PYROGENESIS PROVIDES GENERAL BUSINESS UPDATE & BACKGOUND

MONTREAL, October 26, 2015 /CNW Telbec/ - **PyroGenesis Canada Inc.** (http://pyrogenesis.com) (TSX-V: PYR) (OTCQB: PYRNF), a TSX Venture 50® clean-tech company (the "Company" or "PyroGenesis") that designs, develops, manufactures and commercializes plasma waste-to-energy systems and plasma torch products (the "Systems"), provides herein a general Company update & background.

Mr. P. Peter Pascali, President and CEO of PyroGenesis, provides this Company update and background in the following Q&A format:

PyroGenesis Systems are for the most part plasma processes, correct? What is plasma?

Yes, for the most part PyroGenesis' systems are plasma-based processes, and plasma is, at the risk of sounding too StarTrekish, the fourth state of matter. You may recall your science teacher describing 3 states of matter: solids, liquids, and gases? The example given of a solid was an ice cube, the example for liquid was water, and that for a gas was steam...if you heat up a solid it becomes a liquid...and if you heat up a liquid it becomes a gas. Well, if you heat up a gas it becomes plasma. Plasma has been around since the beginning of time; the sun is a plasma ball, lightening is a plasma...we didn't invent plasma, it's been around as a cutting tool since the 1950s, but PyroGenesis was the one that discovered how to harness the unique properties of plasma in a commercial setting.

PyroGenesis has one of the largest, if not the largest, concentration of plasma expertise in the world, and we managed to harness plasma's transformative properties to develop unique, patent protected, commercial applications. By transformative, we mean the ability to change something into something else; for example, waste-to-energy as we do within our environmental product lines, or wire to powders as we do for the 3D printing industry.

Can you briefly tell us about PyroGenesis and how it has come to be what it is today?

Certainly. To make a long story (20+ year history) short, suffice is to say that PyroGenesis first became noticed when, as a private company, it was engaged by the US Navy in the late 1990s to develop a plasma-based system to destroy shipboard waste. At the time, we were seen as an interesting "back up" technology, but over the ensuing years we became the technology of choice. As previously announced, we are now specified in the next generation aircraft carrier, and we have delivered two (2) systems to date, the last one this year.

Concurrently with delivering the first commercial system to the US Navy, and independent of this, we were engaged by a US Special Operations Air Force Base, located in Florida, to develop a very small land based plasma system to destroy approximately ten (10) tons per day ("TPD") of municipal type waste; a very small system, which therein was one of many challenges. For greater clarity, 10 TPD is equivalent to a full garbage truck; the type that runs up and down your city streets collecting garbage. This prototype system costs approximately US$12MM to develop which,

incidentally, is nowhere near the cost to build a new one. At the end of the day, PyroGenesis was able to demonstrate that our prototype system could process 10 TPD of waste and generate enough electricity to run this system. The implication being that at higher tonnages, there could be a net surplus of energy which could be sold back to the grid. This system was accepted by the US Air Force, but before technical improvements could be made to it (for which funding had been allocated) and data gathered, we were forced to remove the plant to allow for a mission critical road to be constructed in its place. As such, we bought the system back and are in the process of redeploying it into Europe, with the medium term strategy to diversify this product line both in terms of geography and customer base.

As you can appreciate, by this time, with the sale of a marine system to the US Navy and a land based system to the US Air Force, we were known principally as company developing plasma-based waste solutions to the US Military. With the financial crisis in the US affecting all levels of government, we found that, although we thought that we were well diversified (i.e. US Air Force, Navy, Army), we were actually over exposed to one funding source; the US government. As such, we decided to diversify our customer base by looking at other industries that could potentially benefit from the introduction of plasma-based solutions. Being plasma experts, and having such a large concentration of plasma expertise, PyroGenesis was, and is, uniquely situated to identify, and exploit, these highly lucrative global markets.

At the same time, we rationalized our work force (saving over $500,000/yr), relocated our manufacturing facility (saving over $300,000/yr), and revamped our business development strategy to focus on new markets with lower risk, higher margins and shorter sales cycles.

Two years later, we have made significant inroads into the Additive Manufacturing industry, as well as the Oil and Gas, and Mining and Metallurgical industries. We currently have a backlog of signed contracts in excess of $15MM (which is more than 2.5x 2014 revenues), and "*Visibility from Back Log*" (a unique PyroGenesis indicator, referring to a very specific subset of our pipeline, which is defined as: unsigned contracts, under discussion, with existing clients) of $60MM expected to be signed in 2016 and 2017.

Can you please give us an update on what you are doing in Additive Manufacturing, specifically in 3D printing?

Most certainly. PyroGenesis has developed, and patented, a plasma-based process, which we call the Plasma Atomization Process (PAP), that can transform wires into powder, specifically titanium wire into titanium powder. The powder produced by this unique method is not only very small, but very spherical and uniform. These three properties – small, spherical and uniform – enable the powder to flow like water and to compact tightly. PyroGenesis' powders are some of the smallest, most spherical and most uniform powders in the world and are highly sought after in Additive Manufacturing, specifically in 3D printing.

PyroGenesis originally developed this process several years ago to sell titanium powders to the biomedical industry who liked their "flowability". These powders were used in injection molding to make biomedical implants, such as knee replacements. Despite the success, PyroGenesis got out of this business when it became apparent that the biomedical industry was only interested in a particular particle size and was not interested in purchasing all of PyroGenesis' production.

In the fall of 2013, we re-examined our Plasma Atomization strategy when we noticed that there was a large demand for small, spherical, and uniform titanium powders from the 3D printing industry who had turned their attention from making 3D parts out of plastic to making them out of titanium. We decided to market our PAP capabilities in Asia and within nine (9) months had signed a contract for ten (10) systems totalling $12.5MM. The first system was recently delivered after certain delays which, for the most part, were strategic. We expect the downpayment for the next

nine (9) systems in Q4 2015/Q1 2016 with all nine (9) systems expected to be delivered by Q4 2016.

Separately, as each Plasma Atomization System becomes operational, PyroGenesis will be required to supply consumables and spare parts unique to PyroGenesis. It is estimated that each unit will require over $300,000 of spare parts per year, thereby creating a significant recurring revenue stream for the Company.

The delay in delivering the first system was primarily as a result of a strategic decision, taken with the customer to, upon completion of the first system and after inspection at PyroGenesis' Montreal facility, test certain parameters PyroGenesis identified as having the potential of improving both the production rate and purity of the powders.

The results from this strategic delay not only resulted in a new patent application by PyroGenesis, but paved the way for PyroGenesis to consider producing powder for 3D printing on its own. PyroGenesis has identified customers interested in procuring PyroGenesis powders, though not in the quantity that would justify the purchase of a Plasma Atomization System (the "System"). With a total investment of $1.7MM, PyroGenesis could be producing powders within nine (9) months. It is estimated that PyroGenesis could generate over $10MM profit/year/System from powder sale alone. As such, PyroGenesis announced earlier today that it has decided to produce powders for this market and is in the process of securing the funds to finance such a build. This first System would also be used to develop next generation Systems capable of producing powders from various metals being used in 3D printing, as well as from composites.

Of note, we have had initial discussions with very large players in the additive manufacturing industry who are interested in developing next generation Systems within the framework of a joint venture. Although we take these discussions seriously, the Company does not have reason to believe anything concrete will evolve from this at this time.

There has been quite a bit of interest in your success within the Oil and Gas industry. Could you please give us an update on what you are doing, specifically within the context of falling oil prices?

As you know, PyroGenesis has been working closely with a large Oil & Gas company on two (2) specific projects: one to recover valuable metals from a waste stream, and the other to improve oil extraction from oil fields. The client visited PyroGenesis as part of a scheduled inspection a couple of weeks ago and was impressed with the progress made to date. However, amid fears that the current downturn in oil prices could last longer than originally estimated, the oil industry has slashed costs, deferred research projects indefinitely, reduced capital investments, and sold assets, all to strengthen their balance sheets and maintain dividend payouts. As such, it is not readily apparent, at this time, where these two projects (for commercialization or development) would be financed from.

For greater clarity, the status of the two (2) projects is as follows:

<u>Recovering Valuable Metals from Waste Streams</u>

In 2014, under a Master Services Agreement with a global oil and gas company, PyroGenesis successfully conducted a preliminary engineering study, followed by laboratory scale tests, which determined that valuable metals can be recovered by the plasma processing of oil and gas waste streams. Throughout these tests, it was noted that PyroGenesis had not only established that plasma processing of these waste streams can recover valuable metals, but that there was also a significant 50:1 volume reduction in resultant waste, which decreased disposal costs by more than 90%.

In early 2015, the project proceeded to the pilot plant stage, which involved the adaptation of an

existing plant at PyroGenesis' facility to test and further demonstrate the economics of PyroGenesis' proprietary technology. With pilot plant testing successfully concluded in October 2015, the results confirmed that for an initial investment of approximately $20MM in a PyroGenesis system, the client could save over $40MM per year in disposal costs and value from recovered metal.

Oil extraction from oil fields

PyroGenesis was also engaged on a project to develop a plasma-based process designed to enhance and accelerate oil extraction from oil fields. The testing phase of this project was successfully completed in Q3 2015. To date, it is estimated that PyroGenesis' process (patent pending) costs less than 20% of that currently used, and is a clean, zero emissions technology utilizing electricity as the only heat source.

Despite these successes, it is impossible at this stage for PyroGenesis to predict when these projects will progress to the next stage. Suffice it to say that PyroGenesis does not expect any movement from this client on these two projects before the second half of 2016; however the results achieved with this project exceeded all expectations and PyroGenesis remains optimistic that, when the oil industry recovers, these projects will progress rapidly to the commercialisation stage. In anticipation of this, and to market our achievements, PyroGenesis has hired a business development officer with sector experience, to begin January 2016, dedicated to this industry segment.

Can you please give us an update on what you are doing with the Military, specifically progress made to date on the tactical system to destroy chemical warfare weapons?

The growing list of terrorist organisations and conflict zones around the world, together with the apparent increased willingness to deploy Chemical Warfare Agents ("CWA"), has brought to the forefront the immediate need for a safe, versatile, and efficient mobile system, deployable at a moment's notice, to eliminate CWA stockpiles.

PyroGenesis was approached by an international military consortium to develop a system which could rapidly and safely destroy, in the field, a wide range of CWAs, such as Sarin (GB), Mustard (HD), and VX, as well as their precursor reagents. This system would replace the risky proposition of transporting enemy CWAs with the inherent risk of ambush and catastrophic release.

In Q3 2015, PyroGenesis successfully completed the design and manufacture of the first Tactical Plasma Arc Chemical Warfare Agents Destruction System, ("PACWADS"). It was originally expected that the clients would test the system at their site at a cost to the consortium of over $100MM, using simulated and actual chemical warfare agents. PyroGenesis was recently awarded a contract to perform some initial testing, after which the system will be shipped for extensive testing by the clients. This additional contract to PyroGenesis was for $500,000 and is expected to be completed by Q1 2016. Testing by the consortium is expected to be completed by Q3 2016.

Although PyroGenesis is not at this stage privy to the timing of commercial orders, or the number of systems that may be ordered following successful testing, the Company believes that given the nature of the project and the funds being allocated to testing, this may result in a multiple system order being placed. Each system, once militarized, is estimated to sell for approximately $5MM each.

And what about the US Navy? Any recent updates?

Recognized by the US Navy as the premier shipboard waste processing technology in the market,

the Marine Plasma Arc Waste Destruction System ("PAWDS-Marine") is the world's most compact, easy-to-operate, high temperature plasma-based waste treatment system. With one-button rapid start-up and shutdown capabilities, the PAWDS-Marine effectively destroys combustible wastes such as paper, plastics, food, oily rags, and waste oil, all with minimal segregation.

Developed by PyroGenesis in partnership with the US Department of Defense, PAWDS-Marine has been specified into the design of all of the Gerald R. Ford Class supercarriers.

As previously announced, the first two ships in this class, the CVN-78 USS Gerald R. Ford and the CVN-79 USS John F. Kennedy have been ordered and delivered to the contracted shipyard by PyroGenesis. A third order is not expected before 2018, however the CVN-78 USS Gerald R. Ford is scheduled to be commissioned in June 2016, following which PyroGenesis should start to supply consumables and spare parts, estimated at hundreds of thousands of dollars per System per year.

Separately, PyroGenesis recently executed an agreement to train US Navy sailors at its manufacturing facility in Montreal. The first group of sailors, to be trained on mechanical and electrical maintenance as well as system operations, are expected to arrive in the fall of 2015.

Can you please give us an update on what you are doing in your environmental line of business, specifically what is happening in Japan, the Redeployment of the SPARC™ System and the redeployment of the Air Force System to Europe?

Exclusive Marketing License, Japan

In the Q3 2015, PyroGenesis entered into an exclusive marketing agreement (the "Agreement") with Yasui Facilities, Inc. ("Yasui"), one of Japan's preeminent Architectural/Engineering firms, who is providing much needed local engineering and permitting expertise. It is expected that Yasui will be instrumental in expediting various multi-million dollar contracts under discussion in Japan.

Under the terms of the Agreement, Yasui will exclusively market PyroGenesis' line of plasma waste processing systems in Japan for a period of five (5) years, with the option of an automatic five (5) year renewal based on certain performance milestones. In exchange, Yasui is paying for all costs associated with the Japanese permitting process, which has already commenced, and is estimated to run into the $100,000's, as well as expenses incurred by PyroGenesis for costs incurred in developing the Japanese market. Furthermore, upon receipt of the permit, which is expected in the first half of 2016, Yasui will pay PyroGenesis a one-time exclusivity fee of $1.5MM.

At this time, negotiations include contracts for several 50 TPD waste treatment systems, hospital/low level radioactive waste systems, multiple small transportable mobile systems, as well as several applications to process certain specialty waste streams. One such "specialty waste stream" opportunity requires four (4) 25 TPD systems, with each system selling for approximately $17MM. This "specialty waste stream" end-user will be visiting PyroGenesis' facility in Montreal in Q4 2015 for a site demonstration. There are discussions that upon successful demonstration in Montreal, a contract for at least one (1) 25 TPD system would be entered into by Q2 2016.

PyroGenesis expects that the relationship with Yasui will result in contracts with revenues totalling in excess of $100MM over the next three (3) years.

Recovery and Redeployment of SPARC™ System

PyroGenesis recently reached a mutual agreement with one of its customers to terminate a Development, Use and Commercialization Agreement (the "Agreement") related to PyroGenesis'

SPARC™ technology. Under the terms of the Agreement, PyroGenesis recovered a system that utilises the patented PyroGenesis SPARC™ technology, designed to destroy ozone depleting substances such as end-of-life refrigerants, most notably CFCs, HCFs, and HFCs, which have a high global warming effect. Furthermore, PyroGenesis maintains all intellectual property rights in the technology, thereby preventing the customer from commercialising the technology.

PyroGenesis plans to redeploy this system in a fully commercial environment in either Asia or with an international oil and gas company in the US. Negotiations are progressing well and the Company expects to execute a contract before the end of 2015. Upon successful installation and operation of this system, PyroGenesis anticipates receiving subsequent orders for additional systems in 2016.

European 10 ton per day ("TPD") Plasma Waste-to-Energy System (the "System")

This System is the system built for the Air Force Special Operations base in Florida, which as previously mentioned, was bought back by the Company. Worthy of note is the fact that this System was accepted by the US Air Force base, and is designed to transform all types of municipal waste without the need for pre-sorting, into useful products such as electricity and construction material, and without generating any hazardous by-products. This capability has particular resonance within the European marketplace where the options for conventional land-fill are limited and the cost for destroying industrial and hazardous waste is extremely high. Accordingly, PyroGenesis expects the successful installation of this System to generate further orders for similar, and larger, waste-to-energy systems in Europe.

Following the announcement in 2013 that the Company had executed a $4MM agreement to deliver and install the US Air Force 10 TPD plasma waste-to-energy system to a European entity, the client lost its permits to operate as well as the related financing. As a result of the client's financing and permitting issues now seemingly being resolved, PyroGenesis expects to resume delivery and install the system in 2016. Should there be further delays beyond Q4 2015, management has decided that the System will be deployed into Asia where there has already been significant interest.

Can you please give us an update on what you are doing in the Mining and Metallurgical Sector?

PyroGenesis has demonstrated success in this segment with the recent signing of a contract to supply its first DROSRITE™ system for optimizing metal recovery from dross (the "System"), and a separate contract to evaluate the feasibility of using plasma for the purpose of refining ore into pure metal.

DROSRITE™

DROSRITE™ is a salt-free, cost-effective, sustainable process for maximizing metal recovery from dross, a waste generated in the metallurgical industry. DROSRITE™ avoids costly loss of metal, while reducing a smelter's carbon footprint and energy consumption, thereby providing an impressive return on investment. PyroGenesis' patented DROSRITE™ process increases aluminum alloy recovery from dross and reduces operating costs. In comparison, competing processes have significantly higher operating costs and produce a hazardous waste that has to be disposed of at additional cost.

Earlier this year, PyroGenesis entered into an agreement with a North American automobile parts manufacturer to supply a commercial DROSRITE™ Furnace System (the "System") by the end of 2015. PyroGenesis is on track to fulfill the delivery requirement; this client alone has a need for a total of three (3) DROSRITE™ Systems. More importantly, this System represents the first sale of a DROSRITE™ System in North America. PyroGenesis plans to leverage this reference site to

generate a continued flow of orders for additional Systems from primary and/or secondary aluminum smelters, as well as from large finished goods manufacturers within the transportation sector. PyroGenesis expects additional orders from this segment commencing in the second half of 2016.

Ore refining

In the summer of 2015, PyroGenesis was contracted by Uragold Bay Resources Inc. ("Uragold") to evaluate the feasibility of using plasma to refine ore into pure metal, in this case converting quartz into pure silicon metal (the "Project"). The study is expected to be completed within seven (7) months and, once successful, is expected to result in an order to design, manufacture and supply a pilot plant.

Within three (3) months of starting the Project, PyroGenesis filed a provisional patent for a one step process using plasma for producing high purity silicon from silica. The PUREVAP™ Quartz Vaporisation Process is a proprietary process that uses a plasma arc within a vacuum furnace to produce high purity, metallurgical grade silicon (MG-Si), solar grade silicon (UMG Si) and polysilicon from quartz. This technology could revolutionize the solar panel industry by making them more competitive.

PyroGenesis has granted Uragold exclusive rights to the PUREVAP™ process solely for the transformation of quartz. In exchange, PyroGenesis will receive royalties equal to 10% of sales of silicon metal refined by the process, with set minimums. The world consumption of silicon metal in 2014 exceeded US$ 6B.

PyroGenesis plans to apply this process to refine other high grade and valuable metals.

You seem to be doing a lot of different things. Is PyroGenesis product-line focused?

Yes, PyroGenesis is extremely focused. We provide plasma-based systems, and plasma-based systems alone, to global markets. If we were selling tires we would be selling them to bikes, cars, trucks and buses; we would not be involved in braking systems, upholstery or exhaust systems – we would only be selling tires. Similarly, we sell plasma-based systems and nothing else, thereby remaining extremely focused on our product-lines.

What can we expect to see over the next eighteen (18) months?

What we have described herein is only the tip of the iceberg. We are working on many other transactions, many at too early a stage to be elaborated at this time. Suffice it to say, we are happy with the cornerstones we have developed within each business line and are implementing strategies to increase our customer base within each.

Of note, we expect to become cash flow positive by Q4 2015, and maintain profitability over the foreseeable future. We can say this with confidence as a result of two (2) events which we expect to occur in Q4, either one of which would make us cash flow positive: the down payment for the next nine (9) Plasma Atomization Systems (under previously announced contract), and the redeployment of the SPARC™ System (under discussion). We expect profitability from these two (2) projects to continue well into 2016 when other projects (Japan, PACWADS, DROSRITE™ & SPARC™ additional orders) will start contributing. Powder sales from PyroGenesis' own Plasma Atomization System are scheduled to begin by Q4 2016.

Although assessing the timing of these events is always a challenge, and slippage will undoubtedly occur, we can safely say that sustained profitability is close at hand. The changes implemented two years ago are bearing fruit and the management team is in place to grow these business lines.

PyroGenesis, with one of the largest concentration of plasma expertise in the world, and over 20 years of history supported by over fourty-five (45) patents, has demonstrated plasma-based revenues from very discerning customers. Our mid-to-long term strategy is to grow each business line and, once critical mass is achieved, spin each off to shareholders.

About PyroGenesis Canada Inc.

PyroGenesis Canada Inc., a TSX Venture 50® clean-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 m^2 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 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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