PyroGenesis Signs $1.2 Million Energy Transition Contract with Cement Industry Customer

September2, 2025

PyroGenesis' plasma torch for use in calcination furnace marks continued expansion into higher-temperature industrial processes

MONTREAL, Sept. 02, 2025 (GLOBE NEWSWIRE) -- PyroGenesis Inc. ("PyroGenesis") (http://pyrogenesis.com) (TSX: PYR) (OTCQX: PYRGF) (FRA: 8PY1), a high-tech company that designs, develops, manufactures and commercializes advanced all-electric plasma processes and sustainable solutions to support heavy industry in their energy transition, emission reduction, commodity security, and waste remediation efforts, announces that it has signed a US$871,000 (CAD$1,198,000) contract with a European cement industry customer for the supply of a plasma torch system for a calcination furnace. The client's name is being withheld for competitive and confidentiality reasons at the request of the customer.

PROJECT HIGHLIGHTS

Purpose: using plasma torches instead of fossil fuel-based heating sources for a cleaner, more sustainable, and more efficient method for high-temperature calcination.
Scope: supply of proprietary plasma technology for integration into a calcination furnace, used as part of the cement production process.
Timeline: delivery to client is targeted for Q1 2026.
Strategic Impact: supports end customer and cement industry goals to reduce GHG emissions and produce cleaner, "greener" cement.

As outlined in the outlook section of PyroGenesis' Q1 2025 earnings report (press release dated May 13, 2025), PyroGenesis was in negotiations with a European entity to use plasma torches in a calcination process related to cement production. A calcination furnace (also known as a calciner), can be used for various steps in the cement process, including for high temperature processing of limestone, quicklime, and trona, to produce lime, clinker, and soda ash, all of which are key components of cement, contributing to its binding properties, strength and durability. Fossil fuel combustion and CO_2 released during the calcination process are major sources of emissions in the cement industry. Approximately 40% of greenhouse gas emissions in cement production comes from the combustion of fuel needed to generate the heat required in the calcination process. [i]

Image 1: PyroGenesis proprietary plasma torch technology

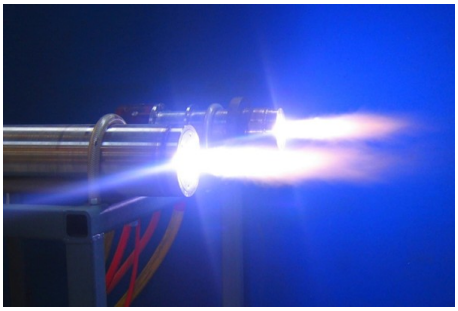


Image 1: PyroGenesis proprietary plasma torch technology

Image 2: as plasma torch power increases the addressable market for plasma torches in industrial applications expands

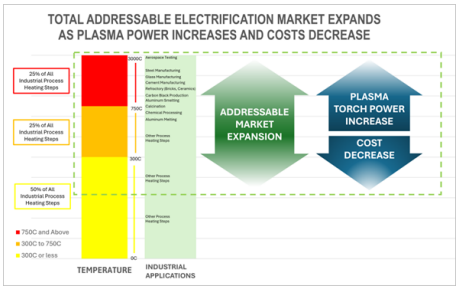


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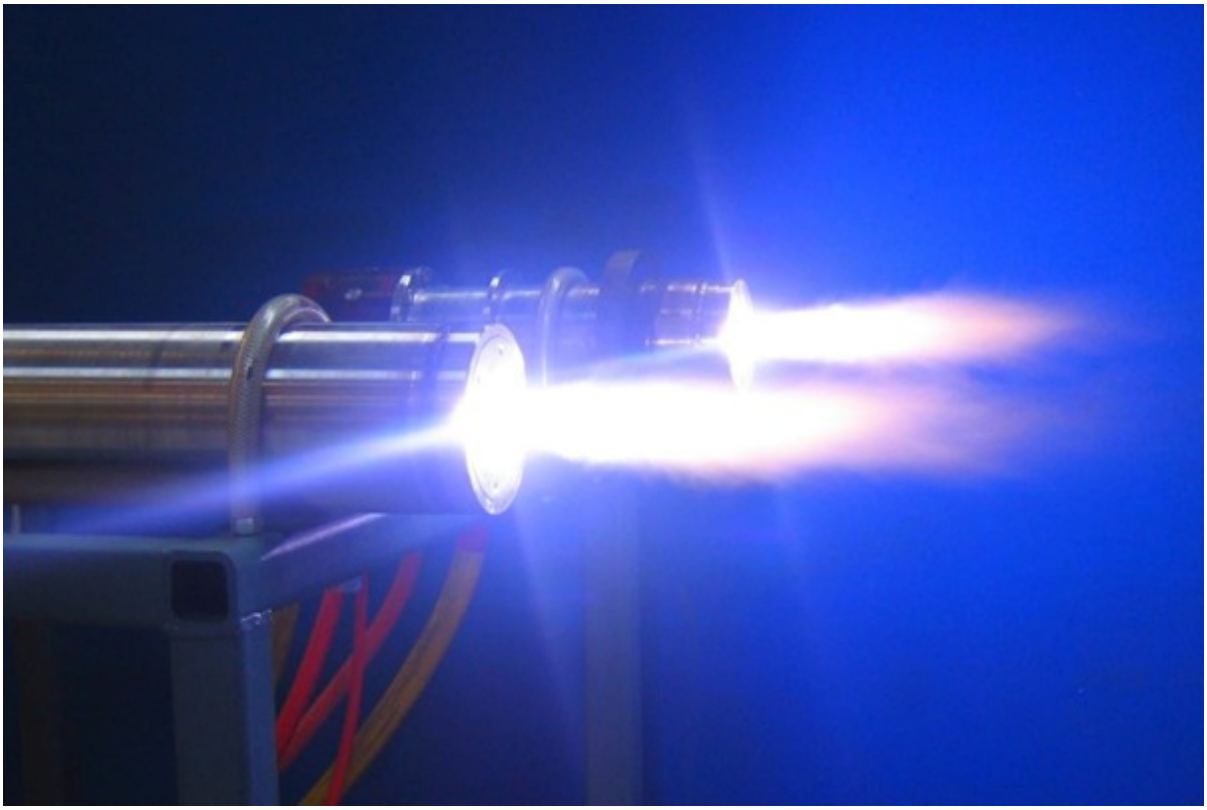


Image 1: PyroGenesis proprietary plasma torch technology.

“The cement industry faces a critical need to transition to lower-emission energy sources,” said Mr. P. Peter Pascali, President and CEO of PyroGenesis. “Transforming production methods and energy sources is not only a logical step for improving efficiency across operations, but also essential for meeting the cement industry’s long-standing emission reduction and net-zero commitments. Replacing fossil fuels in calcination furnaces—a process responsible for 40% of the sector’s greenhouse gas emissions—with PyroGenesis’ plasma torches could drive substantial decarbonization and efficiency gains across the industry.”

INDUSTRY AND MARKET CONTEXT

- Cement production is one of the most energy intensive of all manufacturing industries, accounting for nearly 5% of total global energy consumption. [ii] [iii]
- Cement production accounts for 7% of total GHG emissions and up to 9% of human-caused CO_2 emissions. [iv] [v]
- 40% of cement industry emissions come from fossil-fuel combustion to power calcination. [i]
- The Global Cement and Concrete Association targets 20% reduction of CO_2 per metric ton of cement and 25% reduction of CO_2 per cubic meter of concrete by 2030 compared to 2020. The GCCA also calls for complete decarbonization by 2050. [vi]
- Plasma-based furnace heating offers a cleaner, scalable, emission-free and more efficient alternative to traditional fossil fuel-based process heating, aligning with energy transition and decarbonization mandates across multiple heavy industries.
- Continuing power advances in PyroGenesis plasma torches, from 900 kW in 2020 to 20 MW in 2024, opens doors to more intensive industrial applications and higher heat industries.

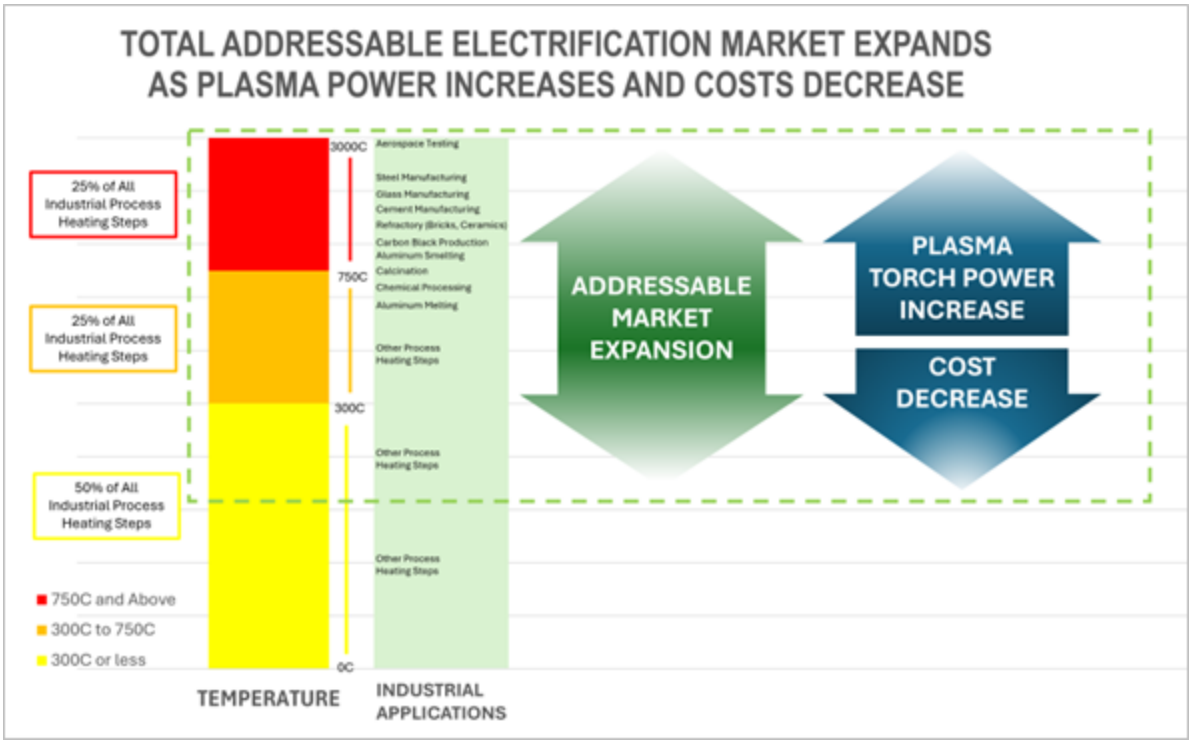


Image 2: as plasma torch power increases the addressable market for plasma torches in industrial applications expands.

About PyroGenesis Inc.

PyroGenesis Inc., a high-tech company, is a proud 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 m^2 and 2,940 m^2 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. PyroGenesis' shares are publicly traded on the TSX in Canada (TSX: PYR), the OTCQX in the US (OTCQX: PYRGF), and the Frankfurt Stock Exchange in Germany (FRA: 8PY1).

Cautionary and Forward-Looking Statements

This press release contains "forward-looking information" and "forward-looking statements" (collectively, "forward-looking statements") within the meaning of applicable securities laws. In some cases, but not necessarily in all cases, forward-looking statements can be identified by the use of forward-looking terminology such as "plans", "targets", "expects" or "does not expect", "is expected", "an opportunity exists", "is positioned", "estimates", "intends", "assumes", "anticipates" or "does not anticipate" or "believes", or variations of such words and phrases or state that certain actions, events or results "may", "could", "would", "might", "will" or "will be taken", "occur" or "be achieved". In addition, any statements that refer to expectations, projections or other characterizations of future events or circumstances contain forward-looking statements. Forward-looking statements are not historical facts, nor guarantees or assurances of future performance but instead represent management's current beliefs, expectations, estimates and projections regarding future events and operating performance.

Forward-looking statements are necessarily based on a number of opinions, assumptions and estimates that, while considered reasonable by PyroGenesis as of the date of this release, are subject to inherent uncertainties, risks and changes in circumstances that may differ materially from those contemplated by the forward-looking statements. Important factors that could cause actual results to differ, possibly materially, from those indicated by the forward-looking statements include, but are not limited to, the risk factors identified under "Risk Factors" in PyroGenesis' latest annual information form, and in other periodic filings that it has made and may make in the future with the securities commissions or similar regulatory authorities, all of which are available under PyroGenesis' profile on SEDAR+ at www.sedarplus.ca. These factors are not intended to represent a complete list of the factors that could affect PyroGenesis. However, such risk factors should be considered carefully. There can be no assurance that such estimates and assumptions will prove to be correct. You should not place undue reliance on forward-looking statements, which speak only as of the date of this release. PyroGenesis undertakes no obligation to publicly update or revise any forward-looking statement, except as required by applicable securities laws.

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For further information please contact:
Rodayna Kafal, Vice President, IR/Comms. and Strategic BD
E-mail: ir@pyrogenesis.com
http://www.pyrogenesis.com

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[i] https://link.springer.com/article/10.1007/s10098-023-02683-0

[ii] https://www.eia.gov/todayinenergy/detail.php?id=11911

[iii] https://www.sciencedirect.com/science/article/abs/pii/B9780323852104000102

[iv] https://www.mckinsey.com/capabilities/sustainability/our-insights/spotting-green-business-opportunities-in-a-surging-net-zero-world/transition-to-net-zero/cement

[v] https://www.scientificamerican.com/article/solving-cements-massive-carbon-problem/

[vi] https://www.mckinsey.com/industries/engineering-construction-and-building-materials/our-insights/cementing-your-lead-the-cement-industry-in-the-net-zero-transition

Photos accompanying this announcement are available at

https://www.globenewswire.com/NewsRoom/AttachmentNg/c493dafa-ad64-468d-ab8a-229d32236c1f

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