

Cipher Neutron, dynaCERT's Partner, Signs Collaboration Agreement with Ionomr to Create North America's First 250-Kilowatt AEM Hydrogen Electrolyzer

written by Raj Shah | June 13, 2023

June 13, 2023 ([Source](#)) – (TSX: DYA) (OTCQX: DYFSF) (FRA: DMJ) *dynaCERT Inc.* (“*dynaCERT*” or the “Company”), Cipher Neutron Inc. (“Cipher Neutron”) and Ionomr Innovations Inc. (“Ionomr”) are pleased to jointly announce that Cipher Neutron has entered into a significant Collaboration Agreement (the “Collaboration”) with Ionomr.

Megawatt-Class Hydrogen Projects

The purpose of the Collaboration is to further develop competitively priced solutions for Green Hydrogen required in Megawatt-class projects that both Cipher Neutron and Ionomr are currently considering as clients. Many of these multi-Megawatt Green Hydrogen projects that have been announced throughout the world command the innovative Anion Exchange Membrane (“AEM”) Electrolyzers such as those of Cipher Neutron and the ground-breaking membranes manufactured by Ionomr.

Smaller AEM Electrolyzers are not expected by *dynaCERT*, Cipher Neutron and Ionomr to provide the cost advantages as those of the proposed 250-Kilowatt AEM Electrolyzers that Cipher Neutron and Ionomr are developing under the Collaboration.

Collaboration

Under the Collaboration, Ionomr and Cipher Neutron will bring innovative electrolyzer membrane technology together with advanced AEM Electrolyzer Technology to create the first North American-made 250-Kilowatt AEM Hydrogen Electrolyzer, and the only 100% made in Canada solution on the market. The electrolyzer will commercially produce affordable hydrogen gas in high volumes for governments and industries that strive to reduce pollution and Greenhouse Gas Emissions.

Proprietary Technology

Ionomr will retain its proprietary rights in its membrane and ionomer technologies while Cipher Neutron and *dynaCERT* will retain their equal rights in their AEM Electrolyzer Technology under the *dynaCERT*/Cipher Neutron Collaboration Agreement of February 2023. ([See Press Release dated February 22, 2023](#)).

High Volume Green Hydrogen Cost-Effective Solutions

The Anion Exchange Membrane Electrolysis Technology developed by Cipher Neutron (“AEMEL”) is the latest technology that produces affordable high-pressure and high-volume Green Hydrogen gas. AEMEL is considered as the best solution for many existing Green Hydrogen projects announced globally. Cipher Neutron has been working on AEM electrolysis for the last 3 years and is the world’s second company to commercialize AEM Electrolyzers and the first in North America and outside of Europe. Cipher Neutron and *dynaCERT* recently unveiled the world’s first commercial 10-Kilowatt AEM Hydrogen Electrolyzer at the Canadian Hydrogen Convention.

Ionomr

Ionomr develops and markets revolutionary ion-exchange membrane

and polymer solutions for clean technology applications including fuel cells and hydrogen production, for Cipher Neutron's innovative AEM Electrolyzers among others.

Ionomr's revolutionary membrane materials now enable product developers and integrators, such as Cipher Neutron, to optimize their product performance, improve durability, eliminate toxic components, increase recyclability, and accelerate cost reduction activities. Ionomer's R&D and manufacturing facilities are based in Vancouver, British Columbia and Rochester, New York, both recognized hubs for hydrogen and fuel cell research and development.

Bill Haberlin, CEO of Ionomr, stated, "This collaboration with Cipher Neutron, a world leader in advanced AEM Electrolyzers for Green Hydrogen, provides an opportunity to pair our innovative membrane technologies with leading technology and manufacturing capabilities for rapid deployment and demonstration for a Green Hydrogen world. At Ionomr, we are revolutionizing membrane technologies and collaborating with the best technologies from around the globe."

Gurjant Randhawa, President & CEO of Cipher Neutron, stated, "Ionomr and its advanced electrolyzer membrane technologies provide an opportunity to collaborate and develop better and more efficient PFAS-free (free of polyfluoroalkyl substances) and PGM-free (free of Platinum Group Metals) AEM Electrolyzers for a sustainable Green Hydrogen world. Along with our advances in AEM Electrolyzers, which are designed to provide an efficient and affordable source of Green Hydrogen, we constantly strive, at Cipher Neutron, to continually research the best technologies and game-changing ideas from around the globe."

Jim Payne, President & CEO of *dynaCERT* stated, "The Cipher Neutron Collaboration with Ionomr confirms our rapid advancement

in the global Hydrogen Economy. By creating North America's first 250-Kilowatt AEM Hydrogen Electrolyzer with CN, *dynaCERT* is joining with two great Canadian companies that operate internationally and are world leaders in the electrolyzer and electrolyzer membrane industries. A 250-Kilowatt AEM Hydrogen Electrolyzer enables us to be involved in some of the world's largest infrastructure projects. *dynaCERT* congratulates both Cipher Neutron and Ionomr and will continue to support their ambitious endeavours."

About Cipher Neutron Inc.

Cipher Neutron is a rapidly growing disruptive technology company focused on AEM Electrolyzers for Green Hydrogen production and Reversible Fuel Cells for power generation and Energy Storage Solutions. Cipher Neutron is a global group of scientists, engineers, technology developers, experts in hydrogen technology, investment bankers and people that have worked in hydrogen for decades. Cipher Neutron's innovative products, such as AEM Electrolyzers and Reversible Fuel Cells have unique advantages over other Green Hydrogen production, power generation and energy storage solutions currently available in the global market. Please see: <https://cipherneutron.com>

About Ionomr Innovations Inc.

Ionomr Innovations is revolutionizing electrochemistry with newly developed ion-exchange membranes and polymers for clean energy. Ionomr's Pemion® and Aemion® technologies provide cost, performance and sustainability advantages for fuel cells, hydrogen production and carbon capture, use and conversion. Ionomr was founded in 2018 and employs 46 professionals in Vancouver, Canada and Rochester, New York. www.ionomr.com

About dynaCERT Inc.

dynaCERT Inc. manufactures and distributes Carbon Emission Reduction Technology along with its proprietary HydraLytics™ Telematics, a means of monitoring fuel consumption and calculating GHG emissions savings designed for the tracking of possible future Carbon Credits for use with internal combustion engines. As part of the growing global hydrogen economy, our patented technology creates hydrogen and oxygen on-demand through a unique electrolysis system and supplies these gases through the air intake to enhance combustion, which has shown to lower carbon emissions and improve fuel efficiency. Our technology is designed for use with many types and sizes of diesel engines used in on-road vehicles, reefer trailers, off-road construction, power generation, mining and forestry equipment. Website: www.dynaCERT.com.

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Except for statements of historical fact, this news release contains certain "forward-looking information" within the meaning of applicable securities law. Forward-looking information is frequently characterized by words such as "plan", "expect", "project", "intend", "believe", "anticipate", "estimate" and other similar words, or statements that certain events or conditions "may" or "will" occur. In particular, information relating to Ionomr Innovations Inc. and its membrane technologies cannot be independently verified and information relating to Cipher Neutron Inc. and its AEM electrolyzer technologies cannot be independently verified. Although we believe that the expectations reflected in the forward-looking information are reasonable, there can be no assurance that such expectations will prove to be correct. We cannot guarantee future results, performance or achievements. Consequently, there is no representation that the actual results achieved will be the same, in whole or in part, as those set out in the forward-looking information. Forward-looking information is based on the

opinions and estimates of management at the date the statements are made and are subject to a variety of risks and uncertainties and other factors that could cause actual events or results to differ materially from those anticipated in the forward-looking information. Some of the risks and other factors that could cause the results to differ materially from those expressed in the forward-looking information include, but are not limited to: uncertainty as to whether our strategies and business plans will yield the expected benefits; availability and cost of capital; the ability to identify and develop and achieve commercial success for new products and technologies; the level of expenditures necessary to maintain and improve the quality of products and services; changes in technology and changes in laws and regulations; the uncertainty of the emerging hydrogen economy; including the hydrogen economy moving at a pace not anticipated; our ability to secure and maintain strategic relationships and distribution agreements; and the other risk factors disclosed under our profile on SEDAR at www.sedar.com. Readers are cautioned that this list of risk factors should not be construed as exhaustive. The forward-looking information contained in this news release is expressly qualified by this cautionary statement. We undertake no duty to update any of the forward-looking information to conform such information to actual results or to changes in our expectations except as otherwise required by applicable securities legislation. Readers are cautioned not to place undue reliance on forward-looking information.

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On Behalf of the Board of dynaCERT Inc.

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