



**PYROGENESIS CANADA INC.**  
**MANAGEMENT'S DISCUSSION AND ANALYSIS**

For the three months and twelve months ended December 31, 2011

(All figures expressed in Canadian dollars unless otherwise noted.)

April 27, 2012

This management's discussion and analysis (MD&A) of PyroGenesis Canada Inc. ("PCI" or the "Company") have been prepared by management and should be read in conjunction with the audited financial statements and related notes thereto of the Company for the period ending December 31, 2011 which were prepared in accordance with International Financial Reporting Standards ("IFRS"). The Company's Audit Committee has reviewed and approved this MD&A.

The MD&A was prepared as of April 29, 2012. Additional information regarding the Company is available on SEDAR at [www.sedar.com](http://www.sedar.com).

**FORWARD-LOOKING STATEMENTS**

This MD&A contains forward-looking statements. All statements other than statements of historical fact contained in this MD&A are forward-looking statements, including, without limitation, the Company's: statements regarding its products and services; relations with suppliers and customers; future financial position; business strategies; potential acquisitions; potential business partnering; litigation; and plans and objectives. In certain cases, forward-looking statements can be identified by the use of words such as "plans", "expects" or "does not expect", "is expected", "budget", "scheduled", "estimates", "forecasts", "intends", "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" or "will be taken", "occur" or "be achieved" and similar words or the negative thereof. Although management of the Company believes that the expectations represented in such forward-looking statements are reasonable, there can be no assurance that such expectations will prove to be correct.

In particular, this MD&A contains forward-looking statements relating to:

- the business strategies of the Company;
- the capital resources of the Company;
- the ability of the Company to increase sales, including as a result of the successful completion of the Company's current projects;



- management's expectation that the Company will achieve sustained annual growth and profitability, and that gross margins will increase resulting in a decrease in expenses as a percentage of revenue; and
- the Company's overall financial performance.

By their nature, forward-looking statements require assumptions and are subject to inherent risks and uncertainties including those discussed herein. In particular, forward-looking statements relating to future sales, growth and profitability are based on the assumption that current projects will be completed and the Company will be awarded certain anticipated contracts pursuant to recent negotiations with, and statements made by, third parties. There is significant risk that predictions and other forward-looking statements will not prove to be accurate. Readers are cautioned to not place undue reliance on forward-looking statements made herein because a number of factors could cause actual future results, conditions, actions or events to differ materially from the targets, expectations, estimates or intentions expressed in the forward-looking statements.

The future outcomes that relate to forward-looking statements may be influenced by many factors, including, but not limited to, the strength of the Canadian economy; operational, funding, and liquidity risks; unforeseen engineering and environmental problems; delays or inability to obtain required financing and/or anticipated contracts; risks associated with licenses, permits and regulatory approvals; supply interruptions or labour disputes; foreign exchange fluctuations and collection risk; competition from other suppliers or alternate less capital intensive energy solutions; and the risk factors described under the heading "Risk Factors" in the Company's annual information form for the financial year ended December 31, 2011. We caution that the foregoing list of factors is not exhaustive, and that, when relying on forward-looking statements to make decisions with respect to the Company, investors and others should carefully consider these factors, as well as other uncertainties and potential events, and the inherent uncertainty of forward-looking statements.

Although the Company has attempted to identify important factors that could cause actual actions, events or results to differ materially from those described in forward-looking statements, there may be other factors that cause actions, events or results not to be as anticipated, estimated or intended. There can be no assurance that forward-looking statements will prove to be accurate, as actual results and future events could differ materially from those anticipated in such statements. Accordingly, readers should not place undue reliance on forward-looking statements. Forward-looking statements are provided as of the date of this MD&A, and the Company assumes no obligation to update or revise such forward-looking statements to reflect new events or circumstances except as required under applicable securities laws.

The forward-looking statements contained herein are expressly qualified in their entirety by this cautionary statement. The forward-looking statements included in this MD&A are made as of the date of this MD&A or such other date specified herein.



## OVERVIEW

PyroGenesis is a leader in the design, development, manufacture and commercialization of advanced plasma waste to energy systems. The Company's systems are capable of converting waste into energy and non-hazardous products. The Company's proprietary and proven technologies have been developed over 15 years. A long-standing relationship with the US Navy together with a system in operation at a US Air Force base sets the Company's business apart from many of its competitors. The Company's innovative product offerings have translated into numerous signed contracts. The Company has three distinct product offerings. The Company's marine based Plasma Arc Waste Destruction System ("PAWDS") treats combustible waste on board ships while its land based Plasma Resource Recovery System ("PRRS") is designed to treat a range of industrial, hazardous, clinical and municipal waste streams on land. The Company's plasma torch systems are sold world-wide to other plasma companies who do not have the know-how to build this type of equipment and also to those using high temperature metallurgical and advanced material applications.

## SELECTED FINANCIAL INFORMATION

	For the three months ended December 31 (Unaudited)		For the twelve months ended December 31 (Audited)	
	2011	2010	2011	2010
(in dollars except per share data)	\$	\$	\$	\$
<b>Revenues</b>	1,781,645	1,928,783	5,065,581	7,715,131
Expenses	2,543,841	2,391,306	11,366,974	9,920,815
<b>Loss from operations</b>	(762,196)	(462,523)	(6,301,393)	(2,205,684)
<b>Total comprehensive loss</b>	(757,097)	(444,657)	(6,944,306)	(2,180,884)
Loss per share – basic	(0.01)	(0.01)	(0.12)	(0.05)

As at December 31	2011	2010
	\$	\$
Total Assets	12,145,609	6,579,498
Total Current Liabilities	4,785,001	5,830,272
Total Long-term Liabilities	7,762,388	535,270
Shareholder's Equity	(401,780)	213,956



## RESULTS OF OPERATIONS

### *Revenues*

Revenues for the full year in fiscal 2011 totaled \$5,065,581, a decrease of 34% from the \$7,715,131 reported for the same period in fiscal year 2010, reflecting for the most part a continued focus by the Company on the completion of the Company's two major projects, namely the marine based contract with Newport News Shipbuilding ("NNS"), and the land based contract with the US Air Force, as opposed to focusing its efforts on increasing sales in other areas, as management expects the successful completion of these two projects to result in an increased demand in its products as it will have proved out the cost-benefit advantages of these systems. This decrease was offset in part by revenues generated by the RES project to design, build and deliver an ozone depleting substance (ODS) destruction system.

Revenues for the fourth quarter of fiscal year 2011 ending December 31, 2011 were \$1,781,645 representing a decrease of 8% over revenues of \$1,928,783 during the same three month period in fiscal 2010. Decreased revenues in Q4 2011 are mainly attributable to the fact that the Company's two major contracts (NNS and the US Air Force) were accepted in Q3, and as a result most of the associated revenues were recognized by the end of Q3 2011.

PyroGenesis believes that its most significant opportunities for growth are within the US Armed Forces and isolated communities in general.



### *Cost of Sales and Services*

	For the three months ended September 30		For the three months ended December 31		For the twelve months ended December 30	
	2011	2010	2011	2010	2011	2010
	\$ (note A)	\$	\$	\$	\$	\$
Materials and Equipment	616,287	402,388	296,562	1,575,512	1,504,140	3,637,313
Salaries	591,084	842,186	790,267	(42,854)	2,643,929	1,643,065
Subcontracts	360,515	559,617	140,822	300,023	1,010,788	1,929,584
Rent	102,700	188,546	99,000	31,654	421,900	440,400
Utilities	30,175	12,254	19,607	51,724	142,632	139,781
Foreign exchange	(20,892)	4,353	13,541	651	(1,160)	64,586
Factory	17,357	24,422	952	9,552	41,453	110,178
Repairs	7,283	1,657	5,100	0	16,493	6,297
Rental	14,658	55,403	18,544	24,290	78,919	111,917
Government Grants	(8,934)	5,819	0	(28,413)	(36,653)	(45,557)
Tax Credits	(100,000)	(539,247)	(58,687)	(399,507)	(1,058,192)	(1,877,508)
Amortization Licences	352,297	1,931	351,981	36,700	1,115,032	77,263
<b>TOTAL</b>	<b>1,962,530</b>	<b>1,559,329</b>	<b>1,677,689</b>	<b>1,559,332</b>	<b>5,879,281</b>	<b>6,237,319</b>

Note A- salaries have been reclassified to conform to the presentation adopted for Q4 and the annual financial statements for the year ended December 31, 2011.

Cost of sales and services decreased by 6% in fiscal 2011 to \$5,879,281 (2010: \$6,237,319). In 2011 Cost of sales were impacted by a 14-fold increase in amortization of licenses costs to \$1,115,032 (2010: \$77,263) over the prior year. This increase in the non cash entry amortization of licenses was predominantly related to the acquisition of patents from a related party (see “Related Party Transactions”). In 2011, Cost of sales was also impacted by increased Salary expenses by 61% over the prior year, due to an overall accrual in salary cost in 2009 which favorably effected 2010 expense; eligible tax credits in 2011 of \$1,058,192 which represent a 44% reduction over the prior year, which was due to lower R&D expenses and the less favorable R&D rules applicable to public companies. In 2011, Cost of sales were favorably impacted by lower spending on materials and equipment of \$1,504,140 (2010: \$3,637,313) and lower subcontract expenses \$1,010,788 (2010: \$1,929,584) having been incurred in 2010 to complete fabrication of the two major contracts: NNS and US Airforce.



Cost of sales and services, as a percent of revenues, increased to 116% for the 2011 fiscal year, versus 81% for 2010 year. This increase was primarily as a result of a 34% decrease in revenues and an increase in licence amortization by 14 fold to 1,115,032 (2010: \$77,263) over the same period in 2010. Before giving effect to this amortization cost, costs of sales and services as a percent of revenues increased to 94% in 2011 versus 80% for 2010.

Cost of sales and services remained stable for the three months ended December 31, 2011 at \$1,677,689 (2010: \$1,559,332). Increases in the amortization of licences and salaries, were offset by lower spending on materials and equipment and contractors. Salary costs in Q4 2010, were decreased by the correction of over accrual of salary costs from the prior year.

Cost of sales and services, as a percent of revenues, increased to 94% for the three months ended December 31, 2011, versus 81% for the same period in 2010. However cost of sales and services before non cash items as a percent of revenues is 74% for Q4 2011 versus 79% for Q4 2010.

### *Selling, General and Administrative Expenses*

	For the three months ended September 30		For the three months ended December 31		For the twelve months ended December 31	
	2011	2010	2011	2010	2011	2010
	\$ (note A)	\$	\$	\$	\$	\$
Salaries	310,000	300,000	388,274	273,000	1,313,274	1,173,000
Stock Based Compensation	910,000	0	(198,965)	0	711,035	0
Professional Fees	621,839	309,628	172,877	(62,335)	1,311,024	573,363
Royalty	(120,000)	75,000	0	75,000	75,000	300,000
Office & General	51,084	16,896	34,465	201,430	446,748	510,844
Travel	36,626	91,638	75,528	126,050	265,912	434,200
Insurance / Taxes	38,037	29,903	13,014	4,080	113,709	90,823
Interest & Bank Charges	5,448	39,071	31,696	35,428	54,174	86,829
Donations	100	0	0	1,000	1,308	1,900
Advertising	2,111	10,994	4,330	29,028	14,220	71,088
Amortization Machinery & Equipment	77,309	28,712	92,454	62,487	322,100	149,323
<b>TOTAL</b>	<b>1,932,554</b>	<b>901,842</b>	<b>613,673</b>	<b>745,168</b>	<b>4,628,504</b>	<b>3,391,370</b>



Note A - salaries have been reclassified to conform to the presentation adopted for Q4 and the annual financial statements for the year ended December 31, 2011.

For the twelve months ended December 31, 2011, selling, general and administrative expenses increased by 36% to \$4,628,504 (2010: \$3,391,370). This was primarily as a result of \$711,035 (December 2010: \$0) in stock options issued in July 2011 and accounted for as a non cash item; a 129% increase in professional fees to \$1,311,024 (2010: \$573,363) associated with PyroGenesis going public; as well as an increase in amortization of machinery and equipment by 116% to \$322,100 (2010: \$149,323) for the twelve months ended December 31, 2011, which was primarily as a result of the purchase in Q3 2010 of equipment valued at \$1,093,800.

Managements expects that costs associated with being a public company will decrease over time as the reliance on external professionals will diminish. Additionally overall selling, general and administrative expenses as a percentage of revenues will improve significantly with the future growth in revenues.

For the three month period ended December 31, 2011, selling, general and administrative expenses decreased by 18% to \$613,673 (2010: \$745,168). The single largest factor in this reduction was the revaluation of the stock options issued in July 2011 and previously recorded as a non-cash expense in Q3 2011, which resulted in Q4 SG&A costs savings of \$198,965. Stock options were revalued at \$0.93/option using a weighted average of the shares issued in the days following the options issuance (previously options valued at \$1.53).

Despite efforts made to minimize selling, general and administrative expenses in 2011, spending for the three month period ended December 31, 2011 increased professional fees of \$172,877 (2010: \$62,335), salary costs of \$388,274 (2010: \$273,000), and amortization expense of \$92,454 (2010: 62,487).

### ***Financing Charges***

	<b>For the three months ended December 31</b>		<b>For the twelve months ended December 31</b>	
	<b>2011</b>	<b>2010</b>	<b>2011</b>	<b>2010</b>
	<b>\$</b>	<b>\$</b>	<b>\$</b>	<b>\$</b>
Financing charges	252,479	86,806	859,189	292,126

Financing charges increased by 192% to \$859,189 (2010:\$292,126) and 191% to \$252,479 (2010: \$86,806) for the three months ending December 31, 2011.



This increase was primarily due to increased overall borrowings as well as interest accrued on long-term debt for license purchases of \$298,741 (2010: \$0) and \$85,170 for the three months ended December 31, 2011, respectively (2010; \$0).

#### *Amortization of Machinery and Equipment*

	For the three months ended December 31		For the twelve months ended December 31	
	2011	2010	2011	2010
	\$	\$	\$	\$
Machinery and Equipment	92,454	62,487	322,100	149,323

Amortization of machinery and equipment increased by 116% to \$322,100 (2010: 149,323) for the 12 month period ended December 31. This is primarily as a result of the purchase in the third quarter of 2010 of equipment valued at \$1,093,800.

#### *Research and Development Tax Credits*

	For the three months ended December 31		For the twelve months ended December 31	
	2011	2010	2011	2010
	\$	\$	\$	\$
Research Tax Credits	58,687	399,507	1,058,192	1,877,508

Development costs of \$1,173,866 were expensed in the three months ended December 31, 2011 (2010 :\$590,153) and \$3,019,293 were expensed in the twelve months ended December 31, 2011 (2010 : \$2,719,321). As a private company, PyroGenesis qualified to receive research and development tax credits (“R&D tax credits”) from the federal and Quebec provincial governments in the form of refundable credits (cash). Management is aware that as a public company, PyroGenesis’ entitlement to R&D tax credits will be significantly reduced and the credits available from the Federal government will be in the form of credits that can be applied against taxable income.

#### *Net Profit/Loss*

	Three months ended December 31		Twelve months ended December 31	
	2011	2010	2011	2010
Loss from operations	(762,196)	(462,523)	(6,301,393)	(2,205,684)
Total Comprehensive Loss	(757,097)	(444,657)	(6,944,306)	(2,180,884)





Loss from Operations for the twelve months ended December 31, 2011 was \$6,301,393 as compared to a loss of \$2,205,684 for the same period ending December 31, 2010. Loss from Operations for the three months ended December 31, 2011 was \$762,196 as compared to a loss of \$462,523 for the same period ending December 31, 2010.

These losses are as a result of a decrease in sales due to management's focus on the successful completion of its two projects for the US Airforce and the US Navy. The successful introduction of these systems will, in the opinion of management of PyroGenesis, be the catalyst to PyroGenesis' return to profitability in the next fiscal year.

Results of fiscal 2011 were also negatively impacted by a non-cash expense relating to options provided by the Company to management, employees and board members totaling \$711,035. Options expenses are expected to continue to impact future years' net results as the expenses related to the future vesting of these options are recognized against future years' revenues. The company also incurred significant increased professional fees in 2011 that were directly related to going public in 2011 as well as to a public financing completed in Q1 2012.

There was a one-time cost of \$694,877 in Q3 2011 related to the costs of amalgamation between PyroGenesis Canada Inc. and IGIC (a public company listed on the TSX-V exchange). For further, details refer to note 2(d) of the financial statements dated December 31, 2011.

## SUMMARY OF QUARTERLY RESULTS

	<b>Three months ending June 2011</b>	<b>Three months ending September 2011</b>	<b>Three months ending December 2011</b>
(in dollars except per share data)	\$	\$	\$
Revenues	167,054	1,909,231	1,781,645
Loss from Operations	(2,643,105)	(2,165,062)	(762,196)
Total Comprehensive Loss	(2,643,105)	(2,815,300)	(757,097)
Net Loss per share - basic	(0.05)	(0.05)	(0.01)

Prior to June 2011, quarterly financial information is not available as PyroGenesis was a privately held company.

As illustrated above, the revenues and losses from operations have varied considerably from quarter to quarter. Revenues are recognized based on a percentage of completion basis, and project work is dependent on customer timing for project engineering, manufacturing, and testing. Revenues in the Q4 2011 are 7% below the level of Q3 2011, and 11 fold the level in Q2.



The Loss from Operations in Q4 2011 is down 65% from Q3 2011 and down 71% from Q2 2011. Main contributors to the decreased losses in Q4 2011 over Q3 are: improvement in gross margin on projects by 9 percentage points equating to \$157,000, and reduction in Selling, General and Administrative expenses of \$1,318,000, offset by an increase in financing fees of \$73,000. Reductions in Selling, General and Administration costs were attributable to a decrease in stock option compensation of a negative expense \$198,965 in Q4 (\$910,000 in Q3), a decrease in professional fees to \$172,877 in Q4 (\$621,839 in Q3), and a net increase in royalty costs to nil in Q4 (negative expense of \$120,000 in Q3).

### LIQUIDITY AND CAPITAL RESSOURCES

During the 2011 fiscal year, the primary sources of funding for PyroGenesis have been cash generated through the sale of shares and bank indebtedness. In August 2009, PyroGenesis entered into a number of bank lines totalling approximately \$3,700,000. These lines had increased to over \$4,500,000 by December 31, 2010. It was these lines that helped finance the Company during 2011. Furthermore, the amalgamation of the Company and concurrent financing provided the Company with additional sources of liquidity to finance growth.

At December 31, 2011, PyroGenesis had cash on hand (net of bank indebtedness) of \$241,396 and negative working capital of \$1,085,184.

At December 31, 2011, PyroGenesis had available an investment tax credit demand facility. It is based on the Company's 2010 claim, for an amount of \$500,000 which bears interest at prime rate plus 2.40%. The loan is secured by a first ranking moveable hypothec of \$500,000, on all present and future investment tax credits. PyroGenesis also had available a revolving demand loan facility of \$740,000 (2009 - \$1,500,000) which bears interest at the bank's prime rate plus 3.25%. The loan is secured by a first rank moveable hypothec in the amount of \$1,500,000 on accounts receivable, inventory and work-in-process. As per its loan agreements, PyroGenesis was required to maintain a certain tangible net worth of at least \$1,600,000. This covenant was waived by the lender until January 16, 2012. As at that date the facilities have been repaid in full by the Company and are no longer in place. It is the Company's intent to reinstate a revolving line of credit once business levels increase to justify such a line. Currently, the Company is able to discount any receivables under its Air Force contracts with the Canadian Commercial Corporation, and as such, the effect of repaying the bank loans has had minimal effect on liquidity.

PyroGenesis has a loan in the amount of \$1,000,000 (2009: \$1,000,000) plus fees interest and other costs of nil (2009: \$312,500). The loan is due June 30, 2012 with interest paid monthly at 15% per annum, compounded monthly. The loan is secured by a second rank hypothec on a building which is beneficially owned by a person related to the controlling



shareholders of the Company, an additional hypothec of \$75,000 and personal guarantees by principal shareholders of the Company. This loan was repaid in full in Q1 2012.

On March 19, 2011, PyroGenesis incurred a capital expenditure by purchasing all the intellectual property and know-how owned by a company owned by a shareholder and used by PyroGenesis in connection with its business. The consideration for the acquisition of these assets was \$14,280,000 to be paid by means of equal monthly instalments of \$40,000 commencing on April 1, 2011 until December 31, 2040 and bears interest at an implicit rate of 4.753% per annum. PyroGenesis does not currently foresee committing to any other significant capital expenditures.

On March 22, 2011, PyroGenesis issued a convertible debenture to FIER Croissance Durable s.e.c. in the amount of \$1,000,000. The FIER Debenture was automatically converted into common shares of the Predecessor (as defined herein) immediately prior to the completion of the amalgamation of the Company.

On March 29, 2011, PyroGenesis completed a non-brokered private placement for a total of 312,500 common shares at a price of \$0.80 per share for gross proceeds of \$250,000.

On March 30, 2011, PyroGenesis completed a private placement of 5,083,250 subscription receipts at a price of \$0.80 per subscription receipt for gross proceeds of \$4,066,600.

Pursuant to the closing of the Amalgamation of the Company as part of consideration paid to the agents in the concurrent financing the Company granted the agents compensation options to purchase an aggregate of 355,827 common shares with each compensation option entitling the holder to one common share at a price of \$0.80 until March 30, 2012.

On July 11, 2011, the Company issued 3,150,000 stock options to directors and officers and to employees. Five directors and officers of the Company were granted 1,450,000 options and 14 employees of the Company were granted 1,460,000 options, 10% of which are vested as of the date of grant, with 20% to vest on the first anniversary of the grant, 30% to vest on the second anniversary of the grant and 40% to vest on the third anniversary of the grant. Furthermore, two directors have been granted 200,000 options, which will vest quarterly over four years starting on the date of the grant. Finally, two other directors of the Company were granted the right to acquire an aggregate of 40,000 Common Shares at \$0.80 per Common Share. These Options will vest over two years starting on the date of the grant. All Options are exercisable at a price of \$0.80 per Common Share for a period of five years.

On August 11, 2011 the Company issued 103,328 common shares on exercise of stock options for proceeds of \$64,063.



Following the completion of the Amalgamation the company had 59,010,766 Common Shares issued and outstanding which the following are restricted from trading:

- 45,235,800 Common Shares are subject to escrow restrictions pursuant to an escrow agreement dated July 11<sup>th</sup> 2011, to be released as follows: 5% on the listing date, 5% six months after, 10% six months after, 10% six months after, 15% six months after, 15% six months after, 40% six months after.
- 2,368,570 Common Share have been legended in accordance with Policy 5.4 of the TSXV Corporate Finance Manual.

The Company's ability to raise additional funds from the equity markets will largely depend upon general market conditions and the company's ability to secure contracts. Current market conditions do limit the potential to raise additional funding.

Securing contracts and raising equity when the market permits will be entirely dependent on the company's continuing success in proving out its technology. Any perceived delay or setback in this area will negatively affect the company's ability to increase liquidity. However, management expects that its premier position in the plasma waste destruction/waste-to-energy sector will enable it to offset any negative impact rising from market conditions.

#### CASH USED IN OPERATIONS

	<b>For the three months ended December 31</b>		<b>For the twelve months ended December 31</b>	
	<b>2011</b>	<b>2010</b>	<b>2011</b>	<b>2010</b>
	<b>\$</b>	<b>\$</b>	<b>\$</b>	<b>\$</b>
Cash provided by (used in) operating activities	1,594,306	(1,478,710)	(1,245,759)	(4,064,183)
Cash provided by (used in) investing activities	(95,602)	(6,126)	23,201	(40,656)
Cash provided by (used in) financing activities	(1,328,275)	1,722,126	1,466,663	3,619,189

Cash flow from operations resulted in a use of cash of \$1,245,759 for the twelve-month period ended December 31, 2011 compared to a use of cash of \$4,064,183 for the same period in the previous year.



Investing activities resulted in cash inflows of \$23,201 for the period ending December 31, 2011 compared to cash outflows of \$40,656 for the period ending December 31, fiscal 2010.

Financing activities generated \$1,466,663 for the twelve-month period ended December 31, 2011, compared to an inflow of \$3,619,189 for fiscal 2010.

During the 2011 fiscal year, the Company completed a non brokered private placement with gross proceeds totaling \$250,000 and a private placement with net proceeds totaling \$3,596,375.

Cash flow provided by operations totaled \$1,594,306 for the three-month period ended December 31, 2011 compared to cash used by operations of \$1,478,710 for the same period in 2010.

Cash used in investing activities was of \$95,602 for the three-month period ended December 31, 2011 compared to cash outflows of \$6,126 for the three-month period ended December 31, 2010.

Financing activities used cash of \$1,328,275 for the three-month period ended December 31, 2011, compared to an inflow of cash of \$1,722,126 for the period ended December 31, 2010.

## RELATED PARTY TRANSACTION

### *Intellectual property*

On March 19, 2011, an agreement was signed between PyroGenesis and a company controlled by a shareholder of PyroGenesis. Per the agreement, intellectual property and know-how was sold to PyroGenesis for \$14,280,000 with such amount payable in equal monthly installments of \$40,000. The payments commenced on April 1, 2011 and terminate on December 31, 2040. The fair market value of this property is estimated to be \$7,636,426 which was established through an independent valuation. The intellectual property and know-how were amortized on a straight-line basis over their remaining useful life of 5.79 years. Long-term debt of \$7,636,426 was assumed on this transaction, and bears interest at an implicit rate of 4.753% per annum.

### *Class F shares*

On March 21, 2011, the holder of the 1,093,800 class F shares of the Predecessor, a related party, waived and renounced any and all rights to receive dividends or redemption of these shares. Furthermore, the holder agreed to grant the Predecessor the sole right to demand the exchange of all 1,093,800 class F shares for a total of 1,367,250 Class A shares of the Predecessor. Such exchange took place immediately prior to the completion of the amalgamation (see “Subsequent Events”, below). The value of the 1,093,800 class



F shares was established at \$1.00 per share for a total of \$1,093,000. This amount was based on an independent valuation of the machinery in exchange of which the Class F shares had been granted (see “Liquidity and Capital Resources”, above).

### *Private Placement*

On March 29, 2011, the Predecessor completed a non-brokered private placement with a related party for a total of 312,500 Class A shares at a price of \$0.80 per share for gross proceeds of \$250,000. The value of these subscription receipts was based on the valuation of the company established in connection with the amalgamation transaction.

## ADOPTION OF ACCOUNTING STANDARDS AND PRONOUNCEMENTS UNDER IFRS

In February 2008, the Canadian Accounting Standards Board (“AcSB”) announced that publicly accountable enterprises in Canada will be required to prepare financial statements in accordance with International Financial Reporting Standards (“IFRS”) for fiscal periods beginning on or after January 1, 2011. PyroGenesis’ first annual IFRS financial statements are for the year ending December 31, 2011 and include the comparative period of 2010. Please refer to note 27 of the December 2011 audited financial, for a summary of the differences between financial statements previously prepared under Canadian GAAP to those under IFRS.

### ***Recent accounting pronouncements and amendments***

The following pronouncements and amendments are effective for annual periods beginning on or after January 1, 2013 unless otherwise stated.

#### *IAS 1 Presentation of financial statements*

The amendment to IAS 1, issued June 2011, requires items in other comprehensive income and their related income tax effects to be grouped on the basis of whether they may subsequently be reclassified to profit or loss. The amendment will only affect disclosure and is effective for annual periods beginning on or after January 1, 2012.

#### *IAS 12 Income taxes*

The amendment to IAS 12, issued in December 2010, incorporates the SIC 21 Income taxes - Recovery of revalued non-depreciable assets consensus, which requires deferred tax liabilities/assets relating to revalued non-depreciable assets, to reflect the tax consequences of recovering the carrying amount through sale. It also introduces a rebuttable presumption that the carrying amount of investment property at fair value will be recovered through sale. The amendment, which supersedes SIC 21, is effective for annual periods beginning on or after January 1, 2012. The Company is currently assessing the impact of this amendment on its financial statements.



### *IFRS 7 Financial instruments: disclosures*

The amendment to IFRS 7, issued in October 2010, provides greater transparency around risk exposures relating to transfers of financial assets that are not derecognized in their entirety, and derecognized in their entirety, but with which the entity continues to have some continuing involvement. The amendment will only affect disclosure and is effective for annual periods beginning on or after July 1, 2011.

### *IFRS 9 Financial Instruments*

As of January 1, 2015, the Company will be required to adopt IFRS 9 — Financial Instruments, which is the result of the first phase of the IASB's project to replace IAS 39 — Financial Instruments: Recognition and Measurement. The new standard replaces the current multiple classification and measurement models for financial assets and liabilities with a single model that has only two classifications: amortized cost and fair value. Portions of the standard remain in development and the full impact of the standard on the Company's financial statements will not be known until the project is complete.

### *IFRS 11 Joint Arrangements*

IFRS 11 Joint Arrangements will apply to interests in joint arrangements where there is joint control. IFRS 11 would require joint arrangements to be classified as either joint operations or joint ventures. The structure of the joint arrangement would no longer be the most significant factor when classifying the joint arrangement as either a joint operation or a joint venture. In addition, the option to account for joint ventures, previously called jointly controlled entities, using proportionate consolidation may be removed, and equity accounting may be required. Venturers would transition the accounting for joint ventures from the proportionate consolidation method to the equity method by aggregating the carrying values of the proportionately consolidated assets and liabilities into a single line item. These amendments are effective for annual periods beginning on or after January 1, 2013 and early adoption is permitted. The Company is currently assessing the impact of the new standard on the financial statements.

### *IFRS 13 Fair Value Measurement*

IFRS 13 establishes a single source of guidance for fair value measurements, when fair value is required or permitted by IFRS. The key features of IFRS 13 include: a single framework for measuring fair value while requiring enhanced disclosures when fair value is applied, fair value would be defined as the 'exit price', and concepts of 'highest and best use' and 'valuation premise' would be relevant only for non-financial assets and liabilities. IFRS 13 is effective for annual periods beginning on or after January 1, 2013 and early adoption is permitted. The Company has not yet assessed the impact of the new standard on the Financial statements.



### *IAS 27 Separate Financial Statements*

As a result of the issue of the new suite of consolidation standards, IAS 27 Separate Financial Statements has been reissued, as the consolidation guidance will now be included in IFRS 10. IAS 27 will now only prescribe the accounting and disclosure requirements for investments in subsidiaries, joint ventures and associates when an entity prepares separate financial statements. These amendments are effective for annual periods beginning on or after January 1, 2013 and early adoption is permitted. The adoption of this standard is not expected to have a material impact on the Company's financial statements.

### *IAS 28 Investments in Associates and Joint Ventures*

As a consequence of the issue of IFRS 10, IFRS 11 and IFRS 12, IAS 28 has been amended and will provide the accounting guidance for investments in associates and to set out the requirements for the application of the equity method when accounting for investments in associates and joint ventures. The amended IAS 28 may be applied by entities that are investors with joint control of, or significant influence over, an investee. These amendments are effective for annual periods beginning on or after January 1, 2013 and early adoption is permitted. The Company is currently assessing the impact of the new standard on the financial statements.

### *IAS 32 — Financial Instruments: Presentation*

This amendment provides clarification on the application of offsetting rules. The amendments are effective for annual periods beginning on or after July 1, 2012. The Company is currently assessing the impact of the new standard on the financial statements.

## SUBSEQUENT EVENTS

### *Offering*

On March 29, 2012, PyroGenesis announced the closing of a fully marketed offering of units, each of which is comprised of one common share and one common share purchase warrant. An aggregate of 4,424,555 units were issued at a price of \$0.80 per unit for aggregate gross proceeds to the Company of \$3,539,644. The Company expects to use net proceeds from the fully marketed offering to meet its working capital requirements. However the Company's ability to continue as a going concern is dependent upon its ability to generate sufficient cash flow to meet its obligations as they come due, to obtain additional financing that may be required, and ultimately to obtain more contracts and successful operations.

## OUTLOOK





2011 was indeed a watershed year for the Company. It represented a very challenging time wherein the Company broke new ground on many fronts. All in all the Company met or exceeded its self-set goals.

The most important and significant development of 2011 was the announcement by the Company that both of its plasma based waste destruction/waste to energy contracts (the first being the marine based system contracted for installation on a US aircraft carrier, and the second being the land based system contracted by the US Air Force) were both delivered in a timely fashion and accepted by the end users. This not only is an important milestone in the history of the Company but a game changing development for the sector in general as no other company can boast of such a success with such a discerning customer base. These announcements herald in a new era in the use of plasma as a process by which waste can be economically and safely destroyed while in many cases being energy positive, and as such PyroGenesis Canada Inc continues to be on the leading edge of the movement to redefine waste as a fuel. To further secure its technological advantage PyroGenesis filed for four new patents during the course of 2011.

Independent of its technical achievements during the year, management also completed a successful RTO in 2011 which saw the Company become listed on the TSX-V under the symbol PYR-V. The initial financing of approximately \$7MM was oversubscribed by over 50%; a clear indication of the market's appreciation for the Company's accomplishments to date. Management considers the additional capability of being able to access public funds in these uncertain times to be of paramount importance to the Company's ability to grow and meet the challenging times ahead.

2011 also saw management change its focus from concentrating all of the Company's energies towards the successful completion of its two main contracts and the going public process, to aggressively growing the future revenue stream while at the same time hiring and implementing controls/procedures in anticipation of such growth. 2011 also saw the Company define new market niches for its other two business lines, Torch Manufacturing and Engineering Services; management expects significant revenue streams to be generated over the medium term from these business lines, particularly torch manufacturing.

The worldwide economic slowdown, and significant budgetary constraints in the United States, does not seem to have impacted interest in the Company's main product lines; in fact there is some indication that the cost benefits associated with waste-to-energy technologies have in fact increased interest in the Company's product lines. However, the economic slowdown is undoubtedly having its impact on public markets and equity funding. Management is prudently looking at various strategies to mitigate any impact that may be associated with such adverse economic environments.

As noted in the past, the challenge now is to manage the gap period between the announcements in 2011 of the acceptance of our first orders by the US Navy and The US



Air Force and reorders of the Company's marine and land based systems. This is an extremely challenging prospect particularly in such financially unstable times. Public financings, which in the past were the backbone of such growth, are not as reliant a financing tool as they once were. Management is fully aware of the challenging prospect of rolling out a game changing technology during these trying financial times and is constantly looking at ways to mitigate this risk. Management is of the opinion that teaming arrangements with larger more established firms in specific business segments will not only help offset this risk but will accelerate market acceptance of its technologies. Management has been, and will continue to seek out, focused and targeted teaming arrangements to accelerate its growth.

Looking forward, Management believes that the Company is well positioned as a strong and credible player in the market for plasma based waste destruction technologies and in the long term, is positioned to take advantage of the global environmental movement, specifically in the waste-to-energy sector. As a result, management expects to achieve significant growth in revenues and profitability in the mid-term. In the short term however, quarterly results will be susceptible to quarter over-quarter variability as PyroGenesis builds its backlog of orders and increases personnel to service this business.

#### **ADDITIONAL INFORMATION**

Additional information is contained in the company's annual information form filed on SEDAR on November 4, 2011 (the "AIF"). The AIF and other additional information regarding the Company can be found on SEDAR at [www.sedar.com](http://www.sedar.com).