



PyroGenesis Provides Update on its Iron Ore Pelletization Torch Business Line

January 26, 2023

Plasma Torch Systems Delivered to Client B; Moves Directly to Site Acceptance Testing

MONTREAL, Jan. 26, 2023 (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), provides today an update on its iron ore pelletization torch business line following recent inquiries from investors.

[Further to its press release dated September 14, 2021](#), PyroGenesis is pleased to announce the successful delivery of four (4) 1-MW plasma torch systems to a major international iron ore producer, Client B (the "Client"), for use in the Client's iron ore pelletization furnaces – a key upstream process in the steelmaking industry. With the completion of this delivery, Client B now has all the necessary components related to the Company's plasma torch systems on site at one of their key integrated iron ore mining and processing locations. This allows for the installation and trials (also known as site acceptance testing or "SAT") to proceed at the Client's discretion. Despite the ongoing supply chain challenges, the completion of these trials is expected by the end of Q2 2023.

In addition, PyroGenesis is pleased to report that the value of this contract has increased by approximately \$500,000 as a result of additional modifications requested by the Client during manufacturing. Total value of the project now exceeds \$6.5 million. As the delivery milestone associated with this payment has been met, a payment of approximately \$2.1 million is expected to be received within the next few weeks.

Separately, the Company is also pleased to confirm that the previously announced^{1,2} planned trials of its plasma torch system with another client, Client A, continue to advance. Client A informed PyroGenesis that, despite the Client's own operational delays, all objectives remain the same, and the trials will be going ahead as designed. [As noted previously](#), Client A's trials using an active iron ore pelletization furnace will be conducted based on their own engineering, facility, and personnel readiness.

Client A and Client B (collectively, the "Clients") are conducting these trials at full purchase cost to them, not as equipment loans or free trials. The names of the Clients – both multi-billion-dollar international producers of iron ore who are undertaking the testing of plasma torches to replace fossil fuel-burners in iron ore pellet baking furnace – have been kept confidential for competitive reasons.

"With the delivery of the four completed plasma torch systems to Client B, we now have PyroGenesis' plasma torch systems in the hands of two of the largest, most influential companies in the global iron and steelmaking value chain," said P. Peter Pascali, CEO and Chair of PyroGenesis. "Both companies have made it known publicly that reducing greenhouse gases in the upstream sections of the iron and steel industry is both imperative but proven to be challenging to find areas where improvements can be made; modification of the fossil-fuel burning furnaces is one of the only areas upstream where a meaningful impact can be made. While interim measures such as natural gas or hydrogen offer minimum improvement over diesel fuel, the limited impact on CO₂ emissions (an approximate 28% to 30%³ reduction in CO₂ from the existing fuel oil approach) dictates that these temporary measures must eventually give way to fully electric alternatives. Plasma torches – for which PyroGenesis owns the global patent for use in iron ore pelletization – provide just such a complete electric step towards these companies' upstream decarbonization goals, hence the importance of these plasma torch trials for both Clients."

Pelletization is the process in which iron ore is concentrated before shipment, thus significantly reducing the cost of transportation, and providing an essential feedstock for blast furnaces. In conventional technologies, the process heat is provided by fuel oil or natural gas burners (both environmentally damaging). The combustion of fossil fuels in the burners results in the production of GHG, mainly CO₂. Plasma torches, by contrast, utilize renewable electricity and offer an environmentally attractive alternative to fossil fuel burners. As previously disclosed, PyroGenesis has the process patent to replace fossil fuel burners with PyroGenesis' clean plasma torches in the iron ore pelletization industry, thereby reducing GHG emissions.

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 plasma 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 Company'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 Company's with respect to future events and are subject to certain risks and uncertainties and other risks detailed from time-to-time in the Company'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 Company's 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.

For further information please contact:

Rodayna Kafal, Vice President, IR/Comms. and Strategic BD

Phone: (514) 937-0002, E-mail: ir@pyrogenesis.com

RELATED LINK: <http://www.pyrogenesis.com/>

¹ PyroGenesis Signs Initial Plasma Torch Contract With Major Iron Ore Pelletizer

<https://ir.pyrogenesis.com/news-releases/news-release-details/pyrogenesis-signs-initial-plasma-torch-contract-major-iron-ore>

² PyroGenesis Confirms Delivery of Plasma Torch To One of the World's Largest Producers of Iron Ore For Use In Induration Furnace

<https://ir.pyrogenesis.com/news-releases/news-release-details/pyrogenesis-confirms-delivery-plasma-torch-one-worlds-largest>

³ The Bottom of the Barrel: The Fuel Effect: What is Being Burned Matters, by M.J. Bradley & Associates LLC for the EDF

https://www.edf.org/sites/default/files/10071_EDF_BottomBarrel_Ch3.pdf