

dynaCERT and Cipher Neutron Enter into MOU with Molymet to Supply Green Hydrogen Using AEM Electrolysers

written by Raj Shah | April 21, 2023

April 21, 2023 ([Source](#)) – *dynaCERT* Inc. (TSX: DYA) (OTCQX: DYFSF) (FRA: DMJ) (“*dynaCERT*” or the “Company”) and Cipher Neutron Inc. (“CN” or “Cipher Neutron”) are pleased to announce that they have concluded a Memorandum of Understanding (“the MOU”) with Molibdenos y Metales S.A. (“Molymet”) whereby *dynaCERT* and CN will further jointly develop, produce and market state-of-the-art Hydrogen technology, including AEM Electrolyser technology, that will be custom designed to produce Green Hydrogen for Molymet’s facilities.

The MOU also provides that *dynaCERT* and CN will also be advancing the testing of Molymet’s proprietary rhenium products for use in hydrogen Electrolysers and other hydrogen related technologies of CN and *dynaCERT* with a view to developing superior, more efficient Electrolysers and lower cost green hydrogen for industrial applications and clean energy storage and generation.

Molymet

Molymet is a Chilean company and an industry leader. Its subsidiaries and offices in the Americas, Europe and Asia allow Molymet to efficiently support its customers and supply 35% of the world’s demand for molybdenum and 70% of rhenium. Molymet has developed a wide range of molybdenum and rhenium solutions for the metallurgical, chemical and metal industries.

The MOU

The R&D goals of CN and *dynaCERT* are to eventually design and produce commercial systems capable of producing Green Hydrogen Gas at more competitive prices, in order to excel at the ever increasing competitive Green Hydrogen pricing marketplace and stay at the forefront and cutting edge of Hydrogen technology. By applying CN and *dynaCERT*'s technology to Molymet's reduction processes, cleaner more effective results will be evaluated.

Capital Cost Reduction of Green Hydrogen Electrolysers

Research and Development teams of *dynaCERT* and CN have focussed on cost efficiency and mitigating material costs. Operational efficiency and the core material costs go hand in hand with design engineering. Our 5 Kilowatt AEM Electrolyser is highly efficient and has achieved a higher current density of 2 amps/cm² as compared to 0.07 amps/cm² in a traditional alkaline electrolyser. Each cell in our 5 Kilowatt AEM Electrolyser produces 28 times more Hydrogen Gas than a traditional alkaline cell of equivalent size. This cost reduction of raw materials, the elimination of the use of Platinum group metals as catalysts, coupled with our unique design, allows the AEM 250 kilowatt stacks planned by *dynaCERT* and CN to be priced below USD \$950/kilowatt, believed to be a most compelling proposition to users of electrolyser technology.

Mr. Mario Lama, M. Sc.-Eng., Market Development Executive Manager of Molymet, stated, "The AEM Electrolyser accomplishments of Cipher Neutron in collaboration with *dynaCERT* are the perfect technology to be evaluated in conjunction with the scientific team of Molymet to advance its research in optimizing Molymet's Rhenium reduction facilities. In addition, our global leadership in rhenium products could very well have applications in producing the low cost green

hydrogen that Cipher Neutron and *dynaCERT* are achieving in their advanced research, especially by inking their membranes used in their AEM Electrolysers.”

Gurjant Randhawa, M.Eng., P.Eng., President and CEO of Cipher Neutron, stated, “Cipher Neutron and *dynaCERT* focus on lowering initial capital costs and long-term operating costs of producing Green Hydrogen across numerous commercial and industrial applications. Our MOU with Molytmet opens the door to cross-industry collaboration where advanced scientific knowledge can be shared.”

Jean-Pierre Colin, Executive Vice President and Director of *dynaCERT*, stated, “*dynaCERT* is proud to expand its relationship with Molytmet, a world leader in molybdenum and rhenium products. Advances that Molytmet is fostering in the Mining and Metals industry, especially in critical minerals - including the treatment of arsenic for mining operations and strategic metals, is important for the world economy and consistent with the *dynaCERT* strategy of establishing a very strong position to become a global leader of the Hydrogen Economy, not just with AEM Electrolysers, but also in many Green Hydrogen infrastructure projects.”

About Molytmet

Please see: www.molytmet.com

About Cipher Neutron

Please see: www.cipherneutron.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 Cipher Neutron Inc., Molymet and Molibdenos y Metales S.A. 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 of 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.

Neither the Toronto Stock Exchange nor its Regulation Services Provider (as that term is defined in the policies of the Toronto Stock Exchange) accepts responsibility for the adequacy or accuracy of the release.

On Behalf of the Board
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