March 20, 2023

Varennes Carbon Recycling selects Accelera by Cummins to manufacture, supply 90MW electrolyzer system in Quebec

Plant will use renewable hydrogen and oxygen to turn non-recyclable waste into biofuels and circular chemicals

COLUMBUS, Ind. & VARENNES, Quebec--(BUSINESS WIRE)-- Accelera™ by Cummins, a business segment of Cummins Inc. (NYSE: CMI), will supply a 90-megawatt (MW) proton exchange membrane (PEM) electrolyzer system for Varennes Carbon Recycling's (VCR) plant in Quebec, Canada – a key step in advancing North America's green hydrogen economy.

VCR is a consortium between Shell, Suncor and Proman, with the support of the Canadian and Quebec governments. The biorefinery will be powered by the exclusive waste-to-methanol technology platform developed by Enerkem.

This electrolyzer system will be comprised of four HyLYZER®-5000s—Accelera's largest electrolyzer product. Each HyLYZER-5000 utilizes 25MW of electricity and can produce up to 10 tons of hydrogen per day. This first-of-its-kind installation will provide the capacity needed to generate clean, renewable hydrogen and oxygen for VCR's conversion of waste material to low-carbon-intensity fuels and circular chemicals. The facility is under construction and scheduled to be operational in 2025.

An electrolyzer splits water into hydrogen and oxygen. The hydrogen can be stored as a compressed gas or liquid and used as an energy-dense, clean power source to help decarbonize a variety of hard-to-abate sectors. The VCR plant will use both the renewable hydrogen and oxygen to recycle carbon and hydrogen from waste materials.

Cummins launched its zero-emissions technology brand Accelera on March 8, with a broad portfolio of market-leading renewable hydrogen solutions that have been part of many of the world's hydrogen "firsts," including powering the world's largest PEM electrolyzer in operation at 20MW in Bécancour, Canada; the world's first megawatt-scale demonstration plant for storing wind energy in the natural gas grid in Windgas Falkenhagen, Germany; and

the world's first hydrogen refueling station for ships, cars, trucks and industrial customers in Antwerp, Belgium.

Quotes

From Accelera by Cummins:
"Our partnership with VCR illustrates Accelera's role as a global technology leader and highlights our ability to scale hydrogen production across a variety of industries. This project will be the first installation of Accelera's HyLYZER-5000, which generates five times more hydrogen than any of our PEM electrolyzer products currently in use and can accommodate the power needs for large-scale hydrogen production. Additionally, this is the first time our electrolyzers will power biofuel and circular chemical production, showcasing our unique capabilities to innovate and meet customer demands while accelerating the shift to net-zero emissions."
Amy Davis, President of Accelera by Cummins

From VCR:
"VCR is thrilled to partner with Cummins' new brand Accelera on this ground-breaking project. Accelera's PEM electrolyzer product, when coupled with the Enerkem technology platform, will double the yield of the methanol produced from waste material. The synergies of the colocation of the biorefinery and the electrolyser, powered with Quebec clean electricity, really set a new precedent in the biofuel and circular chemicals sectors. We are looking forward to this new strategic partnership."
Cole Henderson, General Manager & Portfolio Engineering Director at VCR

About Accelera™ by Cummins
Accelera by Cummins provides a diverse portfolio of zero-emission solutions for the world's most economically vital industries, empowering them to accelerate the transition to a sustainable future. Accelera, a business segment of Cummins Inc., is both a components supplier and integrator, focused on batteries, hydrogen fuel cells, e-axles, traction drive and electrolyzers. Accelera currently has operations in North America, across Europe and in China, with additional joint ventures that operate in the Netherlands and China. To learn more about Accelera, visit accelerazero.com.

About Cummins Inc.
Cummins Inc., a global power technology 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 internal combustion, electric and hybrid integrated power solutions to components including filtration, aftertreatment, turbochargers, fuel systems, controls systems, air handling systems, automated transmissions, electric power generation systems, microgrid controls, batteries, electrolyzers and fuel cell products. Headquartered in Columbus, Indiana (U.S.), since its founding in 1919, Cummins employs approximately 73,600 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 $2.2 billion on sales of $28.1 billion in 2022.

About Varennes Carbon Recycling (VCR)

Varennes Carbon Recycling will produce biofuels and circular chemicals made from non-recyclable waste and residual biomass based on Enerkem's exclusive technology. The plant, located in Varennes, will leverage green hydrogen and oxygen produced by the largest electrolyzer in Canada provided by Accelera by Cummins. VCR is a project being undertaken by Varennes Cellulosic Ethanol LP whose partners include Shell, Suncor and Proman, with the support of the Canadian and Quebec governments. It is a prime example of how a true circular economy can be achieved by diversifying the energy mix and by making everyday products greener while offering a smart, sustainable alternative to landfilling and incineration. www.rcv-vcr.com

View source version on businesswire.com:
https://www.businesswire.com/news/home/20230320005244/en/

Jon Mills
Director – External Communications
317-658-4540
jon.mills@cummins.com

Source: Cummins Inc.