



PyroGenesis Announces 2022 Fourth Quarter and Year End Results

March 31, 2023

MONTREAL, March 31, 2023 (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 advanced plasma processes and sustainable solutions which are geared to reduce greenhouse gases (GHG), is pleased to announce today its financial and operational results for the fourth quarter and the fiscal year ended December 31st, 2022.

"The industrial decarbonization policy landscape continues to evolve in ways that we expect to benefit the long-term success of our company," said Mr. P. Peter Pascali, President and CEO of PyroGenesis. "Forward leaning social sentiment has long been the major input driving public and corporate policy on matters like energy transition. Now, with political, structural, and economic forces quickly catching up, PyroGenesis sees itself in a privileged position of being asked not only to supply merchandise, but also directly help customers uncover new avenues for change and transition. It is why, despite a revenue pullback in 2022, that we continue to be excited for the future, and why we have refined our strategy to better reflect the opportunity to directly impact transformational outputs stemming from heavy industry policy change."

"In Q4, the Company delivered revenue of \$3.3 million, and for the full year 2022, revenue was \$19 million. From a revenue perspective, it is disappointing that a slower pace of technology adoption occurred in 2022 than was anticipated – particularly with our aluminum sector prospects, as companies adjusted at various points to shortages of raw materials, soaring energy prices, and ongoing international trade and supply chain volatility – which weighed negatively on our results compared to 2021. The Company acknowledges that it is selling into industries contemplating significant technological change, especially in regard to fuel switching to electricity, and with that may come various ramifications including the possibility for significant time lags as customers conduct lengthy due diligence to counter the types of concerns likely seen only during major paradigm shifts. As such, revenues are likely to be irregular and unpredictable quarter to quarter. These possibilities notwithstanding, a renewed interest in business lines such as waste destruction, along with the implementation of cost and resourcing refinements that allowed the Company to post an exceptional 42.8% full year margin, reinforces management's overall positive undercurrent," Mr. Pascali added.

Mr. Pascali continued, "While a level of measured caution will continue to exist for even the most sophisticated of potential customers, the degree of uncertainty around decarbonization was reduced further during 2022. As governments – especially in North America with the US Inflation Reduction Act and the major increases to Canadian green energy investment tax credits – implemented billion-dollar incentive programs toward a low-carbon economy, PyroGenesis was engaged in several industry-requested technology research initiatives. While signed order intake slowed in 2022, customer-partnered studies and research increased substantially. There is no guarantee, but we feel that this level of client interaction at the business development level serves to deepen industry relationships and bodes well for future revenue opportunities," Mr. Pascali added.

Mr. Pascali concluded, "In 2023, we will remain focused on driving major lines of business toward widespread acceptance, moving newer innovations closer to commercialization, and maintaining high margins. Beyond all else, we will strive to close more deals as a result of the volume of client studies underway. With the introduction and rollout of our refined business strategy, outlined in greater detail further below, we believe this to be possible."

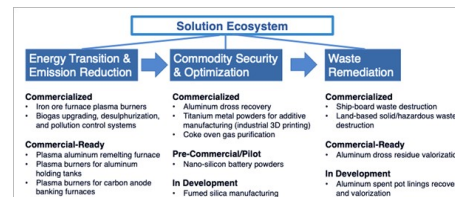
The information below represents important highlights from the past year, followed by an outline of the company's strategy and outlook for 2023.

Key Strategic Actions

Major Deliverables and Business Milestones

- **Titanium Powder Commercial Orders:** During 2022, the Company announced it had received and completed its first two commercial orders for Titanium powders using its NexGen™ plasma atomization process. The first, for 100kg, was under its mutually exclusive partnership agreement with Aubert & Duval, a major supplier of metal powders for additive manufacturing serving the Aerospace, Energy, Transport, Medical, Defense, and Automotive sectors; the second, also for 100kg, was to a confidential customer.
- **Iron Ore Pelletization Torches:** During 2022, the Company continued to progress its major initiative to supply electric plasma torch systems to large iron ore companies for first-ever trials in this important upstream part of the steelmaking process. In July 2022, the first plasma system plus required components was completed and delivered to a client. Subsequent to year-end 2022, in January 2023, four electric plasma torch systems plus required components were delivered to a second client. These clients are two of the largest iron ore companies in the world and each has made a significant financial and logistical commitment over the past two years to test plasma as a possible replacement for the diesel and/or natural gas furnace burners needed for iron ore pellet baking. Live on-site trials and testing will be conducted per client-defined scheduling, based on the Client's own resourcing and logistical decisions of which the Company has no input.
- **Metal Powder Aerospace Client Qualification:** In September 2022, the Company announced it had completed the in-house quality audit of its NexGen™ metal powder production facility and process, which it also later passed subsequent

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to year-end 2022, by a large global aerospace client. The in-house audit was part of an almost two year long process of qualification by the client, towards an end-goal of being a certified supplier of titanium metal powders to the client, its suppliers, and service centers. With the audit completed, the Company's powders will be tested per client-defined scheduling and, if successful, contract discussions for the purchase of powders are expected to follow.

Innovations

- **Aluminum Scrap Remelting:** In May 2022, the [Company announced](#) it had undertaken a joint evaluation with a major manufacturer to test PyroGenesis' zero-emission plasma torches in the Client's aluminum scrap remelting and holding furnaces. This was one of several secondary or tertiary aluminum producers who are investigating the Company's electric plasma torches to replace fossil fuels in recycled aluminum production, holding tank heating, or [cast houses](#).
- **Carbon-anode baking:** The [Company announced](#) in June 2022 it had undertaken a joint initiative with a premier applied engineering and process optimization firm in the global aluminum industry, focused on utilizing PyroGenesis' zero-emission plasma torches in carbon anode baking – a vital upstream step in the aluminum production process. Carbon anodes, which are used as an electrical conductor during the aluminum smelting process but constantly consumed, are traditionally produced using natural gas baking; reducing fossil fuel use while optimizing the anode baking process is an objective in the industry for manufacturers of high-grade anodes.
- **Spent-pot linings:** The Company continues to progress the [previously announced](#) initiative to develop a solution to recover residues of aluminum pot linings, in conjunction with project partner Aluminerie Alouette (co-owned by Rio Tinto and Norsk Hydro), the largest primary aluminum smelter in the Americas. The solution under development is intended to safely recover valuable metals and various compounds from the heavily contaminated carbon-lined cells or "pots" from inside a smelter, which degrade over time and must be removed and safely disposed. The project evolved throughout 2022, with additional technology benchmarks being met, and with the Company and Aluminerie Alouette deepening their relationship with a further commitment.
- **Magnesium Recovery and Valorization:** In September 2022, [the Company announced](#) it was selected by an international producer of magnesium metal to develop and test two processes: a method to clean and decontaminate particulate matter produced during primary magnesium production, and to process the metal waste stream known as dross, for the purpose of recovering valuable metal. Dross recovery is not widespread in the magnesium industry, due to the complexity of the process and the inherent challenges of working with magnesium – a very combustible and volatile metal that is highly reactive to oxygen. With PyroGenesis' expertise in recovering high-value metal from dross in other industries (such as aluminum), the Company believes it has the solution to the specific challenges posed by magnesium, potentially opening up a large opportunity for growth, while decreasing the Client's environmental impact.
- **Turquoise Hydrogen Production:** The Company continues to progress the [previously announced](#) initiative to produce an environmentally-friendly hydrogen. In November 2022, the Company [successfully produced hydrogen](#) from methane using this ZCE hydrogen production technology. Because it uses electricity in the form of plasma rather than combustion of fossil fuels, this hydrogen is typically referred to as "Turquoise Hydrogen". The process also produces a solid carbon byproduct that has many industrial applications (including the production of car tires, coatings, plastics, and batteries) and is considered an important raw material.

Operational

- **European Metal Powders Production:** Throughout 2022, the Company continued to evolve its strategy, [first announced in July 2022](#), for European market expansion for its titanium metal powder line of business – with the goal to eventually build and operate a metal powder production facility in Europe. Subsequent to year-end 2022, in Q1 2023 the Company [announced expansion of its strategy team](#), with the hiring of a key Europe-based executive with a long track-record across sales, marketing, and business process in the metals industry, particularly the aerospace, space, and defense markets.
- **Quality Management Process Certification:** In November 2022, the [Company passed](#) its annual quality audit for two key international standards: ISO 9001:2015, and AS9100D, the latter being a quality management designation specific to the aerospace industry. The audits encompassed all of PyroGenesis' facilities for the purpose of meeting compliance with the existing quality management designations. Additionally, as a result of this audit, the Company's newest facility located at 9371 Wanklyn St. in LaSalle, Quebec, was officially added to the ISO 9001:2015 certification. Separately, the Company continues on its path to become ISO 13485:2016 certified, a Quality Management System designation required by most manufacturers within the medical devices and related services industry.

Financial

- **Private Placement:** In October 2022, the Company completed a non-brokered private placement consisting of the issuance and sale of 1,014,600 units of the Corporation at a price of \$1.30 per unit, for gross proceeds of \$1,318,980 to the Company. The closing price of the common shares of the Company on October 18, 2022, the last trading day prior to the closing of the private placement, was \$1.17. Each Unit consists of one common share of the Company and one common share purchase warrant. Each warrant entitles the holder to purchase one common share at a price of \$1.75 until October 19, 2024. The issued common shares and warrants as well as the common shares underlying the warrants are subject to a statutory hold period of four months and one day from the date of closing, in accordance with applicable securities legislation.

Outlook

Consistent with the Company's past practice, and in view of the early stage of market adoption of our core lines of business, we are not providing specific revenue or net income (loss) guidance for 2023.

In 2023, we continue our plan to increase sales, marketing, and R&D efforts in-line with— and in some cases ahead of — the growth curve for industrial change related to greenhouse gas reduction efforts. This includes expanded technology offering and capabilities across the industrial value chain, using an updated strategy that sees the Company bundle its solution-set into verticals that represent key economic drivers for heavy industry.

Overall Strategy

PyroGenesis provides technology solutions to heavy industry that leverage off of the Company's proprietary position and expertise in ultra-high temperature processes. The Company has evolved from its early roots of being a speciality-engineering firm to being a provider of a robust technology eco-system for heavy industry that helps address key strategic goals.

Aligning Business Lines to Economic Drivers

As interest in the Company's products has increased and the variety of uses for its core technologies has expanded, the Company has evolved its strategy to concentrate its solution set under three categories. These categories represent economic drivers that are key to global heavy industry:

1. Energy Transition & Emission Reduction:

- fuel switching, utilizing the Company's electric-powered plasma torches and biogas upgrading technology to help heavy industry reduce fossil fuel use and greenhouse gas emissions.

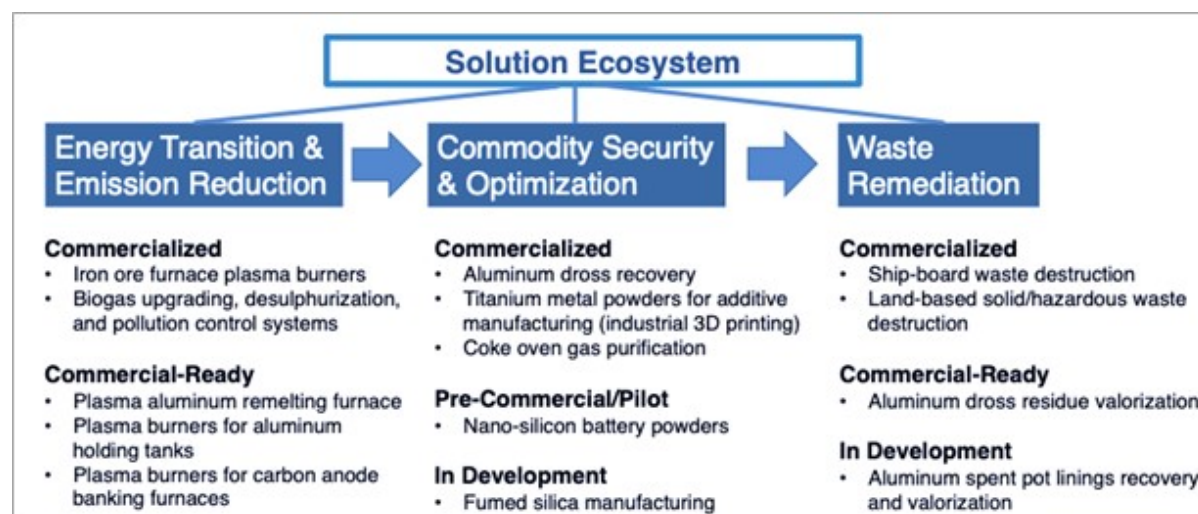
2. Commodity Security & Optimization:

- recovery of viable metals, and optimization of production to increase output, to maximize raw materials and improve availability of critical minerals.

3. Waste Remediation:

- safe destruction of hazardous materials, and the recovery and valorization of underlying substances such as chemicals and minerals.

Within each category the Company offers several solutions at different stages leading up to commercialization, including the partial list in the diagram below:



The Company believes its strategy to be timely, as multiple heavy industries are committing to major carbon and waste reduction targets at the same time as many governments are increasingly funding environmental technologies and infrastructure projects – all while both are making efforts to ensure the availability of critical minerals during the coming decades of increased output demand.

While there can be no guarantee, the Company believes this evolution of its strategy beyond a greenhouse gas emission reduction emphasis, to an

expanded focus that encapsulates the key verticals listed above, both improves the Company's chances for success while also providing a clearer picture of how the Company's wide array of offerings work in tandem to support heavy industry goals.

PyroGenesis' market opportunity remains large, as major industries such as aluminum, steelmaking, manufacturing, and government require factory-ready, technology-based solutions to help steer through the paradoxical landscape of increasing demand and tightening regulations and material availability.

As more of the Company's offerings reach full commercialization, PyroGenesis will remain focused on attracting influential customers in broad markets, and ensuring that operating expenses are controlled to achieve profitable growth.

Financial Summary

Revenues

PyroGenesis recorded revenue of \$3.3 million in the fourth quarter of 2022 ("Q4, 2022"), representing a decrease of \$3.9 million compared with \$7.2 million recorded in the fourth quarter of 2021 ("Q4, 2021"). Revenue for fiscal 2022 was \$19.0 million a decrease of \$12.1 million over revenue of \$31.1 million compared to fiscal 2021.

Revenues recorded in fiscal 2022 were generated primarily from:

- (i) PUREVAP™ related sales of \$6,272,697 (2021 - \$6,138,111)
- (ii) DROSRITE™ related sales of \$1,912,807 (2021 - \$7,940,771)
- (iii) support services related to systems supplied to the US Navy \$1,288,356 (2021 - \$7,522,809)
- (iv) torch related sales of \$5,558,210 (2021 - \$2,084,511)
- (v) biogas upgrading & pollution controls of \$3,347,443 (2021 - \$6,800,090)
- (vi) other sales and services \$633,990 (2021 - \$582,058)

Q4, 2022 revenues decreased by \$3.9 million, mainly as a result of:

- PUREVAP™ related sales decreased by \$0.1 million due to the project nearing its completion, with the phase of the project being mainly testing,
- DROSRITE™ related sales decreased by \$1 million due to customer delays in funding for the construction of the onsite facility,
- Support services related to systems supplied for the US Navy decreased by \$1.3 million due to a revision in the cost budget which effects the revenue recognized by percentage completion. As of December 31, 2022, the customer has not provided a firm purchase order for the change in project scope, however, the Company expects to do so in 2023, and
- Biogas upgrading and pollution controls related sales decreased by \$3.1 million due to clients requesting additional modifications prior to installation and commissioning, as well as continuous testing to achieve desired results.

Fiscal 2022 revenues decreased by \$12.1 million, mainly as a result of:

- DROSRITE™ related sales decreased by \$6.0 million due to client delays in funding for the construction of the onsite facility,
- Support services related to systems supplied for the US Navy decreased by \$6.2 million due to the project nearing its completion with remaining milestones based largely on inspections and shipment of the equipment, as well as, additional out of scope work costs incurred and not yet reflected in receipt of purchase order modifications, and
- Biogas upgrading and pollution controls decreased by \$3.4 million due to the continuous effort in reaching desired results in order to advance to final steps, such as, commissioning.

PUREVAP™ related sales includes revenue from the sale of technologies in the amount of \$3.6 million (\$3.3 million in 2021). See note 7 to the 2022 consolidated financial statements.

As of March 30, 2023, revenue expected to be recognized in the future related to backlog of signed and/or awarded contracts is \$32.4 million. Revenue will be recognized as the Company satisfies its performance obligations under long-term contracts, which is expected to occur over a maximum period of approximately 3 years.

Cost of Sales and Services and Gross Margins

Cost of sales and services was \$2.8 million in Q4, 2022, representing a decrease of 52% compared to \$5.9 million in Q4, 2021, primarily due to decreases in subcontracting \$0.1 million (Q4, 2021 - \$0.2 million), direct materials \$1.0 million (Q4, 2021 - \$4.5 million), manufacturing overhead & other \$0.3 million (Q4, 2021 - \$0.4 million), foreign exchange charge on materials \$0.2 million, (Q4, 2021 - (\$0.3 million)), which is largely due to the decrease in product and service-related revenues, as well as being negatively impacted by the foreign exchange charge on materials, and a decrease in investment tax credits (\$0.02 million) due to a lower levels of qualifying projects.

Fiscal 2022, cost of sales and services was \$10.9 million, representing a decrease of 42% compared to \$18.6 million in 2021, primarily due to the decrease of product and service-related revenues in the Company and its subsidiaries. Decreases in direct materials \$4.7 million (2021 - \$14.3 million) and investment tax credits (\$0.07 million) (2021 - (\$0.1 million)), were offset by the increases in employee compensation \$3.7 million (2021 - \$2.6 million), subcontracting \$1.3 million (2021 - \$0.9 million), manufacturing overhead & other \$1.4 million (2021 - \$1.1 million), foreign exchange charge on materials (\$1.0 million) (2021 - (\$0.6 million)), totaling an increase of \$5.4 million compared to \$4.1 million in 2021. The increase in employee compensation, subcontracting, and manufacturing overhead & other is primarily related to an increase in labour intense projects, which require additional engineering hours, as well as specific subcontracting work related to equipment capacity improvements, mainly for torch-related sales, and

the increase to manufacturing and other was due to higher utility costs, and equipment rentals, such as cranes and power generators. These increases were offset by the decrease in direct materials and by the foreign exchange charge on materials.

The gross margin for Q4, 2022 was \$0.5 million or 14.5% of revenue compared to a gross margin of \$1.3 million or 18.1% of revenue for Q4, 2021, the decrease in gross margin was mainly attributable to the negative impact in foreign exchange charge on materials of \$0.5 million.

Fiscal 2022, gross margin was \$8.1 million or 42.8% of revenue compared to a gross margin of \$12.4 million or 40% for fiscal 2021. As a result of the type of contracts being executed, the nature of the project activity, as well as the composition of the cost of sales and services, the mix between labour, materials and subcontracts may be significantly different. The cost of sales and services for 2022 and 2021 are in line with management's expectations and with the nature of revenue.

Investment tax credits recorded against cost of sales are related to projects that qualify for tax credits from the provincial government of Quebec. Qualifying tax credits decreased in Q4, 2022 to \$0.02 million compared to \$0.07 million for Q4, 2021. In 2022, \$0.07 million compared to \$0.1 million in 2021. The decrease in fiscal 2022 is primarily related to less contracts being eligible for qualifying tax credits.

The amortization of intangible assets for Q4, 2022 was \$0.2 million compared to \$0.4 million for Q4, 2021. In 2022, the amortization of intangible assets was \$0.9 million compared to \$0.5 million for 2021. The increase in 2022, relates mainly to the intangible assets in connection with the Pyro Green-Gas acquisition, patents and deferred development costs. These expenses are non-cash items and will be amortized over the duration of the patent lives.

Selling, General and Administrative Expenses

Included within Selling, General and Administrative expenses ("SG&A") are costs associated with corporate administration, business development, project proposals, operations administration, investor relations and employee training.

SG&A expenses for Q4, 2022 were \$10.4 million, representing a decrease of 13% compared to \$11.9 million for Q4, 2021. The decrease is mainly a result of employee compensation decreasing to \$2.5 million (Q4, 2021 – 4.6 million), due to lower levels of eligible commissions and bonuses, a decrease in share-based compensation of \$3.6 million (a non-cash expense related to a Q4 2021 grant not repeated in 2022), and a decrease in other expenses, which in Q4 2021 comprised of insurances, taxes, interest, and bank charges. Professional fees for Q4 2022 were greater due to an increase in legal fees, accounting fees, investor relation fees and patent expenses. In addition, in Q4 2022 a credit loss of \$4.5 million was recorded related to collection of accounts receivable, also a non-cash expense.

SG&A expenses for fiscal 2022 were \$29.0 million, representing an increase of 7% compared to \$27.2 million for fiscal 2021. The SG&A expense now includes those of Pyro Green-Gas for the full year, versus approximately 5 months for fiscal 2021, increased due to the following:

- i) a decrease of \$0.6 million in employee compensation primarily due to a decrease in commissions and bonuses,
- ii) an increase of \$1.3 million for professional fees, primarily due to an increase in consulting fees, accounting and audit fees, legal fees, investor relation fees and public listing fees,
- iii) an increase of \$0.5 million in office and general expenses, is primarily due to information technology expenses including those related to the new ERP system,
- iv) depreciation on property and equipment increased by \$0.2 million due to higher amounts of property and equipment being depreciated,
- v) Bad debt provision increased by \$4.5 million, of which \$4.2 million is attributable to accounts receivable and \$0.3 million related to costs and profits in excess of billings on uncompleted contracts.

Separately, share-based payments decreased to \$1.3 million for Q4, 2022 (Q4, 2021 - \$4.9 million) and decreased to \$5,538,463 in 2022, compared to \$9,762,745 over the same period in 2021. This was directly impacted by the vesting structure of the stock option plan with options vesting between 10% and 100% on the grant date requiring an immediate recognition of that cost.

Depreciation on Property and Equipment

During the three months ended December 31, 2022, depreciation on property and equipment increased to \$0.2 million compared to \$0.1 million for the same period in the prior year. The 54% increase is due to the equipment under construction placed in service.

The depreciation on property and equipment increased to \$0.6 million in 2022, compared to \$0.4 million in 2021. The 70% increase is due to higher amounts of property and equipment being depreciated.

Research and Development ("R&D") Expenses

During the three months ended December 31, 2022, the Company incurred \$0.7 million of R&D expenses, net of government grants, on internal projects in Q4 2022, a decrease of 36% compared to \$1.1 million for the same period in the prior year.

The Company incurred \$2.3 million of R&D expenses, net of government grants, on internal projects in 2022, a decrease of 9% compared to \$2.5 million in 2021. The decrease in 2022 is due to a decrease in R&D activities, the type of contracts being executed, the nature of the project activity, and the decrease in government grants of \$Nil compared to (\$0.1 million) reported in 2021.

In addition to internally funded R&D projects, the Company also incurred R&D expenditures during the execution of client-funded projects. These expenses are eligible for Scientific Research and Experimental Development ("SR&ED") tax credits. SR&ED tax credits on client-funded projects are applied against cost of sales and services (see "Cost of Sales" above).

Financial Expenses

During the three months ended December 31, 2022, financial expenses decreased to \$0.03 million compared to \$0.3 million for the same period in the prior year. The decrease is due to the various decreases in interest on term loans, penalties, and other interest expenses, not repeated in 2022.

Financial expenses for 2022 totaled \$0.6 million as compared with \$0.4 million for 2021, representing an increase of \$0.1 million year-over-year. The increase in finance costs, is primarily attributable to the increase in accretion on the balance due on business combination and interest on the

increased lease liability balance.

Strategic Investments

During the three months ended December 31, 2022, the adjustment to the fair market value of strategic investments resulted in a loss of \$0.2 million compared to \$11.0 million for the same period in the prior year. The 98% increase is primarily due to the closing share price of the HPQ common shares, used in determining the fair value.

The adjustment to the fair market value of strategic investments in 2022 resulted in a loss of \$8.3 million compared to a loss in the amount of \$21.4 million in 2021, representing a variation of \$13.1 million. The variation is primarily attributable to closing share price of the HPQ common shares, used in determining the fair value of common shares and warrants owned by the Company of HPQ Silicon Inc.

Comprehensive (Loss) Income

The comprehensive loss for 2022 of \$32.2 million compared to a loss of \$38.4 million, in 2021, represents a decrease of 16% year-over-year. The variation of \$6.3 million in the comprehensive loss in 2022 is primarily attributable to the factors described above, which have been summarized as follows, and includes the profit and loss items of Pyro Green-Gas since the acquisition date:

- (i) a decrease in product and service-related revenue of \$12.1 million arising in 2022,
- (ii) a decrease in cost of sales and services of \$7.8 million, primarily due to a decrease in direct materials, and investment tax credits,
- (iii) an increase in SG&A expenses of \$1.8 million arising in 2022 primarily due to an increase in professional fees, office & general, travel, depreciation of property and equipment, depreciation of ROU assets, government grants, other expenses, and the allowance for credit loss of \$4.5 million,
- (iv) a decrease in R&D expenses of \$0.2 million primarily related to the decrease in government grants and an increase in investment tax credits,
- (v) a decrease in share-based expenses of \$4.2 million,
- (vi) a decrease in changes in fair market value of strategic investments and net finance costs of \$12.9 million,
- (vii) a decrease in income taxes of \$815,944.

In Q4 2022, the comprehensive loss is \$11.6 million favorable, compared to Q4 2021, due to the reasons detailed above and summarized mainly as the reduction in revenue of \$3.9 million, favorable impact of SG&A salaries and share-based expenses, offset by the allowance for credit loss of \$4.48 million and an adjustment for change in fair value of strategic investment which is \$10.8 million favorable versus Q4 2021.

Liquidity and Capital Resources

As at December 31, 2022, the Company had cash of \$3.4 million, included in the net working capital of \$1.7 million. Certain working capital items such as *Billings in excess of costs and profits on uncompleted contracts* do not represent a direct outflow of cash. The Company expects that with its cash, liquidity position, the proceeds available from the strategic investment and access to capital markets it will be able to finance its operations for the foreseeable future.

The Company's term loan balance at December 31, 2022 was \$389,987, and the increase since January 1, 2022, was mainly attributable to the additional proceeds received on the Economic Development Agency of Canada loan. This loan is interest free and will remain so, until the balance is paid over the 60 month period ending March 2029. The average interest expense on the other term loans was 7.2% in 2022 and in 2021. The Company does not expect changes to the structure of term loans in the next fiscal year. The Company maintained two credit facilities which bear interest at variable rates of 7.45% and 8% at December 31, 2022. The Company expects to reimburse a portion of the credit facilities during 2023, and extending the due date of the remaining balance, while maintaining the similar conditions.

About PyroGenesis Canada Inc.

PyroGenesis Canada 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 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 of PyroGenesis are ISO 9001:2015 and AS9100D certified, having been ISO certified since 1997. For more information, please visit: www.pyrogenesis.com.

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, including, without limitation, statements regarding anticipated use of the net proceeds of the Private Placement. 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 the Company 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 the Company's latest annual information form, and in other periodic filings that the Company has made and may make in the future with the securities commissions or similar regulatory authorities, all of which are available under the Company's profile on SEDAR at www.sedar.com, or at www.sec.gov. These factors are not intended to represent a complete list of the factors that could affect the Company. 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. The Company undertakes no obligation to publicly update or revise any forward-looking statement, 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.

FURTHER INFORMATION

Additional information relating to Company and its business, including the 2022 Financial Statements, the Annual Information Form and other filings that the Company has made and may make in the future with applicable securities authorities, may be found on or through SEDAR at www.sedar.com, EDGAR at www.sec.gov or the Company's website at www.pyrogenesis.com.

Additional information, including directors' and officers' remuneration and indebtedness, principal holders of the Company's securities and securities authorized for issuance under equity compensation plans, is also contained in the Company's most recent management information circular for the most recent annual meeting of shareholders of the Company.

For further information please contact:

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