

PyroGenesis Closes Strategic Acquisition of Air Science Technologies

Adds over \$10MM of signed contracts to backlog

MONTREAL, Aug. 12, 2021 (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 (GHG), is pleased to announce today that, further to its press release dated April 27th, 2021, it has finalized its strategic acquisition of AirScience Technologies Inc. and its subsidiaries (collectively, "AST") for an amended total cash consideration of approx. \$4.4MM (the "Purchase Price").

The Purchase Price will be paid upon various contract and business-related milestones. Should any of the milestones not be reached within the next three (3) years, the purchase price shall be adjusted downward. The Purchase Price shall be paid as follows:

1. Approximately 20% upon receipt of payment of US\$4MM (approx. Can\$5MM) under an existing letter of credit from AST's client 1,
2. Approximately 20% upon final acceptance test/bank guarantee from client 1,
3. Approximately 25% upon receipt of final acceptance report for client 2,
4. Approximately 5% upon final acceptance test, or equivalent from each of client 3 and 4 (total 10%), and
5. Approximately 25% upon conversion of \$4MM in pipeline to signed contracts.

AST, a Montreal-based company, offers technologies, equipment, and expertise in the area of biogas upgrading, as well as air pollution controls. AST designs and builds: (i) gas upgrading systems to convert biogas to renewable natural gas (RNG); (ii) pyrolysis-gas purification; (iii) biogas & landfill-gas flares and thermal oxidizers; and (iv) purification of coke-oven gas (COG) (a by-product in the primary steel industry arising from the conversion of coal into coke) into high purity hydrogen, which is in high demand across the industry. AST is also known for its line of landfill gas flares which reduce greenhouse gas ("GHG") emissions specifically from landfills.

PyroGenesis will operate AST as a wholly owned subsidiary and retain the current management and staff, comprising of approximately 20 employees. AST has current operations across North America, Italy and India. The acquisition is expected to positively impact PyroGenesis' earnings per share in 2021.

"We are extremely excited about today's announcement as it essentially springboards PyroGenesis into the RNG market where we believe there is a significant unmet need for RNG-providers, particularly in North America," said P. Peter Pascali, CEO and Chair of PyroGenesis. "This acquisition effectively provides PyroGenesis with a 15+ year advantage compared to building these operations from scratch. In addition, we will now have a presence in Italy, and India (where AST has already developed relationships with several multi-billion-dollar companies who are currently using their technology). Moreover, this acquisition provides potential synergies with our land-based waste destruction offerings which, if successful, will significantly increase their value to the market. AST's technology complements PyroGenesis' existing offerings and further strengthens PyroGenesis' position as an emerging leader in GHG solutions for sustainable long-term growth."

Mr. Pascali continues to discuss this acquisition in the following Q&A format:

Q1. What is the significance of this acquisition today?

A. This acquisition provides us with an immediate entry into the RNG marketplace where we believe there is a significant need for RNG providers particularly given the trend towards regulating minimum required amounts of RNG within gas pipelines.

Governments are now legislating requirements for gas distributors to incorporate RNG into their pipelines. This has, in turn, created a significant demand for biogas upgrading facilities worldwide, but particularly in North America, and it is this need that PyroGenesis is now targeting.

The movement to transition economies to net zero emissions is evidenced by the US' commitment to cut GHG emissions in half by 2030, and to zero by no later than 2050.¹

Closer to home, the Quebec Government recently incorporated RNG and green hydrogen initiatives into their strategy to reduce GHG emissions in their 2030 plan for a green economy. In this plan, the Québec Government launched the first steps of the plan, covering 2021-2026. This initiative was backed by a budget of no less than \$6.7 billion over the ensuing five years. More specifically, it earmarked over \$200 million for RNG projects in the form of investments in the financing of RNG production and distribution projects.²

In addition, this acquisition has provided PyroGenesis with an immediate presence in both Italy and India and established relationships with several multi-billion-dollar companies. AST also boasts a list of satisfied clients which now provides PyroGenesis with the "Golden Ticket", described in previous press releases. The Golden Ticket provides an opportunity to i) cross sell other PyroGenesis offerings (such as replacing fossil fuel burners with PyroGenesis' proprietary plasma torches),

and/or (ii) propose plasma-based solutions to existing problems.

¹ <https://www.nbcnews.com/politics/white-house/biden-will-commit-halving-u-s-emissions-2030-part-paris-n1264892>

² <https://www.bioenergy-news.com/news/rng-included-in-quebec-governments-green-economy-plans/>

Q2. Can you describe the advantage of this transaction for PyroGenesis' shareholders?

A. Sure.

AST not only faced the natural growing pains of an emerging company, such as access to capital to support growth, but they were also challenged during COVID due to delayed payments and supply chain issues, all at a time of increasing demand for their products.

We believe PyroGenesis' acquisition of AST will now allow AST, under PyroGenesis, to realize its full potential by providing the requisite skill set and assets to grow and meet future demand. We expect that AST's growth will be accelerated with access to PyroGenesis' (i) solid quality management system, including ISO 9001 certification; (ii) multidisciplinary team of engineers (including process, mechanical and electrical engineering) and modeling capabilities (CFD, 3D mechanical, FEM analysis, process modeling); (iii) expertise in maximizing intellectual property through a robust patent strategy; (iv) newly upgraded state-of-the art fabrication and warehousing facility allowing for quick turnaround of equipment and parts to customers; and (v) a track record of over 30 years history of doing business with a long list of high-profile customers.

In discussions with clients during our due diligence, we confirmed that any existing issues were entirely manageable and there was clear interest to expand the relationship under PyroGenesis ownership.

In summary, we have acquired AST for approx. \$4.4MM, which is to be paid upon the accomplishment of certain milestones, each of which further validates and confirms AST's position in the marketplace. AST has a healthy backlog of over \$10MM of signed contracts, a pipeline of approx. \$15MM (weighted probability of approx. \$8MM), receivables of approx. \$5MM and debt of approx. \$2MM (the majority of which is expected to be paid by December 31, 2021 from AST's cashflow).

Q3. Are there any less obvious hidden gems within this acquisition?

A. Yes, in fact there is.

We believe that one of AST's offerings is ideally suited to significantly increase the value of one of our land-based environmental offerings. The syngas produced by PyroGenesis in, for example, its PRRS offering is quite similar to the Coke Oven Gas ("COG") that is cleaned and upgraded by AST. In PyroGenesis' case, the syngas is converted into electricity and heat which are both low value products. In AST's case, the COG is purified, and hydrogen, which has a much higher value, is extracted from it. As such, there is an opportunity to repurpose the syngas generated by PyroGenesis' PRRS offering by leveraging off of AST's technology, and thereby create higher value products such as hydrogen, methanol and ethanol, and effectively increasing the market value of PyroGenesis' PRRS offering.

Q4. What are your expectations over the next 12 - 18 months?

A. Our goal is to strengthen AST's operations, quality control systems, and increase the backlog of signed contracts, all while delivering on existing contracts. As this is completed over the next 12 to 18 months, we will continually evaluate our options to accelerate the rollout of these solutions in order to address the significant unmet need in the market.

We also fully expect in the fullness of time, and once PyroGenesis' engineering team becomes more familiar with AST's processes, significant IP could be developed.

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 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

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