

PyroGenesis Announces Q1 2018 Results: Revenues increased 21% to \$2.1MM; Gross Margin of 34%; Current Backlog \$5.2MM.

MONTREAL, QUEBEC--(GlobeNewswire – May 30, 2017) - PyroGenesis Canada Inc. (http://pyrogenesis.com) (TSX-V: PYR) (OTCQB: PYRNF), a high-tech company (the "Company" or "PyroGenesis") that designs, develops, manufactures and manufactures and commercializes advanced plasma processes and plasma torch products, is pleased to announce today its financial and operational results for the first quarter ended March 31, 2018.

Q1 2018 results reflect the following highlights:

- Revenues increased 21% to \$2.1MM in Q1 2018 from \$1.7MM posted in Q1 2017;
- Gross profit of 34.3% represents a decrease of 17.3% over the same period in Q1 2017,
- An amount of \$600K has been spent and capitalized for the plasma atomization system and related development,
- A Modified EBITDA loss of \$545K an increase of 207% over the same period in Q1 2017,
- Backlog of signed contracts as of the date of this writing is \$5.2MM,
- Cash on hand at quarter end: \$2.5MM (December 31st, 2017: \$623K).

OUTLOOK

2017 was a year in which all key indicators of operational performance posted significant gains and positioned the Company for profitability in the future. Building upon the successes of 2016, which saw the establishment of healthy gross margins, in excess of 40% that continued and improved throughout 2017, as the Company put in place the infrastructure and personnel to ensure that these margins, not only continue into the foreseeable future, but improve once powder production is in full commercialization.

The following is a non-exhaustive review of PyroGenesis' main commercial activities:

A) Powder Production:

2017 became the year in which the Company went from relative obscurity within the additive manufacturing industry, to being nominated "Materials Company of the Year" at the 3D Printing Industry Awards 2018.

During this period, not only, did the Company successfully assemble and commission its first metal powder production system, but also (i) successfully delivered orders for Titanium and Inconel

powders, all while still in the ramp up phase, (ii) generated new IP which provides for more control over particle size distribution, with little to no waste, while increasing powder production even further, and (iii) entered into several NDA's with significant players in the industry (end users, printer manufacturers, and distributors) all with a view of providing sample orders, repeat orders, long term orders, contract R&D, and/or strategic partnerships for long term powder supply contracts, some with a view to a possible acquisition. Given the level of activity, and the prospect of significant orders in the near term, management decided to order the long lead items for two powder production systems, both of which should be fully operational during the summer 2018. These new powder production units will incorporate some of the cutting-edge IP that has recently been developed and/or is in development. We expect these units will cost significantly less to manufacture, generate higher production rates, and provide greater control over particle size distributions.

Of note, although the Company's strategic plan has always been based on its existing IP, know-how, and system (the economics of which remain valid to this day), management has decided to leverage off of its significant advantage in plasma technology and dedicate certain limited assets to increasing its IP base with the goal of further significantly reducing capital and operating costs of the powder production system while at the same time improving production rates even further. PyroGenesis is confident that these goals once achieved will significantly impact our build out strategy for the better.

The Company's recent press release dated May 17th, 2018, which announced a contract for a minimum order of 10,000 kg over two years from Asia, came sooner than expected and, as such, highlighted the need to have the optimum industrialization plan in place to be executed on the back of a significant take-or-pay contract. The Company has already taken steps to have an industrialization plan at the ready for multiple units (1, 3, and 5 units), and is now looking at ways to accelerate the technological advances mentioned above.

B) DROSRITETM

As the Company positioned itself, during 2017, to become a significant powder producer to the Additive Manufacturing Industry, it also successfully positioned its DROSRITETM Furnace System to become a fully commercial product line in and of its own right.

2017 saw the commercial acceptance of PyroGenesis' patented DROSRITE™ System with, not only an acceptance of its first commercial sale, but a subsequent re-order by the same client at a higher price.

During this time, successful demonstrations of the DROSRITETM System in the Middle East and India has resulted in significant interest from those regions. Of note, the Company's demonstration unit is fully booked in India, to September, with paid-for-demonstrations. This flurry of activity and interest for the DROSRITETM System resulted in the Company hiring a full-time business development manager to market the DROSRITETM System, and who's role is exclusively to secure DROSRITETM system sales. PyroGenesis is aggressively targeting both primary aluminum smelters in Asia and the

Middle East where the market is estimated to be in excess of 1 million tonnes of dross1, as well as tertiary casting producers worldwide. The Company has recently added zinc recovery from dross as a target market. These markets alone represent a potential market for DROSRITETM systems numbering in the hundreds of units.

Due to this high demand for on-site paid-for demonstrations, the Company is in the process of constructing a second DROSRITETM demonstration system which is expected to be available for demonstrations in Q3 2018. There is a high probability that PyroGenesis will be profitable in 2018 from DROSRITETM system sales when combined with existing backlog.

C) US Military:

Originally it was thought that just one new US Aircraft Carrier would be ordered in 2018, with an estimated value of approximately \$6MM, but now it seems that the interest is for two, for an estimated value of between \$10-12 MM.

The chemical warfare destruction unit, that PyroGenesis developed for a consortium involving various groups within the US military, and was in the process of being tested, continues to have its schedule delayed accommodating other unrelated testing needs by the group. This testing timeline is out of the Company's control.

Revenues from military contracts in 2017 were over \$4,300,000, mainly related to providing technical support, training services and sale of spare parts. Over the past three years, revenues from military contracts have typically represented more than \$2,000,000 per year of PyroGenesis' revenues. As the PAWDS technology becomes fully operational on US Navy ships, management expects the level of recurring revenues from the sale of parts and services to increase over the next 2 to 5 years.

D) HPQ:

On August 2, 2016, PyroGenesis announced that it had signed contracts totaling CAN\$8,260,000 with HPQ Silicon Resources Inc., formally Uragold Bay Resources Inc. ("HPQ") for the sale of IP and to provide a pilot system to produce silicon metal directly from quartz. Of particular note, if successful, PyroGenesis benefits from a 10% royalty on all revenues derived from the use of this system by HPQ, subject to annual minimums.

E) Torch Sales:

Consistent with the Company's overall strategy to (i) remain focused on reducing PyroGenesis' dependency on long-cycle projects by developing a strategic portfolio of volume driven, high margin/low risk products that resolve specific problems within niche markets and doing so by introducing these plasma-based technologies to industries that have yet to consider such solutions,

¹ http://www.world-aluminium.org/statistics/primary-aluminium-production/

and (ii) to actively target recurring revenue opportunities that will generate a growing, and profitable, regular cash flow to the Company, the Company continues to market its torch capabilities and expects this to start becoming a revenue contributor, with its recurring revenue stream, in the very near future.

PyroGenesis has one of the largest concentrations of plasma expertise in the world, with over 250 years of accumulated technical experience and supporting patents, combined with unique relationships with major Universities performing cutting edge plasma research and development, positions the Company well to execute its strategies.

Management's focus will continue to be to generate an improved mix of short and long-term projects that will, in turn, facilitate operational and financial planning. Repeat orders for the same, or similar, products will further result in the standardization of manufacturing processes which will lead to improved gross margins.

All indications are that 2018 should be a profitable year for the Company given that business lines, other than non-additive manufacturing, continue to contribute significantly to PyroGenesis' revenues. Management expects that the Corporation's non-additive manufacturing business lines will generate enough revenues, on their own in 2018, to make PyroGenesis profitable overall.

Financial Summary

Revenues

PyroGenesis recorded revenue of \$2,060,602 in the first quarter of 2018 ("Q1, 2018"), representing an increase of 21% compared with \$1,696,138 recorded in the first quarter of 2017 ("Q1, 2017").

Revenues recorded in the first quarter of 2018 were generated primarily from:

- (i) the development of a vacuum arc reducing process to convert Silica into high purity Silicon metal,
- (ii) the manufacture and sale of a DROSRITETM System,
- (iii) support services related to PAWDS-Marine systems supplied to the US Navy,

Cost of Sales and Services and Gross Margins

Cost of sales and services before amortization of intangible assets was \$1,354,696 in Q1, 2018, representing an increase of 65% compared with \$820,264 in Q1, 2017.

In Q1, 2018 cost of direct materials increased to \$699,215 (Q1, 2017: \$315,721), while employee compensation, subcontracting and manufacturing overhead and other increased to, \$542,541 (Q1, 2017 - \$483,051), \$37,478 (Q1, 2017 - \$23,391), \$141,394 (Q1, 2017 - \$127,312), respectively.

The type of contracts being executed and the nature of the project activity during any given quarter has a significant impact on both the overall level of cost of sales and services reported in a period, as well as the composition of the cost of sales and services, as the mix between labour, materials and

subcontracts may be significantly different.

Investment tax credits recorded against cost of sales are primarily related to client funded projects that qualify for tax credits from the provincial government of Quebec. Qualifying tax credits decreased to \$88,397 in Q1, 2018, compared with \$132,246 in Q1, 2017. This represents a decrease of 33%. The Company continues to make investments in research and development projects involving strategic partners and government bodies.

The gross margin for Q1, 2018, was \$705,906, or 34.3% of revenue. This compares with a gross margin of \$875,874 (51.6% of revenue) for Q1, 2017.

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 Q1,2018 excluding the costs associated with share-based compensation (a non-cash item in which options vest over a four-year period), were \$1,228,406, representing an increase of 22% compared with \$1,010,765 reported for Q1, 2017.

The increase in SG&A expenses in Q1, 2018 over the same period in 2017 is attributable to the net effect of:

- an increase of 18% in employee compensation,
- a decrease of 9% for professional fees, primarily due to decrease in investor relations,
- an increase of 41% in office and general expenses, due to an increase in rent, municipal taxes and computer software expenses,
- travel costs increased by 194%, due to an increase in travel abroad,
- depreciation on property and equipment increased by 18%, the asset under development in Q1, 2018 totaling \$2,356,374 will begin to be depreciated when the asset is available or ready for use.
- government grants increased by 100% due to higher level of activities supported by such grants and,
- other expenses increased by 35%, primarily due to an increase in insurance expense and computer service subcontract expense.

Separately, share based payments decreased by 6% in Q1, 2018 over the same period in 2017 as a result of the vesting structure of the stock option plan including the stock options granted on November 3, 2017 and February 9, 2018.

Net Comprehensive Loss

The net comprehensive loss from operations for Q1, 2018 of \$1,028,795 compared to \$298,610, in Q1, 2017, representing an increase in loss of \$730,185 (245%) primarily attributable to the factors described above, which have been summarized as follows:

- (i) an increase in product and service related revenue of \$364,464 arising in Q1, 2018,
- (ii) an increase in cost of sales and services totaling \$534,432 in Q1, 2018,
- (iii) an increase in SG&A expenses of \$209,453 arising in Q1, 2017 as explained above,
- (iv) a decrease in R&D expenses of \$15,566 primarily due to the fact that many of the Company's engineering and R&D resources were concentrated on activities within projects under construction for clients, with such costs being recorded within cost of sales.
- (v) an increase in net finance costs of \$366,330.

EBITDA

The EBITDA loss in Q1, 2018 was \$894,244 compared with an EBITDA loss of \$115,565 for Q1, 2017, representing an increase of 674%. The increase in the EBITDA loss in Q1, 2018 compared with Q1, 2017 is primarily attributable to the lower gross margin in Q1, 2018.

Adjusted EBITDA loss in Q1, 2018 was \$764,281 compared with an Adjusted EBITDA of \$22,586 for Q1, 2017. The increase of \$786,867 in the Adjusted EBITDA loss in Q1, 2018 is mainly attributable to the increased comprehensive loss of \$730,185, an increase in depreciation on property and equipment of \$4,519, a decrease of \$53,013 in finance charges and a decrease of \$8,188 in share-based payments.

The Modified EBITDA loss in Q1, 2018 was \$545,281 compared with a Modified EBITDA loss of \$177,757 for Q1 2017, representing an increase of 207%. The increase in the Modified EBITDA loss in Q1 2018 is attributable to the increase as mentioned above in the Adjusted EBITDA and a decrease in change of fair value of investments of \$419,343.

Liquidity

The Company has incurred, in the last several years, operating losses and negative cash flows from operations, resulting in an accumulated deficit of \$44,229,503 as at March 31, 2018. Furthermore, as at March 31, 2018, the Company's current liabilities and expected level of expenses for the next twelve months exceed cash on hand of \$2,584,988. The Company has relied upon external financings to fund its operations in the past, primarily through the issuance of equity, debt, and convertible debentures, as well as from investment tax credits.

As at March 31, 2018, the Company had cash on hand of \$2,584,988 and negative working capital of \$5,287,533 compared with a cash balance of \$622,846 and negative working capital of \$9,403,370 as at December 31, 2017.

Revenue generated from active projects does not yet produce sufficient positive cash flow to fund operations. However, based on current backlog of \$5.2MM at May 30, 2018 (more than 70% of 2017 revenues), together with the pipeline of prospective new projects, cash flow from operations are expected to become positive in the very near future.

Separately, at a recent board meeting dated May 29th, 2018, the Board of Directors of the Company passed a resolution, effectively accelerating the vesting period under the Company's option agreements in the event of a change in control of the Company.

About PyroGenesis Canada Inc.

PyroGenesis Canada Inc., a TSX Venture 50® high-tech company, is the world leader in the design, development, manufacture and commercialization of advanced plasma processes. We provide engineering and manufacturing expertise, cutting-edge contract research, as well as turnkey process equipment packages to the defense, metallurgical, mining, advanced materials (including 3D printing), oil & gas, and environmental industries. With a team of experienced engineers, scientists and technicians working out of our Montreal office and our 3,800 m² manufacturing facility, PyroGenesis maintains its competitive advantage by remaining at the forefront of technology development and commercialization. Our core competencies allow PyroGenesis to lead the way in providing innovative plasma torches, plasma waste processes, high-temperature metallurgical processes, and engineering services to the global marketplace. Our operations are ISO 9001:2008 certified, and have been since 1997. PyroGenesis is a publicly-traded Canadian Corporation on the TSX Venture Exchange (Ticker Symbol: PYR) and on the OTCQB Marketplace. For more information, please visit www.pyrogenesis.com

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