



## PyroGenesis Announces Fourth Quarter and Full Year 2024 Results

March 31, 2025

**Quarterly Revenue of \$4.22 Million, Up 40% Year-Over-Year.**  
**Quarterly Net Income of \$145,320.**  
**Full Year Revenue of \$15.7 Million, Up 27% Year-Over-Year.**  
**Backlog of \$54.4 Million, with 87% in U.S. Dollars.**

*Revenue Growth Expected to Continue as 2025 Opens with Major Global Energy Transition Clients in Aluminum, Aerospace, and Steelmaking*

MONTREAL, March 31, 2025 (GLOBE NEWSWIRE) -- PyroGenesis Inc. ("PyroGenesis") (<http://pyrogenesis.com>) (TSX:PYR) (OTCQX:PYRGF) (FRA:8PY1), a high-tech company that designs, develops, manufactures and commercializes all-electric plasma processes and sustainable solutions to support heavy industry in their energy transition, emission reduction, commodity security, and waste remediation efforts, today announces its financial and operating results for the fourth quarter and full year ended December 31, 2024.

"On the back of a stronger fourth quarter, PyroGenesis enters fiscal 2025 with continued confidence," said P. Peter Pascali, President and CEO of PyroGenesis. "The combination of expanding interest for electricity-based power and heating technology in heavy industry processes, increasing demand for key materials such as recycled aluminum where our various technologies provide important melting and heating solutions, and the rising need for commodities such as titanium metal powder, various silica-based substances, and renewable natural gas that the Company's technologies produce, means the opportunities in front of us are much larger than those behind us. With every quarter's revenue growth in 2024 beating the previous years' quarters, and with a \$50 million plus backlog of contracts to produce, we are determined to move the company to the next plateau during 2025."

"Like many other companies in the current economic climate, we have experienced cash flow constraints in recent periods," commented Mr. Pascali. "With a solid backlog in place and continued interest from existing and new customers, we believe we are well-positioned for continued improvements in the upcoming fiscal quarters."

"We have started 2025 with a lineup of important energy transition projects with global industry leaders that are the result of years of technology development and relationship building," added Mr. Pascali. "The groundwork we have laid over the past few years with major power advances in our plasma torches and system/performance improvements across multiple business lines, has led to the growing competitiveness seen in 2024 and expected for 2025 and beyond. We are committed to making PyroGenesis not just the go-to supplier of ultra-high temperature technology to the world's leading companies, but also to be an essential part of the final mile of industrial energy grid infrastructure during the coming period of major grid expansion and widespread changes to the industrial energy mix."

### **KEY Q4 2024 FINANCIAL HIGHLIGHTS**

- **Revenue of \$4.22 million, up 40% vs. Q4 2023**, the 4<sup>th</sup> straight quarter of year-over-year growth
- **Gross margin of 41.3%**, an 18-point improvement year-over-year
- **Net income of \$145,320**, compared to a loss of \$9.8 million in the same period a year ago
- **Revenue (Order) Backlog of \$54.4 million** of signed and/or awarded contracts as at March 31<sup>st</sup>, 2025, of which 87% is in U.S. dollars
- **Modified EBITDA \$1.8 million** vs. a loss of \$7.9 million during the same period a year ago

### **KEY FULL YEAR 2024 FINANCIAL HIGHLIGHTS**

- **Revenue of \$15.7 million, up 27% vs. FY 2023**
- **Gross margin of 34%**, a 6-point improvement year-over-year vs FY 2023
- **Net loss of \$6.7 million, a 77% improvement** vs. \$28.5 million loss in FY 2023
- **Modified EBITDA loss of \$1.9 million, a 92% improvement** vs. \$24.4 million loss the previous year

### **SUBSEQUENT EVENTS**

- **Post quarter end, in February 2025** [news release dated February 24, 2025], the Company announced it was the winner of a previously announced tendered bid process and was awarded a contract for approximately \$2,400,000 with Norsk Hydro ASA, a Norway-based aluminum and renewable energy company founded in 1905 that is one of the largest aluminum producers in the world and often considered one of the most respected and influential leaders in heavy industry, with 32,000 employees across operations in 42 countries. The company posted 2024 revenues of US\$18.3 billion. Hydro intends to replace fossil fuel burners with PyroGenesis' plasma torches to test melt aluminum in the R&D casthouse at Sunndal Norway (the largest and most modern primary aluminum plant in Europe). Hydro's stated eventual goal is to eliminate the use of fossil fuels across the entire aluminum value chain. The project is expected to commence in the near term, with initial payment also expected during Q2 2025.

Table 1

	Three months ended December 31		Variation 2024 vs 2023	Twelve months ended December 31		Variation 2024 vs 2023
	2024	2023		2024	2023	
High purity metallurgical grade silicon & solar grade silicon from quartz (PURE-VAP™)	358,792	272,074	86,718	1,076,603	1,660,928	(584,275)
Aluminum and zinc dross recovery (DROSSRITE™)	2,089,586	211,572	1,878,014	3,583,004	535,868	3,047,136
Development and support related to systems supplied to the U.S. Navy	489,269	1,076,798	(587,529)	2,115,418	3,245,618	(1,130,200)
Torch-related products and services	246,496	713,479	(466,983)	5,228,262	3,396,458	1,831,804
Wastegases destruction (SPARC™)	—	245,887	(245,887)	956,451	605,962	350,489
Biogas upgrading and pollution control	862,483	294,448	568,035	1,762,432	1,713,810	48,622
Other sales and services	177,612	213,997	(36,385)	911,691	1,196,437	(284,746)
Revenues	4,224,138	3,028,255	1,195,883	15,682,321	12,346,081	3,336,240

Table 1

- **Post quarter end, in January 2025** [news release dated January 27, 2025], the Company that its subsidiary, Pyro Green-Gas Inc. had signed a contract totaling US\$1.74 million (approx. CA\$2.5 million) with one of the world's largest integrated environmental services companies as part of a large urban waste-to-energy project. The multi-national, multi-billion-dollar revenue client provides services to public utilities in dozens of countries worldwide. The contract is for the engineering, design, and delivery of components related to gas "flaring", that provides for the safe and environmentally friendly removal of peripheral emissions considered unworthy of processing during the production of renewable natural gas ("RNG"). The technology will be installed at a large US-based organic waste-to-RNG facility, which was built to produce pipeline-quality natural gas that can be added to the natural gas supply for a major U.S. metropolitan area.

#### **Q4 2024 PRODUCTION AND SALES HIGHLIGHTS**

Q4 2024 continued the positive revenue growth trend that began in Q2 2023. Q4 2024 marks the 7th straight quarter of revenue improvement compared to the low revenue mark of Q1 2023, with six of those seven quarters – including this Q4 2024 – surpassing the previous quarter's revenues.

The Company operates primarily within three business verticals that align with 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 methods/processes geared to increase output, maximize raw material usage, and improve the 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.

The information below represents highlights from the past quarter for each of the Company's main business verticals.

#### **Energy Transition & Emission Reduction**

- **In October**, [news release dated October 21, 2024], the Company announced a contract valued at approximately \$27 million for the development of a plasma torch system powered at 20 megawatts, from an existing U.S. client which provides technology and test services geared to solving critical defense, military, aeronautics, and space exploration challenges. The client, which previously ordered a 4.5MW plasma torch system from PyroGenesis in August 2023 [news release dated August 1, 2023], regularly serves as a prime contractor for the U.S. government. A plasma torch at this 20 megawatts power level, based on PyroGenesis' own research, represents one of the most powerful (if not the most powerful) plasma torches ever produced commercially. The project was expected to start within 30 days of the news release, with an estimated duration of 3 years
- **In November**, [news release dated November 19, 2024], the Company announced a contract with one of the three largest steelmakers in the world to assess the applicability of PyroGenesis' full electric plasma torches for use in the customer's electric arc furnace steelmaking and casting process. The client had previously been referred to as Client C and is one of the world's largest companies in both steelmaking and iron ore pelletization.

#### **Waste Remediation**

- **In October** [news release dated October 10, 2025], the Company announced a purchase order of approximately \$1,015,000 from Newport News Shipbuilding, for after-sales component production related to the US Navy aircraft carrier contract.
- **In December** [news release dated December 3, 2024], the Company announced the successful completion of a contract for the delivery, commissioning, and operation of its plasma torch system to destroy harmful Perfluoroalkyl and Polyfluoroalkyl Substances ("PFAS"). PFAS are widely known as "forever chemicals" due to a strong molecular bond that resists degradation and have been connected to worldwide health issues. The project is funded by the U.S. Department of Defense, which is seeking various PFAS-remediation technologies as part of its broader environmental clean-up mandate. Under the previously announced contract, PyroGenesis received \$2.25 million and supplied a 1MW (one megawatt) plasma torch system with related peripherals. At the time of the news release, PyroGenesis had completed the commissioning of the system and had been able to operate it at full capacity, with more than 300 tonnes of PFAS-contaminated materials having been successfully treated at the client's facility using PyroGenesis' plasma system.

#### **Q4 2024 FINANCIAL HIGHLIGHTS**

- Through the majority of fiscal 2024, the Company actively monitored its selling, general and administrative expenses in order to maximize savings and reduce expenses. This active attention to cost optimization resulted in over \$3 million of cost reductions realized mainly from a change in the director's and officers' insurance, a reduction in professional fees, consulting and other expenses, along with adjustments to staffing and optimal use of employees. These are savings we will benefit from every year, going forward.
- **In October** [news release dated October 31, 2024], the Company provided an update on the Repriced Warrants. As a result of the repricing, 1,457,500 of the Repriced Warrants have been exercised, for total proceeds to the Company of \$1,093,125.
- **In November** [news release dated November 26, 2024], the company received a payment of approximately \$2,800,000, representing a portion of an outstanding receivable under PyroGenesis' existing \$25,000,000 Drosrite contract with Raidan Oil and Gas Services Company.
- **In December** [news release dated December 19, 2024], the company announced an agreement with HPQ Silicon Inc. to resolve an outstanding liability of \$4,941,440 owed to PyroGenesis, using a debt-to-equity conversion. Under the agreement, the outstanding liability will be converted into 17,968,873 units at a price of \$0.275 per unit. Each unit will be comprised of one common share of HPQ and one common share price warrant. Each warrant will entitle PyroGenesis to acquire one common share of HPQ at a price of \$0.285 until the date that is two years following the effective date of this transaction. Upon issuance of the units to PyroGenesis, the outstanding liability shall be deemed fully satisfied.
- **Post quarter end, in January 2025** [news release dated January 20, 2025], the Company received a payment of approximately \$1,850,000, representing a portion of an outstanding receivable under PyroGenesis' existing \$25,000,000 Drosrite contract with Raidan Oil and Gas Services Company.
- **Post quarter end, in January 2025** [news release dated January 21, 2025], the Company received a payment of approximately \$1,040,000 under PyroGenesis' existing \$4,100,000 contract with a U.S. aeronautics and defense client for a 4.5MW plasma torch

#### **Q4 2024 OPERATIONAL HIGHLIGHTS**

- **In November** [news release dated November 12, 2024], the Company announced a corporate name and address change. PyroGenesis' corporate name was changed from PyroGenesis Canada Inc. to PyroGenesis Inc. Simultaneously, the French version of its name was changed from PyroGènese Canada Inc. to PyroGènese Inc.

"This change to our name is a subtle but indicative change," noted Mr. Pascali. "With sales across 21 countries and counting, this name change is part of an initiative to better express in all areas of communication that we are an internationally focused company with global reach."

This name change did not involve any restructuring, change of control, or other corporate reorganization. This decision solely pertains to a more inclusive and internationally resonant brand image. The name change did not affect trading of the Company's shares, which continued to trade on the TSX under the symbol PYR and through the OTCQX under the symbol PYRGF, with no change to the stock symbols.

Additionally, the Company announced that it had recently moved its headquarters to a larger office location in downtown Montreal. The move comes as a result of the Company having outgrown its previous headquarters after more than 30 years in Montreal's historic Griffintown neighbourhood. The new office location resides in the heart of downtown near Montreal Central Station, the Queen Elizabeth Hotel, and the Bell Centre arena (home of the Montreal Canadiens), and provides more modern amenities and a smarter office layout, while also providing easier access for employees and customers that use public transit. PyroGenesis' new corporate headquarters address are located at 1100 René-Lévesque Boulevard West, Montréal, Québec, Suite 1825, H3B 4N4. Phone numbers will remain the same, with 514-937-0002 the main line.

- **In November** [news release dated November 20, 2025], the Company provided post-election comments and analysis in response to investor questions about the impact from the incoming Trump administration. In summary, PyroGenesis stated that it is positive about the potential economic impact the U.S. election outcome may have on the company. The potential benefits from President-Elect Donald Trump's campaign promises, in particular the commitments to (i) lower corporate taxation to stimulate business growth, (ii) reduce regulatory burdens and bureaucracy to accelerate project approvals, (iii) expand the energy sector to – in the campaign's own words – "unleash energy production from all sources, including nuclear", (iv) "to immediately slash inflation and power American homes, cars, and factories with reliable, abundant, and

affordable Energy”, are numerous and prescient, as America commits to a future of advanced manufacturing leadership, energy self-sufficiency, and supply chain protection.

“The expectation is that the newly-elected administration’s initiatives will speed up capital projects, stir innovation, increase overall capacity of the energy grid, and lower energy costs. This could be highly beneficial to companies like ours that supply heavy industry with the high-temperature electricity-based solutions needed to modernize, optimize, and compete,” said P. Peter Pascali, President and CEO of PyroGenesis

## **FINANCIAL SUMMARY**

### **1. Revenues**

PyroGenesis recorded revenue of \$4.2 million in the fourth quarter of 2024 (“Q4, 2024”), representing an increase of \$1.2 million when compared to \$3.0 million recorded in the fourth quarter of 2023 (“Q4, 2023”). Revenue for fiscal 2024 was \$15.7 million, an increase of \$3.3 million over revenue of \$12.3 million compared to fiscal 2023.

Revenues recorded in fiscal 2024 were generated primarily from:

	Three months ended December 31		Variation 2024 vs 2023	Twelve months ended December 31		Variation 2024 vs 2023
	2024	2023		2024	2023	
High purity metallurgical grade silicon & solar grade silicon from quartz (PUREVAP™)	358,792	272,074	86,718	1,076,653	1,660,928	(584,275)
Aluminium and zinc dross recovery (DROSRITE™)	2,089,586	211,572	1,878,014	3,583,504	535,868	3,047,636
Development and support related to systems supplied to the U.S. Navy	489,269	1,076,798	(587,529)	2,115,418	3,245,618	(1,130,200)
Torch-related products and services	246,496	713,479	(466,983)	5,226,262	3,396,458	1,829,804
Refrigerant destruction (SPARC™)	—	245,887	(245,887)	956,451	605,962	350,489
Biogas upgrading and pollution controls	862,483	294,448	568,035	1,762,432	1,713,810	48,622
Other sales and services	177,512	213,997	(36,485)	931,601	1,186,437	(254,836)
<b>Revenue</b>	<b>4,224,138</b>	<b>3,028,255</b>	<b>1,195,883</b>	<b>15,652,321</b>	<b>12,345,081</b>	<b>3,307,240</b>

Q4, 2024 revenues increased by \$1.2 million, mainly as a result of:

- DROSRITE™ related sales increased by \$1.9 million due to significant progress on the contract with the Company's Saudi customer, highlighted by the successful manufacturing and delivery of the first three systems. Contributing factors to this increase include the completion of client site trials across Europe, as well as a rise in revenue from storage, ancillary services, and transportation associated with the DROSRITE units, at the request of the client,
- Support services related to systems supplied for the US Navy decreased by \$0.6 million due to the current stage of the project, whereas, in the comparable period, significant advancement was made related to inspection, packaging and shipment of the equipment to our customer in order to move forward with installation and commissioning,
- Torch-related products and services decreased by \$0.5 million, due to the completion of the project, with the Company currently providing continuous onsite support,
- SPARC™ related sales decreased by \$0.2 million primarily due to the completion of fabrication of long lead items scheduled for Q1, 2025, which were largely subcontracted, and the associated timing delays in project progress,
- Biogas upgrading and pollution controls related sales increased by \$0.6 million specifically due to the project advancement of the Company's gas desulfurization project.

Fiscal 2024 revenues increased by \$3.3 million, mainly as a result of:

- PUREVAP™ related sales decreased by \$0.6 million due to the ongoing phases of the project, with preparations in progress for continuous operations and the production of the first batch of material, anticipated in Q1, 2025,
- DROSRITE™ related sales increased by \$3.0 million due to the significant progress on ongoing projects, the completion of the European trials and the revenue generated from spare parts sales and storage services. These factors collectively contributed to the growth in revenue, reflecting accelerated project advancement and increased demand for associated products and services,
- Support services related to systems supplied for the US Navy decreased by \$1.1 million due to the current stage of the project, with the advancements contingent upon the client's inspections which were scheduled for Q4, 2024, and will be completed in Q1, 2025, partially offset, by the increase in awarded contracts for spare parts and engineering services from clients that are third-party suppliers of the US Navy,
- Torch-related products and services increased by \$1.8 million, driven by the completion and progress of the Company's

key torch-related projects. This includes the successful completion of the PFAS destruction project, which confirmed that PyroGenesis' plasma torches can reduce energy requirements by up to 45%. Additionally, significant advancements were made in the 4.5MW torch system project, notably achieving the milestone of completing all major equipment. The Company also continues to provide ongoing onsite support,

- SPARC™ related sales increased by \$0.4 million, reflecting the steady progress achieved throughout the year. The pace is expected to accelerate with the anticipated completion of fabrication in Q1, 2025, followed by a structured ramp-up for delivery in fall 2025, and,
- Other sales and services decreased by \$0.3 million, which is primarily attributable to variations in project timelines, customer demand, and the timing of service contracts.

As of March 31, 2025, revenue expected to be recognized in the future related to backlog of signed and/or awarded contracts is \$54.4 million,<sup>1</sup> of which 87% is in US dollars. Revenue will be recognized as the Company satisfies its performance obligations under long-term contracts, which are expected to occur over a maximum period of approximately 3 years.

<sup>1</sup>This excludes the contract with Varennes Carbon Recycling following the March 21, 2025, announcement that the company managing the project filed for protection under the *Companies Creditor Arrangement Act*.

## 2. Cost of Sales and Services and Gross Margins

Cost of sales and services were \$2.5 million in Q4 2024, representing an increase of \$0.2 million compared to \$2.3 million in Q4 2023. The increase was primarily driven by higher employee compensation costs, which rose by \$0.2 million from \$0.9 million to \$1.1 million, as well as an increase in subcontracting expenses, amounting to \$0.3 million, up from \$0.1 million, due to the use of additional external resources. Additionally, manufacturing overhead and other related costs saw a \$0.2 million increase to \$0.6 million, up from \$0.4 million, reflecting higher indirect production expenses. However, these increases were partially offset by a \$0.2 million decrease in direct material costs, which dropped from \$0.7 million to \$0.5 million, attributed to reduced material usage and lower prices. Furthermore, amortization of intangible assets decreased by \$0.2 million due to certain assets being fully amortized.

The gross profit for Q4, 2024 was \$1.7 million, or 41% of revenue, compared to a gross profit of \$0.7 million, or 23% of revenue, for Q4 2023. The increase in gross margin was primarily attributable to a reduction in direct material costs and a decrease in amortization of intangible assets. These factors contributed to improved profitability during the quarter.

Cost of sales and services for fiscal 2024 were \$10.4 million, compared to \$8.9 million for fiscal 2023, reflecting an increase of \$1.5 million and was primarily related to several factors. Employee compensation increased by \$0.4 million, from \$3.5 million to \$3.9 million, due to higher project activity levels, which led to an expanded workforce dedicated to revenue-generating projects. Subcontracting increased by \$0.2 million, from \$0.3 million to \$0.5 million, as a result of greater reliance on external resources and contractors, a significant increase in direct materials of \$1.2 million, from \$3.2 million to \$4.3 million, while manufacturing overhead and other related costs increased by \$0.4 million, from \$1.2 million to \$1.5 million, both driven by increased production activity. These increases were partially offset by a \$0.7 million decrease in amortization of intangible assets, which declined from \$0.9 million to \$0.1 million, due to certain assets being fully amortized.

The amortization of intangible assets for Q4, 2024 was \$0.02 million compared to \$0.2 million for Q4, 2023, and during the twelve-month period ended December 31, 2024, was \$0.1 million compared to \$0.9 million for the same period in the prior year. This expense variation relates mainly to the intangible assets in connection with the Pyro Green-Gas acquisition, which have been fully amortized by January 2024. These expenses were non-cash items, and the remaining intangible assets are composed of patents, and deferred development costs that will be amortized over the expected useful lives.

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, as the mix between labour, materials and subcontracts may be significantly different. In addition, due to the nature of these long-term contracts, the Company has not necessarily passed on to the customer the increased cost of sales which was attributable to inflation, if any. The costs of sales and services are in line with management's expectations and with the nature of the revenue.

## 3. 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, 2024 were \$1.3 million, compared to \$9.4 million for Q4, 2023, a significant decrease of \$8.1 million. The substantial decrease was primarily related to the reduction in expected credit loss & bad debt of \$3.8 million, which shifted from an expense of \$0.3 million in Q4, 2023, to a recovery of \$3.5 million, following the receipt of \$2.8 million in previously provisioned receivables. Additionally, the absence of a \$2.7 million goodwill impairment charge, which was recorded in Q4, 2023, further contributed to the reduction in expenses. A favorable impact in foreign exchange charge on materials of \$0.5 million, compared to an expense of \$0.3 million, a decrease of \$0.7 million, while other expenses decreased by \$0.5 million, from \$0.8 million to \$0.2 million. Changes in assumptions regarding cash flows from royalty receivables led to a \$0.5 million decrease in expenses, while professional fees dropped by \$0.4 million, from \$1.1 million to \$0.7 million, reflecting lower legal and consulting costs. Lastly, office and general expenses declined by \$0.1 million, from \$0.3 million to \$0.2 million, due to tighter cost controls. Overall, the \$8.1 million reduction in SG&A expenses was primarily driven by the recovery of previously provisioned receivables, the absence of goodwill impairment, and improved cost efficiencies across multiple categories.

During the twelve-month period ended December 31, 2024, SG&A expenses totaled \$11.0 million, marking a significant decrease of \$20.0 million from \$31.0 million in the prior year. The most notable factor in this reduction was a \$12.0 million improvement in expected credit loss and bad debt, which transitioned from a \$5.1 million expense in 2023 to a \$6.9 million recovery, following the receipt of two payments totaling \$6.9 million in previously provisioned receivables. The decline was further supported by the absence of a \$2.7 million goodwill impairment charge, which had been recorded in the previous year. Additionally, foreign exchange fluctuations on materials contributed to a \$1.1 million reduction. Professional fees were also reduced by \$1.6 million, from \$4.1 million to \$2.5 million, due to decreased reliance on external legal and consulting services. Similarly, other expenses

declined by \$1.5 million, from \$3.3 million to \$1.8 million, driven by tighter cost management. Lastly, revisions in cash flow assumptions for royalty receivables resulted in a \$0.5 million reduction in expenses. These combined factors highlight the company's strategic focus on cost efficiencies and financial discipline throughout the year.

Share-based compensation expense for the three and twelve-month periods ended December 31, 2024, was \$1.2 million and \$2.1 million, respectively (three and twelve-month period ended December 31, 2023 - \$0.7 million and \$3.1 million, respectively), an increase of \$0.4 million and a decrease of \$1.0 million respectively, which is a non-cash item and relates mainly to 2022, 2023 and 2024 grants.

Share-based payments expenses as explained above are non-cash expenses and are directly impacted by the vesting structure of the stock option plan whereby options vest between 10% and up to 100% on the grant date and may require an immediate recognition of that cost.

#### **4. Depreciation on Property and Equipment**

The depreciation on property and equipment for the three and twelve-month periods ended December 31, 2024, remained stable at \$0.07 million and \$0.4 million, respectively, compared with \$0.1 million and \$0.6 million for the same periods in the prior year. The expense is determined by the nature and useful lives of the property and equipment being depreciated.

#### **5. Research and Development ("R&D") Costs, net**

During the three-months ended December 31, 2024, the Company incurred \$0.07 million of R&D costs on internal projects, a decrease of \$0.4 million as compared with \$0.5 million in Q4, 2023. The decrease in Q4, 2024 is primarily related to a reduction of \$0.2 million in employee compensation (Q4, 2023 - \$0.3 million), a decrease of \$0.2 million in materials and equipment (Q4, 2023 - \$0.2 million), and a decrease of \$0.08 million in other expenses (Q4, 2023 - \$0.04 million). These decreases were primarily due to lower R&D project activity, as the Company strategically reallocated resources and funds toward revenue-generating projects.

During the twelve-months ended December 31, 2024, the Company incurred \$0.8 million of R&D costs on internal projects, compared to \$2.2 million for the same period in the prior year. The decrease is mainly due to lower levels of R&D activities requiring a reduction in employee compensation, less materials, equipment and subcontracting, decreasing to \$0.8 million as compared with \$2.3 million, a decrease of \$1.4 million, for the same period in the prior year.

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).

#### **6. Finance Expenses (income), net**

Finance expenses for Q4 2024 remained stable at \$0.3 million, representing a slight decrease for the same period in the prior year. The decrease in finance expenses in Q4 2024 is primarily due to the decreased interest accretion on the balance due to on business combination offset by the interest accretion related to the convertible loan.

During the twelve-month period ended December 31, 2024, the finance expenses totaled \$1.1 million compared to an income of \$1.3 million for the 2023 comparable period, representing an increase of \$2.5 million year-over-year. The increase in finance expenses is primarily due to the 2023 revaluation of the balance due on business combination due to negotiations between the Company's Italian subsidiary and a customer who both agreed on the final acceptance of a contract, prior to final completion and the Company determined that a milestone related to the business combination would not be achieved. As a result, the contract did not attain the pre-determined milestone in connection with the balance due on business combination, and reversals of the liabilities were recorded offset by the increase in interest and accretion related to the convertible debenture and convertible loan. Finance expenses for fiscal 2024 also increased due to the convertible debenture and convertible loan which were only issued for part of 2023.

#### **7. Strategic Investments**

During the three-months ended December 31, 2024, the adjustment to the fair market value of strategic investments for Q4, 2024 resulted in a slight loss compared to a loss in the amount of \$0.5 million in Q4, 2023, a favorable variation of \$0.5 million.

During the twelve-months ended December 31, 2024, the adjustment to the fair market value of strategic investments resulted in a loss of \$0.2 million compared to a loss in the amount of \$0.3 million for the same period in the prior year, a variation of \$0.08 million. The decrease in loss for the twelve-month periods ended December 31, 2024, is attributable to the variation of the market value of the common shares owned by the Company of HPQ Silicon Inc.

#### **8. Other Income**

During the year 2024, Other Income includes a gain on settlement of legal proceedings with a third party which was also a customer of the Company's subsidiary, Pyro Green-Gas. As a result, the Company received a settlement of \$1.5 million and recognized a gain of \$1,180,335, included in Other Income, and the remainder as a reduction of accounts receivable.

#### **9. Comprehensive Income (loss)**

The comprehensive income for Q4, 2024 of \$0.1 million compared to a loss of \$9.8 million, in Q4, 2023, represents a favorable variation of \$9.9 million, and is primarily attributable to the factors described above, which have been summarized as follows:

- an increase in revenue of \$1.2 million arising in Q4, 2024, and with a higher gross margin of 41%, and thus a gross profit of \$1.7 million, as opposed to a gross margin of 23% and gross profit of \$0.7 million in Q4 of 2023,
- a decrease in SG&A expenses of \$8.1 million arising in Q4, 2024 primarily due to a decrease in the allowance for credit loss of \$3.8 million, decrease in goodwill impairment of \$2.7 million, decrease in professional fees, office and general, changes in assumptions in cashflows of royalty receivables, and decrease in depreciation of property and equipment, offset

- by increases in employee compensation, and travel,
- an increase in share-based expenses of \$0.4 million,
- a decrease in R&D expenses of \$0.4 million primarily due to a decrease in employee compensation, materials and equipment, and other expenses,
- a decrease in net finance expenses (income) of \$0.06 million in Q4, 2024,
- a variation in the fair market value of strategic investments of \$0.5 million.

The comprehensive loss for the twelve-month period ended December 31, 2024, of \$6.8 million compared to a loss of \$28.5 million, for the same period in the prior year, represents a variation of \$21.8 million, and is primarily attributable to the factors described above, which have been summarized as follows:

- an increase in revenue of \$3.3 million, and annual gross margin of 34%, thus generating a gross profit of \$5.3 million, as opposed to 28% margins in 2023 which generated \$3.4 million in gross profit,
- a decrease in SG&A expenses of \$20.0 million was primarily due to the decrease of expected credit loss & bad debt of \$12.0 million, decrease of goodwill impairment of \$2.7 million, decrease in other expenses, professional fees, foreign exchange charge on materials, and changes in assumption in cashflows of royalty receivables, which is offset by an increase in employee compensation, office and general, and depreciation of right-of-use assets,
- a decrease in share-based expenses of \$1.0 million
- a decrease in R&D expenses of \$1.4 million primarily due to a decrease in employee compensation, subcontracting, materials and equipment, and other expenses,
- an increase in net finance expenses (income) of \$2.5 million is primarily due to the revaluation of the balance due on business combination recognized in 2023,
- a variation in the fair market value of strategic investments of \$0.08 million

## 10. Liquidity and Capital Resources

As at December 31, 2024, the Company had cash of \$3.0 million, included in the net working capital deficiency of \$9.2 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, 2024 was \$308,774, a decrease of \$93,305 since December 31, 2023. This variation was due to the repayment of the Canada Emergency Business Account ("CEBA") loan, and the monthly payments on the Economic Development Agency of Canada ("EDC") loan. The EDC loan is interest free and will remain so, until the balance is paid over the 60-month period ending March 2029. In 2024, the Company secured gross proceeds of \$2,804,600 from a private placement. On December 20, 2023, the Company closed a non-brokered private placement of a convertible loan for gross proceeds of \$1,250,000, and bore interest at 3%. In July 2023, the Company closed a brokered private placement for \$3,030,000, bearing interest at 10%. The average interest expense on the other term loans and convertible debenture is approximately 10%. The Company does not expect changes to the structure of term loans and convertible debentures in the next twelve-month period. The Company maintained one credit facility which bore interest at a variable rate of prime plus 3%, therefore 6.45% at December 31, 2024. Subsequent to December 31, 2024, this credit facility was reimbursed and the convertible loan was redeemed.

## OUTLOOK

Consistent with the Company's past practice, and in view of the early stage of market adoption of our core lines of business, the Company is not providing specific revenue or net income (loss) guidance for 2025.

The following is an outline of the many factors that impact the Company's strategy and future success, plus key developments that are expected to impact subsequent quarters.

### Overall Strategy

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

The Company believes its strategy to be timely, as multiple heavy industries are committing to major carbon and waste reduction programs at the same time as many governments are increasingly supportive – from both a policy and financial perspective – of environmental technologies and infrastructure projects. Additionally, both industry and government are developing strategies to ensure the availability of critical minerals during the coming decades of increased output demand.

While there can be no guarantees, the Company believes the evolution of its strategy beyond greenhouse gas emission reduction, to an expanded focus that encapsulates the key verticals listed in the section "Q3 2024 Production and Sales Highlights", both (i) improves the Company's chances for success while (ii) 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 is significant, as major industries such as aluminum, steelmaking, manufacturing, cement, chemicals, defense, aeronautics, and government seek factory-ready, technology-based solutions to help steer through the challenging landscape of increasing demand, 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 while at the same time ensuring that operating expenses are controlled to achieve profitable growth.

## Key Performance Indicators

The Company uses key performance indicators (KPIs) to monitor, analyze, and optimize organizational output and performance, with KPIs specific to different parts of its production and manufacturing (such as cycle time, capacity utilization, yield, changeover time, and scrap), plus a different set of KPIs designed to evaluate the broader corporate results and uptake, identify trends affecting the business, and make strategic decisions. This latter category of KPIs includes:

**Industry Depth:** number of customers within an industry and/or amount and % of revenue from that industry. To date, the Company's greatest depth has been with the aluminum, military, and government industries.

**New Industry Engagement:** as the energy transition and carbon/GHG-reduction trends grow, more industries are realizing the benefit of using PyroGenesis' technology. Over the past five years the Company has begun to penetrate the mining and metal, iron ore, aerospace, automotive, general parts manufacturing, steel, materials (especially silica and silicon), chemical, and cement industries, among others.

**Customer Depth:** the number of projects with a single customer and/or amount of revenue from that customer. The Company treats most customer identities as confidential unless otherwise approved or suggested by the customer.

**New Customer Engagement:** as a relatively small company with technology that is potentially of interest across thousands of companies in many different industries, the Company takes a cautious approach when engaging with new customers. Primarily, the Company evaluates the potential customer's access to capital, operational history, and reputation when weighing engagement. With regard to net new technology ideas or start-up customers, PyroGenesis considers the long-term commercialization potential of the idea, the possibility of revenue sharing or royalties, and access to capital. Aligning to the Company's three tier business model is imperative, though exceptions can be made.

**Studies Undertaken:** scientific and engineering studies have been a key part of new customer acquisition for much of the Company's history. A study such as a computational fluid dynamics (CFD) study is often the first phase requirement for a potential customer in investigating the potential future use of the Company's technology. Since transitioning from a legacy fossil fuel based system to the Company's all-electric plasma can be a transformative and often expensive proposition, a study allows a potential new client to better understand the future technological fit and prospective budgetary requirements, while also gaining an understanding of the high-quality working relationship with the Company. The wide array of different specs, uses, industries, and in-factory customization of furnace, heating, and melting machinery, mandates ground-up studies for most new initiatives. The Company's experience conducting studies and its exposure to more and different types of systems, especially over the last 5 years, has allowed the Company to further streamline and perfect its study process as a route to new business. The number, type, and duration of studies undertaken during each quarter varies.

**Monthly Recurring Revenue:** ongoing, repeating revenue is a major goal for the Company. To date, after-sale parts and components (such as those related to consumable aspects of plasma torches) have represented the largest revenue and growth potential on a recurring basis. As the energy transition trend grows and more plasma systems are sold, recurring revenue is expected to represent a much larger percentage of overall revenue. Other areas targeted for recurring revenue include sales of titanium metal powders, revenue from tolling contracts in areas such as aluminum dross treatment and metal recovery, and co-venture/royalty agreements such as those related to waste remediation.

**Revenue Mix:** PyroGenesis has established a technology eco-system comprised of a number of inter-related solutions, often referred to in previous Company communications as a "multi legged stool". This type of diversification offers a measure of protection to the Company in both difficult and rapidly changing economic environments. As such, the Company targets a wide versus a narrow mix of revenue sources.

**Growth Mix:** new revenue is currently driven by existing customers. A key goal for the Company is to develop an optimal mix of existing and new customer.

## Cost Controls and Efficiencies

PyroGenesis has been, and continues to, scrutinize both potential and existing projects to ensure that the utilization of labour and financial resources are optimized. The Company continues to only engage in projects that reflect significant benefits to PyroGenesis and the risks of which are defined. The Company intends to intensify its focus on project and budgetary clarity during this period of elevated inflationary pressures, by identifying alternative suppliers while constantly adjusting project resources. The early-stage project assessment process has also been refined to allow for faster "go / no-go" decisions on project viability.

Through an ongoing Cost Optimization program, the Company has further identified areas to reduce costs and expenses in 2025. Continuing the cost optimization program began in fiscal 2024, as described in the Q4 2024 Financial Highlights, which resulted in over \$3 million in savings, the Company has already identified areas of optimization in early 2025. To date the Company has identified savings in patent expenses, insurance and optimization of the workforce, for a net benefit of \$2 million. The Company has targeted between \$3-5MM in cost optimization for 2025. These are permanent cost savings which will benefit the Company on a recurring annual basis. All cost optimization is done with a view to not jeopardize revenues or market competitiveness.

## Enhanced Sales and Marketing

Against the backdrop of its 3-tiered strategy, the Company continues 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

## Macroeconomic Conditions

With some continued uncertainty in the macroeconomic environment, including ambiguity in the banking sector with regard to interest rate adjustments, the continued inflationary pressures causing shifting demand dynamics across various industries at different times, and the possibility of recessionary conditions, it may be difficult to assess the future impact these events and conditions will have on our customer base, the end markets we serve, and the resulting effect on our business and operations, both in the short term and in the long term.

Despite these uncertainties, we continue to believe there is an accelerated need for PyroGenesis' solutions in the industries we serve as heavy industry continues to decarbonize / transition their energy sources, manufacture utilizing both lighter metals (such as aluminum) and additive manufacturing, and deal with tighter hazardous waste regulations.

While we expect these uncertainties and other macroeconomic conditions to continue to impact the variability in our quarter-to-quarter revenue, we believe our diversity in both customer base and solution set will continue to be a strong mitigating factor to these challenges. Additionally, the Company's ongoing efforts to reduce costs through various measures including the sourcing of more high quality, cost-competitive suppliers, further bolsters the Company against cost fluctuations.

The various military conflicts in the Middle East and Eastern Europe continue to create some level of global economic uncertainty, as well as supply chain disruptions that can change at any time. However, it's important to note that the Company does not have any operations, customers or supplier relationships in Russia, Belarus or Ukraine, and as such are not directly impacted at a customer level in these countries. The Company does have customer relationships and projects in Poland and will continue to monitor the situation in the region regarding challenges to the completion of current projects, which at this time are not inhibited.

As always, the Company monitors the potential impact macroeconomic events and conditions could have on the business, operations, and financial health of the Company.

Generally, the Company believes that broad-based threats to global supply chains increase awareness and interest in the many solutions the Company offers. This is particularly true within the minerals and metals industries, as manufacturers seek alternatives to offshore suppliers as well as technologies that could optimize output or recycle critical material from byproducts or waste – solutions that the Company currently offers.

### **Business Line Developments**

The upcoming milestones which are expected to confirm the validity of our strategies are outlined below. Please note that these timelines are estimates based on information provided to us by the clients/potential clients, and while we do our best to be accurate, timelines can and will shift, due to protracted negotiations, client technical and resource challenges, or other unexpected situations beyond our or the clients' control:

#### **Business Line Developments: Near Term (0 – 3 months)**

The upcoming milestones which are expected to confirm the validity of our strategies are outlined below. Please note that these timelines are estimates based on information provided to us by the clients/potential clients, and while we do our best to be accurate, timelines can and will shift, due to protracted negotiations, client technical and resource challenges, or other unexpected situations beyond our or the clients' control:

#### **Business Line Developments: Near Term (0 – 3 months)**

### Financial

#### Payments for Outstanding Major Receivables:

Regarding the outstanding receivable under the Company's existing \$25 million+ Drosrite™ contract, and as previously announced, PyroGenesis had agreed to a strategic extension of the payment plan, by the customer and its end-customer, geared to better align the pressures on the end-user's operating cash flows created by increased business opportunities.

### Energy Transition & Emission Reduction

#### Plasma Torches for Metal Manufacturing:

The Company previously noted in an earlier Outlook that it was in advanced discussions with one of the world's largest producers of metal products to design and develop a plasma-based solution for use in improving precision in the manufacturing process. Upon receiving a purchase order, the Company conducted first round tests during Q4 2024 and Q1 2025 using a low wattage plasma torch. Next steps are to conduct tests using progressively larger torches during Q2 and Q3 2025. A long-term potential project has an approximate value of \$10 million.

#### Plasma-Based Glass Recycling:

The Company previously noted in an earlier Outlook that it was in advanced negotiations (with a long term >6-month target) with a global leader in glass recycling, to investigate plasma as part of the customer's energy transition initiatives. This project has advanced sooner than originally anticipated. Contracts are being finalized with the potential for the project to proceed now expected in the near term. The project is related to the spheronization of recycled glass using plasma.

#### Plasma Torches for Aluminum Remelting Furnaces / Casthouses:

The Company has been working on aluminum remelting furnace solutions using plasma for use by secondary aluminum producers or any manufacturer of aluminum components that uses recycled or scrap aluminum. With gas-fired furnaces responsible for much of the scope 1 emissions of secondary aluminum production, aluminum companies have been searching for solutions that can help in the decarbonization efforts of aluminum remelting and cast houses.

The Company has two potential solutions: (i) the retro-fitting of plasma torches in existing remelting and cast house furnaces that currently use other forms of heating, such as natural gas; (ii) the manufacturing and sale of a PyroGenesis produced furnace based off the Company's existing Drosrite metal recovery furnace design, which has been in use commercially for several years. As mentioned in previous Outlooks, the Company has been working with different companies over the past few years towards these goals.

During Q4 2024, the first project under a letter of intent (LOI) previously signed with Constellium progressed to advanced negotiations, and a near-term announcement regarding this project is anticipated. The LOI for large-scale plasma remelting furnaces with Constellium, a global aluminum product manufacturer, was originally announced during Q2 2024 [news release dated April 10, 2024].

Separately, an existing contract with one of the world's largest manufacturers of products that serve the mining and defense industries [news release dated April 17, 2024] to examine the use of plasma in decarbonizing of its casthouses, was also discussed in previous Outlooks. Successful results from the test project which used plasma torches as part of the customer's high temperature process steps, have led to ongoing discussions for potential next steps. These discussions continue at both a local and international level for this global entity, with decisions around funding and funding cycle being the primary criteria.

Discussions also remain underway with other clients for similar contracts.

#### Furnace Electrification Co-Venture:

The Company previously noted in an earlier Outlook that it was in negotiations with a large global manufacturer of energy equipment to co-venture with PyroGenesis on the electrification of third-party furnaces. Post-quarter end [news release dated March 11, 2025], this co-venture was announced between PyroGenesis and the Power Conversion division of GE Vernova.

Phase 1 of the collaboration is to conclude a study (already commenced) for the implementation and retrofit using PyroGenesis plasma torches and GE Vernova's supporting electrical infrastructure, for a large facility in the iron ore pellet industry. Phase 2 of the collaboration will similarly include the preparation of a study for the implementation and retrofit using PyroGenesis plasma torches and GE Vernova's supporting electrical infrastructure, for a primary aluminum smelter casthouse.

#### Aluminum Cast House Decarbonization:

The Company previously noted in an earlier Outlook that it was part of a tendered bid process for the testing of plasma within an aluminum cast house of a leading global aluminum company, and that it had advanced past the preliminary tender phase to the full tender proposal phase, submitting its full proposal in August 2024, with the final client decision expected in the near- to mid-term.

Post-quarter end [news release dated February 24, 2025], the Company announced it was the winner of the tendered bid process and was awarded a contract for approximately \$2,400,000. The customer is Norsk Hydro ASA, 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. Hydro intends to replace fossil fuel burners with PyroGenesis' plasma torches to test melt aluminum in the R&D casthouse at Sunndal Norway (the largest and most modern primary aluminum plant in Europe). Hydro's stated eventual goal is to eliminate the use of fossil fuels across the entire aluminum value chain. The project is expected to commence in the near term, with initial payment also expected during Q2 2025.

#### Aluminum Furnace Tests:

The Company has started, and will continue in the near term, live furnace tests of plasma as a process heat source in melting and holding furnaces with major aluminum companies, while also being in advanced discussions with other companies yet to be named for similar live furnace tests. Due to the nature of these tests and the increasing number of similar tests, the Company may choose not to announce every test session it engages in.

#### Iron Ore Pelletization Torch Trials:

##### **CLIENT B:**

As mentioned in previous Outlooks, the commissioning of the plasma torch systems – for use in the pelletization furnaces of a client previously identified as Client B – was underway, with the Company's engineers onsite at Client B's iron ore facility. The commissioning process includes installation, start-up, and site acceptance testing (SAT). The Company previously announced that it had shipped four 1 MW plasma torch systems for use in Client B's iron ore pelletization furnaces, for trials toward potentially replacing fossil-fuel burners with plasma torches in Client B's furnaces.

As also mentioned in previous Outlooks, this project continues to move forward after the commissioning suffered a series of unforeseeable delays and infrastructure challenges caused by, among other things, damaging torrential rainstorms that flooded and damaged the facility's electrical system and furnace components, and intermittent power outages that led to damage of the plasma burners cooling system.

Client B remains committed, and live trials using PyroGenesis plasma torches are occurring, are ongoing and will remain as such until the customer determines they have sufficient performance data. The latest information provided to the Company suggests a Q2 2025 timeline for the completion of this performance testing and data gathering phase, though this is an estimate.

##### **CLIENT C:**

Client C, a global market-leading client who the Company previously identified as one "who is not only a significant player in the iron ore pelletization industry but is also a major player in the steel industry", has been working with PyroGenesis over the past few years on various potential initiatives related to using plasma for decarbonization. PyroGenesis was previously awarded official supplier status to Client C as part of an impending initiative that was subsequently announced during Q4 2024 [news release dated November 19, 2024], for a contract to assess the applicability of PyroGenesis' fully electric plasma torches for use in part of the customer's electric arc furnace (EAF) steelmaking and casting process. The initial project is currently underway with a near-term Q2 2025 expected completion date.

With live pelletization furnace plasma trials (with Client B) continuing, as the latest development with Client C renews their commitment to investigating plasma, and as new interest from other entities continue to appear, the Company believes its position relative to both the steelmaking and iron ore industries remains strong. The early publicity and research results surrounding plasma's potential for use in iron ore pelletization opened the doors to these and multiple other industries for electrification of furnaces and other high heat applications using PyroGenesis plasma torches, which the Company believes will ultimately far surpass the specific iron ore pelletization application.

#### Commodity Security & Optimization

##### Titanium Metal Powder:

The Company previously noted in earlier Outlooks that it had (i) cleared the final requirement to becoming an approved supplier of its titanium metal powder to a global aerospace original equipment manufacturer [press release dated June 5, 2024], and (ii) the formal certification process for adding the Company to the approved supplier list had begun and was expected to be completed in the near term.

Post-quarter end [news released dated March 03, 2025], the Company identified Boeing as the customer for whom this certification process is being conducted. The Company also stated that all technical requirements for titanium coarse metal powder have been met by PyroGenesis NexGen plasma atomized powder for Boeing, and that PyroGenesis continues to move forward in the approved supplier list process, with an expectation of being formally added to Boeing's supplier list in the near term.

##### Drosrite Factory Trials:

During Q4, the Company conducted on-site trials of the Company's Drosrite furnace system for the processing of aluminum dross, at the facilities of European aluminum manufacturers. Additionally, representatives from potential new customers conducted on-site visits at an existing PyroGenesis customer's factory, where a Drosrite system has been successfully operating for several years. Data from the various tests and site visits are currently being analyzed to help determine next steps towards the possible purchase of Drosrite systems.

#### Waste Remediation

##### Plasma Resource Recovery System (PRRS):

As mentioned in previous Outlooks, the Company is in discussions with a European company for the Company's Plasma Resource Recovery System, for use in the pyrolysis of plastics. This potential project has progressed to final negotiations with an expected outcome in the near term.

##### SPARC Refrigerant Waste Destruction System:

The Company previously noted in an earlier Outlook that it was in negotiations (with a mid-term 3-6 month outlook) with a large US-based distributor of refrigerants and specialty gases, regarding PyroGenesis' SPARC system for the safe destruction of hazardous end-of-life refrigerants such as CFCs, HCFCs, and HFCs, with a potential contract amount of approximately \$2-3 million. The discussions continue and are expected to be concluded in the near term.

##### Plasma-Based Glass Valorization:

The Company is in final negotiations with an entity in Canada, for a plasma-based furnace for use in the melting and valorization of recycled glass, with an estimated contract value of ~\$2 million. This potential client is currently assembling funds from a consortium of international contributors, across government and private entities. The amount secured will determine a potential start and/or the scope of the project, with a current timeline for final decision estimated as near-term.

##### SPARC Refrigerant Waste Destruction System:

The Company is in negotiations with a Middle Eastern customer regarding PyroGenesis' SPARC system for the safe destruction of hazardous end-of-life refrigerants such as CFCs, HCFCs, and HFCs. The customer has access to a very large existing stockpile of these hazardous materials. Discussions continue as a possible co-venture, whereby PyroGenesis would receive revenue on a profit-sharing basis. PyroGenesis is currently doing due diligence on key elements related to the potential business model.

#### **Business Line Developments: Mid Term (3-6 months)**

##### Commodity Security & Optimization

##### Fumed Silica Reactor ("FSR") Project :

The Company previously noted in an earlier Outlook, that the Company's client HPQ Polvere (a wholly owned subsidiary of HPQ Silicon Inc.), had announced the successful completion of commissioning of the Fumed Silica Reactor (FSR) pilot plant that PyroGenesis has been designing, engineering, and constructing to convert quartz into fumed silica in a single and eco-friendly step. At that time, the pilot plant had commenced pre-commercial production tests of fumed silica.

Post-quarter end [news release dated February 27, 2025], PyroGenesis announced the successful production of the first batch of materials from a week-long operation of the pilot plant. The material produced was visually analyzed and confirmed to be consistent with material seen in the previous lab-scale size plant. Analysis was scheduled to be conducted at an independent laboratory, to verify structural and chemical properties with more quantitative data, and to validate product quality, all of which will be used for next step process optimization related to further tests. The results of those tests are expected in the near term, with commercial samples scheduled to be sent to key parties such as Evonik (under the terms of an existing letter of intent, or "LOI") and others under NDA in the period to follow. The objective of HPQ Polvere's LOI with Evonik is to outline the basis of collaboration during the FSR pilot scale phase with the goal to validate the ability of the FSR to produce low-cost, low-carbon material acceptable to Evonik's specifications. Evonik is a global specialty chemicals company that manufactures a wide range of high-performance materials including fumed silica. PyroGenesis previously announced in a press released dated May 30, 2024, its intent to exercise its right to convert its annual royalty rights into a 50% ownership stake of HPQ Polvere pursuant to a design and development agreement.

##### Plasma Torch System for Pyrolysis:

The Company is in discussions with a European entity for the sale of a plasma torch system and/or plasma reactor system, which the customer would utilize in their production of carbon black and hydrogen for use in batteries and graphite production.

##### Drosrite Systems:

The Company is in various stages of discussions with aluminum manufacturers to purchase Drosrite aluminum dross processing systems, including with two Middle Eastern aluminum companies for the purchase of multiple 5,000+ tonnes per year Drosrite furnaces. In addition, multiple European and American aluminum manufacturers are considering systems of various capacities.

##### Titanium Metal Powder:

The Company is in discussions several companies in both North America and Europe regarding the potential sale of multiple tonnes of titanium metal powder, across both "coarse" and "fine" powder cuts.

##### Green Cement Additive:

PozPyro is a cement additive material produced by PyroGenesis' as a collaboration with its client Progressive Planet. The proprietary plasma process converts widely available, high-grade crystalline silica into amorphous silica that can be used to enhance the strength of concrete as a replacement for fly ash which is in diminishing supply. Previous announcements [news release dated May 2, 2024] showed compressive strength tests for PozPyro of up to 99.5% above standards for similar material such as fly ash, while surpassing even the full-strength value of the Portland Cement control by up to 49.67%. A potential contract for a future pilot plant has an estimated value of \$15-20 million.

#### **Business Line Developments: Long Term (> 6 months)**

## Commodity Security & Optimization

### Silicon, Nano-Silicon, and Silica Production:

The Company is in discussions at quotation stage with several different potential customers who have expressed interest in PyroGenesis' advances methods for producing silicon, nano-silicon, and silica. The customers include:

- a major global automaker (whose interest lies primarily in nano-silicon for EV batteries) who is considering a lab-scale production system (approximate value of \$500,000) with a long-term potential pilot plant with an estimated contract value of \$10-15 million.
- a US battery manufacturer considering a lab-scale production system for anode material (approximate value of \$500,000)
- a raw material supplier to the construction materials industry who is considering a lab-scale production system (approximate value of \$150,000) with a long-term potential pilot plant with an estimated contract value of \$10-15 million.

### Silica Compound Production:

The Company is in early-stage discussions with an Asian commodity producer to use plasma to transform waste into a variety of in-demand silica compounds.

## Waste Remediation

### Plasma Torch for Hazardous Waste Destruction:

The Company is in early-stage discussions with an operator of a large North American hazardous waste facility for the sale of a plasma torch system. The facility destroys a variety of hazardous waste, including PFAS "forever chemicals", currently using an incineration process.

### Plasma Torches for Tunnel Boring:

As noted above, the Company is a party to a framework master agreement with EarthGrid, which included the payment to the Company of a non-refundable downpayment for \$667,000. Negotiations of a first substantial statement of work are ongoing and remain positive but depend in large part on the client's ability to secure funding in a timely manner. The client now anticipates proceeding with the purchase of a single plasma torch system in the near to mid term, followed by one or more larger orders in subsequent quarters, dependent upon the client's financing. While there is no guarantee this statement of work or additional ones will be completed, if successful the Company foresees the potential for a multi-phase, multi-year partnership with the client that may result in materially significant additional plasma torch orders over the next few years. EarthGrid continues to have challenges raising capital sufficient to make purchases under this agreement.

### Plasma Waste-to-Energy System / Resource Recovery System (PRRS):

The Company previously announced the signing of a 2-stage contract for a land-based plasma waste-to-energy system with a European consortium. The first stage consists of a conceptual and preliminary design phase for approximately \$2 million, which commenced in Q3 and was scheduled to last no more than one year. The design of the Plasma Waste-to-Energy System is based on the Company's Plasma Resource Recovery System (PRRS), a waste-to-energy technology that eliminates toxic compounds while transforming waste into reusable products such as syngas and chemicals such as methanol. This project is currently on hold as the client lost its first stage financing. The client is looking for alternate funds. Until such time as those funds have been secured and the project restarted, \$2 million has been removed from the Company's reported backlog.

### Plasma Torches for 3<sup>rd</sup> Party Waste-to-Energy Systems:

The Company has been in discussions over several years with a European entity, to act as a potential supplier of plasma torches for the entity's waste-to-energy initiative; the entity has at times, listed PyroGenesis as their torch supplier in various publications online. This entity has recently announced having entered into an agreement with a German multi-Billion-dollar leading technology company to accelerate green energy transition through waste-to-energy technology. The entity announced that it aims to establish 300 plants producing 1 million tons of hydrogen over the next several years.

**\*\* Please note that projects or potential projects previously announced that do not appear in the above summary updates should not be considered as at risk. Noteworthy developments can occur at any time based on project stages, and the information presented above reflects information on hand. Projects not mentioned may have simply not concluded or not passed milestones worthy of discussion.**

## **FURTHER INFORMATION**

Additional information relating to Company and its business, including the 2024 consolidated 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.sedarplus.ca](http://www.sedarplus.ca), or the Company's website at [www.pyrogenesis.com](http://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.

### **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<sup>2</sup> and 2,940 m<sup>2</sup> manufacturing facilities, PyroGenesis maintains its competitive advantage by remaining at the forefront of technology development and commercialization. The operations are ISO 9001:2015 and AS9100D certified, having been ISO certified since 1997. PyroGenesis' shares are publicly traded on the TSX in Canada (TSX: PYR), the OTCQX in the US (OTCQX: PYRGF), and the Frankfurt Stock Exchange in Germany (FRA: 8PY1). For more information, please visit: [www.pyrogenesis.com](http://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. 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](http://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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