UNITED STATES SECURITIES AND EXCHANGE COMMISSION Washington, D.C. 20549

FORM 6-K

REPORT OF FOREIGN PRIVATE ISSUER PURSUANT TO RULE 13a-16 OR 15d-16 UNDER THE SECURITIES EXCHANGE ACT OF 1934

For the month of June 2021

Commission File Number: 001-39989-1

PYROGENESIS CANADA INC.

(Translation of registrant's name into English)

1744, William St. Suite 200

(Address of principal executive office)

Indicate by check mark whether the registrant files or will file annual reports under cover of Form 20-F or Form 40-F.

Form 20-F []

Form 40-F []

Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(1):
Note: Regulation S-T Rule 101(b)(1) only permits the submission in paper of a Form 6-K if submitted solely to provide an attached annual report to security holders.
Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(7):

Note: Regulation S-T Rule 101(b)(7) only permits the submission in paper of a Form 6-K if submitted to furnish a report or other document that the registrant foreign private issuer must furnish and make public under the laws of the jurisdiction in which the registrant is incorporated, domiciled or legally organized (the registrant's "home country"), or under the rules of the home country exchange on which the registrant's securities are traded, as long as the report or other document is not a press release, is not required to be and has not been distributed to the registrant's security holders, and, if discussing a material event, has already been the subject of a Form 6-K submission or other Commission filing on EDGAR.

On June 3, 2021, the Registrant issued a press release, a copy of which is attached hereto as Exhibit 99.1 and is incorporated herein by reference.

EXHIBIT INDEX

Exhibit Description

99.1 Press Release dated June 3, 2021

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

PYROGENESIS CANADA INC. (Registrant)

Date: June 3, 2021 /s/ P. Peter Pascali P. Peter Pascali

Chief Executive Officer

PyroGenesis Announces Request for Cost Estimate from Major Iron Ore Producer for Thirty-Six Plasma Torches

Validation Continues

MONTREAL, June 03, 2021 (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 plasma atomized metal powders, environmentally friendly plasma waste-to-energy systems and clean plasma torch products, is pleased to announce today that further to its press release dated November 24th, 2020, it has received a request for a cost estimate for thirty-six (36) plasma torches from a major iron ore producer (the "Client"). The Client is a multi-billion-dollar international producer of iron ore pellets, one of the largest in the industry, whose name will not be disclosed for confidentiality reasons, and whose ultimate objective is to reduce greenhouse gases (GHG) by replacing their fossil fuel burners with PyroGenesis' proprietary plasma torches.

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.

"Thirty-six (36) is too exact a number to be random," said P. Peter Pascali, CEO and Chair of PyroGenesis. "What is important today is that we can now confirm that the Client has not only identified the specific furnace to initiate a possible change-out, but has actually identified the burners to be replaced, and is now moving to the next steps. This is a significant development, but one that was not unexpected. We cannot overemphasize the opportunity this presents. That is not to say that there are no risks moving forward, or that future contracts are guaranteed. However, we can say with certainty that we are continuing to conservatively tick the boxes one by one."

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, in the burners, of fossil fuels results in the production of GHG, mainly CO₂. Plasma torches, by contrast, utilize renewable electricity and as such offer an environmentally attractive alternative to fossil fuel burners.

Management has estimated internally that a typical pellet plant producing 10 million metric tonnes of pellets annually emits approximately one million metric tonnes of CO_2^{-1} . 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 CO_2 every year. The use of plasma torches running off a clean electrical grid would reduce these emissions significantly. For reference, 40 million tonnes of CO_2 represent the combined yearly emissions of 8.7 million US passenger vehicles².

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 products. The Company provides its engineering and manufacturing expertise and its turnkey process equipment packages to customers in the defense, metallurgical, mining, advanced materials (including 3D printing), and environmental industries. 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 Company's core competencies allow PyroGenesis to provide innovative plasma torches, plasma waste processes, high-temperature metallurgical processes, and engineering services to the global marketplace. PyroGenesis' operations are ISO 9001:2015 and AS9100D certified. 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.

SOURCE PyroGenesis Canada Inc.

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/

 $^{^1}$ 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

² https://www.epa.gov/greenvehicles/greenhouse-gas-emissions-typical-passenger-vehicle