

November 22, 2021

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Email: Clint.Sabin@cat.com**FOR IMMEDIATE RELEASE****Caterpillar to Launch Demonstration Project Using Hydrogen Fuel Cell Technology for Backup Power at Microsoft Data Center**

DEERFIELD, IL – [Caterpillar Inc.](#) today announced a three-year project through a collaboration with Microsoft and Ballard Power Systems to demonstrate a power system incorporating large-format hydrogen fuel cells to produce reliable and sustainable backup power for Microsoft data centers. The project is supported and partially funded by the U.S. Department of Energy (DOE) under the H2@Scale initiative and backed by the National Renewable Energy Lab (NREL).

“At Caterpillar, we focus on supporting our customers with reliable, resilient and economical power solutions while achieving their climate-related goals,” said Jason Kaiser, vice president for Caterpillar’s Electric Power Division. “This hydrogen fuel cell demonstration project enables us to collaborate with industry leaders to take a large step toward commercially viable power solutions that also support our customers in making their operations more sustainable.”

Caterpillar is providing the overall system integration, power electronics and controls that form the central structure of the power solution which will be fueled by low-carbon-intensity hydrogen. Microsoft is hosting the demonstration project at a company data center in Quincy, Washington, while Ballard is supplying an advanced hydrogen fuel cell module. The National Renewable Energy Laboratory (NREL) is performing analyses on safety, techno-economics and greenhouse gas (GHG) impacts.

(more)

“We continue to invest in research and advanced development in hydrogen fuel cells as one of the various pathways toward our commitment to be carbon negative by 2030,” said Christian Belady, Distinguished Engineer and VP, Advanced Development, Cloud Operations + Innovation at Microsoft. “This latest project with Caterpillar will provide valuable insights into how to leverage hydrogen fuel cells for backup power in our datacenters at scale.”

Caterpillar experts in advanced power technologies, controls and system integration are working alongside Microsoft experts in data center design and Ballard experts in fuel cell design to demonstrate a 1.5 MW backup power delivery and control system that would meet or exceed the expectations set by current diesel engine systems.

“We are excited to be collaborating with a complementary team of global industry leaders on this important demonstration project,” said Randy MacEwen, Ballard’s President & CEO. “The results of this project will provide key insights into the capability of fuel cell systems to scale and serve multi-megawatt data centers. The project will also explore the scalability of fuel cell systems powered by low carbon-intensity hydrogen from cost and performance perspectives.”

Caterpillar has been working with the DOE on research, development and demonstration projects for more than 20 years.

About Caterpillar

Since 1925, Caterpillar Inc. has been helping our customers build a better world – making sustainable progress possible and driving positive change on every continent. With 2020 sales and revenues of \$41.7 billion, Caterpillar is the world’s leading manufacturer of construction and mining equipment, diesel and natural gas engines, industrial gas turbines and diesel-electric locomotives. Services offered throughout the product life cycle, cutting-edge technology and decades of product expertise set Caterpillar apart, providing exceptional value to help our customers succeed. The company principally operates through three primary segments - Construction Industries, Resource Industries and Energy & Transportation - and provides financing and related services through its Financial Products segment. For more information, visit [caterpillar.com](https://www.caterpillar.com). To connect on social media, visit [caterpillar.com/social-media](https://www.caterpillar.com/social-media).

Acknowledgement: This material is based upon work supported by the U.S. Department of Energy’s Office of Energy Efficiency and Renewable Energy (EERE) under the Hydrogen and Fuel Cell Technologies Office, H2@Scale Initiative, Award Number DEEE0009252.

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