TARGETED MICROWAVE SOLUTIONS

Management's Discussion and Analysis

For the three and six months ended June 30, 2017

MANAGEMENT'S DISCUSSION AND ANALYSIS

This Management's Discussion and Analysis ("**MD&A**") of Targeted Microwave Solutions Inc. (the "**Company**") provides analysis of the Company's financial results for the period ended June 30, 2017. The following information should be read in conjunction with the accompanying condensed interim consolidated financial statements and notes for the period ended June 30, 2017 prepared in accordance with International Accounting Standard 34, *Interim Financial Reporting*, and the audited consolidated financial statements and accompanying notes for the year ended December 31, 2016. These condensed interim consolidated financial statements have been prepared in accordance with International Financial Reporting Standards ("**IFRS**"). The Board of Directors of the Company have approved the information and disclosures contained in this MD&A. This MD&A is dated as at August 28, 2017, and as of this date, there were 46,820,010 common shares issued and outstanding, 6,051,700 stock options outstanding, 604,400 warrants outstanding, 700,000 performance share units outstanding and 966,666 restricted share units outstanding. All figures are in United States dollars unless otherwise noted. References to "C$" are to Canadian dollars. Additional information relating to the Company is available on SEDAR at www.sedar.com.

FORWARD-LOOKING STATEMENTS

Except for statements of historical fact contained herein, the information presented in this MD&A constitutes "forward-looking statements" or "information" (collectively "forward-looking statements"). These statements relate to analyses and other information that are based upon forecasts of future results, estimates of amounts not yet determinable and assumptions of management.

Any statements that express or involve discussions with respect to predictions, expectations, beliefs, plans, projections, objectives, assumptions or future events or performance (often, but not always, using words or phrases such as "expects" or "does not expect", "is expected", "anticipates" or "does not anticipate", "plans", "estimates" or "intends", or stating that certain actions, events or results "may", "could", "would", "might" or "will" be taken, occur or be achieved) are not statements of historical fact and may be "forward-looking statements". Such forward-looking statements include, but are not limited to, those with respect to: the benefits of and development and commercialization, if at all, of the Company's microwave technology; financial information regarding the Company and/or its availability and use of funds; the Company's research into the drying potential of its microwave application to natural mineral aggregates, other naturally occurring raw materials and processed feedstock; demand for electricity generation; the status of environmental and other regulation; the timing, completion or benefits of any joint venture or similar arrangement; the effectiveness of new improvements in the Company's Generation 2.0 reactors and the Company's new Generation 3.0 reactors; and other factors and events described herein.

Forward-looking statements involve known and unknown risks, uncertainties and other factors which may cause the actual plans, results, performance or achievements of the Company to be materially different from any future plans, results, performance or achievements expressed or implied by such forward-looking statements. Such risks and other factors include, among others: limited operating history; financing risks; shareholder influence; technical issues and delays; commercial viability of processed industrial materials; negative results of technology testing and development; commercial acceptance; construction of commercial plants; management of growth; joint ventures; relationships with strategic partners; foreign operations; foreign subsidiaries and repatriation of earnings; technology and protection of intellectual property; invalidation of patents; intellectual property infringement; environmental and safety regulations and risks; dependence on key management personnel, employees and consultants; anti-bribery and anti-corruption; capital cost estimates; increased demand for services and equipment; competition; currency fluctuations; natural and human caused disasters; litigation; possible conflicts of interest of directors and officers of the Company; market price and listing of common shares; regulatory risks; tax exposures; changes in laws and regulations; uninsurable risks; current global financial conditions; and other factors discussed under the heading "Risk Factors" in the Company's MD&A for the year ended December 31, 2016. Although the Company has attempted to identify important factors that could cause actual actions, events or results to differ materially from those described in the 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 such 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 contained in this MD&A.*

Forward-looking statements are made based upon Management's beliefs, estimates and opinions on the date the statements are made, and the Company undertakes no obligation to update any forward-looking statement if these beliefs, estimates and opinions or other circumstances should change, except as may be required by applicable law.

COMPANY BACKGROUND AND DESCRIPTION OF THE BUSINESS

The Company is a microwave process developer specializing in clean emission, high-throughput industrial drying solutions. Industrial drying is a vital manufacturing process used by heavy industry to transform bulk aggregates such as minerals, biomass, and fossil fuels into finished commercial products. The prevailing industrial drying technology in the market today is the fossil-fuel combustion rotary kiln. This technology generates heat by combusting fossil fuels such as coal, bunker fuel and natural gas, which results in the production of polluting carbon emissions. It is generally accepted that increasingly stringent environmental regulations are having a dramatic impact on the competitiveness and profitability of the industrial sector worldwide. The Company believes that the market for a clean emission, digital drying technology represents a significant global economic opportunity.

The Company's microwave drying technology represents a challenge to the dominance of fossil-fuel combustion dryers in the market. Unlike rotary kilns for example, the Company's drying technology generates minimal to no fossil fuel combustion emissions. Instead, the Company uses digital microwave heating processes within a proprietary, vertical chamber system, to dry industrial materials on a continuous basis being developed to perform at a high throughput capacity. The Company believes that its technology has the potential to deliver a safer, higher efficiency, and more controllable drying process that will allow the heavy industrial sector to challenge the mainstream narrative that large-scale industry is incompatible with responsible, environmental policy.

The core of the Company's technology is a proprietary microwave delivery and process control system designed to achieve uniform moisture reduction across a wide range of industrial aggregates, including those with challenging bulk densities, particle sizes and flow characteristics. Unlike conventional thermal drying technologies, the Company's process generates heat within the input material, as opposed to wasting energy by first heating the environment around the target material. This unique approach allows for significantly cooler ambient temperatures during processing, which helps substantially mitigate combustion risk and prevents the unwanted release of volatile gases that generate polluting greenhouse emissions. In initial continuous trials conducted at the Company's commercial demonstration facility in King William, Virginia (the "**King William Plant**"), the Company's system has shown heat transfer efficiency rates better than competing conventional thermal drying technologies. Additionally, the Company's microwave drying solutions use power only when needed and can be turned on or off almost instantaneously, making the process compatible for automatic control and real-time calibration based on key control factors, such as moisture targets, microwave power levels and feed rate.

The Company's current "Generation 3.0" system, which was installed at the King William Plant in November 2016, is designed to occupy a small footprint and integrate easily into a variety of manufacturing operations, and can deliver up to 2,500 kilowatts of concentrated 0.915 gigahertz microwave power to a variety of target feedstocks (such as industrial minerals, low-rank coal and wood chips) on a continuous feed basis. Despite its light-industrial characteristics, the Company's Generation 3.0 system can achieve processing throughput rates traditionally associated with heavy industrial equipment by utilizing a proprietary vertical processing design and in-house processing controls software. The Company has run a variety of processing trials of low-rank coal, wood biomass, and industrial clay and continues to work with industry partners in an effort to commercialize its technology.

SIGNIFICANT ACCOUNTING POLICIES

A complete summary of the Company's significant accounting policies is provided in the consolidated financial statements for the year ended December 31, 2016. The accounting policies in the unaudited condensed interim consolidated financial statements for the six months ended June 30, 2017 are consistent with those applied in the consolidated financial statements for the year ended December 31, 2016.

COMPARATIVE INFORMATION

Certain comparative information has been reclassified to conform to the current year's presentation. It was determined that the revised presentation provides more relevant information to users of the Company's financial statements. Specifically, the interest expense line item and the foreign exchange loss or gain line item are now presented under the category of "Other (Income) Expenses" within the condensed interim consolidated statements of comprehensive loss (previously reported under the "Expenses" category).

CRITICAL JUDGEMENTS AND ESTIMATES

The preparation of the condensed interim consolidated financial statements requires that the Company's Management to make assumptions and estimates of effects of uncertain future events on carrying amounts of the Company's assets and liabilities at the end of the reporting period. Actual future outcomes could differ from present estimates and assumptions, potentially having material future effects on the Company's consolidated financial statements. Estimates are reviewed on an ongoing basis and are based on historical experience and other factors, including expectations of future events that are believed to be reasonable in the circumstances. Revisions to estimates and the resulting effects on the carrying amounts of the Company's assets and liabilities are accounted for prospectively. The Company is also required to make critical judgements in applying certain accounting policies.

The critical judgements and estimates applied in the preparation of the Company's condensed interim consolidated financial statements for the six months ended June 30, 2017 are consistent with those applied and disclosed in its audited consolidated financial statements for the year ended December 31, 2016.

SIGNIFICANT DEVELOPMENTS IN THE THREE MONTHS ENDED JUNE 30, 2017

In April 2017, the Company entered into an "Exclusive Service Provider" and "Installer Agreement" with Industrial TurnAround Corporation ("**ITAC**") located in Chester, Virginia. ITAC is recognized as an expert in the wood pellet and biomass markets, where ITAC has strong business relationships with key producers and users of biomass in the United States. ITAC and the Company entered into the Installer Agreement after completing several sawdust and wood chip drying tests at the Company's King William Plant. The Company hopes to work with ITAC to pursue applications for the Company's technology in the biomass and compost drying markets.

In May 2017, the Company secured a loan of approximately $350,000 from a significant shareholder, Satellite Overseas (Holdings) Limited ("**SOHL**") to provide short-term working capital. In connection with this loan, the previous loan agreement dated March 8, 2016 from SOHL was amended. The amended loan agreement increases the aggregate principal amount under the loan to $1,350,000. The loan matures on December 31, 2017 and accrues interest at 8% per annum from the date of advance of the initial loan, calculated semi-annually.

In May 2017, as part of a cost-reduction strategy, the Company eliminated eight full-time positions at the Gaithersburg office, cancelled remaining employee benefits and converted all remaining staff to short-term consulting agreements. Additionally, the Company terminated its office lease in Vancouver, BC.

In June 2017, in an effort to secure new capital and explore opportunities to commercialize the technology overseas, the Company entered into a binding memorandum of understanding ("**MOU**") with Inner Mongolia Ming Da Investment Ltd. ("**Ming Da**") to build a pilot coal drying facility at an active coal mining operation in Xilinhaote, Inner Mongolia. The Company continues to work with Ming Da towards a definitive arrangement to form a partnership in China to further develop and commercialize the Company's technology.

In June 2017, the Company's Chief Operating Officer ("**COO**"), Jan Kindler, and Chief Financial Officer ("**CFO**"), Tom Stefan, resigned and the current Chief Executive Officer ("**CEO**"), Dr. James Young, took over responsibilities as interim CFO.

In June 2017, the landlord of the subleased lands on which the King William Plant is situated, notified the Company of several alleged defaults under the sublease, and blocked the Company's access to the site. The Company protested these allegations and took steps to restore access. The dispute with the King William landlord has not been resolved and the Company is in the process of taking legal action to assert its rights under the terms of the King William land lease.

During the three months ended June 30, 2017, due to the sustained decrease in the market capitalization of the Company, as well as the uncertainty surrounding the King William land lease, an assessment was completed on the recoverable amount of the Company's King William Plant and related assets. As a result of this assessment, the Company recognized an impairment loss of $2,631,069 during the three months ended June 30, 2017 to reduce the King William Plant and related assets to its estimated recoverable amount. The estimated recoverable amount of this cash generating unit was determined to be $1,137,424.

RESULTS OF OPERATIONS: THREE AND SIX-MONTH RESULTS

The table below summarizes selected financial information from the Company's condensed interim consolidated financial statements for the three and six-month period ended June 30, 2017, compared to the three and six months ended June 30, 2016.

	Three months ended June 30		**Six months ended June 30**	
	2017	2016	**2017**	2016
	$	$	**$**	$
Operating expenses	**1,200,516**	1,327,727	**2,703,588**	2,547,565
Other expenses (income)	**2,815,718**	(496,067)	**2,873,380**	(747,894)
Net loss and comprehensive loss	**4,016,234**	831,660	**5,576,968**	1,799,671
Net loss attributable to shareholders of the company	**4,013,120**	831,660	**5,571,202**	1,799,671
Loss per share	**(0.09)**	(0.02)	**(0.12)**	(0.05)

During the six months ended June 30, 2017, the Company's primary focus was commercialization of the Company's technology, exploring financing opportunities, investor relations activities and the reduction of Company costs. Research and technology development costs are included in various expense line items included in the Company's condensed interim consolidated financial statements. Research and development costs during the six months ended June 30, 2017 and 2016 was approximately $1,374,000 and $866,000, respectively. Research and development costs during the three months ended June 30, 2017 and 2016 was approximately $525,000 and $474,000, respectively. These costs primarily consisted of facility related costs, compensation for technical staff and operating supplies at both the Virginia and Maryland offices. Research and technology development costs were not capitalized or deferred at June 30, 2017.

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Operating Expenses

Operating expenses for the three and six-month period ended June 30, 2017 compared to the three and six months ended June 30, 2016 are as follows:

	Three months ended June 30		Six months ended June 30	
	2017	2016	**2017**	2016
	$	$	**$**	$
Site supplies, services and other	**141,945**	69,588	**205,433**	135,867
Plant and equipment depreciation	**194,659**	142,064	**369,353**	271,008
Consulting, management and director fees	**246,342**	248,587	**486,963**	439,300
Office, rent and other	**147,772**	98,085	**285,489**	250,282
Investor relations, filing and compliance fees	**43,039**	66,841	**121,002**	98,948
Professional fees	**126,979**	186,943	**196,928**	226,092
Salaries and benefits	**139,033**	187,335	**424,857**	404,346
Share-based compensation	**129,118**	280,220	**534,120**	646,567
Travel and promotion	**31,629**	48,064	**79,443**	75,155
Total	**1,200,516**	1,327,727	**2,703,588**	2,547,565

Site Supplies, Services and Other

Site supplies, services and other expenses ("**Site Supplies**") increased by $72,357 to $141,945 for the three-month period ended June 30, 2017 from $69,588 for the comparable period in 2016. Site Supplies increased by $69,566 to $205,433 for the six-month period ended June 30, 2017 from $135,867 for the comparable period in 2016. The increase in Site Supplies for the three and six months ended June 30, 2017 compared to the same periods last year is primarily attributable to increased utilities expenses at the King William Plant, as well as the initial recognition of King William, Virginia property taxes, including machinery and tools taxes, for the King William Plant.

Plant and Equipment Depreciation

Plant and equipment depreciation increased by $52,595 to $194,659 for the three-month period ended June 30, 2017 from $142,064 for the comparable period in 2016. Plant and equipment depreciation increased by $98,345 to $369,353 for the six-month period ended June 30, 2017 from $271,008 for the comparable period in 2016. The increase in plant and equipment depreciation for the three and six months ended June 30, 2017 compared to the same periods last year is primarily attributable to higher plant and equipment asset balances that were subject to depreciation, as well as accelerated depreciation taken on the Gaithersburg office assets due to a reduction in the estimated useful lives of those assets.

Consulting, Management and Director Fees

Consulting, management and director fees decreased by $2,245 to $246,342 for the three-month period ended June 30, 2017 from $248,587 for the comparable period in 2016. Consulting, management and director fees increased by $47,663 to $486,963 for the six-month period ended June 30, 2017 from $439,300 for the comparable period in 2016.

The decrease in these fees for the three ended June 30, 2017 compared to the same period last year is primarily attributable to a reduction in the Company's executive consulting fees (i.e. fees paid to the CFO, COO and CTO) that went into effect in May 2017, which was partially offset by increased consulting fees associated with the new CEO agreement. The increase in these fees for the six months ended June 30, 2017 compared to the same period last year is primarily attributable to increased consulting fees associated with the new CEO agreement, which was partially offset by decreased executive consulting fees (i.e. fees paid to the CFO, COO and CTO) that went into effect in May 2017.

Office, Rent and Other

Office, rent and other expenses increased by $49,687 to $147,772 for the three-month period ended June 30, 2017 from $98,085 for the comparable period in 2016. Office, rent and other expenses increased by $35,207 to $285,489 for the six-month period ended June 30, 2017 from $250,282 for the comparable period in 2016. The increase in these fees for the three and six months ended June 30, 2017 compared to the same periods last year is primarily attributable to penalties associated with the Company's income tax filings, which was partially offset by changes in office supply purchases and miscellaneous expenses.

Investor Relations, Filing and Compliance Fees

Investor relations, filing and compliance fees decreased by $23,802 to $43,039 for the three-month period ended June 30, 2017 from $66,841 for the comparable period in 2016. Investor relations, filing and compliance fees increased by $22,054 to $121,002 for the six-month period ended June 30, 2017 from $98,948 for the comparable period in 2016.

The decrease in these fees for the three months ended June 30, 2017 compared to the same period last year is primarily attributable to the application fees associated with being listed on the TSX-V which were incurred in the second quarter of 2016. The increase in these fees for the six months ended June 30, 2017 compared to the same period last year is primarily attributable to increased fees associated with investor relations campaigns incurred in the initial quarter of 2017, which was partially offset by the TSX-V application fees which were incurred in the same period in 2016.

Professional Fees

Professional fees decreased by $59,964 to $126,979 for the three-month period ended June 30, 2017 from $186,943 for the comparable period in 2016. Professional fees decreased by $29,164 to $196,928 for the six-month period ended June 30, 2017 from $226,092 for the comparable period in 2016. The decrease in these fees for the three and six months ended June 30, 2017 compared to the same periods last year is primarily attributable to legal fees associated with the Company's TSX-V listing incurred in 2016, which was partially offset by increased patent expense fees incurred in 2017.

Salaries and Benefits

Salaries and benefits decreased by $48,302 to $139,033 for the three-month period ended June 30, 2017 from $187,335 for the comparable period in 2016. Salaries and benefits increased by $20,511 to $424,857 for the six-month period ended June 30, 2017 from $404,346 for the comparable period in 2016. The decrease in these expenses for the three months ended June 30, 2017 compared to the same period last year is primarily attributable to the elimination of eight full time positions in the Company's Gaithersburg office in May of 2017. The increase in these expenses for the six months ended June 30, 2017 compared to the same period last year is primarily attributable to increased salaries paid to the Company's employees in 2017, which was partially offset by the elimination of eight full time positions in May 2017.

Share-Based Compensation

Share-based compensation decreased by $151,102 to $129,118 for the three-month period ended June 30, 2017 from $280,220 for the comparable period in 2016. Share-based compensation decreased by $112,447 to $534,120 for the six-month period ended June 30, 2017 from $646,567 for the comparable period in 2016. The decrease in share based compensation for the three and six months ended June 30, 2017 compared to the same periods last year is attributable to the number of instruments granted in a period, the fair value of those instruments and the vesting terms.

Travel and Promotion

Travel and promotion expenses decreased by $16,435 to $31,629 for the three-month period ended June 30, 2017 from $48,064 for the comparable period in 2016. Travel and promotion increased by $4,288 to $79,443 for the six-month period ended June 30, 2017 from $75,155 for the comparable period in 2016. The decrease in these fees for the three months ended June 30, 2017 compared to the same period last year is primarily attributable to the Company's cost reduction strategy implemented in May 2017. The increase in these fees for the six months ended June 30, 2017 compared to the same period last year is primarily attributable to corporate overseas travel for business development purposes and investor relations, which was partially offset by the Company's cost reduction strategy implemented in May 2017.

Other Expenses (Income)

Other expenses (income) for the three and six-month period ended June 30, 2017 compared to the three and six months ended June 30, 2016 are as follows:

	Three months ended June 30		Six months ended June 30	
	2017	2016	**2017**	2016
	$	$	**$**	$
Interest income	**(9)**	(4)	**(12)**	(1,846)
Other income	**(25,536)**	-	**(25,536)**	(60,192)
Interest expense	**218,492**	36,073	**318,822**	134,086
Foreign exchange loss (gain)	**838**	108,419	**(12,277)**	3,021
Fair value change in derivative liability	**(9,136)**	(640,555)	**(38,686)**	(822,963)
Impairment loss on plant and related assets	**2,631,069**	-	**2,631,069**	-
Total	**2,815,718**	(496,067)	**2,873,380**	(747,894)

Other expenses (income) increased by $3,311,785 to $2,815,718 for the three-month period ended June 30, 2017 from $(496,067) for the comparable period in 2016. Other expenses (income) increased by $3,621,274 to $2,873,380 for the six-month period ended June 30, 2017 from $(747,894) for the comparable period in 2016.

The increase in other expenses for the three and six months ended June 30, 2017 compared to the same periods last year is primarily attributable to the recognition of an impairment loss of $2,631,069 on the Company's King William Plant and related assets, additional interest and accretion expenses associated with the Company's loans and the difference in the fair value change of the derivative liability. This increase was partially offset by the difference in the foreign exchange gain and loss recognized between the periods and the difference between other income in 2017 related to the receipt of a GST settlement and a non-repayable grant of $60,000 received from the State of Maryland in 2016 (recognized as other income in 2016).

Net Loss

Net loss increased by $3,184,574 to $4,016,234 for the three months ended June 30, 2017 from $831,660 in the comparable period last year. For the six months ended June 30, 2017, net loss increased by $3,777,297 to $5,576,968 from $1,799,671 for the same six-month period last year.

Net Loss Attributable to Shareholders of the Company

Net loss attributable to shareholders of the Company increased by $3,181,460 to $4,013,120 for the three months ended June 30, 2017 from $831,660 for the comparable period last year. For the six months ended June 30, 2017, net loss attributable to shareholders of the Company increased by $3,771,531 to $5,571,202 from $1,799,671 for the same six-month period last year.

Net Loss Attributable to Non-Controlling Interests

The net loss attributable to non-controlling interests for the three and six months ended June 30, 2017 was $3,114 and $5,766, respectively, for the 49% non-controlling interest in Targeted Microwave Solutions Hong Kong Limited not held by the Company's shareholders.

QUARTERLY INFORMATION

The following table presents the unaudited summarized financial information for the last eight quarters:

	Q2 F2017	Q1 F2017	Q4 F2016	Q3 F2016	Q2 F2016	Q1 F2016	Q4 F2015	Q3 F2015
	$	$	$	$	$	$	$	$
Operating expenses	**1,200,516**	1,503,071	1,751,738	1,293,664	1,327,727	1,219,838	1,717,932	1,904,599
Other expenses	**2,815,718**	57,663	1,141,310	(335,471)	(496,067)	(420,317)	(493,423)	(859,979)
Loss before income taxes	**4,016,234**	1,560,734	2,893,048	958,193	831,660	799,521	1,224,509	1,044,620
Income Taxes	**-**	-	-	-	-	-	-	-
Net loss	**4,016,234**	1,560,734	2,893,048	958,193	831,660	799,521	1,224,509	1,044,620
Non-controlling interest	**3,114**	2,652	34,245	-	-	-	-	-
Net loss attributable to shareholders of the Company	**4,013,120**	1,558,082	2,858,803	958,193	831,660	799,521	1,224,509	1,044,620
Loss per Share	**(0.09)**	(0.03)	(0.07)	(0.03)	(0.02)	(0.02)	(0.03)	(0.03)

The quarterly fluctuations in net loss are generally correlated to the level of activities related to the construction, testing and commissioning of the King William Plant, as well as new technology design, fabrication, installation and Company staffing requirements. Net loss is also impacted by the non-cash fluctuations in the fair value of derivative liabilities in the period, non-cash impairment losses and the Company's corporate costs associated with investor relations and executive compensation (among other operating expenses).

LIQUIDITY AND CAPITAL RESOURCES

The Company generally manages its liquidity risk by preparing cash flow forecasts, and anticipating investing and financing activities. Management and the Board are actively involved in the review, planning and approval of budgets and significant expenditures and commitments.

As at June 30, 2017, the Company had a consolidated cash balance of $24,847 (December 31, 2016 - $1,226,273). At present, the Company is actively seeking additional financing in the form of debt or equity (or both) to fund future commercialization, testing activities and the settlement of existing obligations. Should the Company be unsuccessful in raising funds, it may not be able to fund future growth or satisfy the existing financial obligations as noted in note 2(b) of the condensed interim consolidated financial statements.

As noted above, in May 2017, the Company secured a loan of approximately $350,000 from a significant shareholder, SOHL to provide short-term working capital. In connection with this loan, the previous loan agreement dated March 8, 2016 from SOHL was amended. The amended loan agreement increases the aggregate principal amount under the loan to $1,350,000. The loan matures on December 31, 2017 and accrues interest at 8% per annum from the date of advance of the initial loan, calculated semi-annually.

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Cash Flows

The table below sets forth a summary of cash flow activity and should be read in conjunction with the Company's cash flow statements:

	Three months ended June 30		Six months ended June 30	
	2017	2016	**2017**	2016
	$	$	**$**	$
Cash outflow from operating activities	**(608,197)**	(979,109)	**(1,498,998)**	(1,685,940)
Cash outflow from investing activities	**(14,519)**	(174,896)	**(52,428)**	(231,660)
Cash inflow from financing activities	**350,000**	-	**350,000**	2,000,000
Increase (decrease) in cash during the period	**(272,716)**	(1,154,005)	**(1,201,426)**	82,400
Cash, beginning of period	**297,563**	3,385,475	**1,226,273**	2,149,070
Cash, end of period	**24,847**	2,231,470	**24,847**	2,231,470

The cash flow deficit from operating activities improved by $370,912 to $(608,197) for the three ended June 30, 2017 from $(979,109) for the same comparable period last year. The cash flow deficit from operating activities for the six months ended June 30, 2017 improved by $186,942 to $(1,498,998) compared to $(1,685,940) for the six months ended June 30, 2016. The cash flow deficit from operating activities represent cash flows from net losses, excluding expenses not affecting cash, principally depreciation, accrued interest, share-based compensation expense, accretion expense and other finance expenses in addition to net changes in non-cash balances relating to operations.

Cash used for investing activities were $14,519 and $174,896 for the three months ended June 30, 2017 and 2016, respectively. During the three months ended June 30, 2017 and 2016, the Company invested $14,519 and $174,896, respectively, in the acquisition of plant and equipment. Cash used for investing activities for the six-months ended June 30, 2017 and 2016, were $52,428 and $231,660, respectively. During the six months ended June 30, 2017 and 2016, the Company invested $52,428 and $231,660 in the acquisition of plant and equipment.

Cash flows generated from financing activities were $350,000 and $nil for the three months ended June 30, 2017 and 2016, respectively. During the three months ended June 30, 2017, the Company received $350,000 in loan proceeds from related parties for working capital purposes. During the three months ended June 30, 2016, the Company did not recognize any cash transactions relating to financing activities. Cash flows generated from financing activities for the six months ended June 30, 2017 and 2016, were $350,000 and $2,000,000, respectively. During the six months ended June 30, 2017, the Company received $350,000 in loan proceeds from related parties (as noted above). During the six months ended June 30, 2016, the Company received $2,000,000 in loan proceeds from related parties.

TRANSACTIONS WITH RELATED PARTIES

The Company's related parties include its subsidiaries and key management personnel. At June 30, 2017, the Company owed a total of $254,044 (December 31, 2016 - $63,787) to officers and directors which was included in accounts payable and accrued liabilities. These amounts were unsecured, non-interest bearing and have no fixed terms of repayment.

The Company received loans from related parties and owed a total of $2,500,409 of principal and accrued interest at June 30, 2017 (December 31, 2016 - $2,048,966).

FINANCIAL INSTRUMENTS RISK AND EXPOSURE

The Company's risks related to financial instruments, including credit risk, liquidity risk, currency risk and interest rate risk, including the Company's strategy to manage those risks, are described in note 14 of the Company's consolidated financial statements for the year ended December 31, 2016. As at the date hereof, the Company believes that there were no significant changes to those risks during the three and six months ended June 30, 2017, with the exception of the risk items noted below (liquidity risk and currency risk). Further, the Company's interest rate risk primarily pertains to its loans with related parties. In May 2017, the interest rate on the loan with SOHL increased to 8% (from 3%) as per the amended loan agreement. The interest rate on the loan with Dr. James Young remains at 3%. As of the date of this MD&A, it is not expected that the interest rates on either loan will change from their existing rates in the short term. As such, the interest rate risk has not significantly changed.

Liquidity Risk

The Company manages its liquidity risk by preparing and reviewing forecasted expenditure and cash flow budgets. As noted above, the Company had a consolidated cash balance of $24,847 as at June 30, 2017 (December 31, 2016 - $1,226,273) with a working capital deficit of $2,744,732 (December 31, 2016 – working capital surplus of $906,813). This working capital deficit balance includes the Company's loan payable balance of $2,255,465 as at June 30, 2017. Without this loan payable balance, the working capital deficit is $489,267 as at June 30, 2017. As such, the Company is exposed to significant liquidity risk.

In order to address this liquidity risk, the Company is actively seeking additional financing in the form of debt or equity (or both). Should the Company be unsuccessful in raising funds, it may not be able to satisfy its existing financial obligations or fund future growth. The Company's current ongoing working capital requirements have been significantly reduced due to the implementation of the cost reduction strategy and the further elimination of Company staff (refer to subsequent events below).

The following table summarizes the remaining contractual maturities of the Company's financial obligations as at June 30, 2017:

	Within 1 year	2 to 5 years	Over 5 years	June 30, 2017	December 31, 2016
Accounts payable and accrued liabilities	$600,462	$ -	$ -	$600,462	$354,901
Minimum rental and lease payments (1)	143,493	801,055	582,853	1,527,401	1,597,852
Loan repayments	2,500,409	-	-	2,500,409	2,121,631
	$3,244,364	$801,055	$582,853	$4,628,272	$4,074,384

(1) Includes annual rent on a 7,500-square foot office located in Gaithersburg, Maryland. The lease includes certain operating, maintenance and repair costs.

As at the date of this MD&A, the Company was in default for two months of lease payments pertaining to the office lease in Gaithersburg, Maryland (refer to subsequent events below). The Company plans to seek opportunities to sublet the Gaithersburg office to reduce any arrears balances as it no longer has active operations or personnel at that site. This Gaithersburg office lease represents a Company commitment with maturity date in the year 2026 (minimum rental and lease payments for the Gaithersburg office noted in the table above).

Currency Risk

During the three and six months ended June 30, 2017, the Company recognized a net foreign exchange (gain) loss of $838 and $(12,277), respectively (June 30, 2016 - $108,419 and $3,021, respectively). The Company's net foreign currency exposures at June 30, 2017 have decreased since year-end and are primarily related to Canadian dollar cash balances, Canadian dollar sales tax receivables and Canadian dollar accounts payable. As such, as at June 30, 2017, the Company does not have significant assets or liabilities denominated in foreign currencies, which will not result in significant currency risk.

OTHER RISKS FACTORS AND UNCERTAINTIES

A comprehensive discussion of risk factors is included in the Company's MD&A for the year ended December 31, 2016, a copy of which is available on SEDAR at www.sedar.com.

OFF-BALANCE SHEET ARRANGEMENTS

As at June 30, 2017, the Company did not have any off-balance sheet arrangements.

SUBSEQUENT EVENTS

In July 2017, due to ongoing cash limitations, the Company terminated five consulting positions, including the Chief Technology Officer, Steven Lawson. The Company also closed its office in Gaithersburg, Maryland. Under the terms of its lease in Gaithersburg, the Company continues to have an obligation to pay rent to the landlord. In August 2017, the Gaithersburg landlord issued a notice of default for non-payment of rent. The Company plans to seek opportunities to sublet the Gaithersburg office to offset these costs as it no longer has active operations or personnel at that site.

In July 2017, the Company received a working capital loan from Dr. James Young, Chairman of the Board and CEO, for an aggregate amount of $40,000. These funds will represent an increase in the principal amount of the original loan dated March 8, 2016 with similar terms.

In July 2017, the King William landlord alleged that the Company had improperly handled coal at the King William Plant, resulting in environmental contamination. The Company denies any environmental contamination and has demanded that the King William landlord provide evidence to support this claim, which to-date has not been provided. The Company is in the process of taking steps to evaluate the alleged contamination claims.

In August 2017, the King William landlord resumed efforts to block access to the King William Plant and seize Company assets. The King William landlord continues to allege that coal remaining on the subleased lands have contaminated the site. The Company is taking steps to seek an injunction against the landlord to restore its rights under the King William lease to retrieve its equipment. The Company plans to move its equipment into storage off-site while advancing discussions with potential joint venture partners. The Company believes that litigation will be necessary to assert its rights against the King William landlord.

In August 2017, the Company secured a loan of $50,000 from SOHL to provide short-term working capital. In connection with this loan, the previous loan agreement from SOHL was amended. The amended loan agreement increases the aggregate principal amount under the loan to $1,400,000. The loan matures on December 31, 2017 and accrues interest at 8% per annum from the date of advance of the initial loan, calculated semi-annually.