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## Cummins Leadership Shares Hydrogen Technology Strategy and Plans for Continued Growth

- **Electrolyzer revenues projected to be at least \$400 million in 2025**
- **European manufacturing site for hydrogen technologies to be operational in 2021**
- **Continued investment in fuel cell and hydrogen production technology to bolster leadership position**

COLUMBUS, Ind.--(BUSINESS WIRE)-- Cummins Inc. (NYSE: CMI), a global power leader, today shared how the company plans to grow its fuel cell and hydrogen production business and further solidify the company as a global power leader.

“As the world transitions to a low carbon future, Cummins has the financial strength to invest in hydrogen and battery technologies as well as advanced diesel and natural gas powertrains,” said Chairman and CEO Tom Linebarger.

The company specifically outlined its plans to generate electrolyzer revenues of at least \$400 million in 2025. Members of the Cummins leadership team reviewed the company’s existing hydrogen portfolio and strategy and discussed specific market opportunities at a virtual conference held today with the investment community.

“Demand for electrolyzers is growing rapidly with an opportunity to utilize green hydrogen to replace less environmentally friendly grey hydrogen in industrial processes while interest in fuel cells is growing in certain end markets,” said Amy Davis, President, New Power Segment, Cummins Inc. “Cummins is participating in markets where we see early adoption of these technologies, leveraging our technology leadership, customer relationships, application knowledge, and global service and support capabilities. We also continue to invest in new technologies, such as solid oxide fuel cells, that show promise in stationary power applications.”

During the presentations, Cummins’ leaders also shared how green hydrogen and fuel cells will play a critical role in reducing greenhouse gas and air emissions from the industries it serves to meet experts’ recommendations to limit global temperature increases in line with the Paris Agreement. They also shared that they expect adoption of fuel cell technology to

take time as technologies continue to develop and costs reduce. They added that infrastructure is a current barrier and will require action and engagement from both private industry and government to increase the pace of adoption of hydrogen fuel cell solutions.

“The production of green hydrogen and the adoption of fuel cell technologies in markets that are served by fossil fuels today will be critical to lowering greenhouse gas emissions globally and also will enable Cummins to achieve carbon neutrality by 2050,” Linebarger added. “We will continue to bring hydrogen fuel cell products to market and we have many products already in the field, including in on-highway trucks, rail, marine and other applications, as well as hundreds of electrolyzers.”

## Hydrogen Technologies and Products Overview

- Cummins is combining its powertrain expertise and its fuel cell and hydrogen technologies to power a variety of applications, including transit buses, semi-trucks, delivery trucks, refuse trucks and passenger trains. Today, Cummins has more than 2,000 fuel cell installations across a variety of on-and off-highway applications as well as more than 500 electrolyzer installations.
- Cummins product offerings include:
  - **PEM fuel cell power modules** – These are scalable from 8 to 90kW and can be combined to meet even higher power requirements and include the complete fuel cell system.
  - **Fuel cell powertrains** – Cummins brings its 100-year history around the powertrain and a deep understanding of commercial markets and their duty cycles and combines it with industry leading fuel cell technology to deliver robust fuel cell powertrains.
    - Cummins fuel cells are powering the world’s first hydrogen fuel cell passenger trains through Alstom, a French rail manufacturer. After completing a successful year and a half trial and more than 180,000 kilometers driven, Cummins is moving into serial production and is the largest provider of fuel cells for rail applications in the world.
    - In partnership with leading European truck manufacturers, system integrators, and waste management fleet operators, Cummins supplied fuel cells for FAUN, a leader in waste collection vehicles and sweepers in Europe, for their electric refuse truck program. Each truck has 100% electric drive and has zero tailpipe emissions with a range of up to 560 kilometers, which is enough to run the collection route multiple times carrying 10 tons of waste.
    - Cummins is working with ASKO, Norway’s largest grocery wholesaler, to supply fuel cells integrated into four Scania electric trucks as part of ASKO’s plan to bring more alternative fuel vehicles into its fleet.
    - As part of the Department of Energy’s “H2@Scale” initiative Cummins and Navistar will work together on the development of a class 8 truck powered by hydrogen fuel cells. The powertrain will be integrated into an International® RH™ Series truck and uses two HyPM® HD90 power

modules, made up of HD45 fuel cell stacks connected in series. The truck will be integrated into Werner Enterprises' fleet of more than 7,700 tractors and operated in real-world local and/or regional delivery operation out of Fontana, CA for 12 months.

- **Electrolyzers** (both alkaline and PEM) – Electrolyzers use electricity to split water and create hydrogen. These can be small for on-site generation or can leverage multiple stacks generating hydrogen from surplus hydroelectricity or other renewable energy sources.
  - Cummins is in the final stages of commissioning the largest PEM electrolysis plant in the world in Becancour, Canada for Air Liquide. The 20-megawatt facility will have an annual hydrogen output of approximately 3,000 tons. The electrolyzer will use surplus renewable hydroelectricity to generate decarbonized, or green hydrogen. Cummins is providing its 5-megawatt PEM electrolyzer to enable renewable energy for the Douglas County Public Utility District in Washington state in 2021. The Cummins electrolyzer will be dedicated to producing hydrogen from renewable energy and will be the largest, as well as first of its kind in use by a public utility, in the United States.
  - Cummins has delivered electrolyzers for more than 50 hydrogen fueling stations.

## **Financial Outlook for New Power Segment**

In addition to discussing the outlook for the New Power Segment, including electrolyzer revenues of at least \$400 million in 2025, Chief Financial Officer Mark Smith underscored how continued strong performance of Cummins' existing products allows for further investment in new technologies.

"Cummins has the financial strength to keep investing in multiple technologies, including hydrogen production and fuel cells, to further advance our leadership position in this vital area," Mr. Smith stated.

## **Webcast information**

To watch the full event video and learn more about Cummins' investments in hydrogen, visit [cummins.com/hydrogenday](https://cummins.com/hydrogenday). The live event begins at 10:30 am eastern time.

## **About Cummins Inc.**

Cummins Inc., a global power leader, is a corporation of complementary business segments that design, manufacture, distribute and service a broad portfolio of power solutions. The company's products range from diesel, natural gas, electric and hybrid powertrains and powertrain-related components including filtration, aftertreatment, turbochargers, fuel systems, controls systems, air handling systems, automated transmissions, electric power generation systems, batteries, electrified power systems, hydrogen generation and fuel cell products. Headquartered in Columbus, Indiana (U.S.), since its founding in 1919, Cummins employs approximately 61,600 people committed to powering a more prosperous world through three global corporate responsibility priorities critical to healthy communities:

education, environment and equality of opportunity. Cummins serves its customers online, through a network of company-owned and independent distributor locations, and through thousands of dealer locations worldwide and earned about \$2.3 billion on sales of \$23.6 billion in 2019. See how Cummins is powering a world that's always on by accessing news releases and more information at <https://www.cummins.com/always-on>.

### **Forward-looking disclosure statement**

Information provided in this release that is not purely historical are forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995, including statements regarding our forecasts, guidance, preliminary results, expectations, hopes, beliefs and intentions on strategies regarding the future. These forward-looking statements include, without limitation, statements relating to our plans and expectations for our revenues and EBITDA. Our actual future results could differ materially from those projected in such forward-looking statements because of a number of factors, including, but not limited to: market slowdown due to the impacts from COVID-19 pandemic, other public health crises, epidemics or pandemics; impacts to manufacturing and supply chain abilities from an extended shutdown or disruption of our operations due to the COVID-19 pandemic; supply shortages and supplier financial risk, particularly from any of our single-sourced suppliers, including suppliers that may be impacted by the COVID-19 pandemic; aligning our capacity and production with our demand, including impacts of COVID-19; a major customer experiencing financial distress, particularly related to the COVID-19 pandemic; any adverse results of our internal review into our emissions certification process and compliance with emission standards; increased scrutiny from regulatory agencies, as well as unpredictability in the adoption, implementation and enforcement of emission standards around the world; disruptions in global credit and financial markets as the result of the COVID-19 pandemic; adverse impacts from government actions to stabilize credit markets and financial institutions and other industries; product recalls; the development of new technologies that reduce demand for our current products and services; policy changes in international trade; a slowdown in infrastructure development and/or depressed commodity prices; the U.K.'s exit from the European Union (EU); labor relations or work stoppages; reliance on our executive leadership team and other key personnel; lower than expected acceptance of new or existing products or services; changes in the engine outsourcing practices of significant customers; our plan to reposition our portfolio of product offerings through exploration of strategic acquisitions and divestitures and related uncertainties of entering such transactions; exposure to potential security breaches or other disruptions to our information technology systems and data security; challenges or unexpected costs in completing cost reduction actions and restructuring initiatives; failure to realize expected results from our investment in Eaton Cummins Automated Transmission Technologies joint venture; political, economic and other risks from operations in numerous countries; competitor activity; increasing competition, including increased global competition among our customers in emerging markets; foreign currency exchange rate changes; variability in material and commodity costs; the actions of, and income from, joint ventures and other investees that we do not directly control; changes in taxation; global legal and ethical compliance costs and risks; product liability claims; increasingly stringent environmental laws and regulations; the performance of our pension plan assets and volatility of discount rates, particularly those related to the sustained slowdown of the global economy due to the COVID-19 pandemic; future bans or limitations on the use of diesel-powered products; the price and availability of energy; our sales mix of products; protection and validity of our patent and other intellectual

property rights; the outcome of pending and future litigation and governmental proceedings; continued availability of financing, financial instruments and financial resources in the amounts, at the times and on the terms required to support our future business; and other risks detailed from time to time in our SEC filings, including particularly in the Risk Factors section of our 2019 Annual Report on Form 10-K and Quarterly Reports on Form 10-Q. Shareholders, potential investors and other readers are urged to consider these factors carefully in evaluating the forward-looking statements and are cautioned not to place undue reliance on such forward-looking statements. The forward-looking statements made herein are made only as of the date of this press release and we undertake no obligation to publicly update any forward-looking statements, whether as a result of new information, future events or otherwise. More detailed information about factors that may affect our performance may be found in our filings with the SEC, which are available at <http://www.sec.gov> or at <http://www.cummins.com> in the Investor Relations section of our website.

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