



PyroGenesis Announces Q3, 2016 Results:

**Revenues +40%; Gross Margin 64%; EBITDA (Adj.) +138%;
Contracts signed: + \$11.5MM**

MONTREAL, QUEBEC--(Marketwired – November 22, 2016) - PyroGenesis Canada Inc. (<http://pyrogenesis.com>) (TSX-V: PYR) (OTCQB: PYRNF), a clean-tech company (the “Company” or “PyroGenesis”) that designs, develops, manufactures and commercializes plasma waste-to-energy systems and plasma torch products, announced today its financial and operational results for the third quarter of fiscal year 2016.

Third Quarter Highlights

In Q3 of Fiscal 2016,

- Revenues increased 40%; over the same period in 2015;
- Gross margins before amortization of intangible assets increased to 64.2%; over the same period in 2015;
- Adjusted EBITDA increased 138% to \$253,574 over the same period in 2015.

Financial Summary

The third quarter has been positively impacted by the increase in business as over \$11.5MM in contracts have been signed by the Company since June 30, 2016.

Gross margins before and after amortization of intangible assets, for both the third quarter and nine months have shown significant improvement over comparable periods in 2015. Cash flow, as measured by EBITDA (adjusted), is positive for the quarter ending September 30, 2016.

Operations for the periods under review reflect a significant improvement over the first half of the year which saw the Company transition from selling systems that make powders for Additive Manufacturing to actually making and selling these same powders.

The first six months of 2016, and as such the nine months under review here, were negatively impacted by this decision as work stopped on a previously announced contract to deliver powder producing systems for approximately \$10MM, and as such significant pressure was placed on revenues and margins during this period. The strategic decision to produce powders for Additive Manufacturing (3D printing) was made once it was demonstrated to the board that the revenues and profits from selling powders from one system alone, far exceeded, on an annual basis, the onetime profit from selling 10 systems, and as such the Company announced

on October 26, 2015, the strategy to move into this potentially lucrative market of producing powders for the Additive Manufacturing industry (3D printing).

Revenues

PyroGenesis recorded revenue of \$1,902,748 in the third quarter of 2016 ("Q3, 2016"), representing an increase of 40% compared with \$1,363,077 recorded in the third quarter of 2015 ("Q3, 2015"). Revenues for the nine first months of fiscal 2016 were \$3,738,590, a decrease of 7% over revenues of \$4,013,221 reported during the same period in 2015.

Revenues recorded in Q3, 2016 and the nine months of fiscal 2016 were generated primarily from (i) the intellectual property and development of a vacuum arc reducing process to convert Silica into high purity Silicon metal; (ii) the 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; (iv) support services related to PAWDS-Marine systems supplied to the US Navy, and (v) Drosrite™ sales.

Cost of Sales and Services and Gross Margins

Cost of sales and services before amortization of intangible assets of \$682,105 in Q3, 2016, represented a decrease of 31% as compared to \$989,362 in Q3, 2015.

In Q3, 2016 the gross margin before amortization of intangible assets was \$1,220,643, or 64.2% of revenue. This compares with a gross margin before amortization of intangible assets of \$373,715 (27.4% of revenue) for Q3, 2015.

The amortization of intangible assets of \$349,268 in Q3, 2016 and Q3, 2015 relates to the licenses and know-how purchased in 2011 from a company under common control. Of note, this expense is a non-cash item and the underlying asset will be fully amortized by December 31, 2016.

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 slightly to \$ 16,354 in Q3, 2016, compared with \$7,488 in Q3, 2015. This represents an increase of 17% year-over-year. The Company continues to make investments in research and development projects involving strategic partners and government bodies.

Selling, General and Administrative Expenses

Selling, general and administrative expenses ("SG&A") incorporate costs associated with corporate administration, business development, project proposals, operations administration, investor relations and employee training.

SG&A expenses for Q3, 2016 excluding the costs associated with share-based compensation (a non-cash item in which options vest over a four year period), were \$967,811, representing a decrease of 8% compared with \$1,048,489 reported for Q3, 2015.

The decrease in SG&A expenses in Q3, 2016 over the same period in 2015 is attributable to the net effect of:

- an increase of 2% in employee compensation, a decrease of 23% in office and general expenses and a decrease of 4% for professional fees,
- travel costs decreased by 69%,
- depreciation on property and equipment decreased by 24% due to a reduced level of investment in machinery and equipment since 2010, when major acquisitions were made,
- government grants decreased by 100% due to lower level of activities supported by such grants and
- other expenses decreased by 15%, primarily due to the reduced cost of freight and shipping.

Separately, share based payments increased significantly in Q3, 2016 over the same period in 2015 as a result of the vesting structure of the stock option plan and the re-evaluation of options as at September 30, 2016 including the stock options offered on September 25, 2016. On a year-to-date basis, share-based payments expense (a non-cash item) increased by 488%.

Net Loss and Comprehensive loss

The net loss and comprehensive loss for Q3, 2016 was \$717,041 compared to a loss of \$1,267,748, in Q3, 2015, representing a decrease in loss of 43% year-over-year.

EBITDA

EBITDA (earnings from operations before interest, taxes, depreciation and amortization) loss in Q3, 2016 was \$176,553 compared with an EBITDA loss of \$739,370 for the same period last year, representing a decrease of 76%. The decrease of \$562,817 in the EBITDA loss in Q3, 2016 compared with Q3, 2015 is primarily attributable to the decrease in net loss and comprehensive loss of \$550,707, less increased finance costs of \$22,002.

The Adjusted EBITDA in Q3, 2016 was a positive \$253,274 compared with an Adjusted EBITDA loss of \$666,314 for the same period last year, representing a significant improvement of 138%. The increase of \$967,323 in the Adjusted EBITDA in 2016 is attributable to the decrease in EBITDA loss of \$691,388 for the period, less increased cost of other non-cash items, specifically share-based payments of \$275,935.

Liquidity

On July 26, 2016, the Company announced the completion of a share for debt transaction whereby the Company settled outstanding debt by the issuance of 2,060,126 common shares

of the Company from treasury at a deemed price of \$0.20 per common share in the aggregate amount of \$412,025. The Company also completed at this time a private placement offering whereby the Company issued and sold an aggregate amount of 6,131,579 units of the Company at a price of \$0.19 per unit for gross proceeds of \$1,165,000 (see subsequent events section for further details).

As at September 30, 2016, the Company had cash on hand of \$206,153 and negative working capital of \$412,142 compared with a cash balance of \$767,368 and positive working capital of \$166,095 as at December 31, 2015.

Subsequent Events

Subsequent to Q3, 2016, the total number of options issued by the Company decreased by 2,000,000 as a director refused 2,000,000 options granted to him by the Company, with an additional 180,000 options granted to certain employees, for a total of 9,911,000 outstanding options issued.

Outlook

The third quarter has been positively impacted by the increase in business as over \$11.5MM in contracts have been signed by the Company since June 30, 2016. Gross margins before and after amortization of intangible assets, for both the third quarter and nine months, have shown significant improvement over comparable periods in 2015. Cash flow, as measured by EBITDA (adjusted), is positive for the quarter ending September 30, 2016.

2017 now looks like a breakout year for many of the Company's product lines, some of which is already taking place:

- The Company is on schedule to produce powders for Additive Manufacturing (3D printing) this Q1 2017. Until this decision was made, PyroGenesis had been a fabricator of plasma-based systems that produced unique titanium powders which are greatly sought after by the Additive Manufacturing industry. These powders are unique in that they are small, spherical, and uniform, allowing them to flow like water; a characteristic that is extremely important in industries such as 3D printing. According to Wohler's report (2015) the demand created by the Additive Manufacturing (3D printing) Industry for metal powders such as those produced by PyroGenesis, will be in excess of \$3.4 Billion by 2020.
- The DROSRITE™ Furnace System was proven out at an American customer's Mexican facility during the first half of 2016. Soon thereafter, a successful demonstration of the DROSRITE™ System in the Middle East took place, following which an unsolicited request to exclusively market the process in the region was received and is currently being discussed. Management's belief that the supply and installation of the first commercial sale in North America would enable the Company to leverage this success to generate a continued flow of orders for additional DROSRITE™ systems is

being borne out. This recent flurry of activity and interest for the DROSRITE™ system bodes well for 2017 where we now expect to have at least 3 orders placed and delivered. The market potential for PyroGenesis' DROSRITE™ system, from Aluminium dross alone, exceeds \$400MM

- On August 2, 2016 PyroGenesis announced that it had signed a contract for CDN\$8,260,000 with HPQ Silicon Resources Inc., formally Uragold Bay Resources Inc. to provide a 200 metric tonne (MT) per year PUREVAP™ pilot system to produce silicon metal directly from quartz (the "Contract"). This system will for the most part be constructed in 2017. If successful, PyroGenesis benefits from a 10% royalty on all revenues derived from the use of this system.
- Last but not least is the testing of PyroGenesis' chemical warfare destruction unit by its customer for a cost to the customer of over \$100MM (of note, PyroGenesis is not contracted for any of this \$100MM). This will happen in 2017 and, upon successful testing, a procurement order would be expected. No indication has been given as to the size, if any, such procurement would entail.

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 solutions to industries that have yet had the opportunity to consider such solutions.

At the same time, management is actively targeting recurring revenue opportunities that will generate a growing, and profitable, regular cash flow to the Company.

Examples of recurring revenue streams being pursued by PyroGenesis include, but are not limited to:

- a) the supply of consumables and spare parts necessary to support the operation of systems once delivered and operational at PyroGenesis' clients;
- b) royalties generated from the sale of metals refined from ore through utilisation of PyroGenesis' technologies;
- c) royalties generated from the recovery of valuable metals from waste streams;
- d) the creation of joint ventures, and/or other forms of partnership, that would utilise PyroGenesis technology to generate substantial cost savings.

The fact that 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, positions the company well to execute this strategy.

In conclusion, 2017 looks like it will be a break out year for more than one of the Company's product lines. The Company's focus will continue to be to generate an improved mix of short

and longer term projects that will, in turn, facilitate operational and financial planning. Repeat orders for the same, or similar, products will further result in the standardisation of certain manufacturing processes that are expected to yield higher gross margins.

About PyroGenesis Canada Inc.

PyroGenesis Canada Inc. 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 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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