

CUMMINS
2019 SASB
REPORT INDEX



This is Cummins 2019 Sustainability Accounting Standards Board (SASB) Report Index. SASB was created in 2011 as an independent, not-for-profit, standards-setting organization. SASB’s mission is to guide companies in making standard sustainability disclosures useful to investors. This is Cummins’ first report using the SASB platform.

SASB has placed Cummins in the Industrial Machinery & Goods category. It has generated the following questions for companies in this category to address. The report covers calendar year 2019 and includes the most recent year-end data available.

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The report was compiled in July 2020.**

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TABLE 1: ENERGY MANAGEMENT

TOPIC	CODE	ACCOUNTING MEASURE	UNIT	CATEGORY	DISCLOSURE
Energy Management	RT-IG-130a.1	(1) total energy consumed	Gigajoules (GJ)	Quantitative	7,577,535*
		(2) percentage grid electricity	%		47.53%
		(3) percentage renewable	%		11.59%

The total amount of energy consumed by Cummins includes electricity from the utility grid, purchased steam and hot water and on-site energy generation from renewable and non-renewable sources. Renewable energy certificates (RECs) retained by Cummins through a virtual power purchase agreement (VPPA) with a wind farm in northern Indiana were applied to electricity purchased from the utility grid in 2019 as an offset. Cummins will retire the RECs in accordance with the accounting metrics prescribed by SASB.

Total energy consumption was calculated without the generation, transmission and distribution loss factor normally applied by Cummins to electricity purchased from the utility grid. This methodological adjustment was based in part on the guidance for RT-IG-130a.1 regarding the scope of reportable energy consumption. As a result the total quantity of energy consumed during the reporting period and the proportion associated with electricity consumption decreased. The percentage attributable to renewables increased, however, since the energy loss factor was not applicable to renewable market-instruments and on-site renewables in the first place. The energy totals disclosed elsewhere by Cummins may vary from the figure reported to SASB as a result of this or other methodological differences.

DISCUSSION

Energy management is an important aspect at Cummins. The company has had an active energy reduction target since 2006. That said, only 1% of Cummins greenhouse gas footprint comes from its facilities and operations.

Cummins added a commitment to renewable energy as part of its third energy reduction goal announced in 2016. In 2020, the company joined the U.S. Environmental Protection Agency's Green Power Partnership, a voluntary program that encourages organizations to use renewable power as a way to reduce the environmental impacts associated with conventional electricity use. The company's percentage of U.S. **renewable energy** consumed places Cummins at No. 53 on the U.S. Environmental Protection Agency's (EPA's) National Top 100 List of the largest green power users from the Green Power Partnership (GPP). Cummins is also No. 24 on the EPA's list of Green Power Partners from the Fortune 500.

TABLE 1: HEALTH AND SAFETY

TOPIC	CODE	ACCOUNTING MEASURE	UNIT	CATEGORY	DISCLOSURE
Health & Safety	RT-IG-320a.1	(1) Total recordable incidence rate	Rate per 200,000 hours worked	Quantitative	0.593, down from 0.646 in 2018.
		(2) Fatality rate	Rate per 200,000 hours worked	Quantitative	0
		(3) Near Miss Frequency Rate	Rate per 200,000 hours worked	Quantitative	9.24 in 2019, up from 8.86 in 2018.

DISCUSSION

In 2019, Cummins saw improvement in nearly every key performance indicator in health and safety. The Incidence Rate reached its lowest level since 2015 and there were no employee fatalities. The Near Miss Frequency Rate can be a difficult data point to analyze. A rising rate can be a good thing if it means employees feel more comfortable reporting potential problems and take a more active role in their health and safety and the health and safety of their co-workers. That's a key point of emphasis at Cummins.

TABLE 1:

FUEL ECONOMY & EMISSIONS IN USE-PHASE

CODE / ACCOUNTING METRIC

RT-IG-410a.1 – *Sales-weighted fleet fuel efficiency for medium- and heavy-duty vehicles*

RT-IG-410a.2 – *Sales-weighted fuel efficiency for non-road equipment*

RT-IG-410a.3 – *Sales-weighted fuel efficiency for stationary generators*

DISCUSSION / DISCLOSURE

Cummins does not currently calculate sales-weighted fuel efficiency data. As an independent engine maker, there are many complexities regarding how the company's engines are sold and then used by customers, creating a high degree of uncertainty in deriving a single number for each category.

However, Cummins has estimated the lifetime emissions of its products sold since 2016, when it first disclosed those emissions in its annual CDP (formerly Carbon Disclosure Project) submission. Greenhouse gas (GHG) from Cummins products in use are 99% of the company's GHG footprint.

In 2017, Cummins committed to developing science-based targets for both products and facilities and announced those targets in 2019, working collaboratively with the [Science-Based Target Initiative](#). Cummins' target of a 25% reduction in carbon dioxide (CO₂) from products sold by 2030 (from a baseline year of 2018) is listed on the website under [Companies Taking Action](#).

This goal is an absolute reduction based on sector decarbonization data provided by the Science-Based Target Initiative. Cummins expresses this aggressive goal in terms of lifetime emissions over the useful lives of its products of 15, 25 or 40 years or more.

The science-based targets are an integral part of the company's [PLANET 2050](#) sustainability strategy announced in 2019.

For the lifetime emissions calculation, Cummins starts with engine volumes, both consolidated and joint venture, by segment and engine model sold in the reporting year. It then multiplies by the attrition rate to determine the volumes in operation each year going forward.

TABLE 1: FUEL ECONOMY & EMISSIONS IN USE-PHASE

(continued)

Cummins determines the attrition rate using the company's parts consumption model and customer engineering analysis. Cummins applies the efficiency age factor to years going forward to determine the yearly miles per gallon. It then converts miles per gallon or gallons per hour to metric tons of CO₂e (carbon dioxide equivalent) and then applies the CO₂ conversion factor for diesel based on the EPA's EF hub and AR 4.

The calculation presented as an equation is as follows:

Adjusted Volume = Volumes * Life factor * Age factor

$$\text{Method - CO}_2\text{e (MMT)} = \sum \text{Years Adjusted Volume} * \frac{\text{Duty cycle} \left(\frac{\text{miles}}{\text{Year}} \text{ or } \frac{\text{hours}}{\text{Year}} \right) \times 10.2441 \left(\frac{\text{kg CO}_2\text{e}}{\text{gallon}} \right) \times \left(\frac{1 \text{ MT}}{1000 \text{ kg}} \right) \left(\frac{1 \text{ MMT}}{1\text{e}6 \text{ MT}} \right)}{\text{Fuel efficiency} \left(\frac{\text{miles}}{\text{gallon}} \text{ or } \frac{\text{hours}}{\text{gallon}} \right)}$$

For the reporting year of 2019, Cummins estimates the following lifetime emissions for each product type:

- » Medium-duty engines: 99 million metric tons
- » Heavy-duty engines: 271 million metric tons
- » Off highway equipment: 438 million metric tons
- » Stationary generators: 94 million metric tons

TABLE 1: FUEL ECONOMY & EMISSIONS IN USE-PHASE

(continued)

CODE/ACCOUNTING MEASURE

RT-IG-410a.4 –

Sales-weighted emissions of: (1) oxides of nitrogen (NOx) and (2) particulate matter (PM) for: (a) marine diesel engines, (b) locomotive diesel engines, (c) on-road medium- and heavy-duty engines, and (d) other off-road diesel engines

DISCUSSION/DISCOSURE

Cummins does not currently calculate sales-weighted emissions, but it has made significant progress in reducing NOx and PM.

The company decided several decades ago to embrace tougher environmental standards and to use Cummins' technological expertise and innovation to drive business success and community improvement. As a result, the company has grown its business and enhanced air quality, reducing NOx and PM by 90% and 99%, respectively, over the last 20 years in the most regulated countries such as the U.S.

Emissions regulations are expected to continue getting tighter globally with growing emphasis on greenhouse gas (GHG) emissions. Countries like Brazil, China, India and Mexico continue to move toward adoption of the most stringent regulations with Cummins providing low emitting solutions across the company's on- and off-highway platforms.

In the U.S., Cummins was a strong advocate for the first-ever U.S. GHG and fuel efficiency standards for heavy- and medium-duty engines and the company was the first manufacturer to receive engine certification from the U.S. EPA under this new regulation in 2013.

The change resulted in greater fuel efficiency and lower GHGs. Cummins continued to be a strong supporter of these regulations, collaborating with EPA on the adoption of the Phase 2 regulations. It is working toward meeting the next standards across its on highway products in 2021.

The regulatory environment brings both challenges and opportunities. As a technology company, Cummins is committed to meeting the world's sustainability challenges, through a ***broad portfolio of power solutions***.

TABLE 1: FUEL ECONOMY & EMISSIONS IN USE-PHASE

(continued)

Adopting cleaner technologies today, like near zero emission natural gas engines and nearer-to-zero diesel, prior to widespread commercialization of zero emission technologies for all markets, can make an immediate, positive impact.

Cummins is committed to investing in an energy diverse future where customers have a broad portfolio of power options, including new technology diesel, natural gas, electrified power, fuel cell technology and alternative fuels – so they can choose what works best for them. Cummins in 2019 for the first time invested more than \$1 billion in research, technology and engineering expenses as the company enhanced its diesel and natural gas products and brought to market new low-carbon technologies such as hydrogen fuel cells.

As part of its holistic approach, Cummins in 2019 created the **Product Compliance and Regulatory Affairs** organization to focus on strengthening the company's collaboration with the environmental agencies that set emissions regulations and certification processes. Cummins is working to ensure continued compliance with increasingly challenging global emissions regulations. The new organization functions independently from, and provides oversight to, the product development teams and business functions, reporting directly into the Chief Executive Officer.

To learn more, see additional disclosure on page 12 of the [2019 Annual Report on Form 10-K](#).

Cummins partners with its customers to improve the fuel economy of its products in use. A products in-use goal is part of both the current 2020 environmental sustainability goals as well as PLANET 2050. The current goal is to partner with customers on fuel economy projects to achieve an annual run rate reduction of 3.5 million metric tons of CO₂.

The company surpassed this goal in both 2018 and 2019, achieving a 4.3 million metric ton run rate in 2019. Since 2014, Cummins has completed more than 300 projects with customers, saving them 1.2 billion gallons of fuel and \$3.6 billion. The 2030 goal is to achieve a cumulative reduction of 55 million metric tons.

To see more information on the company's 2030 goals and PLANET 2050 go to page 20 of the [2019 Sustainability Progress Report](#).



TABLE 1:

MATERIALS

SOURCING

CODE / ACCOUNTING MEASURE

RT-IG-440a.1 – *Description of the management of risks associated with the use of critical materials*

DISCUSSION / DISCLOSURE

Several groups at Cummins, working together, manage the handling of the critical materials in this disclosure, including material identification and risks regarding supply, price, reputation and regulation.

Understanding the risks associated with restricted, prohibited or critical materials begins with understanding what is in the company's products. The products Cummins makes deliver power to the company's customers, and many of those products are dependent on critical materials.

This can include platinum group metals in the company's aftertreatment systems, cobalt in lithium-ion batteries, rare earth elements in the permanent magnets of electric vehicle traction drive motors and variable geometry turbo actuators, and small amounts of critical alloy elements in Cummins' high alloy steels used by the company's Fuel Systems group in the Components segment.

All Cummins suppliers must first go through a quality audit, which includes establishing the prospective supplier possesses an understanding of responsible sourcing requirements and that their operations employ adequate restricted substance controls.

Once a supplier is approved, Cummins' new product release program includes progressive compliance checks at five stages, including a requirement to disclose the materials and concentrations of substances used in the products it sells.

This information is curated in industry standard formats such as IPC1752a and IEC62474, so Cummins can implement control measures for suppliers of products containing materials known to be prohibited, restricted or scarce.

Cummins' general risk philosophy is that at the commodity level, metal will always be available; it may simply become more expensive if near term demand begins to exceed supply. When the company perceives such as changes in the market coming, it will consider buying a strategic inventory of high alloy steels or locking in capacity at a supplier.

TABLE 1: MATERIALS SOURCING

(continued)

The company uses a range of pricing strategies such as physical forward buys and hedging financial instruments. Cummins may also use contract clauses that periodically adjust the price it pays up or down with the movement of that commodity price.

Cummins works hard to also source ethically. The company has an active Restricted Substances and Products Disclosure (RSPD) group that works with Cummins' supply base to know what restricted materials are in the company's products and monitors regulations around the globe.

Restricted materials are addressed in the Cummins **Supplier Code of Conduct** and the company has a **Conflict Minerals Policy** and a policy on **ethical sourcing of cobalt**. These policies and the code of conduct help ensure that critical materials going into Cummins products have been ethically sourced.

The company uses multiple sources of information, such as networking with trade associations, industry groups such as RMI, and third-party contractors to keep abreast of current and emergent threats in the conflict minerals regulatory space. It also evaluates how these regulations impact Cummins and its products.

To mitigate regulatory and reputational risk, Cummins assesses each supplier's risk, and those most likely to provide conflict minerals are sent a Reasonable Country of Inquiry (RCOI) survey in the form of a Conflict Minerals Reporting Template (CMRT), conformant to the industry standard IPC 1752A.

The CMRTs are evaluated against verifiable information provided by RMI, and the appropriate Cummins functions, where proper due diligence is applied to suppliers who use smelters in covered countries.

Cobalt is at risk due to its supply chain, which has additional risk related to pricing. Since about 60% to 85% of cobalt is extracted or refined by Chinese entities, there is also the risk of one country controlling the bulk of the supply chain.

Further risk may occur should China choose to execute price controls on cobalt ores and chemicals. Cummins' primary method of mitigation is to work with its Tier 1 suppliers to ensure supply chain continuity as much as possible. Cobalt is also under regulatory risk. Currently, it is not regulated but there have been public conversations about adding it as a fifth conflict mineral. Cummins will work with industry groups to come to the best solution should this occur.

If a substance or material is added to a list, such as the European Union's ReACH SVHC (Substance of Very High Concern) list, Cummins will work with its engineers and the supply base to identify suitable alternatives. The RSPD group engages with agencies for advocacy needs on continued use of certain critical substances necessary for maintaining and improving the reliability of company products.



TABLE 1:

REMANUFACTURING DESIGN AND SERVICES

CODE / ACCOUNTING MEASURE

RT-IG-440b.1. – *Revenue from remanufactured products and remanufacturing services*

DISCLOSURE

For 2019, revenue derived from the sale of remanufactured products was approximately \$1.97 billion. This revenue includes parts and engines sold directly to self-servicing original equipment manufacturers as well as through the company's independent, joint venture and company-owned distributors and used in Cummins' Master Rebuild Centers.

DISCUSSION

Cummins has three global Reverse Logistics Core Centers (RLCCs): the main center in Memphis, Tennessee (U.S.) and two others in Rumst, Belgium and Singapore. The RLCCs take in parts or products (also referred to as "cores") and ships them to the company's remanufacturing sites across the globe.

Through its exchange program, Cummins uses incentives to encourage end-of-life parts remanufacturing, including dealer deposits that are refunded when used cores are returned to Cummins within the specified timeframe.

Cummins also includes remanufacturing considerations in its lifecycle (circular economy) strategy that is part of [**PLANET 2050**](#), the sustainability strategy announced in 2019.

To learn more, see the company's [**Product Stewardship Report**](#).

TABLE 2:

ACTIVITY METRICS

ACTIVITY METRIC	CATEGORY	UNIT OF MEASURE	CODE	DISCLOSURE
Number of units produced by product category.	Quantitative	Number	RT-IG-000.A	1.5 million
Number of employees	Quantitative	Number	RT-IG-000.B	61,615

The 1.5 million figure includes volumes from our joint ventures. 2019 volumes correlating to metrics RT-IG-410a. 1, 2 and 3 are as follows:

*Medium-duty engines: 529,497
Heavy-duty engines: 194,435
Off highway equipment: 317,533
Stationary generators: 79,575*

DISCUSSION

The Annual Report on Form 10K is the definitive source for financial information about the company.



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