risks. The risk map is updated based on input from senior leadership, Cummins' Board of Directors and others throughout the organization. The risks identified by senior leadership and the Board of Directors are evaluated based on their likelihood and impact. The risks are also being assessed based on Cummins' capability to manage the risks. Certain risks identified are further explored through the use of strategy projects or Six Sigma projects. Cummins' top risks are presented at each meeting of the Board of Directors. Also, periodically a deep dive into specific risks is presented to the Board. In addition, once a year a state of Enterprise Risk Management update is provided to the Board of Directors.

At an asset level, the Enterprise Risk Management group is responsible for working with each of our sites to develop business continuity plans. By the end of 2014 we will have business continuity plans in place at all of our sites, nearly 500 in total. The business continuity plans address potential risks each facility faces, including operational and environmental risks. The plans identify the appropriate preparedness opportunities, contingency plans, and recovery plans for each facility's top risks. The business continuity plans are updated on an annual basis, and facilities are expected to conduct a tabletop exercise based on a potential disaster scenario at least once a year to test the fitness of the facilities' business continuity plans and their level preparedness for a disaster. The results of the annual updates and tabletop exercises are reported to senior corporate and business unit leadership.

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**CC2.1c**

**How do you prioritize the risks and opportunities identified?**

Cummins has adopted a variety of tools and techniques for enterprise risk management. As we analyze our comprehensive enterprise risks, we are using consistent criteria to measure the impact of these risks. The criteria include a broad variety of impacts, including among others, financial, environmental, safety, reputation, and strategic impacts. We also are measuring the likelihood of each risk's occurrence consistently. In addition, we now are evaluating each risk using common criteria to assess our capability to manage each risk.

The Action Committee for Environmental Sustainability) also assesses risk related to climate change. The active working group that takes a very structured and results-oriented approach to our 10 environmental sustainability principles developed to meet the challenges of climate change (in addition to water and waste management) going forward - and part of the approach includes discussion and analysis about climate change risk and opportunities.

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**CC2.1d**

Please explain why you do not have a process in place for assessing and managing risks and opportunities from climate change, and whether you plan to introduce such a process in future

Main reason for not having a process	Do you plan to introduce a process?	Comment
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## CC2.2

**Is climate change integrated into your business strategy?**

Yes

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### CC2.2a

**Please describe the process of how climate change is integrated into your business strategy and any outcomes of this process**

Cummins expresses a strong commitment to the environment through its mission statement and has made significant progress in reducing the company's footprint. There is much more that can and should be done. We have expanded the scope of our Climate Change Working Group (originally formed in 2007) to include all aspects of the environment .

The new Action Committee for Environmental Sustainability (ACES) has been launched to lead these efforts across the company. ACES involves all businesses, all functions and all locations. In June 2014, Cummins announced that after nearly two years of study, Cummins has adopted a comprehensive environmental sustainability plan to shrink its footprint even more. The plan addresses the Company's biggest environmental opportunities – from the materials it buys to its products in use.

Cummins will continue to design for the efficient use of fuel and raw materials, building on successes like the Cummins-Peterbilt "SuperTruck" praised by the President of the United States in February of 2014. The concept tractor-trailer achieved a 75 percent improvement in fuel economy compared to a typical truck.

The Company must also address its global supply chain, reducing Cummins' use of raw materials and packaging and miles traveled to ship goods around the Cummins network.

But the biggest opportunity involves working with customers around the world when the Company's engines, generators and other products are in use. This can save customers money while reducing greenhouse gas (GHG) emissions.

Initially, Cummins is setting its most specific goals for its own facilities where it has the most influence and experience:

- Reducing energy use and GHG emissions by 25 percent and 27 percent, respectively, compared to a 2005 baseline and adjusted by sales, by 2015.
- Reducing direct water use 33 percent by 2020, adjusted by hours worked and compared to a 2010 baseline. In addition, achieving “water neutrality” at 15 water-scarce sites by off-setting water use with community conservation or by other techniques.
- Increasing Cummins’ recycling rate from 89 percent to 95 percent by 2020 and achieving “zero disposal” status at 30 major sites where all waste is recycled in a useful manner.

The six Environmental Stakeholder Areas ensure that all aspects of the environment and relevant areas of the business are included and coordinated.

The vision and mission of each of the six stakeholder are as follows.

1. Supply Chain – A Supply Chain Working Group is focused on reducing the Cummins environmental footprint: (1) in existing and new operations and facilities (water, energy, air, waste); (2) by influencing purchasing decisions and the supply base; and (3) by optimizing the company’s planning and logistics efforts.
2. Customers / In-Use Products – Cummins manufacturers over a million engines and various other components annually and can help reduce the environmental impact of these existing products in-use by working with customers to improve their efficiency. This reduces fuel use and emissions (greenhouse gas and criteria). Additional aspects of focus include service and maintenance practices, remanufacturing, recycling and end of life.
3. Design for Environment – Since an estimated 70% of the environmental impacts of a product are determined in the design phase, this team is working to embed environmental considerations into new product development and product planning processes. By utilizing Life Cycle Analysis tools, engineers will be able to better understand the impact of their choices on the environment from the extraction of raw materials to end of life.
4. Business and Technology Strategy – Greater consideration will be given to global environmental aspects due to the strong tie to Cummins business. By fully integrating environmental data and trends into business and technology strategy, the company will be better positioned to consider and act on growth opportunities as well as create risk mitigation plans for business continuity.
5. Employee and Community Engagement – The team will educate employees to ensure an understanding of the company’s environmental impact and how they can help reduce it. The aim is to create a culture which inspires employees to act whether they are at work, at home or in the community. This also involves identifying and forming partnerships to address the most significant community environmental problems.
6. External Communications and Marketing – Cummins has an increasingly compelling environmental story to tell, and numerous stakeholders from customers to recruits to government officials that are interested in hearing it. This team will create and maintain a Cummins environmental communications strategy that will get the message out and ensure a clear, consistent message across the company.

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CC2.2b

Please explain why climate change is not integrated into your business strategy

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**CC2.3**

**Do you engage in activities that could either directly or indirectly influence public policy on climate change through any of the following? (tick all that apply)**

Direct engagement with policy makers  
Trade associations  
Other

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**CC2.3a**

**On what issues have you been engaging directly with policy makers?**

<b>Focus of legislation</b>	<b>Corporate Position</b>	<b>Details of engagement</b>	<b>Proposed legislative solution</b>
Clean energy generation	Support	building coalitions among various stakeholders working with customers on solutions using clean burning energy and waste to energy and renewable energy educating policymakers	combined heat and power waste to energy solutions
Energy efficiency	Support	member of Department of Energy Better Buildings, Better Plants Program active in various industrial energy efficiency groups, both sector specific and general at national and regional levels	promotion and modelling of industrial energy efficiency practices
Other: Product efficiency	Support	building coalitions among various stakeholders working with on customers, government, other stakeholders of educating policymakers	next generation of fuel efficient vehicles power generation systems using renewable energy

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**CC2.3b**

**Are you on the Board of any trade associations or provide funding beyond membership?**

Yes

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**CC2.3c**

**Please enter the details of those trade associations that are likely to take a position on climate change legislation**

Trade association	Is your position on climate change consistent with theirs?	Please explain the trade association's position	How have you, or are you attempting to, influence the position?
The American Trucking Association	Unknown	no position at this time pending introduction of comprehensive climate change legislation	Cummins works actively in the ATA to encourage it to be supportive of fuel economy in vehicles and of energy efficiency programs in our sector
The Business Roundtable	Unknown	no position at this time pending introduction of comprehensive climate change legislation	Cummins is a member of the Business Roundtable's S.E.E. Change (Society, Environment and Economy) initiative, which encourages member companies to lead by example and adopt business strategies and projects that measurably improve society, the environment and the economy. Cummins has been a regular contributor to Roundtable's annual sustainability report, including the 2013 report "Doing Well by Doing Good."
The Diesel Technology Forum	Unknown	no position at this time pending introduction of comprehensive climate change legislation	Cummins works actively in the DTF to encourage it to be supportive of fuel economy in vehicles and of energy efficiency programs in our sector
The Engine Manufacturers Association	Unknown	no position at this time pending introduction of comprehensive climate change legislation	Cummins works actively in the EMA to encourage it to be supportive of engine efficiency and of energy efficiency programs in our sector
The National Association of Manufacturers	Unknown	no position at this time pending introduction of comprehensive climate change legislation	Cummins works actively in NAM to encourage it to be supportive of fuel economy in vehicles and of industrial energy efficiency programs in our sector
U.S. Chamber of Commerce	Unknown	no position at this time pending introduction of comprehensive climate change legislation	Cummins works actively with the US Chamber to encourage them to be supportive of fuel economy in vehicles and of energy efficiency programs in our sector
China Internal Combustion Engine Industry Association	Unknown	no position at this time pending introduction of comprehensive climate change legislation	Cummins has worked with CICEA on fuel consumption activity, NS IV readiness and how to ensure industry-wide compliance in China.

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**CC2.3d**

Do you publically disclose a list of all the research organizations that you fund?

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**CC2.3e**

Do you fund any research organizations to produce or disseminate public work on climate change?

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**CC2.3f**

Please describe the work and how it aligns with your own strategy on climate change

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**CC2.3g**

**Please provide details of the other engagement activities that you undertake**

Cummins was very active in the development of the first-ever GHG and fuel efficiency standards for heavy-duty and medium-duty vehicles in the United States. The company was involved for more than four years – forming a stakeholder group with other companies in the industry, writing a regulatory framework white paper, supporting the rule publicly when it was proposed and providing extensive feedback during the comment period. The rule was finalized in August 2011 with new standards that take effect for engines and vehicles starting in 2014. In October 2012, Cummins announced that it was the first manufacturer to receive U.S. EPA certification for the new GHG engine standards, one year earlier than required.

The Company is now working with regulators to build on the success of Phase 1 to help shape the next stage of GHG and fuel efficiency standards known as Phase 2. A key aspect for Phase 2 is to maintain the same regulatory structure with separate standards for the engine and the rest of the vehicle. Separate standards are critical for the regulation to achieve environmental and user benefits while recognizing the diversity and complexity of the commercial vehicle sector.

Separate standards are important for the U.S., just as in China, Europe and everywhere around the world where Cummins is involved in working with regulators as they consider GHG and fuel efficiency regulations.

Cummins' role in developing Phase 1 and in demonstrating the next generation of superior fuel efficiency has not gone unnoticed. The Cummins-Peterbilt "SuperTruck" was recognized during a speech from U.S. President Barack Obama in February, 2014, for the announcement of the Phase 2 GHG and fuel efficiency standards for medium- and heavy-duty vehicles.

Cummins' environmental sustainability principles shape the Company's actions not only in the United States, but around the world. Cummins participates in the Global Commercial Vehicle industry forum, a group comprised of European, North American and Japanese manufacturers of heavy-duty vehicles and engines.

Cummins is also becoming more involved in GHG and fuel efficiency regulatory development in Europe, China and other regions of the world. In fact, Cummins has dedicated resources to focus specifically on the policies involving GHG and fuel efficiency regulations for our products around the world. This will help us better coordinate the Company's global activities in developing responsible regulations that promote technologies for more efficient products with lower GHG.

Our government relations staff continue to advocate globally for products and technologies that benefit the environment. These include fuel efficient generators for military applications, combined heat and power systems and distributed generation and natural gas engines. Cummins is active in efforts to remove barriers to remanufacturing and remanufactured goods globally. In the U.S., the Company is leading a coalition whose aim is to secure continued funding for the Diesel Emissions Reduction Act (DERA) to either rebuild or replace diesel-powered vehicle engines to meet more stringent emission standards or install emission reduction systems.

Cummins research work does not fall under climate change research as specifically asked in this question, but we include the following summary of our activity as evidence of our work that is a response to climate change.

Cummins continues to build upon its longstanding partnerships with the U.S. Department of Energy (DOE) and other federal and state agencies to develop advances in product energy efficiency. Previous Cummins programs funded by the DOE and others have led to both evolutionary and breakthrough technologies and analytical approaches, speeding up the time for commercialization of vehicles and power systems based on advanced combustion engines and emission control technologies. The Company's current portfolio of Government co-funded system integration programs stands at \$159.4 million in total public/private research investment, divided among four major DOE programs and a California Energy Commission (CEC) program, over their respective contract periods.

Cummins partners with hundreds of universities around the world to assist the company with research and development. For example, the Massachusetts Institute of Technology In conjunction with the Massachusetts Institute of Technology's Environmentally Benign Manufacturing Group, Cummins is investigating a high level view of the energy to make and manufacture engine components.

Cummins sits on the American Energy Innovation Council, the President's Council of Resources for the Future, the Clean Air Act Advisory Council, and the North American Council for Freight Efficiency.

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### CC2.3h

**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?**

Cummins mission statement is: "Demanding that everything we do leads to a cleaner, healthier, safer environment." This is a strong statement because in a very real sense our business is the environment. We have grown our business globally by meeting emissions standards, strengthened customer relationships by helping them save fuel and saved millions by cutting energy and waste. We can also have a real impact due to the volume and breadth of our products used around the world. And our employees not only care about the environment but are spending an increasing amount of their own time to address some of the most significant environmental challenges facing the world.

We have formed the Action Committee for Environmental Sustainability mentioned above and created 10 environmental sustainability principles listed below. Our

vision, mission and principles are the benchmark against we measure all of our actions.

Six of the Company's 10 environmental sustainability principles involve company actions regarding products, operations and our employees. They shape the activities of the six stakeholder areas already mentioned. They are:

- Develop clean, efficient products
- Grow and develop new businesses
- Develop environmentally sustainable supply chains
- Make work spaces green spaces.
- Harness the energy of employees
- Engage in the community

Four of the Company's 10 environmental sustainability principles focus on partnerships with legislative and regulatory entities to develop sound public policy to reduce our impact on the environment. They are:

- Help develop responsible regulations.
- Promote technology development.
- Advocate for incentives to accelerate progress
- Support a balanced global approach.

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#### CC2.3i

Please explain why you do not engage with policy makers

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#### Further Information

Please see Partnerships and Policy section starting on page 54 of our 2013 / 2014 Sustainability Report at [cummins.com/sustainability](http://cummins.com/sustainability)

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#### Attachments

[https://www.cdp.net/sites/2014/36/4136/Investor CDP 2014/Shared Documents/Attachments/InvestorCDP2014/CC2.Strategy/Cummins supports government efforts GHG and FE standards Press Release.pdf](https://www.cdp.net/sites/2014/36/4136/Investor%20CDP%202014/Shared%20Documents/Attachments/InvestorCDP2014/CC2.Strategy/Cummins%20supports%20government%20efforts%20GHG%20and%20FE%20standards%20Press%20Release.pdf)

**CC3.1**

**Did you have an emissions reduction target that was active (ongoing or reached completion) in the reporting year?**

Intensity target

**CC3.1a**

Please provide details of your absolute target

ID	Scope	% of emissions in scope	% reduction from base year	Base year	Base year emissions (metric tonnes CO2e)	Target year	Comment
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**CC3.1b**

Please provide details of your intensity target

ID	Scope	% of emissions in scope	% reduction from base year	Metric	Base year	Normalized base year emissions	Target year	Comment
Int1	Scope 1+2	97%	27%	metric tonnes CO2e per unit revenue	2005	0.000065	2015	Our goal includes emissions from Cummins owned and operated facilities. This excludes emissions from all joint venture operations both subscribing and not subscribing to Cummins Enterprise Environmental Management System. This also excludes emissions from generation of sold electricity.

**CC3.1c**

Please also indicate what change in absolute emissions this intensity target reflects

ID	Direction of change anticipated in absolute Scope 1+2 emissions at target completion?	% change anticipated in absolute Scope 1+2 emissions	Direction of change anticipated in absolute Scope 3 emissions at target completion?	% change anticipated in absolute Scope 3 emissions	Comment
Int1	Increase	25			The new goal was set after the baseline changes due to divestments and acquisitions. The scope doesn't include emissions from joint venture operations both subscribed and not subscribed to Cummins Enterprise EMS and emissions from generation of sold electricity. The goals have not been finalized yet for the scope 3 emissions. Absolute GHG emissions are projected to increase due to new facility construction & acquisitions, production expansion, and increased product development testing (especially for high horsepower products). We implemented our 2013-2015 GHG management plan to offset some of this increase to ensure we will meet our normalized goal.

**CC3.1d**

For all of your targets, please provide details on the progress made in the reporting year

ID	% complete (time)	% complete (emissions)	Comment
Int1	80%	100%	Cummins have achieved 33% reduction in GHG intensity by 2013 based on 2005 base year. However, Cummins has projects undergoing that can result in substantial increase in absolute emissions without significant impact on the revenue.

**CC3.1e**

Please explain (i) why you do not have a target; and (ii) forecast how your emissions will change over the next five years

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### CC3.2

**Does the use of your goods and/or services directly enable GHG emissions to be avoided by a third party?**

Yes

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### CC3.2a

**Please provide details of how the use of your goods and/or services directly enable GHG emissions to be avoided by a third party**

Power Generation: Cummins Power Generation designs and builds cogeneration systems used around the globe in various applications such as in hospitals, schools, sports complexes and commercial facilities. Cogeneration can replace traditional methods of supplying energy from multiple sources – for example, purchasing electricity from the power grid and burning natural gas or oil separately in a furnace to produce heat or steam. These methods can waste up to two-thirds of the energy in the original fuel. With cogeneration, 70 to 90 percent of the energy in the original fuel is put to productive use, and total energy savings can be 30 percent or more.

Hybrid generators for RVs: A hybrid generator set is a great example of how Cummins is using technology to reduce fuel consumption by recreational vehicle (RV) owners. Cummins Power Generation has been able to reduce generator fuel consumption by up to 20 percent. The hybrid generator weighs up to 374 lbs less than our large diesel generators. This translates directly into better fuel economy for RV's, which in turn means a reduction in carbon footprint. Cummins has a new line of mobile power generators for military use whose environmental and logistical benefits include greater fuel efficiency, lighter weight and increased reliability with a lower total lifecycle cost. The new Advanced Medium Mobile Power Sources (AMMPS) generator sets are 21 percent more fuel efficient than the predecessor TQG line. The U.S. Army, AMMPS first customer, expects to save \$745 million on 52 million gallons of fuel annually. That is a fuel savings of \$11.2 billion over the life of the fleet. The associated annual carbon emissions reductions are 509,698 metric tons of CO<sub>2</sub> or 7.7 million metric tons over the expected life of the generators.

More and more businesses are producing profitable and environmentally responsible energy from waste. Landfill, wastewater treatment and other waste fuel source owners are discovering they can convert these alternative gaseous fuels into sustainable and economical electricity – reducing costs and environmental footprint. Driving the change are low-BTU gas generator sets, which use proven technology to convert these 'free' energy sources into clean and economical electricity.

Cummins in 2014 launched the G Series platform, a new global Heavy-Duty engine now in production in China to meet a broad variety of on-highway and off-highway needs. A key design focus for the G series, available in 10.5- and 11.8-liter displacements, has been on achieving significant weight reductions to increase the engine's power-to-weight ratio. In 2013 and 2014, Cummins introduced to the North American construction and agricultural markets the new QSG12 engine, a

member of the “G Series family” for Heavy-Duty applications. The QSG12 includes significant weight savings through the use of such things as composite material. In addition, the engine system integrates Cummins’ Selective Catalytic Reduction (SCR) technology to reduce emissions and allow for improved fuel efficiency.

Cummins announced in 2013 that a locomotive with the Company’s QSK95 engine will begin commercial operations in 2014 with the Indiana Rail Road Company (IRR), enabling field test engineers to study the 95-liter engine as it powers the locomotive hauling industrial freight across IRR’s network. Cummins will own and operate the 4,200 horsepower locomotive powered by the QSK95, nicknamed the Hedgehog. Cummins engineers will be able to constantly monitor the locomotive’s operations on IRR’s tracks and fine tune the engine remotely to achieve optimal power and fuel efficiency.

ISX12 G engine went into full production during the summer of 2013, having received certification from the EPA earlier that year for meeting the agency’s new greenhouse gas and fuel efficiency rules taking effect in 2014. The engine is designed and marketed by Cummins Westport, a joint venture between Cummins and Westport Innovations of Vancouver, British Columbia. Cummins produces the engines in its Rocky Mount, NC plant.

The Company also announced a new powertrain package for the North American heavy-duty truck market in 2013 that is expected to deliver a 3 to 6 percent fuel economy improvement, lower preventive maintenance costs, and reduce total lifecycle cost. The new product combines an Eaton® Fuller Advantage™ Series automated transmission with new Cummins ISX15 SmartTorque2 ratings. The product will be available in the fall of 2013 for linehaul, regional haul and less-than truckload (LTL) applications.

**CC3.3**

**Did you have emissions reduction initiatives that were active within the reporting year (this can include those in the planning and implementation phases)**

Yes

**CC3.3a**

**Please identify the total number of projects at each stage of development, and for those in the implementation stages, the estimated CO2e savings**

Stage of development	Number of projects	Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked *)
Under investigation	131	
To be implemented*	95	35000

Stage of development	Number of projects	Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked *)
Implementation commenced*	65	28000
Implemented*	83	25000
Not to be implemented	12	3400

### CC3.3b

For those initiatives implemented in the reporting year, please provide details in the table below

Activity type	Description of activity	Estimated annual CO2e savings (metric tonnes CO2e)	Annual monetary savings (unit currency - as specified in CC0.4)	Investment required (unit currency - as specified in CC0.4)	Payback period	Estimated lifetime of the initiative, years	Comment
Energy efficiency: Building services	Office lighting efficiency upgrade in Mineral Point, WI	300	30000	102000	1-3 years	5	
Energy efficiency: Building services	Compressed air system optimization at plant in Charleston, SC	250	50000	11000	1-3 years	15	
Energy efficiency: Building services	Building management system upgrade in Huddersfield, UK	322	46400	311000	1-3 years	10	
Energy efficiency: Building services	Remove electrical heating from process ventilation at plant in Quimper, France	8	20000	15000	1-3 years	10	
Energy efficiency: Building services	Replace hi-pressure mercury vapor with LED lamps at plant in Quimper, France	11	15000	30000	1-3 years	5	
Energy efficiency: Building services	Removing cooling tower by reusing cooling at plant in Quimper, France	550	25000	53000	1-3 years	10	

Activity type	Description of activity	Estimated annual CO2e savings (metric tonnes CO2e)	Annual monetary savings (unit currency - as specified in CC0.4)	Investment required (unit currency - as specified in CC0.4)	Payback period	Estimated lifetime of the initiative, years	Comment
Energy efficiency: Processes	Thermal cycle turbo boost recirculation at plant in Charleston, SC	105	20000	50000	1-3 years	10	
Energy efficiency: Building services	Air compressor upgrade at plant in Huddersfield, UK	239	92000	119000	1-3 years	15	
Energy efficiency: Building services	Building management system upgrade at plant in Columbus, IN	738	53400	102525	1-3 years	10	
Energy efficiency: Building services	Sub-meter installation at plant in Columbus, IN	500	35000	150000	4-10 years	10	
Energy efficiency: Building services	Dock Door Seal & Rapid Roll Door Installation at plant in Columbus, IN	329	52000	145000	1-3 years	15	
Energy efficiency: Building services	Building 96 Re-heat at plant in Columbus, IN	150	14000	32000	1-3 years	10	
Energy efficiency: Building services	8 Air handler re-build at plant in Columbus, IN	347	37000	60000	1-3 years	10	
Energy efficiency: Building services	Sub-meter installation at tech center in Charleston, SC	57	12000	68000	4-10 years	15	
Energy efficiency: Building services	Chiller replacement at plant in Pune, India	113	17000	23000	1-3 years	10	
Energy efficiency: Building services	Compressed air system optimization at plant in Pune, India	227	28800	69000	1-3 years	15	
Energy efficiency: Building services	Sub-meter installation at plant in Columbus, IN	519	61000	276000	4-10 years	15	
Energy efficiency: Building services	Sub-meter & dashboard installation at tech center in Columbus, IN	604	80000	335000	4-10 years	15	
Energy efficiency: Building services	Compressed air system optimization at plant in Columbus, IN	65	5700	35000	4-10 years	15	
Energy efficiency: Building services	Sub-meter installation at plant in Columbus, IN	614	75000	100000	1-3 years	15	
Energy efficiency: Building services	Steam boiler elimination at plant in Columbus, IN at plant in Columbus, IN	94	11880	125000	4-10 years	15	

Activity type	Description of activity	Estimated annual CO2e savings (metric tonnes CO2e)	Annual monetary savings (unit currency - as specified in CC0.4)	Investment required (unit currency - as specified in CC0.4)	Payback period	Estimated lifetime of the initiative, years	Comment
Energy efficiency: Building services	HVAC upgrade at plant in Jamestown, NY	928	113200	309000	1-3 years	15	
Energy efficiency: Building services	HVAC upgrade at plant in Jamestown, NY	265	65000	540000	4-10 years	15	
Energy efficiency: Building services	Office lighting efficiency upgrade at plant in Jamestown, NY	30	9000	37000	4-10 years	5	
Energy efficiency: Processes	Regen dyno installation at plant in Jamestown, NY	342	113000	500000	4-10 years	15	
Energy efficiency: Building services	Air compressor upgrade at plant in Jamestown, NY	393	130000	680000	4-10 years	15	
Energy efficiency: Building services	Sub-meter installation at plant in Jamestown, NY	50	12000	53000	4-10 years	15	
Energy efficiency: Processes	Washer insulation installation at plant in Jamestown, NY	65	21000	30000	1-3 years	5	
Energy efficiency: Processes	Regen dyno installation at plant in Phaltan, India	3835	616000	1232000	1-3 years	15	
Energy efficiency: Processes	Regen dyno installation at plant in Rocky Mount, NC	901	130000	570000	4-10 years	15	
Energy efficiency: Building services	Sub-meter installation at plant in Rocky Mount, NC	502	38036	105000	1-3 years	15	
Energy efficiency: Processes	Regen dyno installation at plant in Seymour, IN	900	105000	425000	4-10 years	15	
Energy efficiency: Building services	Chiller upgrade to variable speed at plant in Seymour, IN	150	16200	53200	4-10 years	10	
Energy efficiency: Building services	Compressed air system improvements at plant in San Louis Potosi, Mexico	931	238000	178000	1-3 years	15	
Energy efficiency: Building services	Office lighting efficiency upgrade at office in Columbus, IN	187	21000	102000	4-10 years	5	
Energy efficiency: Building services	Heat recovery from air compressors at tech center in Wuhan, China	90	9239	35000	4-10 years	15	

Activity type	Description of activity	Estimated annual CO2e savings (metric tonnes CO2e)	Annual monetary savings (unit currency - as specified in CC0.4)	Investment required (unit currency - as specified in CC0.4)	Payback period	Estimated lifetime of the initiative, years	Comment
Energy efficiency: Building services	Lighting upgrade at plant in Elkhart, IN	40	3000	11000	4-10 years	5	
Energy efficiency: Building services	AHU upgrade at plant in Stamford, UK	248	54000	24000	1-3 years	10	
Energy efficiency: Building services	Roof insulation upgrade at plant in Jamestown, NY	232	37500	3300000	4-10 years	15	
Energy efficiency: Processes	Test cell energy recovery at tech center in Pune, India	4742	570000	1100000	1-3 years	15	
Energy efficiency: Building services	Lighting upgrade at plant in Stamford, UK	112	32000	155000	4-10 years	5	
Energy efficiency: Processes	Regen dyno installation at plant in Jamestown, NY	112	32000	155000	4-10 years	15	
Energy efficiency: Building services	Office and workshop lighting upgrade at Scoresby, Australia	507	102000	471000	4-10 years	5	

### CC3.3c

**What methods do you use to drive investment in emissions reduction activities?**

Method	Comment
Compliance with regulatory requirements/standards	In the UK, meeting the requirements of the Carbon Reduction Commitment Energy Efficiency Scheme (CRC)
Dedicated budget for energy efficiency	Since 2007, Cummins has implemented an energy efficiency capital fund to finance energy-related projects. Cummins has a comprehensive investment plan designed to achieve the Company's 2015 energy and GHG intensity goals. In 2013, Cummins used this fund to complete 43 capital projects, with a total investment of \$8 million and annual cost savings of \$2.5

Method	Comment
	million. To support Cummins' DOE goal, an additional \$20 million has been allocated for 2014. Projects must meet the Company's investment criteria and are expected to save \$7.3 million per year in energy costs (an internal rate of return of 27 percent) and reduce carbon emissions by 56,000 metric tons of carbon dioxide equivalents (CO2e) per year.
Dedicated budget for other emissions reduction activities	A central budget is provided to fund corporate energy and GHG initiatives, including the Cummins Energy Champion program and implementing ISO 50001 across the Cummins Enterprise. Cummins Turbo Technologies, Huddersfield, U.K.; the Columbus Engine Plant and the Rocky Mount Engine Plant in North Carolina are now ISO 50001 certified, with 12 more sites to be added in 2014 or early 2015. \$80000 has been allocated for 2014 to support the implementation of these programs.
Employee engagement	Cummins has trained a broad network of Energy Champions who coach and mentor site Energy Leaders to find and implement, through a process called an energy treasure hunt, low and no-cost energy projects that also save money for their sites. Labels on plant equipment make energy use and cost visible and empower employees to turn off equipment when not use when appropriate. To date, the Company now has over 240 trained Energy Champions at over 40 sites in the US, UK, India, China, Mexico, Brazil, Romania and Germany.
Financial optimization calculations	Cummins uses a model of the internal rate of return to establish a baseline IRR for funded energy efficiency projects.
Internal price of carbon	Cummins uses the cost of carbon as part of the financial decision making process in energy efficiency capital funding of projects.
Partnering with governments on technology development	Cummins has long worked in partnership with the U.S. Department of Energy (DOE) to develop advances in diesel engines and related technologies. SuperTruck demonstrates the integration of breakthrough engine efficiency improvements combined with Class 8 truck design improvements, including advanced aerodynamic research leading to a 60+ percent improvement in freight efficiency. ATLAS is developing 40 percent fuel economy benefits (vs. gasoline baseline), ultra-low NOx emission technology, and advanced lightweighting technology for the light duty truck market, with potential scalability to other vehicle classes or fuel types. ARES has completed its final phase of brake thermal efficiency development, targeting 50 percent, for the stationary natural gas power generation market. CHP, a joint Cummins Power Generation / Engine Business program, is delivering a packaged natural gas based Combined Heat and Power system for commercial and light industrial applications achieving more than 80 percent combined efficiency. The Ultra-Low Carbon Powertrain program, funded by CEC, supports Cummins development of a downsized medium duty engine / powertrain optimized for E85 targeting 50 percent GHG emissions reduction compared to the diesel powered baseline vehicle. Underlying Cummins' system integration programs is a valuable portfolio of CRADA's (collaborative research and development agreements) which team world class researchers at the DOE's system of National Laboratories with their counterparts at Cummins, jointly working on technologies and problem areas of mutually recognized criticality. Cummins is partnering with the DOE in the Better Plants Challenge, where the Company has committed to a 25% energy intensity reduction (from 2005 through 2015, normalized to revenue), provide transparent energy reporting, share best practices and implementation models. Cummins is on target to achieve its 2015 energy intensity goal, has shared the showcase plant-wide energy improvement project at the Jamestown NY engine plant, and the implementation model for the Company's Energy Champion program. In addition, Cummins is working with the DOE to pilot the Superior Energy Performance system. The engine plant in Rocky Mount, NC was the first to be SEP certified; three additional sites are currently implementing through the SEP Accelerator program.

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CC3.3d

If you do not have any emissions reduction initiatives, please explain why not

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**Further Information**

See the products section of our 2013/2014 Sustainability Report starting on page 26.

**Page: CC4. Communication**

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CC4.1

**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	Page/Section reference	Attach the document
In mainstream financial reports (complete)	page 14	<a href="https://www.cdp.net/sites/2014/36/4136/Investor%20CDP%202014/Shared%20Documents/Attachments/CC4.1/CumminsInc%202013%2010K.rtf">https://www.cdp.net/sites/2014/36/4136/Investor CDP 2014/Shared Documents/Attachments/CC4.1/CumminsInc 2013 10K.rtf</a>
In voluntary communications (complete)	pages 41-55	<a href="https://www.cdp.net/sites/2014/36/4136/Investor%20CDP%202014/Shared%20Documents/Attachments/CC4.1/2014-SR-Full%20Report-Web.pdf">https://www.cdp.net/sites/2014/36/4136/Investor CDP 2014/Shared Documents/Attachments/CC4.1/2014-SR-Full Report-Web.pdf</a>
In voluntary communications (complete)	all	<a href="https://www.cdp.net/sites/2014/36/4136/Investor%20CDP%202014/Shared%20Documents/Attachments/CC4.1/Environmental%20Sustainability%20brochure.pdf">https://www.cdp.net/sites/2014/36/4136/Investor CDP 2014/Shared Documents/Attachments/CC4.1/Environmental Sustainability brochure.pdf</a>
In voluntary communications (complete)	all	<a href="https://www.cdp.net/sites/2014/36/4136/Investor%20CDP%202014/Shared%20Documents/Attachments/CC4.1/Globally%20Involved%20Fuel%20Efficiency%20GHG%20standards.pdf">https://www.cdp.net/sites/2014/36/4136/Investor CDP 2014/Shared Documents/Attachments/CC4.1/Globally Involved Fuel Efficiency GHG standards.pdf</a>
In voluntary communications (complete)	all	<a href="https://www.cdp.net/sites/2014/36/4136/Investor%20CDP%202014/Shared%20Documents/Attachments/CC4.1/2014%20Cummins%20final.pdf">https://www.cdp.net/sites/2014/36/4136/Investor CDP 2014/Shared Documents/Attachments/CC4.1/2014 Cummins final.pdf</a>

Publication	Page/Section reference	Attach the document
In voluntary communications (complete)	all	<a href="https://www.cdp.net/sites/2014/36/4136/Investor%20CDP%202014/Shared%20Documents/Attachments/CC4.1/Linebarger%20Purdue%20speech.pdf">https://www.cdp.net/sites/2014/36/4136/Investor CDP 2014/Shared Documents/Attachments/CC4.1/Linebarger Purdue speech.pdf</a>

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**Further Information**

**Module: Risks and Opportunities**

**Page: CC5. Climate Change Risks**

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**CC5.1**

**Have you identified any climate change risks that have the potential to generate a substantive change in your business operations, revenue or expenditure? Tick all that apply**

- Risks driven by changes in regulation
- Risks driven by changes in other climate-related developments

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**CC5.1a**

**Please describe your risks driven by changes in regulation**

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Uncertainty surrounding new regulation	If regulation is passed that is not clear, tough, fair or enforceable, that could pose a risk for Cummins.	Inability to do business	>6 years	Direct	Unknown	Medium	<p>If regulations are not clear or do not provide sufficient lead-time, then we may not have products ready to sell in a market. Additionally, if regulations are not enforced, then Cummins will invest to develop compliant product while others in a country may not and thus put our products at a competitive disadvantage.</p>	<p>Through our Emissions Compliance function and oversight executive committee, compliance activities are now globally managed, coordinated and connected so as a company, Cummins better understands risks and exposures, has improved internal collaboration and visibility, and is well-positioned to react to cross-functional compliance issues. In November 2012, the first regional emissions compliance team was created in India. In 2013, regional teams for South America, Mexico/Central America, the United States/Canada Europe/Middle East and China were launched .</p>	

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Fuel/energy taxes and regulations	Carbon Reduction Commitment (CRC) energy efficiency legislation enacted in the UK on April 1, 2010 could pose a risk for Cummins.	Increased operational cost	Up to 1 year	Direct	Virtually certain	Low	Cummins entities in the UK are within the scope of the Carbon Reduction Commitment (CRC) regulations developed to drive greenhouse gas reductions in the public and private sectors. Cummins' payment to the UK Environmental Agency in 2013 was \$750,000. Cummins understands there are negative financial implications if the Company's GHG performance worsened.	Cummins has a robust energy efficiency program that includes market innovations such as a central energy efficiency capital fund and an energy champions program. Project examples in the UK are given in question 3.	Any additional cost would be part of our existing process in funding and implementing energy efficiency projects. In 2013 capital spent for energy efficiency projects in the UK was \$609,000.
Emission reporting obligations	A potential risk is some form of U.S. federal legislation or regulation may be forthcoming with respect to regulating manufacturers'	Other: additional employees needed	3 to 6 years	Direct	About as likely as not	Low	Not meaningful	In 2010, Cummins implemented an environmental data collection and tracking system that made the gathering and public reporting of performance data for Cummins	The yearly cost of service with service provider (not meaningful). If there is regulation, possible additional headcount.

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	greenhouse gas emissions							locations easier and more accurate.	
Product efficiency regulations and standards	The finalization of greenhouse gas and fuel efficiency standards for medium-and heavy-duty vehicles in the US could pose a risk for Cummins.	Other: regulatory risk of non compliance and increased product devel cost	1 to 3 years	Direct	Virtually certain	Low-medium	There are costs associated with certifying our engines to a new regulatory regime for CO2 and fuel efficiency.	We have worked with the regulators to ensure that this new regulatory regime aligns directly with our existing testing, certification and compliance for our current engines as certified to existing criteria emissions standards (particulate matter and oxides of nitrogen). Additionally, we have developed and are already implementing technology roadmaps to meet the new GHG and fuel efficiency standards	The incremental spending is expected to be low given our ongoing work on technology development and alignment with the existing regulatory structure.
Carbon taxes	Carbon taxes mean additional costs for facilities or transportation.	Increased operational cost	>6 years	Direct	Unlikely	Low-medium	The implications are higher operating costs for the company.	We already have a comprehensive structure in place to measure, report and reduce greenhouse gas emissions and energy use at our	Any additional costs would likely be part of our existing process in funding and implementing energy

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
								facilities through the existing energy efficiency team and energy champions program.	efficiency projects
Product labeling regulations and standards	An opinion of various stakeholders that labels should capture overall vehicle performance introduces complexities and concerns for an independent engine manufacturer that doesn't make vehicles	Other: does not reflect actual performance	>6 years	Direct	About as likely as not	Low-medium	It would depend on the regulatory structure that generates the information for the label	We are active in educating stakeholders on the merits of a regulatory structure that recognizes engine and vehicle performance separately	No additional costs are identified.

CC5.1b

Please describe your risks that are driven by change in physical climate parameters

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
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CC5.1c

Please describe your risks that are driven by changes in other climate-related developments

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated Financial Implications	Management method	Cost of management
Changing consumer behaviour	Consumers may prefer products that compete with what Cummins produces and that could be a risk to our business.	Reduced demand for goods/services	Unknown	Direct	About as likely as not	Medium	The financial implications are hard to quantify as changes in consumer preferences often take time. However, the risk is that customers will move to substitute products that compete with ours and we are slow to react and lose sales.	We have a very broad research and development program that is constantly reviewing and investing in new technologies, fuels, etc. As a result, we have a variety of ongoing projects looking at alternatives and are already deploying very efficient engines and power generation equipment that can use a variety of fuels including biodiesel and natural gas. For example, Cummins is one of the four prime contractors leading SuperTruck teams, each developing their own visions of trucking's future. SuperTruck is one of several initiatives under the 21st Century Truck Partnership, which is a public-private effort	In a typical year, Cummins spends approximately three-quarters of its research and development budget on fuel efficiency and emissions reduction related product efficiency. In 2013, that was approximately \$500 million.

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated Financial Implications	Management method	Cost of management
								to further stimulate innovation in the trucking industry. SuperTruck averaged a 75 percent increase in fuel economy, a 43 percent reduction in greenhouse gas (GHG) emissions and an 86 percent gain in freight efficiency in 24-hour, head-to-head testing against a 2009 baseline truck – all significant improvements - in late 2013 testing in the US. As natural gas has become increasingly available, Cummins has been developing a full line of natural gas engines, both through its own engine business and through our joint venture, Cummins Westport Inc.	

CC5.1d

Please explain why you do not consider your company to be exposed to risks driven by changes in regulation that have the potential to generate a substantive change in your business operations, revenue or expenditure

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**CC5.1e**

**Please explain why you do not consider your company to be exposed to risks driven by physical climate parameters that have the potential to generate a substantive change in your business operations, revenue or expenditure**

While there is always the potential for unexpected severe weather, we do not consider our company to be exposed to significant physical risks. Most of Cummins' major facilities are located inland, minimizing risk. In the event of a physical weather impact, which we generally define as extreme weather events, the financial cost to Cummins would be measured in the amount of lost production time at the affected facility and lost revenue from the manufacturing plants, both downstream in the supply chain where the affected plant is an internal supplier of materials and in lost sales to external customers. Keeping this in mind, Cummins has Business Continuity Plans in place at all major manufacturing sites around the world to aid in preparation for, and recovery from, an extreme weather event or resource shortage. Additionally, we monitor the interdependencies of our sites to aid in decision making related to risks. At a corporate-level, we have a corporate response plan with three response teams to handle potential large-scale events. Working with Cummins Global Security, the Enterprise Risk Management group has created regional escalation procedures to connect the site-specific Business Continuity Plans with the global Crisis Response Plan. Because climate change events would likely impact a region more so than a particular site, this response strategy takes all levels of potential climate change events into consideration. Sites generally assess their risks around five years into the future.

Cummins also has a Vice President of Corporate Strategy who focuses on risk management along with an Enterprise Risk Management group to identify and mitigate key business risks, including enterprise risks related to global climate change.

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**CC5.1f**

**Please explain why you do not consider your company to be exposed to risks driven by changes in other climate-related developments that have the potential to generate a substantive change in your business operations, revenue or expenditure**

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**Further Information**

**Page: CC6. Climate Change Opportunities**

**CC6.1**

**Have you identified any climate change opportunities that have the potential to generate a substantive change in your business operations, revenue or expenditure? Tick all that apply**

- Opportunities driven by changes in regulation
- Opportunities driven by changes in physical climate parameters
- Opportunities driven by changes in other climate-related developments

**CC6.1a**

**Please describe your opportunities that are driven by changes in regulation**

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Fuel/energy taxes and regulations	The Carbon Reduction Commitment Energy Efficiency scheme enacted in the UK in April 2010 can present opportunities for Cummins.	Reduced operational costs	Up to 1 year	Direct	Very likely	Medium	Globally, energy efficiency reductions are saving Cummins more than \$30 million annually.	Plant efficiency is already part of energy efficiency efforts.	Plant efficiency is already part of energy efficiency efforts.
Product efficiency regulations and standards	Greenhouse gas regulation and fuel efficiency	New products/business services	1 to 3 years	Direct	Very likely	Medium	Technology to meet future greenhouse gas regulation and fuel efficiency	The value package introduction and product preceding	In a typical year, Cummins spends approximately

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	standards for medium and heavy duty commercial vehicles can present opportunities for Cummins.						standards is already part of our technology roadmaps and planning	technology planning as part of our standard innovation management process is how we manage this opportunity.	three-quarters of its research and development budget on fuel efficiency and emissions reduction related product efficiency. In 2013, that was approximately \$500 million.
Voluntary agreements	Cummins could be presented with research and development opportunities to meet agreements.	Investment opportunities	>6 years	Direct	About as likely as not	Medium	No financial implication are identified at this time	We would leverage our existing relationships with universities and private-public partnerships.	Costs are unknown, but they could involve matching funding from Cummins, included in part of our research and development budget.
Fuel/energy taxes and regulations	Higher fuel prices could drive customer preference to more fuel efficient vehicles and	Increased demand for existing products/services	>6 years	Direct	About as likely as not	Medium	implications could be possible increase in operational spend.	We would manage this through our existing energy and product efficiency platforms	We would manage this through our existing energy and product efficiency platforms

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	Cummins could benefit.								
Carbon taxes	Higher fuel prices could drive customer preference to more fuel efficient vehicles and Cummins could benefit.	Increased demand for existing products/services	Unknown	Direct	About as likely as not	Medium	implications could be possible increase in operational spend.	We would manage this through our existing energy and product efficiency platforms	We would manage this through our existing energy and product efficiency platforms
Emission reporting obligations	Cummins' reporting systems allow us to be well positioned if governments could regulate that companies account for their carbon emissions.	Other: Reputational benefit	>6 years	Direct	Likely	Low-medium	We see no real financial implications at this time.	Management would be through the use of our existing environmental management reporting system.	There are no direct costs associated with emission reporting obligations.
Renewable energy regulation	Cummins is well positioned to benefit from renewable Portfolio Standards which mandate that each investor owned utility	Increased demand for existing products/services	>6 years	Direct	Very likely	Medium	Cummins is experiencing solid gains in placing our products in renewable applications where we had no product before. Prior to 2012 we only	Cummins Energy Solutions business does already exist and these opportunities are managed within this business, part of our Power	Any further business development, engineering or sales force increases would be part of business unit expenses.

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	provide a portion of their generation from renewable sources as we are offsetting retail power rates as opposed to the wholesale market. We also have a greater ability to have the ability to dispatch at the time of need.						had 3.5 megawatts installed in the U.S. fueled by renewables. Now just 3 years later we have more than 20 megawatts at water plants and landfills with another 20 megawatts in development. Current sales of approximately \$20 million are positioned to increase commensurately	Generation operating segment.	
Renewable energy regulation	Cummins capability in Micro-grids and Distributed Generation as a result of renewable energy goals can provide opportunities.	Increased demand for existing products/services	>6 years	Direct	More likely than not	Medium	Total current Micro-grid market size is about \$17 billion. Genset market size is estimated to be around \$1-3 billion by 2018. Cummins expects to participate in this market.	We are managing this by: - educating regulators about the positive aspects of combined heat and power plus alternate gas units - Pilot projects and compiling	No other additional costs identified.

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
								learning (Senegal, Colorado, Chile, Puerto Rico) - advanced technology research (high efficiency gensets, power electronics) - strategic partnerships with renewable energy companies and Independent Power Producers - new hybrid product launches (already have for telecom applications)	

CC6.1b

Please describe the opportunities that are driven by changes in physical climate parameters

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Change in mean (average) temperature	Changes in frequency of extreme weather events	New products/business services	Up to 1 year	Direct	Very likely	Medium	With the increased emphasis on carbon emissions, and the impact of shale discoveries and their potential to keep gas prices low for the long term, distributed generation with natural gas, whether it is used in a combined heat and power application, or as a simple power generation application has potential for further revenue.	Cummins in Africa is investing in building gas power generation capability through the roll out of project companies in Nigeria, South Africa and East Africa. We have invested in a new joint venture in Nigeria that is the dedicated gas engineering, procurement & construction (EPC) company in the country. We have also invested in another JV that operates gas power plants as an Independent Power Produce (IPP).	We expect our gas generation sales to grow 300% over the next 3-5 years. We also expect that governments and private industry in Africa to make significant investments in Angola, West Africa, Tanzania and Mozambique to build distribution infrastructure as there has been significant finds of gas reserves. Overall, we are investing from \$10 - \$50 million over the program life.

CC6.1c

Please describe the opportunities that are driven by changes in other climate-related developments

Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Reputation	Cummins reputation as a sustainability leader provides opportunities.	Increased stock price (market valuation)	1 to 3 years	Direct	More likely than not	Low-medium	Having a reputation as a sustainability leader could cause the financial community to reward Cummins with a higher market valuation. A \$100 investment in Cummins at the end of 2008 would have been worth more than \$550 at the end of 2013. Our stock has outperformed the S&P 500 and our own peer group during that period.	We will continue to improve our sustainability efforts, which are already global and well-established.	We believe no incremental costs to exist, as most of the structures and resources are in place.
Changing consumer behaviour	Consumers will become more interested in fuel efficient products that Cummins produces.	New products/business services	1 to 3 years	Direct	Likely	Medium-high	The financial implication is hard to quantify, as the shift in consumer preference would happen slowly over time. We do project that by 2020, nearly 30 percent of our high horsepower engines will be natural gas.	We would use existing corporate strategy and growth office structure to evaluate new business opportunities in adjacent markets and technology.	We have identified no incremental costs.

Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Fluctuating socio-economic conditions	The desire for more goods as a result of a growing global middle class would create greater demand for products to be shipped in trucks.	Increased demand for existing products/services	Up to 1 year	Direct	Very likely	Medium-high	The potential implications could be large, but hard to quantify, as sales increases happen over time. But Cummins projects increased sales in China and India as the size of the middle class increases and more and more goods need to be shipped in trucks equipped with Cummins engines. In addition, as emissions regulations become more stringent globally, Cummins is in the best position to profit from those regulations.	We would manage this opportunity by using existing corporate strategy and growth office structure to evaluate new business opportunities in adjacent markets and technology.	We see no incremental costs beyond what sites would normally do to prepare for increased demand.
Increasing humanitarian demands	Cummins firmly believes that our business is only as healthy as the communities it serves.	Wider social benefits	Up to 1 year	Direct	More likely than not	Medium	Cummins does already give humanitarian financial aid and sometimes product donations to countries where there has been a need.	Our Corporate Responsibility department and The Cummins Foundation handle this work	The Company invested nearly than \$26 million in its corporate responsibility efforts in 2013, including \$7 million in funding for The

Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
									Cummins Foundation, employee volunteer hours on Company time, donations and sponsorships from operating funds and staff involved in our efforts around the world.
Changing consumer behaviour	Customers will have an increasing preference for alternative and lower carbon fuels, providing opportunities for Cummins.	New products/business services	1 to 3 years	Direct	Very likely	Medium	Vehicle fleets and equipment operators are increasingly exploring alternative fuels to reduce emissions, improve operating costs, or adapt to locally available fuel sources. Natural gas is often the alternative fuel of choice for many fleets & operators. New drilling techniques have greatly expanded natural gas production, increasing the availability of	Our current natural gas engine product line ranges from 50 to 2,700 horsepower and we are investing significantly in new natural gas products. Cummins has recently announced plans to broaden the natural gas product line with the development of several new engines. There is potential that switching from petroleum to natural gas will	With a new engine requiring an investment ranging from \$10 - \$50 million over the program life, these new natural gas engines represent a significant investment in alternative fuels.

Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
							natural gas, reducing fuel costs, and therefore stimulating interest in natural gas	produce less GHG emissions, however this depends on understanding of and the methods used to reduce the methane leaks across the natural gas supply chain on a wells to wheels basis. Cummins is participating with various stakeholders, including environmental NGOs, to get the best data on methane.	
Reputation	Cummins reputation as a sustainability leader provides opportunities.	Other: recruiting and retaining talented employees	Up to 1 year	Direct	Virtually certain	Medium-high	Cummins can save money on recruiting costs by retaining employees who desire to work at an environmentally sustainable company. Estimates are \$3,000 to \$5,000 to recruit a new employee.	Continuing to educate employees about Cummins environmental actions. As part of the release of our Global Environmental Sustainability Plan, Cummins established June Environmental Month and is encouraging	None additional identified

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
								employees to do water, waste and energy reduction activities at home, work and in the community.	

---

CC6.1d

Please explain why you do not consider your company to be exposed to opportunities driven by changes in regulation that have the potential to generate a substantive change in your business operations, revenue or expenditure

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CC6.1e

Please explain why you do not consider your company to be exposed to opportunities driven by physical climate parameters that have the potential to generate a substantive change in your business operations, revenue or expenditure

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CC6.1f

Please explain why you do not consider your company to be exposed to opportunities driven by changes in other climate-related developments that have the potential to generate a substantive change in your business operations, revenue or expenditure

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**Further Information**

See Corporate Responsibility Section of the 2013 / 2014 Sustainability Report starting on page 70. Attached are brochures on waste to energy and environmental sustainability as presented at recruiting events.

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**Attachments**

[https://www.cdp.net/sites/2014/36/4136/Investor CDP 2014/Shared Documents/Attachments/InvestorCDP2014/CC6.ClimateChangeOpportunities/Recruiting Brochure.pdf](https://www.cdp.net/sites/2014/36/4136/Investor%20CDP%202014/Shared%20Documents/Attachments/InvestorCDP2014/CC6.ClimateChangeOpportunities/Recruiting%20Brochure.pdf)

[https://www.cdp.net/sites/2014/36/4136/Investor CDP 2014/Shared Documents/Attachments/InvestorCDP2014/CC6.ClimateChangeOpportunities/PT-6015-waste-to-energy-en.pdf](https://www.cdp.net/sites/2014/36/4136/Investor%20CDP%202014/Shared%20Documents/Attachments/InvestorCDP2014/CC6.ClimateChangeOpportunities/PT-6015-waste-to-energy-en.pdf)

[https://www.cdp.net/sites/2014/36/4136/Investor CDP 2014/Shared Documents/Attachments/InvestorCDP2014/CC6.ClimateChangeOpportunities/EMEASB-5505-EN-WasteToEnergy.pdf](https://www.cdp.net/sites/2014/36/4136/Investor%20CDP%202014/Shared%20Documents/Attachments/InvestorCDP2014/CC6.ClimateChangeOpportunities/EMEASB-5505-EN-WasteToEnergy.pdf)

**Module: GHG Emissions Accounting, Energy and Fuel Use, and Trading****Page: CC7. Emissions Methodology**

---

**CC7.1**

Please provide your base year and base year emissions (Scopes 1 and 2)

Base year	Scope 1 Base year emissions (metric tonnes CO2e)	Scope 2 Base year emissions (metric tonnes CO2e)
Sat 01 Jan 2005 - Sat 31 Dec 2005	210889	436871

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**CC7.2**

Please give the name of the standard, protocol or methodology you have used to collect activity data and calculate Scope 1 and Scope 2 emissions

Please select the published methodologies that you use
US EPA Climate Leaders: Direct Emissions from Stationary Combustion
US EPA Climate Leaders: Direct Emissions from Mobile Combustion Sources
US EPA Climate Leaders: Indirect Emissions from Purchases/Sales of Electricity and Steam
US EPA Climate Leaders: Direct HFC and PFC Emissions from Use of Refrigeration and Air Conditioning Equipment
The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)
Other

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**CC7.2a**

If you have selected "Other" in CC7.2 please provide details of the standard, protocol or methodology you have used to collect activity data and calculate Scope 1 and Scope 2 emissions

The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition) in conjunction with the US EPA's Climate Leaders Greenhouse Gas Protocol: Design Principals provide the overarching methodology for the greenhouse gas inventory. The following source specific documents are used as guidance emission factors and the collection of activity data:

- 1) US EPA Climate Leaders: Mobile Source Guidance
- 2) US EPA Climate Leaders: Direct Emissions from Stationary Combustion
- 3) US EPA Climate Leaders: Indirect Emissions from Purchases/ Sales of Electricity and Steam
- 4) US EPA Climate Leaders: Direct HFC and PFC Emissions from use of Refrigeration and Air Conditioning Equipment

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**CC7.3**

Please give the source for the global warming potentials you have used

Gas	Reference
CO2	IPCC Second Assessment Report (SAR - 100 year)
CH4	IPCC Second Assessment Report (SAR - 100 year)
N2O	IPCC Second Assessment Report (SAR - 100 year)
HFCs	IPCC Second Assessment Report (SAR - 100 year)

CC7.4

Please give the emissions factors you have applied and their origin; alternatively, please attach an Excel spreadsheet with this data at the bottom of this page

Fuel/Material/Energy	Emission Factor	Unit	Reference
Electricity		lb CO2e per MWh	US and International factors vary. Please find attached
Natural gas	117	lb CO2e per million BTU	Solid, gaseous, liquid and biomass fuels: Federal Register (2009) EPA; 40 CFR Parts 86, 87, 89 et al; Mandatory Reporting of Greenhouse Gases; Final Rule, 30Oct09, 261 pp. Tables C-1 and C-2 at FR pp. 56409-56410. Revised emission factors for selected fuels: Federal Register (2010) EPA; 40 CFR Part 98; Mandatory Reporting of Greenhouse Gases; Final Rule, 17Dec10, 81 pp.
Distillate fuel oil No 2	163.583	lb CO2e per million BTU	Solid, gaseous, liquid and biomass fuels: Federal Register (2009) EPA; 40 CFR Parts 86, 87, 89 et al; Mandatory Reporting of Greenhouse Gases; Final Rule, 30Oct09, 261 pp. Tables C-1 and C-2 at FR pp. 56409-56410. Revised emission factors for selected fuels: Federal Register (2010) EPA; 40 CFR Part 98; Mandatory Reporting of Greenhouse Gases; Final Rule, 17Dec10, 81 pp.
Liquefied petroleum gas (LPG)	139.398	lb CO2e per million BTU	Solid, gaseous, liquid and biomass fuels: Federal Register (2009) EPA; 40 CFR Parts 86, 87, 89 et al; Mandatory Reporting of Greenhouse Gases; Final Rule, 30Oct09, 261 pp. Tables C-1 and C-2 at FR pp. 56409-56410. Revised emission factors for selected fuels: Federal Register (2010) EPA; 40 CFR Part 98; Mandatory Reporting of Greenhouse Gases; Final Rule, 17Dec10, 81 pp.

Fuel/Material/Energy	Emission Factor	Unit	Reference
Diesel/Gas oil	22.509	lb CO2 per gallon	US EPA (2008); Greenhouse Gas Inventory Protocol Core Module Guidance - Direct Emissions from Mobile Combustion Sources, EPA Climate Leaders, Tables A-6 and A-7.
Motor gasoline	19.357	lb CO2 per gallon	US EPA (2008); Greenhouse Gas Inventory Protocol Core Module Guidance - Direct Emissions from Mobile Combustion Sources, EPA Climate Leaders, Tables A-6 and A-7.
Jet kerosene	21.495	lb CO2 per gallon	US EPA (2008); Greenhouse Gas Inventory Protocol Core Module Guidance - Direct Emissions from Mobile Combustion Sources, EPA Climate Leaders, Tables A-6 and A-7.

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#### Further Information

Attached are the emission factors for stationary combustion fuels, mobile fuels and regional electricity

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#### Attachments

[https://www.cdp.net/sites/2014/36/4136/Investor CDP 2014/Shared Documents/Attachments/InvestorCDP2014/CC7.EmissionsMethodology/Investor CDP 2014 Question 7.4 Emission Factors - Cummins.xlsx](https://www.cdp.net/sites/2014/36/4136/Investor%20CDP%202014/Shared%20Documents/Attachments/InvestorCDP2014/CC7.EmissionsMethodology/Investor%20CDP%202014%20Question%207.4%20Emission%20Factors%20-%20Cummins.xlsx)

#### Page: CC8. Emissions Data - (1 Jan 2013 - 31 Dec 2013)

---

##### CC8.1

Please select the boundary you are using for your Scope 1 and 2 greenhouse gas inventory

Operational control

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##### CC8.2

Please provide your gross global Scope 1 emissions figures in metric tonnes CO2e

269130

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**CC8.3**

**Please provide your gross global Scope 2 emissions figures in metric tonnes CO2e**

530453

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**CC8.4**

**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?**

No

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**CC8.4a**

**Please 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	Relevance of Scope 1 emissions from this source	Relevance of Scope 2 emissions excluded from this source	Explain why the source is excluded

---

**CC8.5**

Please estimate the level of uncertainty of the total gross global Scope 1 and 2 emissions figures that you have supplied and specify the sources of uncertainty in your data gathering, handling and calculations

Scope 1 emissions: Uncertainty range	Scope 1 emissions: Main sources of uncertainty	Scope 1 emissions: Please expand on the uncertainty in your data	Scope 2 emissions: Uncertainty range	Scope 2 emissions: Main sources of uncertainty	Scope 2 emissions: Please expand on the uncertainty in your data
More than 2% but less than or equal to 5%	Data Gaps Assumptions Extrapolation	For facilities that do not have actual energy consumption data, the data are extrapolated using data from other facilities or standard emission calculation factors (Eg: Refrigerant emissions based on sq. footage). Cummins attempts to continually increase the amount of actual data available and the number of estimates required is very low. There is the potential for facilities or emission sources to be omitted from the inventory. Measures are taken to include all facilities and emissions sources. Other potential sources of uncertainty are errors in billing by fuel suppliers, and errors in data entry and transferring of the data. We have quality control procedures in place to review monthly and annual consumption data, checking that it conforms to expected seasonal patterns and that there are no larger-than-expected discrepancies from month to month or year to year. The mobile source emissions are calculated based on a survey conducted in 2009.	More than 2% but less than or equal to 5%	Data Gaps Assumptions Extrapolation	For facilities that do not have actual electricity/steam consumption data, the data are extrapolated using data from other similar facilities. Cummins attempts to continually increase the amount of actual data available and the number of estimates required is very low. There is the potential for facilities or emission sources to be omitted from the inventory. Measures are taken to include all facilities and emissions sources. Other potential sources of uncertainty are errors in billing by utility providers, and errors in data entry and transferring of the data. We have quality control procedures in place to review monthly and annual consumption data, checking that it conforms to expected seasonal patterns and that there are no larger-than-expected discrepancies from month to month or year to year.

CC8.6

Please indicate the verification/assurance status that applies to your reported Scope 1 emissions

Third party verification or assurance complete

---

**CC8.6a**

**Please provide further details of the verification/assurance undertaken for your Scope 1 emissions, and attach the relevant statements**

Type of verification or assurance	Attach the statement	Page/section reference	Relevant standard	Proportion of reported Scope 1 emissions verified (%)
Limited assurance	<a href="https://www.cdp.net/sites/2014/36/4136/Investor%20CDP%202014/Shared%20Documents/Attachments/CC8.6a/Cummins%20-%20Verification%20Statement%20CY2013%20GHG%20Emissions.pdf">https://www.cdp.net/sites/2014/36/4136/Investor CDP 2014/Shared Documents/Attachments/CC8.6a/Cummins - Verification Statement CY2013 GHG Emissions.pdf</a>	Page 1 of 3	ISO14064-3	100

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**CC8.6b**

Please provide further details of the regulatory regime to which you are complying that specifies the use of Continuous Emissions Monitoring Systems (CEMS)

Regulation	% of emissions covered by the system	Compliance period	Evidence of submission
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**CC8.7**

**Please indicate the verification/assurance status that applies to your reported Scope 2 emissions**

Third party verification or assurance complete

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**CC8.7a**

Please provide further details of the verification/assurance undertaken for your Scope 2 emissions, and attach the relevant statements

Type of verification or assurance	Attach the statement	Page/Section reference	Relevant standard	Proportion of Scope 2 emissions verified (%)
Limited assurance	<a href="https://www.cdp.net/sites/2014/36/4136/Investor_CDP_2014/Shared_Documents/Attachments/CC8.7a/Cummins_-_Verification_Statement_CY2013_GHG_Emissions.pdf">https://www.cdp.net/sites/2014/36/4136/Investor CDP 2014/Shared Documents/Attachments/CC8.7a/Cummins - Verification Statement CY2013 GHG Emissions.pdf</a>	Page 1 of 3	ISO14064-3	100

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**CC8.8**

Please identify if any data points other than emissions figures have been verified as part of the third party verification work undertaken

Additional data points verified	Comment
Year on year change in emissions (Scope 3)	Scope 3 emissions were verified in 2012 and 2013 as part of the third party verification work.

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**CC8.9**

Are carbon dioxide emissions from biologically sequestered carbon relevant to your organization?

No

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**CC8.9a**

Please provide the emissions from biologically sequestered carbon relevant to your organization in metric tonnes CO2

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**Further Information**

The definition for operational control has been updated to include joint ventures subscribed to Cummins Enterprise Environmental Management System. CDP Reported emissions include emissions from facilities (manufacturing, offices, warehouses, service locations) with operational control, mobile sources and emissions from sold electricity

**Page: CC9. Scope 1 Emissions Breakdown - (1 Jan 2013 - 31 Dec 2013)**

---

**CC9.1**

**Do you have Scope 1 emissions sources in more than one country?**

Yes

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**CC9.1a**

**Please break down your total gross global Scope 1 emissions by country/region**

Country/Region	Scope 1 metric tonnes CO2e
United States of America	142641

Country/Region	Scope 1 metric tonnes CO2e
Australia	4818
Brazil	7345
China	27931
India	19857
Mexico	5774
South Africa	3960
United Kingdom	29365
Rest of world	27439

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**CC9.2**

**Please indicate which other Scope 1 emissions breakdowns you are able to provide (tick all that apply)**

By activity

---

**CC9.2a**

**Please break down your total gross global Scope 1 emissions by business division**

Business division	Scope 1 emissions (metric tonnes CO2e)

---

**CC9.2b**

Please break down your total gross global Scope 1 emissions by facility

Facility	Scope 1 emissions (metric tonnes CO2e)	Latitude	Longitude
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CC9.2c

Please break down your total gross global Scope 1 emissions by GHG type

GHG type	Scope 1 emissions (metric tonnes CO2e)
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CC9.2d

Please break down your total gross global Scope 1 emissions by activity

Activity	Scope 1 emissions (metric tonnes CO2e)
Stationary Combustion	208391
Mobile Sources	30092
Refrigerant	11703
Other Fugitive	56
Generation of Sold Electricity	18888

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CC9.2e

Please break down your total gross global Scope 1 emissions by legal structure

Legal structure	Scope 1 emissions (metric tonnes CO2e)
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**Further Information**

**Page: CC10. Scope 2 Emissions Breakdown - (1 Jan 2013 - 31 Dec 2013)**

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CC10.1

**Do you have Scope 2 emissions sources in more than one country?**

Yes

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CC10.1a

Please break down your total gross global Scope 2 emissions and energy consumption by country/region

Country/Region	Scope 2 metric tonnes CO2e	Purchased and consumed electricity, heat, steam or cooling (MWh)	Purchased and consumed low carbon electricity, heat, steam or cooling accounted for CC8.3 (MWh)
United States of America	289836	482337	0
Australia	9358	9490	0
Brazil	928	31357	0
China	106125	143962	0
India	58724	63913	0
Mexico	20862	45760	0

Country/Region	Scope 2 metric tonnes CO2e	Purchased and consumed electricity, heat, steam or cooling (MWh)	Purchased and consumed low carbon electricity, heat, steam or cooling accounted for CC8.3 (MWh)
South Africa	4457	4781	0
United Kingdom	24945	54527	0
Rest of world	15218	35350	0

---

**CC10.2**

Please indicate which other Scope 2 emissions breakdowns you are able to provide (tick all that apply)

By activity

---

**CC10.2a**

Please break down your total gross global Scope 2 emissions by business division

Business division	Scope 2 emissions (metric tonnes CO2e)

---

**CC10.2b**

Please break down your total gross global Scope 2 emissions by facility

Facility	Scope 2 emissions (metric tonnes CO2e)

---

**CC10.2c**

**Please break down your total gross global Scope 2 emissions by activity**

Activity	Scope 2 emissions (metric tonnes CO2e)
Electricity	523815
Steam	5960
Hot Water	677

---

**CC10.2d**

**Please break down your total gross global Scope 2 emissions by legal structure**

Legal structure	Scope 2 emissions (metric tonnes CO2e)

---

**Further Information**

**Page: CC11. Energy**

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**CC11.1**

**What percentage of your total operational spend in the reporting year was on energy?**

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

---

**CC11.2**

Please state how much fuel, electricity, heat, steam, and cooling in MWh your organization has purchased and consumed during the reporting year

Energy type	MWh
Fuel	1193368
Electricity	855435
Heat	1753
Steam	14297
Cooling	0

---

**CC11.3**

Please complete the table by breaking down the total "Fuel" figure entered above by fuel type

Fuels	MWh
Distillate fuel oil No 2	485677
Natural gas	576511
Propane	11028
Other: Stationary Gasoline	987
Motor gasoline	24486
Diesel/Gas oil	69189
Jet kerosene	25489

CC11.4

Please provide details of the electricity, heat, steam or cooling amounts that were accounted at a low carbon emission factor in the Scope 2 figure reported in CC8.3

Basis for applying a low carbon emission factor	MWh associated with low carbon electricity, heat, steam or cooling	Comment
No purchases or generation of low carbon electricity, heat, steam or cooling accounted with a low carbon emissions factor		

Further Information

Page: CC12. Emissions Performance

CC12.1

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

Increased

CC12.1a

Please 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

Reason	Emissions value (percentage)	Direction of change	Comment
Emissions reduction activities	2	Decrease	Throughout 2013 Cummins realized emissions reductions from a number of energy efficiency activities and on-site renewable energy installations.
Divestment			
Acquisitions	1	Increase	Cummins strategy to acquire North American Distribution operations resulted an increase in emissions

Reason	Emissions value (percentage)	Direction of change	Comment
Mergers			
Change in output	6	Increase	Change in output from additional test operations and R&D activities
Change in methodology			
Change in boundary	20	Increase	The definition for operational control was updated to include emissions from Joint Venture Operations subscribed to Cummins Enterprise Environmental Management System and 50:50 manufacturing JV where CMI has significant influence on EMS
Change in physical operating conditions			
Unidentified			
Other			

#### CC12.2

Please describe your gross global combined Scope 1 and 2 emissions for the reporting year in metric tonnes CO2e per unit currency total revenue

Intensity figure	Metric numerator	Metric denominator	% change from previous year	Direction of change from previous year	Reason for change
0.0000532	metric tonnes CO2e	unit total revenue	4	Increase	Revenues remained almost flat (-0.1%) in 2013 whereas the absolute emissions increased primary due to the change in output

#### CC12.3

Please describe your gross global combined Scope 1 and 2 emissions for the reporting year in metric tonnes CO2e per full time equivalent (FTE) employee

Intensity figure	Metric numerator	Metric denominator	% change from previous year	Direction of change from previous year	Reason for change
16.69	metric tonnes CO2e	FTE employee	0	No change	Increase in absolute emissions was offset by the increase in FTE.

**CC12.4**

Please provide an additional intensity (normalized) metric that is appropriate to your business operations

Intensity figure	Metric numerator	Metric denominator	% change from previous year	Direction of change from previous year	Reason for change
	metric tonnes CO2e				

**Further Information**

**Page: CC13. Emissions Trading**

**CC13.1**

**Do you participate in any emissions trading schemes?**

No, and we do not currently anticipate doing so in the next 2 years

**CC13.1a**

Please complete the following table for each of the emission trading schemes in which you participate

Scheme name	Period for which data is supplied	Allowances allocated	Allowances purchased	Verified emissions in metric tonnes CO2e	Details of ownership

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CC13.1b

What is your strategy for complying with the schemes in which you participate or anticipate participating?

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CC13.2

Has your organization originated any project-based carbon credits or purchased any within the reporting period?

No

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CC13.2a

Please provide details on the project-based carbon credits originated or purchased by your organization in the reporting period

Credit origination or credit purchase	Project type	Project identification	Verified to which standard	Number of credits (metric tonnes of CO2e)	Number of credits (metric tonnes CO2e): Risk adjusted volume	Credits cancelled	Purpose, e.g. compliance

---

**Further Information**

CC14.1

Please account for your organization’s Scope 3 emissions, disclosing and explaining any exclusions

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Emissions calculation methodology	Percentage of emissions calculated using primary data	Explanation
Purchased goods and services	Relevant, calculated	3101000	Cummins total spend data for direct purchasing (including raw materials - metals and commodities usage) as well as total 2013 indirect purchase expenses (including IT, supply chain services, real estate, engineering, corporate services, etc.) were used to estimate the associated Scope 3 emissions. For purchased raw materials, cradle to gate approach was used to estimate the scope 3 emissions using the 2011 purchase data and was calculated for 2013 based on revenue change factor. For indirect purchasing goods and services, UK DEFRA’s SIC Codes closest to the spend category and 2009 emission factors were utilized to estimate the scope 3 emissions (Reference/Source of Emission factors: Environmental Reporting Guidelines: Including mandatory greenhouse gas emissions reporting guidance; June 2013; pb13944-env-reporting-guidance.pdf; defra.uk). We assume that 20% of the commodities used are MRO/Chemicals that is part of the indirect purchasing. Also we assume 50% of the IT and engineering purchases come under this category and rest in the capital goods category. We assume that the CMI spend on Corporate services is comprised of the following SIC categories: Insurance and pension funds -	100.00%	Used 2013 indirect purchase data tracked inside and outside the centralized purchasing database and also emissions estimated during Cummins environmental hot spot analysis study conducted in 2012.

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Emissions calculation methodology	Percentage of emissions calculated using primary data	Explanation
			10%; Auxiliary financial services - 10%; and Legal, consultancy, other business activities - 80%. The purchase expenses not tracked through the centralized database is assumed to be of the same proportion for purchase goods and services as that from the centralized tracking database		
Capital goods	Relevant, calculated	423000	Cummins total spend data for capital goods purchases in facilities & construction, IT, engineering and machinery was used to estimate the scope 3 emissions. UK DEFRA's SIC Codes closest to the spend category and 2009 emission factors were utilized to estimate the scope 3 emissions (Reference/Source of Emission factors: Environmental Reporting Guidelines: Including mandatory greenhouse gas emissions reporting guidance; June 2013; pb13944-env-reporting-guidance.pdf; defra.uk). We assume that 100% of the indirect purchasing on facilities and construction is coming under capital goods category. The purchase expenses not tracked through the centralized database is assumed to be of the same proportion for capital goods as that from the centralized tracking database	100.00%	Used 2013 indirect purchase data tracked inside and outside the centralized purchasing database
Fuel-and-energy-related activities (not included in Scope 1 or 2)	Relevant, calculated	148000	The activity data used to quantify these activities emissions are the quantity of energy consumed for each energy type, such as electricity or natural gas. Consumption by fuel type is then multiplied by emission factors for each of the activities included in this category. Emission factors for upstream emissions of purchased fuels are based on life-cycle analysis software. Emission factors for upstream emissions of purchased electricity are based on life-cycle analysis software for the US, and on UK Defra 2012 Guidelines for other	100.00%	Includes scope 3 emissions from fuel and energy related activities from owned and operated facilities, 50:50 joint ventures subscribed to Cummins Enterprise Environmental Management System and 50:50 manufacturing joint venture where Cummins has significant influence on operations

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Emissions calculation methodology	Percentage of emissions calculated using primary data	Explanation
			countries. Emission factors for T&D losses are based on EPA's eGRID database for the US, and on and on UK Defra 2012 Guidelines for other countries. GWPs are IPCC Second Assessment Report (SAR - 100 year).		
Upstream transportation and distribution	Relevant, calculated	360000	The 2013 spend data for transportation and distribution was assumed to be equal to 80% of the expenses on supply chain services. Also it was assumed 70% of the logistics was through road, 10% through rail, 10% through water and 10% through air. UK DEFRA's SIC Codes for Rail, Road, Water and Air categories and 2009 emission factors were utilized to estimate the scope 3 emissions (Reference/Source of Emission factors: Environmental Reporting Guidelines: Including mandatory greenhouse gas emissions reporting guidance; June 2013; pb13944-env-reporting-guidance.pdf; defra.uk). The expenses not tracked through the centralized database is assumed to be of the same proportion for supply chain services as that from the centralized tracking database	100.00%	Used 2013 indirect purchase data tracked inside and outside the centralized purchasing database
Waste generated in operations	Relevant, calculated	7000	The Waste Reduction Model (WARM) created by the U.S. Environmental Protection Agency (EPA) was used to quantify the scope 3 emissions for the landfilled waste, combusted waste and composted waste from Cummins global facilities for the year 2013. As there were no separate categories available for incinerated waste and waste that was burned for energy recovery, both were included in the combusted waste category and default factors in the tool were used to calculate the GHG emissions. Due to non-availability of exact categories, the general refuse / garbage	100.00%	In 2013, Cummins recycled about 89% of the global waste generated. This includes metals, electronic items, paper, plastics and corrugated boxes. As the model shows a GHG reduction for recycled product categories, the same was not included in the WARM model.

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Emissions calculation methodology	Percentage of emissions calculated using primary data	Explanation
			generated was categorized as Mixed Organics as it includes primarily food waste from canteen, grass clippings from lawn etc. and the process derived industrial waste was categorized as Mixed MSW. Since 2013, Cummins started collecting composted waste data from global facilities and the same was included in the emissions analysis (Reference/Source: EPA WARM Model)		
Business travel	Relevant, calculated	29000	All air travel data are tracked through a service provided to Cummins by AmEx. Emissions are calculated by AmEx using UK DEFRA methodologies, based on short, medium, and long haul travel categories and the associated emission factors. Assume that air travel emissions consists of about 75% of total scope 3 emissions under this category	100.00%	Provided to Cummins by American Express. This data is emissions from air travel for 10,229 flights and does not include emissions from rental cars or usage of employee vehicles for business purposes.
Employee commuting	Relevant, calculated	112000	Calculations derived from general country (outside of US) direct data and assumptions plus per state employee headcount data. Some direct and some derived assumptions of commuter mileage and mode of transportation. (Source of Emission factors: US EPA (2008); Greenhouse Gas Inventory Protocol Core Module Guidance - Direct Emissions from Mobile Combustion Sources, EPA Climate Leaders, Tables A-6 and A-7)	75.00%	Cummins employees outside of the US tend to use transportation modes other than single-passenger personal vehicles more than their US counterparts. While it results in fewer GHG emissions, it is harder to track. This data represents the estimates of in-country environmental leaders.
Upstream leased assets	Relevant, calculated	9000	Cummins leased facilities exempt from environmental reporting that are shared facilities with no separate meter and utility bills is considered under this category. Based on the Area Business Organization (ABO), Business Unit (BU) and facility type (Eg: Office, Warehouse etc), scope 1 and scope 2 emissions intensity were estimated and applied based on the occupied square footage. The total square footage as well	90.00%	The list of facilities that are included in this category is maintained by the facilities real estate and the utility charges are included in the lease amount.

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Emissions calculation methodology	Percentage of emissions calculated using primary data	Explanation
			as the emissions intensity is assumed to be the same as 2012		
Downstream transportation and distribution	Relevant, not yet calculated				Most Cummins customers pay for the transportation of products sold to them, either directly or via part of an overall invoice. We do not have a tracking mechanism yet in place to determine what the emissions of that transportation are at this time.
Processing of sold products	Relevant, calculated	12000	Engine weights used in the general categories of mid-range, heavy-duty and high-horsepower (as reported in annual report on Form 10-K) were derived by updating the 2012 calculation of weighted-averaged by volume of the various engine families within those three categories. Assumptions were made on the lifting height and the hoist efficiency of the winch used to drop engines into the chassis of the vehicle	100.00%	Based on engines shipped as detailed in Cummins 2013 Annual Report on Form 10-K.
Use of sold products	Relevant, not yet calculated				Cummins has completed a preliminary analysis of our current CO2 output. We are currently evaluating the best method for validating and reporting this data as well as developing a strategy for customer engagement for fuel efficiency of our products in use.
End of life treatment of sold products	Relevant, calculated	59000	Cummins conducted a hot spot analysis to evaluate the impact of the end of life treatment of sold products. The waste related to sold product is primarily iron and steel (more than 90%). The estimates are based on landfilling, processing, and recycling of the generated wastes associated with those products. The assumption is 5% of the products are scrapped – 90% is melted / processed.. The emissions were adjusted based on the change in revenue between 2011 and 2013	100.00%	The emissions reported here are the estimated emissions from the scrap of all products in use in the year 2011. This is different from the forward looking end of life emissions from all products sold in the year 2013.

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Emissions calculation methodology	Percentage of emissions calculated using primary data	Explanation
Downstream leased assets	Relevant, calculated	49000	This represents our rental generator fleet. We have made assumptions on generator use - as some generators are used as backup power and others operate full time. The total number of rental fleet generators at North American distributor locations were collected. Total fuel usage was estimated based on the number of generators from each kW category, efficiency and monthly average run time.	100.00%	This calculation is from 1340 units rented through our North American distributors and doesn't include similar fleets outside NA. The total emissions were adjusted proportionate to the drop in rental business in 2013 compared to 2012.
Franchises	Not relevant, explanation provided				Cummins does not have any franchises.
Investments	Relevant, not yet calculated				In 2012, Cummins had reported emissions from 50:50 unconsolidated manufacturing joint ventures as emissions from investments. This is now included in Scope 1 and 2 after a change in boundary. However, Cummins understands that emissions from investments can be expanded to minority / unconsolidated joint venture operations where Cummins doesn't have operational or administrative control. Cummins hold minority stake (<20% and 20-50% equity investee) in several distributor businesses and manufacturing operations especially in North America and Asia. This is not tracked currently.
Other (upstream)					
Other (downstream)					

**Please indicate the verification/assurance status that applies to your reported Scope 3 emissions**

Third party verification or assurance complete

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**CC14.2a**

**Please provide further details of the verification/assurance undertaken, and attach the relevant statements**

Type of verification or assurance	Attach the statement	Page/Section reference	Relevant standard	Proportion of Scope 3 emissions verified (%)
Limited assurance	<a href="https://www.cdp.net/sites/2014/36/4136/Investor%20CDP%202014/Shared%20Documents/Attachments/CC14.2a/Cummins%20-%20Verification%20Statement%20CY2012%20GHG%20Emissions.pdf">https://www.cdp.net/sites/2014/36/4136/Investor CDP 2014/Shared Documents/Attachments/CC14.2a/Cummins - Verification Statement CY2012 GHG Emissions.pdf</a>	Page 2 of 3	ISO14064-3	100
Limited assurance	<a href="https://www.cdp.net/sites/2014/36/4136/Investor%20CDP%202014/Shared%20Documents/Attachments/CC14.2a/Cummins%20-%20Verification%20Statement%20CY2013%20GHG%20Emissions.pdf">https://www.cdp.net/sites/2014/36/4136/Investor CDP 2014/Shared Documents/Attachments/CC14.2a/Cummins - Verification Statement CY2013 GHG Emissions.pdf</a>	Page 2 of 3	ISO14064-3	100

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**CC14.3**

**Are you able to compare your Scope 3 emissions for the reporting year with those for the previous year for any sources?**

Yes

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**CC14.3a**

Please identify the reasons for any change in your Scope 3 emissions and for each of them specify how your emissions compare to the previous year

Sources of Scope 3 emissions	Reason for change	Emissions value (percentage)	Direction of change	Comment
Purchased goods & services	Change in methodology	5	Decrease	In 2012, the total expenses that were tracked outside the centralized purchasing database was assumed to be under this category. This year it was proportionately allocated between purchased goods & services, capital goods and upstream transportation & distribution categories.
Capital goods	Change in methodology	49	Increase	Though the change in output had a reduced impact on the purchase spend, the increase is due to the inclusion of estimated capital good purchase expenses tracked outside the centralized purchase database.
Fuel- and energy-related activities (not included in Scopes 1 or 2)	Change in boundary	34	Increase	Though the emission reduction activities had lowered the direct fuel and energy usage, increase in test operations and inclusion of joint venture operations subscribing to Cummins Enterprise Environmental Management System resulted in the increase in scope 3 emissions
Upstream transportation & distribution	Change in output	36	Decrease	Expenses towards supply chain services were reduced considerably in 2013 resulted in a decrease in scope 3 emissions
Waste generated in operations	Change in output	12	Decrease	The decrease is attributed to decrease in waste generation, increase in recycling rates as well as due to rounding off to nearest thousand.
Business travel	Change in output	4	Decrease	The decrease is due to reduction in number of flights. However, the % of emissions calculated using primary data is reduced to 75% from 100% to account for the emissions from rental cars and private vehicles used for business purposes
Upstream leased assets	Other: Round off	5	Decrease	The square footage for upstream leased assets and the emissions intensity based on ABO region, BU and facility type is assumed to the same as 2012. The difference in this years emissions is due to rounding off to nearest thousand
Investments	Change in boundary	100	Decrease	The change of boundary in scope 1 and scope 2 emissions
Processing of sold products	Other: Calculation error	999	Increase	Although the number of engines sold, especially the high horse power, decreased in 2013 as compared to 2012, the increase was due to a calculation error.
End-of-life treatment of sold products	Other: Round off	1	Increase	As the revenue remained flat between 2012 and 2013, the increase is due to round off

Sources of Scope 3 emissions	Reason for change	Emissions value (percentage)	Direction of change	Comment
Downstream leased assets	Change in output	47	Decrease	In 2013 there was a drop in the North American rental business.

#### CC14.4

**Do you engage with any of the elements of your value chain on GHG emissions and climate change strategies? (Tick all that apply)**

Yes, our suppliers  
Yes, our customers

#### CC14.4a

**Please give details of methods of engagement, your strategy for prioritizing engagements and measures of success**

Since 2004, Cummins has collaborated with its end user truck fleet customers on 105 customer-focused Six Sigma projects, which has saved 90 million gallons of fuel and avoided more than one million tons of CO2 emissions. That's equivalent to taking 221,000 cars off the road. The average fuel economy customer project yielded 4-6% improvement in North American heavy-duty truck. A recent example is our work with General Electric and Komatsu on a plan that will improve the fuel efficiency of a customer's fleet of nearly 300 mining trucks in Australia by more than 4 percent. That 4 percent translates into an annual savings of \$14 million for the mining company and an avoidance of 27,000 tons of CO2 emissions. This type of engagement is now part of the customers/products in use team of our corporate environmental sustainability team, where we are now working on establishing more customer fuel efficiency teams.

Customer fuel economy projects and tools with customers: In addition, Cummins gives truck fleets other tools to help them achieve maximum fuel economy. PowerSpec is a free online tool that helps customers specify the correct vehicle and electronic parameters using inputs such as gross vehicle weight, terrain and engine type to determine proper axle and transmission configuration. We also have software features in the engine's electronic control module to help reduce fuel consumption. Road Speed and Cruise Control governors limit maximum vehicle speed while Smart Torque allows high torque in the top two gears, minimizing the number of downshifts required to maintain speed. Our automotive customer engineering group works with truck fleets on engine optimization specific to their fleet - and can achieve greater fuel economy through optimization of duty cycles, calibration and hardware as well as Cummins' help with transmission integration, accessory management and down speeding.

During 2013, we have created a team to develop the supplier engagement strategy for environmental sustainability as a part of our 2020 roadmap development. Based on our analysis so far, we know that we will most likely focus on three groups of suppliers: 1) major metal manufacturing (forging, casting, cutting chips), 2) transportation 3PL's and carriers, and 3) suppliers who provide key enabling services, such as utilities analysis, manufacturing tools, etc.

**CC14.4b**

**To give a sense of scale of this engagement, please give the number of suppliers with whom you are engaging and the proportion of your total spend that they represent**

Number of suppliers	% of total spend	Comment
200	20%	Cummins' strategy has been to raise awareness of climate change and GHG reduction across a broader number of suppliers; we have not yet reached a level of engagement where we measure and drive improvements. The 200 suppliers represents the typical number of requests for proposals for indirect suppliers that we have per year.

**CC14.4c**

**If you have data on your suppliers' GHG emissions and climate change strategies, please explain how you make use of that data**

How you make use of the data	Please give details
Other	Cummins uses the data for indirect supplier selection. In our requests for proposal, we ask specifically if they measure and trend GHG and we ask them about climate change strategy. 100 percent of global indirect suppliers are asked these questions. We use the answers to these questions as a measure of supplier maturity in this area.

**CC14.4d**

**Please explain why you do not engage with any elements of your value chain on GHG emissions and climate change strategies, and any plans you have to develop an engagement strategy in the future**

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**Further Information**

All the above reported numbers are rounded off to the nearest thousand. See our 2013/2014 Sustainability Report on page 22 to read more about the mining customer Rio Tinto project.

**Module: Sign Off**

**Page: CC15. Sign Off**

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**CC15.1**

**Please provide the following information for the person that has signed off (approved) your CDP climate change response**

Name	Job title	Corresponding job category
Laurie Counsel	Environmental Sustainability Relations Director	Environment/Sustainability manager

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**Further Information**

**CDP 2014 Investor CDP 2014 Information Request**