

PyroGenesis Announces Project with Leading Furnace Manufacturer to Incorporate Plasma Torches in Aluminum Scrap Remelting Furnaces

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MONTREAL, May 24, 2022 (GLOBE NEWSWIRE) -- PyroGenesis Canada Inc. (http://pyrogenesis.com) (TSX: PYR) (NASDAQ: PYR) (FRA: 8PY), a high-tech company (hereinafter referred to as the "Company" or "PyroGenesis"), that designs, develops, manufactures and commercializes advanced plasma processes and sustainable solutions which are geared to reduce greenhouse gases (GHG), is pleased to announce that, further to its press release dated April 20th, which provided an update on its Aluminum Business offerings, the Company has undertaken a joint evaluation (the "Agreement") with a major manufacturer (the "Client"), to test PyroGenesis' zero-emission plasma torches in their scrap remelting and holding furnaces for the aluminum industry. The name of the Client remains anonymous for confidentiality reasons.

This Agreement outlines, amongst other things, the first step being a computational fluid dynamics (CFD) study to gather pre-test data and evaluate plasma for use in furnaces serving the secondary aluminum market: i.e., aluminum producers who re-melt and re-sell scrap and recycled aluminum.

PyroGenesis has already received a purchase order for the CFD study which is well underway, and additional next steps are already being planned.

The Client is one of the largest manufacturers of industrial furnaces around the world, with an almost 100-year legacy, who supplies industrial furnaces and engineering/metallurgical solutions - for virtually all process steps – to the aluminum, steel, and mining industries.

"This Agreement underscores the applicability, and timing, of PyroGenesis' offerings within the aluminum industry which, incidentally, has now expanded beyond just primary aluminum producers," said Mr. P. Peter Pascali, CEO and Chair of PyroGenesis. "This is particularly interesting given this Agreement is, once again, with such a prominent manufacturer in the industry."

"Driven by (i) rising aluminum demand ¹ and (ii) the fact that secondary scrap aluminum contributes to the overall aluminum supply at a much lower energy and emissions intensity (up to 95% less carbon footprint compared to primary aluminum production from initial mined ore²), more and more aluminum producers are taking steps to increase scrap metal in their product lines. The sector's low-emissions claims and targets put significant pressure on ensuring that the process itself (to melt scrap and maintain molten heat) is done with as low a carbon footprint as possible. PyroGenesis' combustion-less and emissions-free electric plasma torches are a rare technological solution that is immediately identifiable," continued Mr. Pascali. "As such, we look forward to announcing additional initiatives within this sector of the aluminum industry as negotiations currently taking place bear fruit."

About PyroGenesis Canada Inc.

PyroGenesis Canada Inc., a high-tech company, is a leader in the design, development, manufacture and commercialization of advanced plasma processes and sustainable solutions which reduce greenhouse gases (GHG), and are economically attractive alternatives to conventional "dirty" processes. PyroGenesis has created proprietary, patented and advanced plasm a technologies that are being vetted and adopted by multiple multibillion dollar industry leaders in four massive markets: iron ore pelletization, aluminum, waste management, and additive manufacturing. With a team of experienced engineers, scientists and technicians working out of its Montreal office, and its 3,800 m2 and 2,940 m2 manufacturing facilities, PyroGenesis maintains its competitive advantage by remaining at the forefront of technology development and commercialization. The operations are ISO 9001:2015 and AS9100D certified, having been ISO certified since 1997. For more information, please visit: www.pyrogenesis.com.

This press release contains certain forward-looking statements, including, without limitation, statements containing the words "may", "plan", "will", "estimate", "continue", "anticipate", "intend", "expect", "in the process" and other similar expressions which constitute "forward-looking information" within the meaning of applicable securities laws. Forward-looking statements reflect the Corporation's current expectation and assumptions and are subject to a number of risks and uncertainties that could cause actual results to differ materially from those anticipated. These forward-looking statements involve risks and uncertainties including, but not limited to, our expectations regarding the acceptance of our products by the market, our strategy to develop new products and enhance the capabilities of existing products, our strategy with respect to research and development, the impact of competitive products and pricing, new product development, and uncertainties related to the regulatory approval process. Such statements reflect the current views of the Corporation with respect to future events and are subject to certain risks and uncertainties and other risks detailed from time-to-time in the Corporation's ongoing filings with the securities regulatory authorities, which filings can be found at www.sedar.com, or at www.sec.gov. Actual results, events, and performance may differ materially. Readers are cautioned not to place undue reliance on these forward-looking statements. The Corporation undertakes no obligation to publicly update or revise any forward-looking statements either as a result of new information, future events or otherwise, except as required by applicable securities laws. Neither the Toronto Stock Exchange, its Regulation Services Provider (as that term is defined in the policies of the Toronto Stock Exchange) nor the NASDAQ Stock Market, LLC accepts responsibility for the adequacy or accuracy of this press release.

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¹ ·World aluminium industry must cut emissions by 77% by 2050 -IAI, Reporting by Eric Onstad, Editing by Nick Zieminski, March 2021 https://www.reuters.com/world/china/world-aluminium-industry-must-cut-emissions-by-77-by-2050-iai-2021-03-16/

² Not all aluminium is equal: We need to increase the use of post-consumer scrap to accelerate emission cuts., by	y Jostein Soreide,	Head of Climate
Office in Hydro, May 03, 2021		

Not all aluminium is equal: We need to increase the use of post-consumer scrap to accelerate emission cuts (hydro.com)