



PyroGenesis Announces \$6 Million Torch Order with Another Major Iron Ore Pelletizer

Client expects next orders to be for 130 torches

PyroGenesis Increases its NPV estimate per torch to \$7MM

MONTREAL, QUEBEC (GlobeNewswire – September 14, 2021) - PyroGenesis Canada Inc. (<http://pyrogenesis.com>) (NASDAQ: PYR) (TSX: 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 to reduce greenhouse gases, is pleased to announce today, further to its Q2 2021 press release dated August 16th ([Outlook section](#)), that it has received an order to supply four (4) high powered plasma torches together with ancillary equipment to a client (“Client B”), for approximately \$6MM. This does not include continued after-sale services, which would be part of a separate services agreement. Client B is a multi-billion-dollar international producer of iron ore, whose name will remain confidential for competitive reasons. Client B’s objective is to reduce greenhouse gases (GHGs) by replacing their fossil fuel burners with PyroGenesis’ proprietary plasma torches. Client B has advised PyroGenesis that, upon the successful implementation of the torches announced today, the subsequent orders are expected to be for approximately 130 plasma torches. Notwithstanding this, there is no guarantee that such orders will be placed. The schedule to implement these future orders remains to be determined.

Pelletization is the process in which iron ore is concentrated before shipment, thus significantly reducing the cost of transportation, and providing a required 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.

“We have achieved another major milestone as this is our second commercial plasma torch order with a major iron ore producer,” said Mr. P. Peter Pascali, CEO and Chair of PyroGenesis. “In addition, Client B has advised that they would likely be ordering approximately 130 torches upon the successful installation of today’s order. This is particularly interesting given that Client B does not have the largest need amongst iron ore pelletizers. For example, we estimate that Client A, who has over ten (10) plants, each possibly requiring up to 50 plasma torches, has a significantly higher need. The iron ore pelletization industry is under extreme pressure to reduce their carbon footprint and GHG

emissions. As the industry is expected to grow at 3.0% pa from 2021 to 2027¹, iron ore pelletizers are looking for technology solutions to help them meet their carbon footprint and GHG targets. PyroGenesis' proprietary plasma torches which significantly reduce GHG emissions are an attractive solution as an environmentally friendly alternative to fossil fuel burners. As sales of PyroGenesis' plasma torches increase, PyroGenesis should also benefit from providing proprietary spare parts and services, which would generate significant high-margin, recurring revenue. We cannot overemphasize the opportunity this order presents. Although nothing is certain with respect to success and/or future contracts, and there are always risks as we move forward, we can now say without a doubt that we are on the right path and things are evolving in the right direction.”

Management has previously estimated internally that a typical pellet plant producing 10 million metric tonnes of pellets annually emits approximately one million metric tonnes of CO₂². The total world pellet production of 400 million metric tonnes of pellets represents a potential market for torch sales in excess of \$10B worldwide. The world pellet industry generates about 40 million metric tonnes of CO₂ every year. The use of plasma torches running off a clean electrical grid would reduce these emissions significantly. For reference, 40 million tonnes of CO₂ represent the combined yearly emissions of 8.7 million US passenger vehicles³.

Given recent sales, and the fact that the torches are expected to last 25-30 years, PyroGenesis has revised the estimated net present value (NPV) of each torch sale to be approx. \$7MM (calculated based on 20-year life). This is an increase from previous disclosures wherein the Company estimated that each torch sale could represent a \$3MM NPV to the Company. The original figure was based on very conservative estimates which projected the initial torch sale to be between \$1-1.3MM with subsequent maintenance and spare parts contracts limited to 5 years.

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

¹ [Iron Ore Pellets Market, Industry Analysis Report, Growth Potential, Price Trends, Competitive Market Share & Forecast, 2021 – 2027; Global Market Insights](#)

² M. Huerta, J. Bolen, M. Okrutny, I. Cameron and K. O’Leary, “Guidelines for Selecting Pellet Plant Technology”, Iron Ore Conference 2015 Proceedings, Perth, WA, July 13-15, 2015

³ <https://www.epa.gov/greenvehicles/greenhouse-gas-emissions-typical-passenger-vehicle>

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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