



**PyroGenesis Announces Q2-2017 Results:
Cash Flow Positive on EBITDA (Modified) Basis;
Revenues Increase by 165%;
Gross Margins Increase to 48%; Current Backlog \$7.64MM**

MONTREAL, QUEBEC--(Marketwired – August 28, 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 commercializes plasma waste-to-energy systems and plasma torch products, is pleased to announce today its financial and operational results for the second quarter ended June 30, 2017.

Q2-2017 results reflected the following highlights:

- Revenues increased 165% to \$2.17MM in Q2-2017, over \$0.82MM posted in Q2-2016;
- Gross profit before amortization of intangible assets increased to 48% in Q2-2017, from -9% over the same period in 2016. (Gross profit after amortization of intangible assets increased to 48% in Q2-2017 from -33.6% over the same period in 2016);
- Most importantly, Q2-2017 was profitable on an EBITDA (Mod.) basis. Q2-2017 posted an EBITDA (Mod.) of \$12.2K versus a Q2-2016 EBITA (Mod.) loss of \$876K;
- Over \$13.5MM in contracts were signed, and work begun on, since June 30, 2016 which, taken in context of historic revenues (2016: \$5.2MM; 2015: \$6.2MM; 2014: \$5.8MM) is quite significant. Backlog of signed contracts as of the date of this writing is \$7.64MM.

At yearend 2016, we described the preceding twelve months as being a pivotal year for PyroGenesis as the Company shifted its focus away from being a fabricator of plasma-based systems that produced unique titanium powders, in favour of becoming a producer of metal powders for the Additive Manufacturing Industry (the “Industry”). Given their unique properties (pure, small, spherical, and uniform; which make them flow like water), these powders are greatly sought after in the Industry, particularly 3D printing. Given this strategic shift, together with the backlog of signed contracts from our non-additive manufacturing business (“Core/Traditional Lines of Business”) of over \$13MM since June 30, 2016, we projected that 2017 was shaping up to be a break out year for PyroGenesis, and Q1 and Q2-2017 have not been disappointing.

What is key to note is that these results reflect revenues from what we call our Core/Traditional Lines of Business (little to no revenues from powder sales at all), however expenses reflect certain costs of building our first powder production system, and improvements made on it,

which came on stream in Q1-2017 and is, as previously announced, currently ramping up to full production.

We are more convinced than ever before that 2017 is the breakout year we have been positioning the Company for, for a number of reasons:

- The healthy gross margins established in 2016 (before consideration of the 2016 write-offs), have improved, and are expected to continue to improve once powder production is in full swing.
- Established backlog of signed contracts, the majority of which are expected to be completed in 2017.
- Our Core/Traditional Lines of Business are poised to contribute significantly to the bottom line and be both profitable and significant in their own right.

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

A) Powder Production: The Company has met every major milestone previously announced on the road to making metal powders for the Industry; particularly, as was announced in Q1-2017, the completion of the assembly of its first powder production system; the first powder run exceeding expectations; and that ramp-up was under way and expected to take place linearly over the ensuing months.

Also, as previously announced in recent press releases, interest has far exceeded managements' expectations as several initial contracts were received for sample powders during this ramp-up phase; orders of which PyroGenesis has already delivered the first order and expects to be delivering the balance over the next few weeks. Furthermore, the Company announced having signed several agreements with significant, and potential, players in the Industry, whereby the Company is in discussions regarding the possibility of concluding business relationships or transactions geared to the production of its powders.

On that note, and given that the first sample delivery occurred towards the end of June, just before the traditional summer break in Europe and that subsequent orders will be delivered shortly, we expect discussions, with respect to these orders, to begin in earnest over the next several months.

Additionally, as assembly of the first powder production system was completed a short five (5) months ago, and this, during the ramp-up phase, the Company not only successfully delivered a first sample order for Titanium powder, but also adjusted the system to produce, and deliver, Inconel powders as well. Furthermore, during this period, the Company announced one of the most significant developments to date, possibly even more significant than the Company's original invention of Plasma Atomization, which is that it has developed a new plasma-based process that provides significant control over its particle size distributions with little to no waste and which, in turn, has enabled the production of MIM cut powders in quantity.

The current system is the first of many PyroGenesis expects to make to address an increasing need for metal powders in the Industry¹.

B) DROSRITE™: The DROSRITE™ Furnace System was proven out at a North American customer's Mexican facility during the first half of 2016. Soon thereafter, a successful demonstration of the DROSRITE™ System took place in the Middle East, following which an unsolicited request to exclusively market the process in the region was received and is currently being discussed. Management believes that the supply and installation of the first (1st) commercial sale in North America would enable the Company to leverage this success to generate a continued flow of orders for additional DROSRITE™ Systems. The Middle Eastern client is expected to visit the Company's Montreal facility in Q3-2017. This recent flurry of activity and interest for the DROSRITE™ System bodes well for future contracts. We now expect to have at least one (1) order placed in Q4-2017 with another 2-3 expected in Q1-2018. The market potential for PyroGenesis' DROSRITE™ System, from Aluminium dross alone exceeds \$400MM.

C) HPQ: On August 2, 2016, PyroGenesis announced that it had signed contracts totalling CAN\$8,260,000 with HPQ Silicon Resources Inc., formally Uragold Bay Resources Inc. ("HPQ") for the sale of IP and to provide a 200 metric tonne (MT) per year PUREVAP™ pilot system to produce silicon metal directly from quartz. This system will for the most part be constructed in 2017, with advancement of the contract accelerating in the second half of the year. According to percent completion accounting standards for revenue recognition, the majority of these revenues will be recognized in the 2nd half of 2017. 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.

D) Chemical Warfare Destruction System: The Company recently announced that PyroGenesis has, in coordination with the US-based Southwest Research Institute (SwRI), successfully completed long-duration performance tests using the Company's tactical Plasma Arc Chemical Warfare Agents Destruction System ("PACWADS") using surrogate chemical warfare agent material. These tests supported the Defense Advanced Research Projects Agency (DARPA) Agnostic Compact Demilitarization of Chemical Agents (ACDC) program and far exceeded minimum requirements with over 99.9999% destruction efficiency. The PACWADS has, as of this writing, been delivered to the testing site and is currently going through final testing using real chemical warfare agents. These tests should be completed by the end of Q3-2017 (this timeline however is out of the Company's control). Again, this bodes well for 2017 as we would expect additional contracts resulting from a successful completion of the final testing. However, no indication has been given as to the size, if any, such procurement would entail.

¹ Wohlers Report 2016 (ISBN 978-0-9913332-2-6)

E) Other Contracts: There are other contracts being discussed (i.e. a third order for a PAWDS for a New US Aircraft Carrier which is expected to be ordered sometime towards the end of 2017/beginning of 2018 with an estimated value of approximately \$6MM); a sale of the Company's SPARC system, amongst others) which further give us confidence that 2017 will be the break out year.

Given the above, we expect a strong performance in the coming year, and based on existing contracts, the Company expects to be profitable in 2017 (excluding any contribution from powder sales) as noted above. Our projections for 2017 are only heightened by the reception we have received so far, particularly how well received our entrance as a powder producer in the Additive Manufacturing community has been.

Management remains 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.

Management is also actively targeting recurring revenue opportunities that will generate a growing, and profitable, regular cash flow to the Company.

PyroGenesis has one of the largest concentrations of plasma expertise in the world, with over 250 years of accumulated technical experience and 59 patents, combined with unique relationships with major Universities performing cutting edge plasma research and development, which positions the Company well to execute upon its various strategies.

Financial Summary

Revenues

The Company posted revenues of \$2,173,397 in the second quarter of 2017 ("Q2, 2017"), representing an increase of 165% compared with \$818,990 recorded in the second quarter of 2016 ("Q2, 2016"). Revenue recorded in Q2 2017 was generated primarily from (i) the development of a vacuum arc reducing process to convert Silica into high purity Silicon metal, (ii) manufacture and further field testing of Tactical PACWADS, the first mobile plasma system for destruction of chemical warfare agents under contract with an international military consortium, (iii) the demonstration of the viability of PyroGenesis' existing plasma chemical warfare agent destruction platform with locally available materials, for the complete eradication of chemical warfare agents without creating hazardous by-products, and (iv) 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 \$1,130,295 in Q2, 2017, representing an increase of 52% compared with \$744,926 in Q2, 2016. Total costs of sales and

services, was \$1,130,295 representing an increase of 3% compared with \$1,094,196 in Q2, 2016.

Various factors, including, but not limited to, the mix of long and short-term manufacturing projects, project complexity and scale, and project R&D content, may significantly impact both the composition and overall level of cost of sales and services reported in a given period, as the mix of labor, materials and subcontracts may be significantly different.

The costs incurred in Q2, 2017 are primarily attributable to the work completed under PyroGenesis' project to develop a vacuum arc reducing process to convert Silica into high purity Silicon metal, work completed on the tactical mobile plasma system for destruction of chemical warfare agents under contract with an international military consortium, and support services related to PAWDS Marine systems supplied to the US Navy.

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 increased to \$136,994 in Q2, 2017, compared with \$26,221 in Q2, 2016. This represents an increase of 422% quarter-over-quarter. The Company continues to make investments in research and development projects incorporating the involvement of strategic partners and government bodies.

In Q2, 2017, the gross margin before amortization of intangible assets was \$1,043,102, which represents 48% of revenue. This compares with a gross margin before amortization of intangible assets of \$74,063 (9% of revenue) for Q2, 2016.

The amortization of intangible assets of Nil in Q2, 2017 (\$349,269 in Q2, 2016) relates to the licenses and know-how purchased in 2011 from a company under common control. This expense is a non-cash item and the underlying asset was fully amortized by December 31, 2016.

Selling, General and Administrative Expenses

Selling, general and administrative expenses ("SG&A") for Q2, 2017 were \$1,133,456, representing an increase of 13% compared with \$999,500 reported for Q2, 2016. Excluding the costs associated with share-based compensation (a non-cash item in which options vest over a four-year period), SG&A expenses increased by 4% in Q2, 2017 compared with Q2, 2016.

The increase in SG&A expenses is attributable to the net effect of (i) an increase of 7% in employee compensation, (ii) a decrease of 40% for professional fees, primarily due to a decrease in accounting fees and deferred patent expenses, (iii) an increase of 37% in office and general expenses, due to a decrease in computers and internet expenses, (iv) travel costs increased by 74%, due to an increase in travel abroad, (v) depreciation on property and equipment decreased by 9%, asset under development in Q2 2017 will begin to be depreciated when the asset is available or ready for use, (vi) government grants decreased by 41% due to lower level of activities supported by such grants, (vii) other expenses increased by 41%, primarily due to the higher cost of freight and shipping, and (viii) an increase in share base

payments of 278% primarily due to the vesting structure of the stock option plan and the stock options offered on September 25, 2016.

Total Comprehensive Loss

The comprehensive loss for Q2, 2017 was \$608,584 compared to a loss of \$1,345,000 in Q2, 2016, representing a decrease of 55% quarter-over-quarter.

The decrease of \$736,416 in the comprehensive loss in Q2, 2017 is primarily attributable to: (i) an increase in product and service related revenue of \$1,354,407, (ii) an increase in cost of sales and services totaling \$385,370 as explained above, (iii) an increase in SG&A expenses of \$133,956 as explained above, (iv) an increase in R&D expenses of \$43,431 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 \$404,505 due to a decrease in the fair value of investments of \$406,078.

EBITDA

The EBITDA loss in Q2, 2017 was \$419,325 compared with an EBITDA loss of \$801,894 for Q2, 2016, representing a decrease of 48%.

EBITDA (Mod.) gain in Q2, 2017 was \$12,197 compared with an EBITDA (Mod.) loss of \$876,029 for Q2, 2016. The increase of \$888,226 in the EBITDA (Mod.) in Q2, 2017 is mainly attributable to the decreased comprehensive loss of \$736,416, a decrease in depreciation on property and equipment of \$3,005, a decrease of \$349,269 in amortization of intangible assets, a decrease in finance charges of \$1,572, a decrease in the fair value of investments of \$406,078 and an increase in share-based payments of \$99,579.

Liquidity

As at June 30, 2017, the Company had cash on hand of \$258,138 and negative working capital of \$6,486,226 compared with a cash balance of \$385,257 and negative working capital of \$2,079,353 as at December 31, 2016.

About PyroGenesis Canada Inc.

PyroGenesis Canada Inc. is the world leader in the design, development, manufacture and commercialization of advanced plasma processes. PyroGenesis provides engineering and manufacturing expertise, cutting-edge contract research, as well as turnkey process equipment packages to the defense, metallurgical, mining, additive manufacturing (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. Its 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. Its operations are ISO 9001:2008 certified, and have been ISO certified since 1997. PyroGenesis is a publicly-traded Canadian company on the TSX Venture Exchange (Ticker Symbol: PYR) and on the OTCQB Marketplace (Ticker Symbol: PYRNF). For more information, please visit www.pyrogenesis.com

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