PyroGenesis Signs $2.4 Million Contract with Norsk Hydro ASA

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Norsk Hydro ASA Moves to Decarbonize Aluminum Casthouses by Testing PyroGenesis' Plasma Technology with Global Potential

MONTREAL, Feb. 24, 2025 (GLOBE NEWSWIRE) -- PyroGenesis Inc. ("PyroGenesis") (http://pyrogenesis.com) (TSX: PYR) (OTCQX: PYRGF) (FRA: 8PY), a high-tech company that designs, develops, manufactures and commercializes 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 €1.63 million (CA$2.4 million) contract with aluminium and renewable energy company Norsk Hydro ASA ("Hydro") as part of its stated plan to test plasma technology as one of the ways to replace fossil fuel with renewable alternatives in its aluminum casthouses.

In January 2024, Hydro, as part of its stated goal to achieve net-zero emissions across the entire aluminum value chain by 2050, publicly announced their intention to test plasma technology in their test center in Sunndal Norway.



Image 1: Sunndal primary aluminium plant (Photo: Anders Vindegg/Hydro)

"We are exploring the application of renewable energy sources in production steps that traditionally rely on fossil fuels. Plasma technology offers a way to electrify casthouse operations using the same renewable energy that powers our primary smelters. If we succeed with the pilot project at Sunndal, it will not only impact our operations but also has the potential to bring change to the aluminium industry and other hard-to-abate sectors worldwide," says Per Eilert Vierli, Senior Vice President of Hydro Aluminium Metal.

Hydro intends to melt the first aluminum in the R&D casthouse at Sunndal by next year. Hydro's Sunndal plant is the largest and most modern primary aluminum plant in Europe.[i] The facility, which also houses remelting, casthouse, and research and development activities, produces over 400,000 tonnes of primary aluminum, 500,000 tonnes of casthouse products, and 80,000 tonnes of anodes annually.

Sunndal Primary Aluminium plant



Sunndal primary aluminium plant (Photo: Anders Vindegg/Hydro)

Hydro's aluminium plant, Sunndalsøra Norway



Drone photo of Sunndalsøra Norway, featuring Hydro's aluminium plant, the largest and most modern primary aluminium plant in Europe. (Photo: Hydro)



Image 2: Drone photo of Sunndalsøra Norway, featuring Hydro's aluminium plant, the largest and most modern primary aluminium plant in Europe. (Photo: Hydro)

After announcing its goals in early 2024, Hydro initiated a competitive process to select a plasma technology partner. After an exhaustive process, PyroGenesis was selected by Hydro to undertake this major initiative. The potential for this contract was previously mentioned in the outlook section of PyroGenesis' Q3 2024 earnings news release, which listed a tendered bid underway for a global aluminum company, whose name was kept confidential at the time.

"Hydro is not just one of the largest aluminum companies in the world, but it is also one of the few companies that others in the industry look to for guidance and inspiration. We are proud to be partnering with a leader who is committed to decarbonizing and achieving net zero CO_2 emissions in the entire aluminum value chain," noted P. Peter Pascali, President and CEO of PyroGenesis. "Our torch capabilities are the reason PyroGenesis is increasingly becoming the go-to plasma solution company for the biggest and most influential names in heavy industry as they seek solutions to meet their global energy transition and decarbonization strategies. As noted in our recent press release dated February 10, 2025, recent results have confirmed that a solid business case can be made to transition to all-electric PyroGenesis plasma torches from an energy savings perspective alone, and any positive environmental impact (such as CO_2 reduction) would be just icing on the cake. In addition, with the reduced energy requirement as a result of using PyroGenesis torches, companies can now contemplate building smaller furnaces (for the same capacity), reducing costs further for the same project. Last but not least, the reduced aluminum melting time means companies can raise production levels, generating higher and faster output. Increasing production rates by up to 30% from the same production footprint implies processing more output which in turn directly impacts revenues and profitability. As I said, the advantages from using PyroGenesis' plasma torches create a solid business case apart from the concurrent positive environmental impact of doing so. It is for these reasons that we say that '*PyroGenesis is working to make sustainability sustainable*."

The contract with Hydro is for the engineering, design, manufacturing, and delivery of a PyroGenesis plasma torch system and related peripheral components that will be used to replace existing natural gas-powered furnace burners in an aluminum casthouse furnace. The project will be one of the first in the world to use plasma to melt aluminum on an industrial scale, and will measure energy consumption, melting rate, aluminum quality, and production output among other data.

Hydro expects this project, if successful, to pave the way for decarbonization of casthouse operations on a larger scale, stating that the global potential for reducing emissions from aluminum casthouses and recyclers is in the neighborhood of 11 million tonnes of CO_2.[ii]

Hydro is a Norway-based aluminum and renewable energy company founded in 1905, that is often considered one of the most respected and influential leaders in heavy industry, with 32,000 employees across operations in 42 countries. Since entering the aluminium business in the 1960s, Hydro has become one of the largest aluminum producers in the world. The company posted 2024 revenues of US$18.3 billion.

PyroGenesis' development of plasma torches for use in high temperature industrial processes is part of its three-vertical solution ecosystem that aligns with economic drivers that are key to global heavy industry. Plasma torches for use in aluminum casthouse furnaces are part of PyroGenesis' **Energy Transition and Emission Reduction** vertical, where fuel switching to PyroGenesis' electric-powered plasma torches helps heavy industry reduce energy costs, fossil fuel use, and emissions. The other verticals are **Waste Remediation** and **Commodity Security and Optimization**.

About PyroGenesis Inc.

PyroGenesis, 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: 8PY).

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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[i] https://www.hydro.com/en/global/about-hydro/hydro-worldwide/europe/norway/sunndal/

[ii] https://www.hydro.com/en/global/media/news/2024/hydro-moves-to-decarbonize-casthouses-by-testing-plasma-technology-with-global-potential/

Photos accompanying this announcement is available at:
https://www.globenewswire.com/NewsRoom/AttachmentNg/25915607-27b0-406e-a168-c8bc7b385a19

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