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Cummins Using Hydrogen Technology to Enable Renewable Energy for Public Utilities in Washington with the Largest Electrolyzer in the United States

DOUGLAS COUNTY, Wash.--(BUSINESS WIRE)-- Global technology and power solutions leader Cummins Inc. (NYSE: CMI) will provide its 5-megawatt PEM electrolyzer to enable renewable energy for the Douglas County Public Utility District (Douglas County PUD) in Washington state. 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.

Expected to be operational in 2021, the new renewable hydrogen facility allows the Douglas County PUD to manufacture commercial hydrogen using electrolysis to harvest hydrogen from water from Wells Dam on the Columbia River. The PEM electrolyzer system, which stands for proton exchange membrane, takes the excess renewable energy and through a chemical reaction splits water into hydrogen and oxygen. The hydrogen acts as an energy carrier and the oxygen is released into the air. The hydrogen can then be stored in a gas or liquid state to be used in a multitude of applications, including fuel cell electric mobility. The electrolyzer is powered by clean hydroelectricity, so the production of hydrogen does not generate any carbon emissions.

"At Cummins, we believe that scaling hydrogen technologies will continue to grow lowcarbon solutions," said Amy Davis, Cummins Vice President and President of New Power, the company's alternative power business. "It takes enterprises, governments and utilities working together, like what we have done with Douglas County PUD, to make alternative power a reality and promote a more sustainable world. Douglas County PUD is just one example of how Cummins is expanding the energy market and driving new power solutions for our customers."

The electrolyzer technology provides a means to address one of the largest dilemmas in the renewable energy industry, which is how to store the energy when it's not in demand. Cummins' PEM electrolyzers, like Douglas County PUD's electrolyzer plant, enables utilities to store the excess energy that they would typically sell off to the market at a financial loss, or not harness at all, and instead store that energy to sell into a new green hydrogen market.

Additionally, it creates a way for utilities to engage in new market opportunities outside of their typical service area, removing growth barriers often faced in the industry.

"Douglas County PUD is excited to work with Cummins' Fuel Cell and Hydrogen Technologies on our 5-megawatt hydrogen electrolyzer project. This hydrogen plant will create efficiencies for our Wells Hydroelectric Project and create a new renewable hydrogen gas resource for our community," said Gary Ivory, General Manager of Douglas County PUD. "As the first renewable hydrogen production plant in Washington State, we understand the importance of great partners, and we believe Cummins' will help us build a successful project."

This electrolyzer project is a part of an initial 5-megawatt project made possible by the passage of Senate Bill 5588 in Washington state last year, which authorized public utility districts to make and sell hydrogen. It will be built in the Baker Flats Industrial Park, which is located outside East Wenatchee and will use surplus hydropower from the Wells Dam Facility to produce renewable hydrogen.

"This project is a watershed, a first step into the huge economic and environmental opportunity that our growing use of clean power offers," said Ken Dragoon, Executive Director of the Renewable Hydrogen Alliance. "For the first time, the Northwest will produce clean fuels from renewable electricity—and the Douglas County PUD's innovative plan will use their electrolyzer's flexibility to free up valuable capacity on their dam."

Already a leader in advanced diesel, natural gas and battery technologies, Cummins is rapidly growing its hydrogen capabilities and the company continues to deepen its expertise in fuel cell technologies. Cummins uses fuel cell and hydrogen technologies to power a variety of applications, including <u>transit buses</u>, <u>semi-trucks</u>, <u>delivery trucks</u>, <u>refuse trucks</u> and <u>passenger trains</u> and has made several announcements in the past year related to hydrogen and fuel cell technologies. These include the <u>acquisition of Hydrogenics Corporation</u> in September 2019, providing Cummins with both PEM, alkaline fuel cells, and electrolyzers used to generate hydrogen. Cummins has also <u>invested in LOOP Energy</u>, signed a <u>memo of understanding with Hyundai Motor Company</u>, entered an agreement to<u>form a joint venture with NPROXX</u>, and invested in the development of solid oxide fuel cells. For more examples of how <u>Cummins has supported new firsts in the fuel cell and hydrogen industry</u> and for more information about Cummins Fuel Cell and Hydrogen Technologies, please visit <u>www.cummins.com/hydrogen</u>.

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 <u>https://www.cummins.com/always-on</u>.

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