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 February 2022

Commission File Number: 001-39989

PYROGENESIS CANADA INC.

(Translation of registrant's name into English)

1744, William St. Suite 200 Montreal, QC, H3J1R4 Canada

(Address of principal executive office)

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): ____

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 [X]

the subject of a Form 6-K submission or other Commission filing on EDGAR.

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

On February 1, 2022, 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 Number Description

99.1 Press Release dated February 1, 2022

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: February 1, 2022

/s/ P. Peter Pascali P. Peter Pascali Chief Executive Officer

PyroGenesis Confirms Submission of a Cost Estimate for 36 Plasma Torches to Client A, a Multi-Billion-Dollar International Producer of Iron Ore Pellets, for \$95-115 Million

MONTREAL, Feb. 01, 2022 (GLOBE NEWSWIRE) -- 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 (GHGs), is pleased to confirm today that, further to its Q3 2021 financial results press release, as well as its press release dated June 3rd, 2021, it has submitted, as requested by Client A, a cost estimate for 36 plasma torches.

The cost estimate submitted was for USD \$75-\$95 million (Cdn equivalent: \$95-115 million) for 36 plasma torches (3 MW). The range is an estimate due to certain uncertainties which will be more clearly defined in due course.

"We wish to emphasis that this announcement is as a result of a previously announced request for a cost estimate by a client and in no way means, or implies, future revenues will result from this," said P. Peter Pascali, CEO and Chair of PyroGenesis.

As previously disclosed, Client A is a multi-billion-dollar international producer of iron ore pellets and one of the largest in the industry, whose name will remain confidential for competitive reasons. The Client, which has committed to reduce its GHG emissions, has over ten (10) plants, each possibly requiring up to 50 plasma torches (1MW). PyroGenesis has the only patented process in the iron ore pelletization industry designed to replace "dirty" fossil fuel burners with environmentally friendly plasma torches, thereby greatly reducing emissions.

Separately, the Company announced last week that a factory acceptance test is scheduled to be conducted between Feb 2nd and Feb 14th, 2022, for the use of its plasma torches in iron or pelletization with Client A.

"Although we recognize that this is a request for a cost estimate, and that there is no guarantee that the order will ever be made and, if it is, that it will be made within the price range noted herein, we also appreciate the fact that this is a strong indication of interest following extensive due diligence by a multi-billion-dollar company," said Mr. Pascali, CEO and Chair of PyroGenesis. "What is important to take away from our announcement today, and others made in the recent past, is not only that things are progressing as they should, and that we are conservatively ticking the boxes one by one, but the sheer magnitude of this opportunity for the Company if we are successful. Again, that is not to say that there are no risks moving forward, but we are certainly moving in the right direction with the right players."

PyroGenesis estimates that worldwide pellet production of 400MMT¹ consumes between 8000-12000 MW of energy annually. The company estimates that the potential addressable market is over \$10B², assuming a one-to-one replacement of fossil fuel burners with an estimated ten thousand 1MW plasma torches, based on an assumed cost per plasma torch (1MW) of approximately \$1.5M.

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 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 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 NASDAO 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 Investors Relations and Strategic Business Development

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 Based on PyroGenesis' Internal Calculations