
**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 March 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 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 []

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): ____

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

On March 31, 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

<u>Exhibit Number</u>	<u>Description</u>
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99.1	Press Release dated April 1, 2022
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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: March 31, 2022

/s/ P. Peter Pascali

P. Peter Pascali
Chief Executive Officer

PyroGenesis Announces 2021 Results: Record Revenues \$31.1MM; Gross Margin 40%; Record Current Backlog of Signed and/or Awarded Contracts \$47.7MM

MONTREAL, March 31, 2022 (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, 2021.

“We are happy to be announcing our 2021 financial results, which includes both our exceptional organic growth plus the results of our recent acquisition, Pyro Green-Gas, (formerly AirScience Technologies Inc.). We have posted a series of record numbers for the company, which includes record revenues for a Q4 of \$7.2MM – a revenue figure that alone surpasses the full-year revenue of every previous year aside from 2020 – and yearly revenues of \$31.1MM, which is the highest revenue we have ever posted for any full year. This is representative of our successful advancement and delivery of the backlog of signed contracts, and the benefit of the biogas upgrading projects from Pyro Green-Gas” said Mr. P. Peter Pascali, CEO and Chair of PyroGenesis. “The board and I see the record success of 2021 as both a validation of 2020s breakout results, and a new, stronger platform from which years of continued high growth will stem.”

2021 results reflect the following highlights:

- Record revenues of \$31,068,350, an increase of 75% from \$17,775,029 year-over-year,
- Revenues of \$6,800,090 from the recent acquisition of Pyro Green-Gas, formerly known as “AirScience Technologies”,
- Gross margin profit of \$12,431,811 or 40% of revenue,
- Second highest ever year-end cash and cash equivalents at December 31, 2021 of \$12,202,513
- All-time-high backlog of signed and/or awarded contracts of \$47.7MM
- Repurchased and cancelled \$4.2M of the Company’s common shares,
- 23% increase year-over-year in Headcount
- Capital expenditures, \$1.5M, an increase of 114% from \$700K year-over-year
- Best 4th Quarter in the company’s history, at \$7.2MM, demonstrating further strength and stability of the company as a consistent, year-round revenue producer.
- Milestone new market entry sales, including for the destruction of polyfluoroalkyl substances

OUTLOOK

PyroGenesis completed 2021 having achieved many important accomplishments and milestones. Most importantly, we maintained the accelerated business momentum of the past 18 months despite the challenges of the global marketplace due to Covid, and even introduced new markets and opportunities to provide a broader, stronger platform for 2022 and beyond.

Overall Strategy

Building on its strategy to offer technology solutions that provide benefits from greenhouse gas (“GHG”) emissions reduction, the Company increased its offerings in this regard through a series of adjustments, such as internal capacity scaling, diversified sales channel targeting, and external vision – resulting in, most notably, the doubling of production staff, contract wins in new sectors, and the acquisition of AirScience Technologies and its subsequent re-launch as Pyro Green-Gas.

While we had previously considered our strategy to be timely, as many governments are stimulating their respective economies by promoting and funding both environmental technologies and infrastructure projects, 2021 proved an even greater affirmation of this approach, as major industries and organizations targeted by the Company not only recommitted to their targets, but in some cases raised them significantly. For instance, in the iron ore and steel-making sector, in October 2021, Rio Tinto unveiled new targets to reduce its scope 1 & 2 emissions by 50 per cent by 2030, more than tripling its previous targets.¹

As stated, many times, most of PyroGenesis’ product lines do not depend on environmental incentives (tax credits GHG certificates, environmental subsidies, etc.) to be economically viable; with the increased commitments by industry to carbon reduction, it is anticipated that the Company’s growth drivers will expand, and shareholders will see increased value.

Furthermore, the experience gained over the past two years as we, and our prospective clients, manoeuvred through both the lengthy modelling and business-case development processes, and the government incentive and procurement system, has provided immeasurable insights into various bureaucratic and government processes – affording a much clearer understanding of the process, enhancing our ability to respond to future situations, and giving us better vision and a rebalance of expectations regarding timeline control. This knowledge will only serve to enhance what management has defined as government incentive-related tailwinds into an already strong pipeline, all with a positive impact on revenues and shareholder value.

The Company is not immune to the negative impact that COVID-19 and other external factors brought on businesses, specifically related to the workforce and, more importantly, the supply chain. However, Management believes that the Company is better situated than most, and through various mitigation measures these challenges continue to be dealt with in an effective manner.

The Company expects even greater improvements as the impact of COVID-19 and other external factors continues to recede after Q2 2022.

Organic Growth

Organic growth will be spurred on by (i) the natural growth of our existing offerings, which continue to be accelerated given our strong balance sheet (ii) leveraging off our “Golden Ticket” advantage that allows us to see first-hand some of the additional and peripheral needs of our customers, and (iii) exploring new ways scientifically (and corresponding markets laterally) to provide unique solutions and value that helps industries deal with some of the most pressing environmental, engineering, and energy problems.

We have described in the past our Golden Ticket advantage as one which occurs when one sells directly, or is engaged directly, with the end user and, as a result, is regularly on-site in the customer’s operations – “inside the fence”. A Golden Ticket provides the opportunity to either, (i) cross sell other products or, ideally, (ii) identify new areas of concern that can be addressed uniquely by PyroGenesis.

Over the past several years, PyroGenesis has successfully positioned each of its business lines for rapid growth by strategically partnering with multi-billion-dollar entities. These entities have identified PyroGenesis’ offerings to be unique, in demand, and of such a commercial nature as to warrant such unique relationships. We expect that these relationships are now positioned to transition into significant revenue streams.

Regarding how new scientific efforts lead to new markets, in 2021 the Company transitioned its knowledge in waste destruction to consider solving some of the challenges related to polyfluoroalkyl (PFAS), the hazardous “forever chemicals” the EPA has defined as an emerging event requiring fast attention. After winning an initial competitive bidding process to provide a \$9.2MM system, the Company sees continued momentum in this area in 2022 and beyond.

Aluminum Industry Process Improvement

Momentum with PyroGenesis’ Aluminum Industry strategy and offering continues to not just bear fruit, but to explode in opportunity in several different directions.

In 2021, the Company concluded a joint venture and a license agreement with an existing and proven technology provider. The technology is geared to uniquely handle the residues resulting from the processing of dross in the aluminum industry. We had previously announced our intention to secure this technology and would not only make our traditional DROSRITE™ offering more appealing but could also be offered as a stand-alone product. We believe that valorizing the residues and producing high end products will further define us as the go-to company for all dross related processing. This is a prime example of our “Coffee & Donuts” strategy in play. The joint venture will only relate to the new technology and, as such, PyroGenesis will not have to vet in any assets or IP (specifically not the DROSRITE™ technology).

Overall, the Company is now one of the largest and certainly the fastest growing dross recovery solutions in the world, with 13 large DROSRITE™ systems in use or slated for delivery to markets around the world. The Company also continue to increase the price and the efficiency of its systems, and is pitching several more contracts as of the writing of this document.

Steel Industry Process Improvement

With steelmaking one of the most carbon-emission intensive industries in the world, estimated to be responsible for between 7 to 12 per cent of all global fossil fuel and greenhouse gas emissions, that industry continues to be under intense pressure, including huge financial penalties, to find emission reductions.

This pressure on the steel-making industry allows PyroGenesis to expect demand for its upstream, iron ore pelletization solution to increase significantly, as steel-makers look to all aspects of the production lifecycle for carbon reduction opportunities.

Serious consideration is being given to replacing large numbers of the fossil fuel burners in iron ore pelletization with PyroGenesis’ proprietary and patented plasma torches. To date, everything is proceeding as expected. Initial discussions with potential customers have evolved into confirmation stages, computer simulations, business case development, and initial torch orders for in-factory testing with two of the largest steel-making and mining companies in the world. As these torches are tested in live settings over the coming months, the company expects a resulting roll-out program to replace many, if not all, fossil fuel burners with PyroGenesis’ plasma torches in the customers’ iron ore pelletization furnaces – a technology process for which PyroGenesis, as the patent holder, commands a significant competitive advantage.

PyroGenesis expects that the previously mentioned government initiatives, geared to stimulating their respective economies by promoting and funding environmental technologies and infrastructure projects, will only serve to increase interest in PyroGenesis’ plasma torch offerings to other companies in this space. While potential clients seeking government support for large initiatives may draw out the onset of large contracts, the sheer number of potential customers, and the fact that the Company will engage with many of them in different stages at different times, will help to ensure a long, overlapping pipeline of potential projects.

In addition, PyroGenesis is proactively targeting other industries which are experiencing significant pressure to reduce GHGs, and which utilize fossil fuel burners as well, such as the cement, aluminum, and automotive industries.

Plasma Torches for Emerging / Niche Markets

Separately, the Company also offers plasma torches to emerging / niche markets where there is a high probability of on-going sales from successful implementation.

One such example is in land-based waste destruction applications, more specifically for medical waste. The Company signed a contract in August 2021 to supply two Air Plasma Torch systems to an existing client to be used in the destruction of such medical waste.

Another example is the previously announced contract with a technology startup to produce a plasma torch ideal for tunneling. PyroGenesis has reason to believe that the real plasma-based tunneling opportunity may lie outside of the scope of the current agreement. As a result, PyroGenesis terminated this arrangement and this project with this client has ended. PyroGenesis is evaluating, and intends to pursue, plasma based tunneling opportunities, specifically those identified to be outside of the scope of the current agreement at a later date.

For each new market, the Company will also benefit from providing proprietary spare parts and service, which generates significant recurring revenue, thus complementing the Company's long-term strategy to build a recurring revenue model.

Additive Manufacturing (Metal Powders for 3D Printing)

With respect to additive manufacturing, we continue to expect to see significant year over year improvements in our 3D metal powders offering as our NexGen™ facility, which incorporates all the previously disclosed benefits (increased production rates and lower capital & operating expenditures), is now officially on-line and operational.

Of note, a major tier-one global aerospace company has already entered into an agreement with the Company to formally qualify its powder, at considerable expense to the global aerospace company, with a view towards having the Company become a supplier.

There are additional major top tier aerospace companies and OEMs, in both Europe and North America, eagerly awaiting powders from this new state-of-the-art production line, and we are currently in the process of supplying sample powders to them for analysis.

The Company expects that such developments will continue and will translate into significant improvements in contributions to revenue by this segment in the mid-long term.

HPQ/PUREVAP™

With respect to HPQ, the goal is to continue to expand our role as HPQ's technology provider for the game changing family of silicon processes which we are developing exclusively for HPQ and its wholly owned subsidiaries HPQ Nano Silicon Powders Inc. and HPQ Silica Polvere Inc., namely:

- The PUREVAP™ "Quartz Reduction Reactors" (QRR), an innovative process (patent pending), which should permit the one step transformation of lower purity quartz (SiO₂) than any traditional processes can handle into a silicon (Si) of a higher purity level (2N-4N) that can be produced by any traditional smelter, at reduced costs, energy input, and carbon footprint. The unique capabilities of this process could position HPQ as a leading provider of the specialised silicon material needed to propagate its considerable renewable energy potential; and
- The PUREVAP™ Nano Silicon Reactor (NSiR), which, if successful, could position itself as a new proprietary low-cost process that can transform the silicon (Si) made by the PUREVAP™ QRR into the nano-silicon materials (spherical silicon powders and silicon nanowires) sought after by energy storage, batteries, electric vehicle manufactures and clean hydrogen sectors participants. The aim of the ongoing work is to position HPQ NANO as the first to market with a commercial scale low-cost nanoparticle production system.
- A new plasma-based process that could convert Silica (Quartz, SiO₂) into fumed silica (Pyrogenic Silica) in one step. This new process could be a low-cost and environmentally friendly option that combines HPQ Silicon High Purity Quartz initiatives with PyroGenesis' industry leading know-how in the development of commercial plasma processes. It is envisioned that the process will eliminate harmful chemicals presently generated by traditional methods. This new process could revolutionize the manufacturing of fumed silica, while repatriating production back to North America.

Government participation in a \$5.3MM funding of the fumed silica project confirms our expectation that 2021 should be a year in which significant developments occur on all these fronts.

Land Based Units/Environmental

The Company did not previously aggressively target the Company's land-based/environmental solutions during the period where the Company's other offerings, such as in steel-making and aluminum industry process improvement, were accelerating.

However, during 2021, interest in the Company's capabilities in this arena was renewed. Besides the interest in niche torch applications mentioned above (ex. medical waste), PyroGenesis' plasma-based solutions have generated interest in processing a waste stream that has recently been classified as hazardous. Management believes that, in a current bidding process, its solution is

the technology of choice. If successful, this will represent a significant positioning of PyroGenesis plasma-based solutions not only for this specific product line but, when taken in conjunction with the historic success with its offering on US Aircraft carriers, the land based/environmental segment in general.

Growth through Synergistic Mergers and Acquisitions

As previously disclosed, the Company is conservatively considering synergistic merger and acquisition strategies to augment its growth, and the Company has been very actively involved in pursuing several opportunities to support this strategy. In so doing, the focus has been on private companies exclusively which (i) primarily leverage the Company's Golden Ticket advantage, or (ii) could uniquely benefit from the Company's engineering advantage and/or international relationships.

During 2021, the Company acquired AirScience Technologies Inc. ("AST"), a company with experience in biogas upgrading. PyroGenesis believes that AST's experience in biogas upgrading, combined with PyroGenesis' engineering and multidisciplinary skills, as well as its proven record of meeting the exacting demands of multibillion-dollar companies and the US military, positions the combination well to address the opportunities arising from this growing need to generate renewable natural gas.

The acquisition of AST also provides potential synergies with PyroGenesis' 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.

Our objective is to strengthen AST's operations and quality control systems, over the course of the next 12-18 months, while at the same time increasing the backlog of signed contracts and successfully delivering on existing contracts thus positioning AST as a significant and credible player in the marketplace. Once established, we will evaluate our options to accelerate the rollout of these solutions.

Additional Opportunities - Plasma Torches:

Within the Plasma Torch line of business, the Company continues to consider options to leverage its plasma expertise and continue to review torch technologies that could complement existing offerings, leverage off their unique relationships, or explore new opportunities. In early stage discussion across many sectors and many potential customers, no additional details are available at this time.

CONCLUSION

In conclusion, PyroGenesis sees 2022 as a platform from which decades of exponential growth will stem.

The Company plans to take advantage of its unique position in its main business offerings to accelerate growth, with a particular emphasis on offerings geared to aggressively reducing GHG emissions and the world's carbon footprint, while finding and offering solutions to pressing environmental, engineering, and energy challenges.

Financial Summary

Revenues

PyroGenesis recorded revenues of \$31,068,350 for the year ended December 31, 2021, representing an increase of 75% compared to \$17,775,029 recorded in 2020.

Revenues recorded in fiscal 2021 were generated primarily from:

- (i) PUREVAP™ related sales of \$6,138,111 (2020 - \$4,163,059)
- (ii) DROSRITE™ related sales of \$7,940,771 (2020 - \$9,976,696)
- (iii) support services related to systems supplied to the US Navy \$7,522,809 (2020 - \$1,425,883)
- (iv) torch related sales of \$2,084,511 (2020 - \$1,452,455)
- (v) biogas upgrading & pollution controls of \$6,800,090 (2020 - \$Nil)
- (vi) other sales and services \$582,058 (2020 - \$756,936)

PUREVAP™ related sales includes revenue from the sale of technologies in the amount of \$3,300,000. See note 6 to the 2021 consolidated Financial Statements.

Cost of Sales and Services and Gross Margins

Cost of sales and services before amortization of intangible assets was \$18,170,626 in 2021, representing an increase of 144% compared to \$7,445,171 in 2020, primarily due to the additional costs to complete the Pyro Green-Gas contracts following the acquisition. Increases in employee compensation \$2,650,739 (2020 - \$1,379,637), direct materials \$14,252,205 (2020 - \$4,147,704), manufacturing overhead & other \$1,111,975 (2020 - \$507,217), were offset by a decrease in subcontracting \$872,933 (2020 - \$1,281,472), foreign exchange charge on materials (\$568,531) (2020 - \$147,561) and an increase in investment tax credits (\$148,695) (2020 - (\$18,420)).

In 2021, employee compensation, direct materials, manufacturing overhead & other increased to \$18,014,919 (2020 - \$6,034,558), primarily due to the increased amount of contract values in the Company and in the Pyro Green-Gas subsidiaries. Of note, the Company in 2020 applied for an amount of \$775,967 in wage subsidy from the Government of Canada under the CEWS “Canada Emergency Wage Subsidy” program. From this amount, \$118,416 was applied to employee compensation under cost of sales and services. Subcontracting and foreign exchange charge on materials decreased to \$304,402 (2020 - \$1,429,033).

The gross margin for 2021 was \$12,431,811 or 40% of revenue compared to a gross margin of \$10,302,668 or 58% of revenue for 2020. 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 2021 and 2020 are in line with management’s expectations.

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 increased to \$148,695 in 2021, compared to \$18,420 in 2020. The increase is primarily related to more contracts being eligible for qualifying tax credits.

The amortization of intangible assets of \$465,913 in 2021 compared to \$27,190 for 2020 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 2021 excluding the costs associated with share-based compensation (a non-cash item in which the option expense is amortized over the vesting period) were \$17,474,390 representing an increase of 116% compared to \$8,089,945 reported for 2020.

The SG&A expenses, which now include those of Pyro Green-Gas since the acquisition date, increased in 2021 over the same period in 2020 and the net effect is as follows:

- (i) an increase of 53% in employee compensation primarily due to additional head count, an increased in commissions and bonuses,
- (ii) an increase of 198% 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 72% in office and general expenses, is primarily due to computer, and information technology expenses,
- (iv) travel costs increased by 11%, due to an increase in travel abroad,
- (v) depreciation on property and equipment increased by 464% due to higher amounts of property and equipment being depreciated,
- (vi) depreciation on right of use assets increased by 40% due to higher amounts of right of use assets being depreciated,
- (vii) investment tax credits increased by 8% to 32,486,
- (viii) government grants increased by 42%, due to higher levels of activities supported by such grants,
- (ix) other expenses increased by 1,051%, primarily due to an increase in, D&O insurance expense.

Separately, share-based payments increased by \$5,518,137 in 2021 over the same period in 2020 as a result of the stock options granted 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.

Research and Development (“R&D”) Costs

The Company incurred \$2,535,987 of R&D expenses, net of government grants, on internal projects in 2021, an increase of 447% compared to (\$731,077) in 2020. The increase in 2021 is due to an increase in R&D activities, the type of contracts being executed, the nature of the project activity, and an increase in employee compensation, subcontracting, materials and equipment and other expenses of \$2,000,853 compared to \$775,824 and a decrease in investment tax credits of 684,709 compared to (1,141,468) reported in 2020.

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

Finance expenses for 2021 totaled \$404,370 as compared with \$524,074 for 2020, representing a decrease of 23% year-over-year. The decrease in finance costs, is primarily attributable to the extinguishment of term loans, other loans, and convertible debentures in 2020.

Strategic Investments

The adjustment to the fair market value of strategic investments in 2021 resulted in a loss of \$21,426,218 compared to a gain in the amount of \$44,626,698 in 2020, representing a decrease of \$66,052,916. The decrease is primarily attributable to the decreased market share value of common shares and warrants owned by the Company of HPQ Silicon Resources Inc.

Comprehensive (Loss) Income

The comprehensive loss for 2021 of \$38,428,495 compared to an income of \$41,768,404, in 2020, represents a decrease of 192% year-over-year. The variation of \$80,196,899 in the comprehensive income (loss) in 2021 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) an increase in product and service-related revenue of \$13,293,321 arising in 2021,
- (ii) an increase in cost of sales and services of \$11,164,178, primarily due to an increase in employee compensation, direct materials, manufacturing overhead & other, and amortization of intangible assets,
- (iii) an increase in SG&A expenses not including share-based expenses of \$9,384,445 arising in 2021 primarily due to an increase in employee compensations, professional fees, office & general, travel, depreciation of property and equipment, depreciation of ROU assets and other expenses,
- (iv) an increase in R&D expenses of \$3,267,064 primarily related to the increase in employee compensation, subcontracting, materials and equipment, and other expenses and a decrease in investment tax credits, recognition of investment tax credits in 2020 and prior years in the amount of \$1,141,468 which include amounts that reduce Canadian income taxes payable in 2020 and an amount of \$365,433 in government grants,
- (v) an increase in share-based expense of \$5,518,137,
- (vi) a decrease in changes in fair market value of strategic investments and net finance costs of \$65,933,212,
- (vii) a decrease in income taxes of \$1,773,372.

EBITDA

The EBITDA in 2021 was a \$37,371,658 loss compared to an EBITDA gain of \$43,824,533 for 2020, representing a decrease of 185% year-over-year. The decrease in the EBITDA in 2021 compared to 2020 is due to the decrease in net earnings and comprehensive income of \$80,196,899, offset by an increase in depreciation on property and equipment of \$292,985, an increase in depreciation on right-of-use assets of \$162,076, an increase in amortization of intangible assets of \$438,723, a decrease in finance charges of \$119,704 and a decrease in income taxes of \$1,773,372.

Adjusted EBITDA in 2021 was a \$27,608,913 loss compared to an Adjusted EBITDA gain of \$48,069,141 for 2020. The decrease of \$75,678,054 in the Adjusted EBITDA in 2021 is attributable to a decrease in EBITDA of \$81,196,191, and an increase of \$5,518,137 in share-based payments.

The Modified EBITDA in 2021 was a \$6,182,695 loss compared to a Modified EBITDA gain of \$3,442,443 for 2020, representing a decrease of 280%. The decrease in the Modified EBITDA loss in 2021 is attributable to the decrease as mentioned above in the Adjusted EBITDA loss of \$75,678,054 and an increase in change of fair value of investments of \$66,052,916.

Liquidity

As at December 31, 2021, the Company has cash and cash equivalents of \$12,202,513. In addition, the accounts payable and accrued liabilities of \$10,069,177 are payable within 12 months. The Company expects that its cash position will be able to finance its operations for the foreseeable future.

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, 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 subject to certain risks

and uncertainties and other risks detailed from time-to-time in the Corporation'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 Corporation 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 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 2021 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.

SOURCE PyroGenesis Canada Inc.

For further information please contact:

Rodayna Kafal, VP IR/Comms & Strategic BD

Phone: (514) 937-0002, E-mail: ir@pyrogenesis.com

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