MANAGEMENT DISCUSSION AND ANALYSIS

For the year ended December 31, 2020

April 29, 2021

The following management's discussion and analysis ("**MD&A**") of the financial condition and results of the operations of SHARC International Systems Inc. (the "**Company**" or "**SHARC Energy**") constitutes management's review of the factors that affected the Company's financial and operating performance for the year ended December 31, 2020. This MD&A has been prepared in compliance with the requirements of National Instrument 51-102 – Continuous Disclosure Obligations. The discussion should be read in conjunction with the audited financial statements of the Company for the years ended December 31, 2020 and 2019, together with the notes thereto. Results are reported in Canadian dollars, unless otherwise noted. In the opinion of management, all adjustments (which consist only of normal recurring adjustments) considered necessary for a fair presentation have been included. The result for the year ended December 31, 2020 are not necessarily indicative of the results that may be expected for any future period. Information contained herein is presented as at April 29, 2021 unless otherwise indicated.

The consolidated financial statements for the year ended December 31, 2020, have been prepared using accounting policies consistent with International Financial Reporting Standards ("**IFRS**") as issued by the International Accounting Standards Board ("**IASB**") and interpretations issued by the International Financial Reporting Interpretations Committee ("**IFRIC**").

For the purposes of preparing this MD&A, management, in conjunction with the Board of Directors, considers the materiality of information. Information is considered material if: (i) such information results in, or would reasonably be expected to result in, a significant change in the market price or value of SHARC Energy's common shares; or (ii) there is a substantial likelihood that a reasonable investor would consider it important in making an investment decision; or (iii) it would significantly alter the total mix of information available to investors. Management, in conjunction with the Board of Directors, evaluates materiality with reference to all relevant circumstances, including potential market sensitivity.

Further information about the Company and its operations is available on SEDAR at **www.sedar.com**.

Caution Regarding Forward-Looking Statements

This MD&A contains certain forward-looking information and forward-looking statements, as defined in applicable securities laws (collectively referred to herein as "forward-looking statements"). These statements relate to future events or the Company's future performance. All statements other than statements of historical fact are forward-looking statements. Often, but not always, forward-looking statements can be identified by the use of words such as "plans", "expects", "is expected", "budget", "scheduled", "estimates", "continues", "forecasts", "projects", "predicts", "intends", "anticipates" or "believes", or variations of, or the negatives of, such words and phrases, or state that certain actions, events or results "may", "could", "would", "should", "might" or "will" be taken, occur or be achieved. Forward-looking statements involve known and unknown risks, uncertainties and other factors that may cause actual results to differ materially from those anticipated in such forward-looking statements. The forward-looking statements in this MD&A speak only as of the date of this MD&A or as of the date specified in such statement.

Forward-looking statements involve known and unknown risks, uncertainties and other factors that may cause SHARC Energy's actual results, performance, or achievements to be materially different from any of its future results, performance or achievements expressed or implied by forward-looking statements. All forward-looking statements herein are qualified by this cautionary statement. Accordingly, readers should not place undue reliance on forward-looking statements. The Company undertakes no obligation to update publicly or otherwise revise any forward-looking statements, whether because of new information or future events or otherwise, except as may be required by law. If the Company does update one or more forward-looking statements, no inference should be drawn that it will make additional updates with respect to those or other forward-looking statements, unless required by law.

Corporate Information

The Company was incorporated under the Business Corporations Act (British Columbia) on February 4th, 2011. SHARC Energy is publicly traded in Canada (CSE:SHRC), the United States (OTCQB:INTWF) and Germany (Frankfurt:IWIA). The head office of the Company is located at 1443 Spitfire Place, Port Coquitlam, British Columbia, V3C 6L4 and the registered and records office of the Company is located at 1443 Spitfire Place, Port Coquitlam, British Columbia, Canada, V3C 6L4.

The Company's wholly owned subsidiary, SHARC Energy Systems Inc. ("**SES**") was incorporated under the Business Corporations Act (British Columbia) on May 30th, 2011. On October 27th, 2015, the Company completed the acquisition (the "**Acquisition**") of SES pursuant to a share exchange agreement dated September 4th, 2015 (the "**Agreement**"). The Acquisition constituted a reverse takeover ("**RTO**").

The Company either wholly owns or owns a percentage of the following subsidiaries located in Canada and Australia:

Company	Location	Dec 31, 2020 Ownership %	Dec 31, 2019 Ownership %
SHARC Energy Systems Inc. ("**SES**")	Canada	100	100
SHARC Energy Systems Australia Pty Ltd. ("**SHARC Australasia**") (1)	Australia	80	80
2336882 Ontario Inc. (1)	Canada	100	100

(1) The subsidiary was inactive.

Highlights

i. **$11.13 Million (M) raised through capital markets and security exercises.** Since the beginning of 2020 to current day, the Company raised $4.74M (gross) through the issuance of 2% convertible debt, $4.1M through non-brokered equity and equity unit private placements and $2.29M through the exercise of stock options and warrants.

ii. **Convertible Debt Settlement.** On May 29, 2020, the Company settled with all holders ("**Debentureholders**") of the Company's $1.3M and $1M 12% unsecured, convertible debentures which were set to mature on May 30, 2020 and June 29, 2020 (the "**Maturing Debentures**"). This resulted in a gain on debt settlement of $0.59M.

iii. **Successful Incubatenergy Labs Challenge.** On October 14th, 2020, utilities, municipalities and private sector investors in the United States were shown results achieved during a three-month demonstration of the PIRANHA HC at the Electrical Power Research Institute ("**EPRI**") sponsored Incubatenergy Labs and Ameren Accelerator Demo Day.

iv. **Significant Growth of Representative Network.** The Company revamped its distribution network for SHARC Energy products in 2020 by adding 10 manufacturer representatives ("**Representative**" **or** "**Rep**") that provide the Company sales coverage across most Canadian provinces and American states. As at December 31, 2020, 75% of deals in our pipeline will be fulfilled through these Representatives.

v. **Year over Year Results.** During the year ended December 31, 2020, the Company reported revenues of $0.63M, a loss from continuing operations of $2.89M and an Adjusted EBITDA loss of $1.86M. Revenue increased 339% over revenue comparative in 2019 of $0.14M, the loss from continuing operations decreased 12% over loss from continuing operations comparative in 2019 of $3.29M and Adjusted EBITDA loss decreased 16% over 2019 comparative of $2.23M. Please refer to Alternative Performance Measurements below for more information on Adjusted EBITDA.

vi. **Quarter over Quarter Results.** During the three months ended December 31, 2020, the Company reported revenues of $0.04M, a loss of $0.95M and an Adjusted EBITDA loss of $0.55M. Revenue increased 89% over revenue comparative in 2019 of $0.02M, the loss from continuing operations increased 54% over loss comparative in 2019 of $0.62 and Adjusted EBITDA loss decreased 4% over 2019 comparative of $0.58M.

vii. **Sales Order Backlog and Sales Pipeline Disclosure.** As at April 29, 2021, the Company reported a Sales Order Backlog of $1.24M and a Sales Pipeline of $2.76M. Please refer to Alternative Performance Measurements below for more information on Sales Order Backlog and Sales Order Pipeline

Core Business

SHARC Energy is changing the way we think about wastewater. One of the biggest challenges facing climate action is how the world will reduce carbon pollution associated with heating and hot water production in an economic and efficient way. SHARC Energy's systems can help with that. The Company provides users of its solutions the opportunity to use wastewater for the purposes of creating low carbon and energy efficient heating and cooling, with a primary focus on hot water production. In using wastewater for thermal energy exchange, SHARC Energy's systems provides the potential opportunity through wastewater for:

- Significantly reducing the carbon emissions from current hot water production or space heating process.
- Operational and upfront capital cost savings through decreased utility bills, carbon tax, maintenance costs paid and upfront capital costs associated with some competitive renewable alternatives.
- Freshwater savings in cooling towers and improved efficiency of cooling processes

SHARC Energy is considered a pioneer in wastewater energy, an industry very much in its infancy. To the Company's knowledge, SHARC Energy is the only wastewater energy company with several solutions that can address the energy needs of commercial, industrial, and multi-family residential buildings as well as district energy systems that are scalable in size depending on access to wastewater flow and output requirements. The Company's business has been built through advocating and promoting the industry for nearly 10 years, patented and proprietary technology and the delivery and installation of nearly 25 installations in 4 countries including the current largest wastewater district energy system in North America.

Overview of the Wastewater Energy Exchange Business

SHARC Energy supplies and services systems that provide the opportunity for recovering thermal energy from wastewater or rejecting thermal energy into wastewater for the purpose of creating low carbon and electrically efficient heating and cooling systems. These systems can be used by industrial, commercial or multi-family residential buildings to offset and significantly reduce the energy requirements and carbon emissions associated with heating and cooling.

SHARC systems, which are patented in Canada, can filter high volumes of wastewater flow for the purposes of extracting or rejecting thermal energy from or into wastewater. These systems are customer specific and typically paired with a heating or cooling process enabler such as a heat pump, air handler, chiller, etc. that are sold separately. A single SHARC system sale can vary depending on the size and scope of the project, with larger systems for larger capacities of wastewater and output achieved by supplying additional systems which in parallel drive multiples in sales value accordingly. The mix of models, scope and geography of each project impacts the overall sales revenue and margin.

Examples of SHARC system projects would be, but not limited too, wastewater energy-based district energy, micro-grids, large commercial and mix-use building developments and industrial applications like food processing, pulp and paper and textiles manufacturing.

These projects typically require detailed design support from third-party engineering firms and are developed and installed by mechanical contractors. SHARC systems are typically involved in a request for proposal ("**RFP**") process and can be the specified system in the RFP process. SHARC Energy's ability to supply equipment is subject to the progress of the bid, specification, design and build phases and therefore, these projects tend to have a longer sales cycle of 24 months or longer.

A PIRANHA system, which is a self-contained wastewater heat pump, can offset electric or natural gas boilers used in hot water production up to 100% while providing some air conditioning as a by-product of hot water production. These systems come in three sizes and two models and are sized accordingly based on the hot water demand for the implementation. A PIRANHA system requires a wastewater storage tank and solids pump that flows wastewater systematically through the PIRANHA to produce hot water. These systems are applicable for new build or retrofit implementations. A single PIRANHA system ranges in price depending on the size and model, with larger hot water demand achieved by supplying additional PIRANHA systems which in parallel drive multiples in sales value accordingly. The implementation and related costs of the PIRANHA system is site specific and subject to considerations such as available access to exiting wastewater pipes, space for installation and access or proximity to the mechanical or boiler room.

Examples of PIRANHA system projects would be, but not limited too, an apartment building, hotel, commercial laundry, breweries, distilleries, recreation facilities such as ice rinks, gyms and pools, senior care facilities and some industrial applications.

The Company currently sells its systems through a mix of direct and indirect sales channels. Direct sales team members are employed or contracted by SHARC Energy and help generate leads and manage the indirect sales network. The indirect sales network consists of Representatives and independent sales representatives ("**ISR"**) that operate on a resale or commission only basis. This provides SHARC Energy with a lower upfront cost model and provides extended market coverage across North America and some foreign regions while SHARC Energy continues to build awareness of the opportunity of wastewater.

SHARC Energy maintains a pipeline of prospective projects that it updates regularly to ensure that it is reflective of the sales opportunities that can convert into orders within approximately a rolling 24-month time horizon ("**Sales Pipeline**"). Not all these potential projects will proceed or proceed within the expected timeframe and not all the projects that do proceed will be awarded to SHARC Energy. Additions and reductions are discussed in greater detail below in Alternative Performance Measures.

The market for SHARC Energy's products is expected to grow as an increasing number of organizations and individuals seek out cost effective solutions to meet their sustainability goals and governments around the world enact and strengthen environmental policies designed to combat climate change by promoting the adoption of low carbon and electrically efficient heating and cooling solutions.

Overview For The Year Ended December 31, 2020 and Subsequent Events

Financial Developments

i. **Completion of $4.74M Non-Brokered Private Placements issuing 2% Convertible Debt**

   On February 13 and February 24, 2020, the Company issued unsecured convertible debenture units with total principal amounts of $1,764,000 and $276,000 respectively. The debentures mature on February 13 and February 24, 2023, respectively, and bear interest at an annual rate of 2% due semi-annually. The debentures are convertible, in whole or in part, at the option of the holder at any time after the first anniversary of the date of issuance and prior to the maturity date into common shares of the Company at a conversion price of $0.10 per common share.

Each debenture unit consisted of one $1,000 principal amount unsecured convertible debenture and 5,000 share purchase warrants, each exercisable into one common share of the Company at $0.20 per share three years from issuance. Total finders' fee of $102,000 in cash and 203 debenture warrants, with a nominal value, were incurred on the issuances. Each debenture warrant is exercisable into one debenture unit of the Company at $1,000 per unit three years from issuance under the same terms as the units in the placement.

On May 29, 2020 and June 12, 2020, the Company issued unsecured convertible debenture units with total principal amounts of $2,000,000 and $700,000 respectively. The debentures mature on May 29 and June 12, 2023, respectively, and bear interest at an annual rate of 2% due semi-annually. The debentures are convertible, in whole or in part, at the option of the holder at any time after the first anniversary of the date of issuance and prior to the maturity date into common shares of the Company at a conversion price of $0.15 per common share.

Each debenture unit consisted of one $1,000 principal amount unsecured convertible debenture and 3,333 share purchase warrants, each exercisable into one common share of the Company at $0.25 per share three years from issuance.Total finders' fee of $134,475 in cash and 269 debenture warrants, with a nominal value, were incurred on the issuances. Each debenture warrant is exercisable into one debenture unit of the Company at $1,000 per unit three years from issuance under the same terms as the units in the placement.

ii. **Settlement of $2.34M Maturing 12% Convertible Debt**

On May 29, 2020, the Company settled with Debentureholders of the Company's Maturing Debentures. The Debentureholders have entered into settlement agreements with the Company (the **"Settlement Agreements**") pursuant to which the Debentureholders accepted 75% cash payout of the outstanding principal amount of the Maturing Debentures, the payout of any accrued and unpaid interest up to the date of maturity and the amendment of 1,673,571 common share purchase warrants (the **"Warrants**") in consideration for the cancellation of the Maturing Debentures and a release of the Company's obligations under the Maturing Debentures.

iii. **Completion of $4.1M Non-Brokered Private Placements Issuing Equity and Equity Units**

On February 11, 2020, the Company issued 10,000,000 units at a price of $0.065 for cash proceeds of $156,000 and the settlement of debt of $494,000 owed to officers, directors and consultants (the "**Financing**"). Debt settlement of officers and directors of the Company account for $326,794 of the total settlements.

Each unit consists of one common share and one common share purchase warrant. Each common share purchase warrant is exercisable into one common share at a price of $0.10 for a period of two years from closing. In the event that the Company's shares trade above $0.25 for a period of 10 consecutive trading days at any time after June 12, 2020, the Company may accelerate the expiry date of the warrants by giving notice to the holders thereof and in such case, the warrants will expire on the 30th day after the date of giving such notice. These warrants were accelerated during the year ended December 31, 2020.

On March 5, 2020, related parties and consultants agreed to amend the exercise price of 7,027,596 out of 10,000,000 common share purchase warrants originally granted in the Financing to $0.25 from $0.10.

On December 19, 2020, the Company issued 10,001,000 common shares pursuant to a non-brokered private placement at a price of $0.30 per common share for gross proceeds of $3,000,300. Total finders' fee of $150,015 in cash and 1,000,100 compensation warrants were incurred on the issuances. Each compensation warrant is exercisable into one common share of the Company at $0.45 per common share for a period of two years from issuance. The Company incurred legal, regulatory and other share issuance costs of $426.

On January 26, 2021, the Company issued 1,500,000 common shares at a price of $0.30 for gross proceeds of $450,000 pursuant to a non-brokered private placement. Total finders' fees of $22,500 in cash and 150,000 compensation warrants were incurred in the issuance. Each compensation warrant is exercisable into one common share of the Company at $0.45 per common share for a period of two years following the date of the issuance.

iv. Exercise of Warrants and Stock Options for Gross Proceeds of $2.29M

During the year ended December 31, 2020, the Company issued 6,088,832 common shares pursuant to the exercise of stock options and warrants for aggregate gross proceeds of $894,847.

Subsequent to year end, the Company issued 5,509,553 common shares pursuant to the exercise of stock options and warrants for aggregate gross proceeds of $1,396,524.

v. Conversion of Convertible Debt Face Value of $2.21M

During the year ended December 31, 2020, the Company issued 11,025,000 common shares pursuant to the conversion of $1,262,000 of convertible debt.

Subsequent to December 31, 2020, the Company issued 5,482,500 common shares pursuant to the conversion of $952,500 of convertible debt.

Operational Developments

i. **Successful Incubatenergy Labs Challenge.**

On October 14th, 2020, utilities, municipalities and private sector investors in the United States were shown results achieved during a three-month demonstration of the PIRANHA HC at the Electrical Power Research Institute (**"EPRI")** sponsored Incubatenergy Labs and Ameren Accelerator Demo Day. Key results of the demonstration included:

- 61 per cent energy savings reported by building management.
- 99 per cent GHG reduction from gas boiler use.
- Production of 100% of the hot water at 140°F, completely offsetting the use of gas boilers.
- An average Co-efficiency of Performance ("**COP**") for hot-water production of over 3.5 over the project term and peak COP of over 5.
- Reduction of thermal water pollution. PIRANHA HC removes the heat from wastewater, so that it reduces impact on ambient water temperature in rivers, lakes, and oceans when it is released.

ii. **Sales Order Backlog and Sales Pipeline Disclosure.**

As at April 29, 2021, the Company reported a Sales Order Backlog of $1.24M and a Sales Pipeline of $2.76M. Please refer to Alternative Performance Measurements below for more information on Sales Order Backlog and Sales Order Pipeline

iii. National Western Center

The National Western Center is pioneering the largest scale wastewater district-energy innovation in North America to date. The National Western Center will rely on two SHARC™ wastewater recovery systems placed in the heart of its 3.8-megawatt (MW) district energy system, creating a low-carbon campus that is sustainable and regenerative. The first phase of development is expected to recover the thermal energy from 3,000 gallons of wastewater that would otherwise be wasted and go down the drain every minute.

The National Western Center's wastewater heat recovery system has already received widespread attention as an innovation to help developers align with the GHG reduction goals set forth in Denver's Climate Action Plan. The Denver Post recently reported the National Western Center system will "prevent 2,600 metric tons of carbon dioxide from being emitted into the atmosphere each year by circumventing the need to burn fossil fuels."

The system is expected to ship during Q3 2021.

iv. British Columbia Retrofit Rebate Programs

British Columbia, Canada, has some of the most progressive subsidy programs for energy studies and capital incentives for fuel switching and other electrification measures. These programs help subsidize the purchase and installation of SHARC Energy equipment in both new build and retrofits of industrial, commercial and multi-family residential buildings.

CleanBC Custom and Custom-Lite Programs are funded by the Province of British Columbia and the Government of Canada and is administered by BC Hydro. In April 2021, the Company shipped its first PIRANHA T10 HC accepted for rebate in the new build ELLA Development under this program.

FortisBC Custom Performance Program is funded and administered by FortisBC for natural gas and/or electricity energy-efficiency projects tailored to implementation site. In March 2021, the Company installed its first PIRANHA T15 in a retrofit implementation project for Washout Laundry, a commercial laundry.

The Company is leveraging these rebate programs and others for the purposes of generating Sales Pipeline and Sales Order Backlog.

v. Representative Network Development

The Company revamped its distribution network for SHARC Energy products in 2020 by adding 10 Representatives that provide the Company sales coverage across most Canadian provinces and American states. As at December 31, 2020, 75% of deals in our pipeline will be fulfilled through these Representatives and this number continues to grow as Reps provide invaluable engagement with our buyers in the contractor and engineering community across all aspects of industrial and commercial markets that would otherwise be challenging for SHARC to reach with our internal resources alone.

Industry Developments

i. Investing in Canada Plan provides $16.4M for Sewer Heat Recovery Projects

In September 2020, it was announced that under the Investing in Canada Plan, joint Federal, Provincial and Municipal funding will support green energy, clean transportation and energy efficiency improvements in communities across British Columbia.

The Government of Canada, through the Green Infrastructure Stream, and the Government of British Columbia, through the CleanBC Communities Fund, part of the federal Investing in Canada plan's Green Infrastructure Stream contributed $16.4M towards sewer heat recovery, or wastewater energy. This investment by both the Federal and Provincial government shows that the Wastewater Energy Industry is beginning to get the recognition and attention it requires to grow.

ii. King County, Washington

SHARC Energy participated in the opportunity that King County provided for public consultation with regards to the development of the template contract that could be used for agreements with private parties (users) for wastewater energy. On September 15, 2020 King County Council unanimously approved legislation allowing three wastewater heat recovery projects.

The approved program proposes up to three pilot projects in King County, including Seattle, which will operate without paying the energy transfer fee for three years in exchange for sharing data with King County Water Treatment Division, which provides wastewater treatment services to 17 cities, 17 local sewer districts and more than 1.8 million residents across a 420-square-mile area in King, Snohomish and Pierce counties, including Seattle.

SHARC Energy's system has been accepted by a US national developer which has a Seattle project that is potentially one of the pilot King County wastewater recovery projects. Details of the application involving SHARC Energy are being withheld for commercial reasons. Final development applications for one or potentially more of the pilot project proposals closes December 18, 2020. The selection process has not yet completed as of the MD&A date.

This initiative highlights one of two opportunities for "Smart Cities", municipalities, wastewater authorities and other owners of city wastewater and sewer infrastructure to monetize a previously forgotten resource and cost center while helping achieve the goals of government climate action plans.

iii. Congresswoman Marcy Kaptur visit to DC Water

U.S. House Representative Marcy Kaptur, Chairwoman of the House Appropriations Subcommittee on Energy and Water Development, toured the U.S. capital's DC Water Headquarters ("**DC Water HQ**") on March 9, 2021.

The iconic DC Water HQ, constructed on the banks of the Anacostia River in 2017, was recently designated LEED Platinum by the U.S Green Building Council. That designation was enabled by the SHARC wastewater energy recovery system's ability to reduce GHG emissions and fossil fuel use by capturing the thermal energy in wastewater that would have normally been sent down the drain — and by also providing electrically efficient cooling resulting in reduced freshwater usage of the buildings cooling towers.

"I have never seen a technology that could have as positive of an impact on energy as what I have seen at the DC Water HQ," said Congresswoman Kaptur after her visit.

Since its implementation at DC Water HQ, the SHARC system has been operating on a heating and cooling ratio of roughly 3.3% and 96.7%, respectively, showcasing its ability to operate in both heating and cooling applications. Through the usage of the SHARC system, the building has been able to prevent the emission of approximately 12.6 metric tonnes of carbon dioxide due to heating by fossil fuels annually, the equivalent of planting 573 trees. In applications requiring a higher degree of heating, these figures would be significantly increased. Furthermore, in its cooling operation, it is estimated that the SHARC system results in a reduction of 1.5 million gallons of freshwater annually that would otherwise be required for the cooling towers.

Selected Annual Financial Information

	Year Ended December 31, 2020	**Year Ended December 31, 2019**	**Year Ended December 31, 2018**
Revenue	630,568	143,584	530,864
Loss from continuing operations	(2,894,339)	(3,294,786)	(4,428,538)
Loss for the year	(2,894,339)	(4,499,945)	(5,896,476)
Continuing operations Basic and Diluted Loss Per Share	(0.05)	(0.08)	(0.13)
Total Basic and Diluted Loss per Share	(0.05)	(0.11)	(0.17)
	As at December 31, 2020	**As at December 31, 2019**	**As at December 31, 2018**
Total assets	4,370,634	1,070,761	5,878,525
Long-term liabilities	5,208,145	3,050,251	3,605,524

2018 into 2019 was a period of research and development transitioning into a sales driven organization. We intended to commercialize through two sales models:

- Equipment sales in North America and outside of the UK as an Original Equipment Manufacturer
- Design, Build, Finance, and Operate ("**DBFO**") in the UK

In 2018, the Company began construction on two DBFO projects, Aqualibrium and Clyde Gateway through equity financing, government grants and third-party loans. The DBFO model required significant human and financial capital and as SHARC Energy entered into 2019, the Company was unable to manage the growing capital investment required to bring the projects to completion. In the back half of 2019, the Company entered into insolvency procedures with SHARC Energy Limited ("**SHARC UK**") and SHARC Highlands Ltd. ("**Highlands**") and began the process of restructuring operations to focus on a lower cost sales model.

During 2020, the Company restructured and recapitalized its balance sheet through the Settlement Agreements with Debentureholders of the Maturing Debentures and raising of capital through a combination of convertible debt, equity and equity unit financing. The Company continued to build and grow its focused equipment sales model through a combination of direct and indirect sales network. SHARC Energy enters 2021 capitalized for over 12 months of operation with nearly $3.3M in working capital.

Summary of Quarterly Results

A summary of selected information for each of the eight most recent quarters is as follows:

Three Months Ended	Total Revenue ($)	Loss from continuing operations		Income (Loss) for the period		Total Assets ($)
		Total ($)	Per Share ($)	Total ($)	Per Share ($)	
December 31, 2020	36,624	(946,356)	(0.02)	(946,356)	(0.02)	4,370,634
September 30, 2020	426,497	(1,042,339)	(0.02)	(1,042,339)	(0.02)	2,147,081
June 30, 2020	112,772	(34,368)	—	(34,368)	—	1,886,917
March 31, 2020	54,675	(871,276)	(0.02)	(871,276)	(0.02)	2,236,219
December 31, 2019	19,388	(615,704)	(0.02)	1,093,660	(0.03)	1,070,761
September 30, 2019	78,601	(907,400)	(0.02)	(3,586,381)	(0.09)	2,680,645
June 30, 2019	17,264	(1,018,157)	(0.03)	(1,058,227)	(0.03)	5,792,835
March 31, 2019	28,331	(753,525)	(0.02)	(948,997)	(0.02)	5,512,908

In the first half of 2018, the Company completed equity financings totalling approximately $3.9M. During the second half of 2018, the Company began development and construction on Aqualibrium and Clyde Gateway project, DBFO projects, which required significant human and financial capital. Over the first half of 2019, the Company was unable to manage the growing capital investment required to bring the projects to completion. Over the second half of 2019, the Company decided to restructure its operations towards a lower cost sales model and entered into insolvency in the UK which has led to a write off of all assets and liabilities associated with the UK operations. The UK operations have been reported as discontinued operations in the consolidated financial statements for the year ended December 31, 2019.

In the three months ended March 31, 2020, the Company completed equity and convertible debt financing totalling approximately $2.69M and continued its focus and investment in OEM sales. In the three months ended June 30, 2020, the Company entered into settlement agreements with maturing debenture holders that resulted in a gain on debt settlement of $585,750 and raised $2.7M in convertible debt financing to help facilitate the terms of the settlement agreements. In the three months ended September 30, 2020, the Company saw the largest revenues of the past 8 quarters as the Company delivered wastewater holding tanks to be included as part of a future SHARC system installation and two PIRANHA units - the 1st to the United States and the 2nd to Australia and 1st in a senior's living facility. In the three months ended December 31, 2020, the Company raised $3.0M that provided the Company with enough working capital for the next 12 months of operations.

Overall Financial Performance

The consolidated statements of financial position as of December 31, 2020, indicate a cash position of $3,101,267 (December 31, 2019 - $109,510) and total current assets of $3,917,918 (December 31, 2019 - $501,955). Current liabilities at December 31, 2020, total $600,921 (December 31, 2019 - $3,974,734).

For the year ended December 31, 2020, the Company had working capital of $3,316,997 (December 31, 2019 – working capital deficit of $3,472,779).

During the year ended December 31, 2020, the Company reported a loss from continuing operations of $2,894,339 ($0.05 basic and diluted loss per share) on revenue of $630,568 and a gross margin of $273,088. This compared to a loss from continuing operations of $3,294,786 ($0.08 basic and diluted loss per share) on revenue of $143,584 and a gross margin of $76,912 for the year ended December 31, 2019.

During the year ended December 31, 2020, the Company reported a loss from discontinued operations of $Nil ($0.03 basic and diluted loss per share) on revenue of $Nil and a gross margin of $Nil. This compared to a loss from discontinued operations of $606,810 ($0.03 basic and diluted loss per share) on revenue of $971,642 and a gross margin deficit of $354,783, for the year ended December 31, 2019.

Discussion of Operations

<u>Three months ended December 31, 2020 compared with three months ended December 31, 2019</u>

<u>Continued Operations</u>

SHARC Energy's loss from continuing operations for the period totaled $946,356 for the three months ended December 31, 2020, or a basic and diluted loss per share of $0.02. This compares with a loss from continuing operations of $615,704 with basic and diluted loss per share of $0.02 for the three months ended December 31, 2019. The increase of $330,652 in loss from continuing operations was principally because:

- For the three months ended December 31, 2020, revenue increased by $17,236, cost of sales increased $21,530 and the gross margin decreased by $4,294.
    - For the three months ended December 31, 2020, revenue consisted of $30,600 from equipment leases and $6,024 from service and service agreement revenue from Vancouver, B.C. and Greater Vancouver Region installations. This compared to the three months ended December 31, 2019, where revenue consisted of $12,600 from equipment leases, and $6,787 from service and service agreement revenue from Vancouver, B.C. and Greater Vancouver Region installations.
    - Cost of goods sold in the three months ended December 31, 2020 consisted of costs associated service and rental expense, accrual of commissions and inventory write-off. For the three months ended December 31, 2019, cost of goods sold was due to service and rental expense.
- For the three months ended December 31, 2020, advertising and promotion increased $33,807. This is due to costs associated with social media and SEO management, content generation and marketing material creation.
- For the three months ended December 31, 2020, wages and benefits increased by $48,954. The Company averaged an employee headcount of 12 during the three months ended December 31, 2020, compared to 8 during the three months ended December 31, 2019.
- For the three months ended December 31, 2020, consulting expenses decreased by $150,934. The three months ended December 31, 2019 includes $133,226 in relation to settlement arrangements with the former Senior VP of Finance and former Chief Operating Officer. These fees did not continue beyond December 31, 2019.
- For the three months ended December 31, 2020, the Company had $50,344 in share-based payments versus ($12,516) in the comparable period. The negative share-based payments amount in the three months ended December 31, 2019 is due to the cancellation of stock options to certain directors, officers, employees and consultants.

  For the three months ended December 31, 2020, the Company reported a $Nil foreign exchange gain compared to $260,233 in the comparable period The prior year foreign exchange related to an intercompany loan to SHARC UK.

Year ended December 31, 2020 compared with Year ended December 31, 2019

Continued Operations

SHARC Energy's loss from continuing operations for the period totaled $2,894,339 for the year ended December 31, 2020, or a basic and diluted loss per share of $0.05. This compares with a loss from continuing operations of $3,294,786 with basic and diluted loss per share of $0.08 for the year ended December 31, 2019. The decrease of $400,447 in loss from continuing operations was principally because:

- For the year ended December 31, 2020, revenue increased by $486,984, cost of sales increased $290,808 and the gross margin increased by $196,176.
    - For the year ended December 31, 2020, revenue consisted of $122,400 from equipment leases, $48,684 from service and service agreement revenue from Vancouver, B.C. and Greater Vancouver Region installations and $458,327 for the sale of SHARC and PIRANHA products and ancillary equipment.
    - For the year ended December 31, 2019, revenue consisted of $23,400 from equipment leases and $60,184 from service and service agreement revenue from Vancouver, B.C. and Greater Vancouver Region installations and $60,000 for the sale of SHARC and PIRANHA products.
    - Cost of goods sold in the year ended December 31, 2020 consisted of costs associated with SHARC and PIRANHA system and installation costs, service and rental expense and December 31, 2019 consisted of SHARC and PIRANHA costs and service and lease agreement costs.
- For the year ended December 31, 2020, interest and financing expense increased by $395,944. The increase is due to accretion on convertible debt issued during the year ended December 31, 2020.
- For the year ended December 31, 2020, the Company recognized a gain on debt settlement of 605,238 and a revaluation of warrants on debt settlement of $194,074. On May 29, 2020, the Company settled with Debentureholders of the Company's Maturing Debentures. The Debentureholders have entered Settlement Agreements pursuant to which the Debentureholders accepted 75% cash payout of the outstanding principal amount of the Maturing Debentures, the payout of any accrued and unpaid interest up to the date of maturity and the amendment of 1,673,571 Warrants in consideration for the cancellation of the Maturing Debentures and a release of the Company's obligations under the Maturing Debentures. The expiry date of the Warrants will be extended by two years from May 30, 2020 and June 29, 2020 to May 30, 2022 and June 29, 2022, respectively, and the exercise price of the Warrants are repriced to $0.25 from $1.05 (collectively, the "**Warrant Amendments**"). The fair value of the Warrants Amendment was $194,074 estimated by using the Black-Scholes valuation model with the following assumptions: expected dividend yield of 0%, expected volatility of 123.44% which is based on historical volatility, risk-free rate of return of 0.26% and an expected maturity of 2 years.
- For the year ended December 31, 2020, wages and salaries increased by $3,812. This was in large part due to National Research Council of Canada Industrial Research Assistance Program ("**NRC-IRAP"**) funding under the Innovation Assistance Program ("**IAP")** of $81,307 which offset an increase in headcount.

- For the year ended December 31, 2020, consulting expenses decreased by $101,885. The expense consists of fees paid to the Chief Financial Officer, management consultants, sales consultants and investor relations. During the year ended December 31, 2019, the fees include $165,726 in relation to settlement arrangements with the former Senior VP of Finance and former Chief Operating Officer.

- For the year ended December 31, 2020, the Company had $414,125 in share-based payments versus $203,616 in the comparable period. During the year ended December 31, 2020 and 2019, the Company granted 6,325,000 stock options compared to 1,208,000 stock options and had 100,000 options expire compared to 3,781,858 options expire, respectively.

Discontinued Operations

SHARC Energy's loss on discontinued operations for the three months and year ended December 31, 2020 is $Nil and $Nil, respectively, or a basic and diluted loss per share of $Nil and $Nil, respectively. This compares with a gain (loss) from discontinued operations of $1,709,364 and $(1,205,159) and with a basic and diluted gain (loss) per share of $0.04 and $(0.03) for the three months and year ended December 31, 2019, respectively. The decrease in loss from discontinued operations when comparing quarter over quarter and year over year, respectively, was due to decreased activity due to the UK operations entering into insolvency procedures.

On October 7, 2019, the Company signed an engagement letter with a liquidator for the liquidation and wind-up of Sharc UK. The liquidator was officially appointed October 29, 2019. Furthermore, on October 11, 2019, the Company appointed an administrator for Highlands. Both the liquidator and administrator for Sharc UK and Highlands, respectively, have taken possession of the subsidiaries and all of their assets and liabilities.

The liquidator and administrator are also responsible for all ongoing costs of the subsidiaries until the administrator for Highlands is able to sell Clyde Gateway. Any profits obtained or losses incurred by the liquidator and administrator in the insolvency processes have no impact on the Company since all financial assets and obligations were transferred to the liquidator and administrator.

The Company established that following the appointments of the liquidator and administrator, it effectively lost control of the operations of Sharc UK and Highlands. The operating results and cash flow of Sharc UK and Highlands have been classified as discontinued operations on the statement of loss and comprehensive loss and as cash flow from discontinued operations respectively, for each of the years ended December 31, 2019 and 2018.

As a result of the insolvency and the appointment of the administrator and liquidator, the Company has derecognized the assets and liabilities of Highlands and Sharc UK from the consolidated statement of financial position as at December 31, 2019 as at October 11, 2019 and October 29, 2019 respectively. The Company has received no consideration in the deconsolidation of Highlands and Sharc UK.

Loss on insolvency of Net Assets

Carrying value of Net Assets	**$**
Current Assets	
Cash	113,776
Receivables	253,384
Prepaid expenses	8,352
Inventory	17,868
Deposits	8,799
Property and equipment	4,212,869
Current Liabilities	
Accounts payable and accrued liabilities	(1,520,087)
Loans payable	(91,492)
Lease liability	(12,760)
Loans payable	(2,379,248)
Lease liability	(13,112)
Loss on insolvency of Net Assets	**598,349**

Alternative Performance Measures

Management evaluates the Company's performance using a variety of measures, including "Adjusted EBITDA", "Sales Pipeline" and "Sales Order Backlog". The non-IFRS measures should not be considered as an alternative to or more meaningful than revenue or net loss. These measures do not have a standardized meaning prescribed by IFRS and therefore they may not be comparable to similarly titled measures presented by other publicly traded companies and should not be construed as an alternative to other financial measures determined in accordance with IFRS. The Company believes these non-GAAP financial measures provide useful information to both management and investors in measuring the financial performance and financial condition of the Company. Management uses these and other non-IFRS financial measures to exclude the impact of certain expenses and income that must be recognized under IFRS when analyzing consolidated underlying operating performance, as the excluded items are not necessarily reflective of the Company's underlying operating performance and make comparisons of underlying financial performance between periods difficult. From time to time, the Company may exclude additional items if it believes doing so would result in a more effective analysis of underlying operating performance. The exclusion of certain items does not imply that they are non-recurring.

Adjusted EBITDA

	Three months Ended December 31, 2020 $	**Three months Ended December 31, 2019 $**	**Year Ended December 31, 2020 $**	**Year Ended December 31, 2019 $**
Loss from continuing operations before income taxes	(946,356)	(684,681)	(3,378,037)	(3,543,885)
Adjustments:				
Interest and financing expense	297,633	294,151	1,286,596	890,652
Depreciation	37,646	32,338	142,921	85,279
Bad debt recovery	—	58,558	(7,311)	58,558
Share-based payments	50,344	(12,516)	414,125	203,616
Expenses paid by shares	25,870	—	166,821	—
Foreign exchange	1,018	(260,233)	3,415	81,005
Gain on debt settlement	(211,455)	(4,708)	(605,238)	(4,708)
Revaluation of warrants on debt settlement	194,074	—	194,074	—
NRC-IRAP IAP payments	—	—	(81,307)	—
Adjusted EBITDA loss	**(551,226)**	**(577,091)**	**(1,863,941)**	**(2,229,483)**

Adjusted EBITDA is a non-IFRS financial measure and does not have any standardized meaning prescribed by IFRS and is therefore unlikely to be comparable to similar measures presented by other issuers. See "Non-IFRS Measure" below for additional information.

For the three months and year ended December 31, 2020, Adjusted EBITDA loss was $551,226 and $1,863,841 compared with $577,091 and $2,229,483 for the comparative period, respectively. This improvement was due to effective cost containment initiatives and reallocation of internal resources as well as increased revenue and margin.

Sales Pipeline

Sales Pipeline is defined as qualified prospective projects and installations that could convert into orders within approximately 24 months. Not all these potential projects and installations will proceed or proceed within the expected timeframe and not all the projects that do proceed will be awarded to SHARC Energy. Nevertheless, over time, this number gives a reasonable metric of changes in market activity and anticipated growth of the industry.

As of April 29, 2020, the Company has $2.76M in Sales Pipeline.

Sales Order Backlog

Sales Order Backlog refers to the balance of unrecognized revenue from sales orders received with a deposit and/or shipment date and contracted projects, where such revenue is recognized over the period of the contract by reference to the stage of completion of each contract.

As of April 23, 2020, the Company has $1.24M in Sales Order Backlog.

Non-IFRS Measure

Adjusted EBITDA is a supplemental, non-GAAP financial measure. EBITDA is defined by the Company as earnings before interest, income taxes, depreciation and amortization. Adjusted EBITDA, as presented, additionally excludes impairment charges, all other non-cash items and one-time transaction fees. Management evaluates the Company's performance using a variety of measures, including providing

Adjusted EBITDA, sales pipeline and sales order backlog which is useful to investors' understanding and assessment of the Company's ongoing continuing operations and prospects for the future and it is used by the financial community to evaluate the market value of companies considered to be in similar businesses. Since Adjusted EBITDA is not a measure of performance calculated in accordance with IFRS, it should not be considered in isolation of, or as a substitute for, measures of performance prepared in accordance with IFRS. Adjusted EBITDA, as calculated and reconciled in the table above, may not be comparable to similarly titled measures employed by other companies. In addition, Adjusted EBITDA is not necessarily a measure of our ability to fund our cash needs.

Sales Order Backlog

Additions to Sales Order Backlog will be when a purchase order, deposit and/or shipment date is received from a customer or manufacturer representative or a contract is signed for the supply or service of a system. Reductions to the amount in sales order backlog arise when units are shipped, and revenue is recognized or when a contract has been recognized by the stage of completion or completed and fulfilled.

Sales Pipeline

Additions to the amount in the Sales Order Pipeline come from situations where the Company has been specified on a request for proposal ("RFP"), has been specified on a winning bid in an RFP process, has been included in final design for a project, the project has been verbally awarded by customer, a signed sales quote or not to exceed sales quote has been received or a deposit has been received without a firm shipment date.

Reductions to the amount in the sales order pipeline arise when the Company loses a quote or bid, the project owner decides not to proceed with the project, the final design changes the equipment selection originally quoted or, where a quote in the pipeline is converted to the order book and therefore, converted into Sales Order Backlog.

Liquidity and Financial Position

As of December 31, 2020, the Company has accumulated a deficit of $25,539,385 and has positive working capital of $3,316,997. The Company will continue to pursue opportunities to raise additional capital through equity markets and/or debt to fund its operating activities. Management anticipates it has sufficient working capital to maintain its activities for the subsequent 12 months.

As of December 31, 2020, the Company's cash balance was $3,101,267 (December 31, 2019 - $109,510) and the Company had working capital of $3,316,997 (December 31, 2019 – working capital deficit of $3,472,779).

As of December 31, 2020, the Company had 78,406,348 common shares issued and outstanding, 33,697,589 warrants outstanding that would raise $9,578,996 if exercised in full, 6,538,000 options outstanding that would raise $1,110,595 if exercised in full, and 664 brokers debenture and 1,000,100 brokers compensation warrants outstanding that would raise $1,642,488 if exercised in full including the warrants attached.

Cash used in continuing operating activities was $2,627,518 for the year ended December 31, 2020. Operating activities were affected by the loss from continuing operations of $2,894,339 partially offset by non-cash expenses of $1,108,291 and a decrease in non-cash working capital balances of $841,470 largely because of a paydown of accounts payable and accrued liabilities and investment into inventory.

The Company has the following undiscounted lease payments:

Not later than one year	**147,288**
Later than one year and not later than 5 years	354,834
December 31, 2020	**502,122**

The Company has the following convertible debt payments over the next 5 years:

	March 8, 2022 $	May 9, 2022 $	June 28, 2022 $	Feb. 13, 2023* $	Feb. 24, 2023 $	May 29, 2023 $	June 12, 2023 $	Total $
2021	64,800	87,840	44,000	35,280	5,520	40,000	14,000	291,440
2022	821,895	1,128,012	571,269	35,280	5,520	40,000	14,000	2,615,976
2023	—	—	—	1,768,214	276,828	2,016,556	706,300	4,767,897
2024	—	—	—	—	—	—	—	—
2025	—	—	—	—	—	—	—	—
	886,695	**1,215,852**	**615,269**	**1,838,774**	**287,868**	**2,096,556**	**734,300**	**7,675,314**

*Subsequent to December 31, 2020, $952,500 of principal balance of these convertible debenture was converted into common shares.

Related Party Transactions

Key management personnel are those persons having authority and responsibility for planning, directing and controlling the activities of the Company, directly or indirectly. Key management personnel include officers and directors.

The Company incurred the following charges with key management personnel:

	Year Ended December 31, 2020 $	Year Ended December 31, 2019 $
Consulting fees [i]	168,500	267,726
Wages and benefits [ii]	367,233	558,955
Share-based payments [iii]	229,858	(391,488)
Inventory/cost of sales [iv]	—	166,994
	765,591	**602,187**

(i) The Company paid consulting fees to companies controlled by the Chief Financial Officer, former Senior Vice President of Finance, former Chief Operating Officer and a former Director of SHARC UK.

(ii) The Company paid wages and benefits to the Chief Executive Officer and Director, a Director, the former Chief Operating Officer and former Senior Vice President of Finance.

(iii) Share-based payments was recognized in connection with the vesting of options granted to directors and officers of the Company in the amount of $235,156. Furthermore, options were terminated and cancelled during the year which resulted in reversal of $5,298.

(iv) The Company paid consulting fees to companies controlled by the former Chief Operating Officer and a former Director of SHARC UK that were capitalized to inventory costs and expensed to cost of sales.

The following table summarizes the above compensation paid to each related party.

	Year ended December 31, 2020 ($)	Year ended December 31, 2019 ($)
Lynn Mueller	224,400	200,000
Daryle Anderson	75,000	90,000
Russ Burton	30,000	230,781
Hanspaul Pannu	132,000	102,000
Jas Sahota	8,333	203,900
Ian Craft	—	166,994
Matt Engelhardt	66,000	—
Total	**535,733**	**993,675**

Other transactions with related parties included:

Included in accounts payable is $Nil (December 31, 2019 – $672,587) due to related parties.

	December 31, 2020 ($)	December 31, 2019 ($)
Lynn Mueller	—	86,962
Daryle Anderson	—	330,000
Company controlled by Jas Sahota and Jas Sahota	—	107,909
Company controlled by Russ Burton and Russ Burton	—	81,540
Company controlled by Hanspaul Pannu	—	66,176
Total	—	**672,587**

On February 11, 2020, the Company issued 5,027,600 units at a price of $0.065 for the settlement of debt of $326,794 owed to companies controlled by the Hanspaul Pannu, Chief Financial Officer and Daryle Anderson, Director.

Share Capital

As of the date of this MD&A, the Company had 90,898,401 (December 31, 2019 – 78,406,348) issued and outstanding common shares.

Warrants outstanding for the Company at the date of this MD&A were as follows:

Warrants	Expiry Date	Exercise Price
1,057,143	November 22, 2021	$0.35
1,266,030	March 8, 2022	$0.40
2,078,790	May 3, 2022	$0.40
859,650	June 28, 2022	$0.40
7,027,596	February 11, 2022	$0.25
103,572	May 30, 2022	$0.25
659,286	June 29, 2022	$0.25
1,000,100	December 18, 2022	$0.45
700,000	December 31, 2022	$1.00
150,000	January 26, 2023	$0.45
6,070,000	February 13, 2023	$0.20
1,380,000	February 24, 2023	$0.20
6,565,997	May 29, 2023	$0.25
2,333,097	June 12, 2023	$0.25

Stock options outstanding for the Company at the date of this MD&A were as follows:

Options	Expiry Date	Exercise Price
100,000	July 12, 2021	$1.05
333,000	October 29, 2024	$0.09
2,515,000	January 19, 2025	$0.075
950,000	February 26, 2025	$0.125
200,000	March 16, 2025	$0.105
700,000	July 15. 2025	$0.25
1,221,875	December 20, 2025	$0.345

Debenture Compensation Warrants outstanding for the Company at the date of this MD&A were as follows:

Debenture Compensation Warrants	Expiry Date	Exercise Price
49	March 8, 2022	$1,000
80	May 9, 2022	$1,000
33	June 28, 2022	$1,000
15	December 20, 2022	$1,000
93	February 13, 2023	$1,000
27	February 24, 2023	$1,000
200	May 29, 2023	$1,000
69	June 12, 2023	$1,000

Subsequent Events

[a] On January 26, 2021, the Company issued 1,500,000 common shares at a price of $0.30 for gross proceeds of $450,000 pursuant to a non-brokered private placement. Total finders' fees of $22,500 in cash and 150,000 compensation warrants were incurred in the issuance. Each compensation warrant is exercisable into one common share of the Company at $0.45 per common share for a period of two years following the date of the issuance.

[b] Subsequent to December 31, 2020, 518,125 stock options were exercised for gross proceeds of $50,703.

[c] Subsequent to December 31, 2020, 3,596,428 common share purchase warrants were exercised for gross proceeds of $1,164,821.

[d] Subsequent to December 31, 2020, holders of convertible debentures converted $952,500 of principal into 5,482,500 common shares.

[e] Subsequent to December 31, 2020, 98 debenture units were exercised for total proceeds of $98,000. Upon exercise, the debentures were immediately converted into 980,000 common shares. Pursuant to the issuance of the debenture units, 415,000 common share purchase warrants were issued. 415,000 of these common share purchase warrants were exercised for total proceeds of $83,000.

Estimates, Judgments and Assumptions

The preparation of the Company's consolidated financial statements requires management to make judgments, estimates and assumptions that affect the reported amounts of assets and liabilities and disclosures of contingent assets and liabilities at the date of the consolidated financial statements and the reported amounts of revenues and expenses during the reporting period. Estimates and assumptions are continually evaluated and are based on management's experience and other factors, including expectations of future events that are believed to be reasonable under the circumstances. Actual results could differ from these estimates.

The areas which require management to make significant judgments, estimates and assumptions in determining carrying values include, but are not limited to:

Critical Judgments

The following are critical judgments that management has made in the process of applying accounting policies and that have the most significant effect on the amounts recognized in the Financial Statements:

I. Research costs are recognized as an expense when incurred but development costs may be capitalized as intangible assets if certain conditions are met as described in IAS 38, Intangible Assets. Management has determined that development costs do not meet the conditions for capitalization under IAS 38 and all research and development costs have been expensed.

II. The Company recognizes the deferred tax benefit related to deferred income and resource tax assets to the extent recovery is probable. Assessing the recoverability of deferred tax assets requires management to make significant estimates of future taxable profit. In addition, future changes in tax laws could limit the ability of the Company to obtain tax deductions from deferred income and resource tax assets.

III. In March 2020, the World Health Organization declared coronavirus COVID-19 a global pandemic. This contagious disease outbreak, which has continued to spread, and any related adverse public health developments, has adversely affected workforces, economies and financial markets globally, potentially leading to an economic downturn. It is not possible for the Company to predict the duration or magnitude of the adverse results of the outbreak and its effect on the Company's business or ability to raise funds.

Estimation Uncertainty

The following are key assumptions concerning the future and other key sources of estimation uncertainty that have a significant risk of resulting in a material adjustment to the carrying amount of assets and liabilities within the next financial year:

i. Provisions for income taxes are made using the best estimate of the amount expected to be paid based on a qualitative assessment of all relevant factors. The Company reviews the adequacy of these provisions at the end of the reporting period. However, it is possible that at some future date an additional liability could result from audits by taxation authorities. Where the final outcome of these tax-related matters is different from the amounts that were originally recorded, such differences will affect the tax provisions in the period in which such determination is made.

ii. Warranty provisions are recognized for the future obligations to provide services for the repairs and maintenance of products sold to its customers. The Company assesses its warranty provision based on experience. Actual costs incurred may differ from those amounts estimated.

iii. The Company estimates the net realizable values of inventories, taking into account the most reliable evidence available at each reporting date. The future realization of these inventories may be affected by future technology or other market drive changes that may reduce future selling prices.

iv. The Company has service agreements with regards to some of its product sales which requires management to make judgments regarding the timing and allocation of revenue. Specifically, installation is generally not assumed to have standalone value and is often recognized on the same basis as the remainder of the services fees. However, the Company defers the recognition of revenue associated with fees for services agreements or warranty costs that are built in to the original sales price and recognizes the associated revenue evenly over the term of the service or warranty is provided.

v. The equity component of the convertible debenture is calculated using a discounted cash flow method which requires management to make an estimate on an appropriate discount rate.

Capital Management

The Company's objective when managing capital is to safeguard the Company's ability to continue as a going concern in order to support the development of its business and maintain the necessary corporate and administration functions to facilitate these activities. The capital of the Company consists of items included in shareholders' deficiency.

The Company manages and adjusts its capital structure when changes to the risk characteristics of the underlying assets or changes in economic conditions occur. To maintain or adjust the capital structure, the Company may attempt to raise new funds.

There were no changes to the Company's approach to capital management during the year. The Company is not subject to externally imposed capital requirements.

Financial Instruments

Fair value

IFRS 13 establishes a fair value hierarchy for financial instruments measured at fair value that reflects the significance of inputs used in making fair value measurements as follows:

Level 1 – quoted prices in active markets for identical assets or liabilities;

Level 2 – inputs other than quoted prices included in Level 1 that are observable for the asset or liabilities, either directly (i.e. as prices) or indirectly (i.e. from derived prices); and

Level 3 – inputs for the asset or liability that are not based upon observable market data.

The fair value of cash is based on Level 1 inputs. The fair value of the Company's receivables, accounts payable and accrued liabilities, and loans payable approximate their carrying values due to the short-term to maturity. The fair value of long-term liabilities are initially recorded at fair value and subsequently carried at amortized cost using rates comparable to market interest rates. The carrying value of the Company's lease liabilities is measured as the present value of the discounted future cash flows.

[a] Credit risk

Credit risk is the risk that one party to a financial instrument will cause a financial loss for the other party by failing to discharge an obligation. The Company's cash and receivables are exposed to credit risk. The Company reduces its credit risk on cash by placing these instruments with institutions of high credit worthiness. Receivables are primarily from sales or loans. The Company believes these parties to be of sound creditworthiness, and to date, all receivables have been settled in accordance with agreed upon terms and conditions. As at December 31, 2020, the Company is exposed to nominal credit risk arising from receivables.

[b] Liquidity risk

Liquidity risk is the risk that the Company will encounter difficulty in meeting obligations associated with financial liabilities. The Company manages liquidity risk by maintaining sufficient cash balances to enable settlement of transactions on the due date. The Company addresses its liquidity through debt financing. While the Company has been successful in securing financings in the past, there is no assurance that it will be able to do so in the future.

[c] Market risk

[i] Interest rate risk

Interest rate risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in market interest rates. As at December 31 2019, the Company is not exposed to any significant interest rate risk.

Risks and Uncertainties

Manufacturing Risks

For the successful development of the Company's manufacturing operations, the Company will require maintenance of production equipment, hiring and retaining of managerial personnel and skilled labour and maintaining of desirable levels of production. There can be no assurance that the Company will be able to achieve and sustain these goals. The Company's future success also depends on its ability to successfully achieve expected manufacturing capacity in a cost-effective and efficient manner. If the Company cannot do so, it may be unable to achieve and sustain profitability. The Company's ability to achieve expected production capacity is subject to significant risks and uncertainties, including the following: (a) delays and unexpected costs as a result of a number of factors, many of which may be beyond the Company's control, such as its ability to secure successful contracts with equipment vendors, (b) failure to effectively break in new equipment, (c) delays or denial of required approvals by relevant government authorities, (d) unavailability of manufacturing inputs; and (e) failure to execute its expansion plans effectively.

Regulatory Risks

The activities of the Company will be subject to intense regulation by governmental authorities. Achievement of the Company's business objectives are contingent, in part, upon compliance with regulatory requirements enacted by these governmental authorities and obtaining all regulatory approvals, where necessary, for the sale of its products. The Company cannot predict the time required to secure all appropriate regulatory approvals for its products, or the extent of testing and documentation that may be required by governmental authorities. Any delays in obtaining, or failure to obtain regulatory approvals would significantly delay the development of markets and products and could have a material adverse effect on the business, results of operations and financial condition of the Company.

Change in Laws, Regulations and Guidelines

The Company's operations will be subject to a variety of laws, regulations and guidelines relating to the manufacture, management, transportation, storage and disposal of untreated waste water but also including laws and regulations relating to health and safety, the conduct of operations and the protection of the environment. Changes to such laws, regulations and guidelines due to matters beyond the control of the Company may cause adverse effects to the Company's operations.

Lack of Operating History

The Company has only recently started to carry on its business. The Company is therefore subject to many of the risks common to early-stage enterprises, including under-capitalization, cash shortages, limitations with respect to personnel, financial, and other resources and lack of revenues. The failure by the Company to meet any of these conditions could have a materially adverse effect on the Company and may force it to reduce, curtail, or discontinue operations. There is no assurance that the Company will be successful in achieving a return on shareholders' investment and the likelihood of success must be considered in light of the early stage of operations. The Company may not successfully address all of the risks and uncertainties or successfully implement its existing and new products and services. If the Company fails to do so, it could materially harm its business and impair the value of its common stock, resulting in a loss to shareholders. Even if the Company accomplishes these objectives, the Company may not generate the anticipated positive cash flows or profits. No assurance can be given that the Company can or will ever be successful in its operations and operate profitably.

Reliance on Management and Key Personnel

The success of the Company is dependent upon the ability, expertise, judgment, discretion and good faith of its senior management. While employment agreements are customarily used as a primary method of retaining the services of key employees, these agreements cannot assure the continued services of such employees. The Company attempts to enhance its management and technical expertise by recruiting qualified individuals who possess desired skills and experience in certain targeted areas. The Company's inability to retain employees and attract and retain sufficient additional employees as well as information technology, engineering, and technical support resources could have a material adverse impact on the Company's financial condition and results of operation. Any loss of the services of such individuals could have a material adverse effect on the Company's business, operating results or financial condition.

Additional Financing

The Company's future capital requirements depend on many factors, including its ability to market products successfully, cash flows from operations, locating and retaining talent, and competing market developments. The Company's business model requires spending money in order to generate revenue. Based on the Company's current financial situation, the Company may have difficulty continuing operations at the current level, or at all, if it does not raise additional financing in the near future.

In order to execute the Company's business plan, the Company will require some additional equity and/or debt financing to undertake capital expenditures. There can be no assurance that additional financing will be available to the Company when needed or on terms which are acceptable. The Company's inability to raise financing to support on-going operations or to fund capital expenditures could limit the Company's operations and may have a material adverse effect upon future profitability.

The Company may require additional financing to fund its operations to the point where it is generating positive cash flows.

If additional funds are raised through further issuances of equity or convertible debt securities, existing shareholders could suffer significant dilution, and any new equity securities issued could have rights, preferences and privileges superior to those of holders of Company Shares. Any debt financing secured in the future could involve restrictive covenants relating to capital raising activities and other financial and operational matters, which may make it more difficult for the Company to obtain additional capital or to pursue business opportunities, including potential acquisitions. If adequate funds are not obtained, the Company may be required to reduce, curtail, or discontinue operations. There is no assurance that the Company's existing cash flow will be adequate to satisfy its existing operating expenses and capital requirements.

Competition

There is potential that the Company will face intense competition from numerous other companies, some of which can be expected to have longer operating histories and more financial resources and manufacturing and marketing experience than the Company. Increased competition by larger and better financed competitors could materially and adversely affect the business, financial condition and results of operations of the Company.

Because of early stage of the industry in which the Company operates, the Company expects to face additional competition from new entrants. To remain competitive, the Company will require a continued high level of investment in research and development, marketing, sales and client support. The Company may not have sufficient resources to maintain research and development, marketing, sales and client support efforts on a competitive basis which could materially and adversely affect the business, financial condition and results of operations of the Company.

Intellectual Property Risks

The Company's ability to compete largely depends on the superiority, uniqueness, and value of its intellectual property and technology, including both internally developed technology and the ability to acquire patent protection and/or trademark protection. To protect its proprietary rights, the Company will rely on a combination of trademark, copyright, and trade secret laws, trademark and patent applications, confidentiality agreements with its employees and third parties, and protective contractual provisions. Despite these efforts, certain risks may reduce the value of the Company's intellectual property. The Company's applications for trademarks and copyrights relating to its business may not be granted, and if granted, may be challenged or invalidated. There is no guarantee that issued trademarks and registered copyrights will provide the Company with any competitive advantages. The Company's efforts to protect its intellectual property rights may not be effective in preventing misappropriation of its technology and may not prevent the development and design by others of products or technology similar to, competitive with, or superior to those the Company develops. There is a risk that another party may obtain a blocking patent and the Company would need to either obtain a license or design around the patent in order to continue to offer the contested feature or service in its products.

New Market Risks

Extracting heat from raw sewage flows is a relatively new market and its long-term growth prospects are uncertain. Should the raw sewage heat market fail to expand, it would have a materially adverse effect on our business and financial position.

Product Development Risks

The development of additional products is subject to the risks of failure inherent in the development of new, state of the art products, laboratory devices and products based on new technologies. These risks include: (i) delays in product development or manufacturing; (ii) unplanned expenditures for product development or manufacturing; (iii) failure of new products to have the desired effect or an acceptable accuracy profile; (iv) emergence of superior or equivalent products; (v) failure by any potential collaborative partners to successfully develop products; and (vi) the dependence on third parties for the manufacture, development and sale of the Company's products. Because of these risks, our research and development efforts or those of potential collaborative partners may not result in any commercially viable products. If a significant portion of these development efforts is not successfully completed, or any products are not commercially successful, we are less likely to generate significant revenues, or become profitable. The failure to perform such activities could have a material adverse effect on the Company's business, financial condition and results of its operations.

The areas in which we plan to commercialize, distribute, and/or sell products involves rapidly developing technology. There can be no assurance that we will be able to establish ourselves in such fields, or, if established, that we will be able to maintain our market position, if any. There can be no assurance that the development by others of new or improved products will not make our present and future products, if any, superfluous or obsolete.

Product Liability

The devices and products that we intend to develop may expose us to potential liability from personal injury claims by end-users of the product. We intend to carry product liability insurance to protect us against the risk that in the future a product liability claim or product recall could materially and adversely affect our business. Inability to obtain sufficient insurance coverage at an acceptable cost or otherwise to protect against potential product liability claims could prevent or inhibit the commercialization of our intended products. We cannot assure you that if and when we commence distribution of our product that we will be able to obtain or maintain adequate coverage on acceptable terms, or that such insurance will provide adequate coverage against all potential claims. Moreover, even if we maintain adequate insurance, any successful claim could materially and adversely affect our reputation and prospects and divert management's time and attention. If we are sued for any injury allegedly caused by our future products our liability could exceed our total assets and our ability to pay the liability.

Product Defects

The Company's products are complex and, accordingly, they may contain defects or errors, particularly when first introduced or as new versions are released. We may not discover such defects or errors until after a product has been released and used by end-customers. Defects and errors could materially and adversely affect our reputation, result in significant costs to us or the termination of an agreement, delay planned release dates and impair our ability to sell our products in the future. The costs incurred in correcting any product defects or errors may be substantial and could adversely affect our operating margins. Furthermore, there can be no assurance that our efforts to monitor, develop, modify and implement appropriate test and manufacturing processes for our products will be sufficient to permit us to avoid a rate of failure in our products that results in substantial delays, significant repair or replacement costs or potential damage to our reputation, any of which could have a material adverse effect on our business, results of operations and financial condition.

We may also be subject to claims that our products are defective or that some function or malfunction of our products caused or contributed to damages. While we attempt to minimize this risk by incorporating provisions into our standard agreements that are designed to limit our exposure to potential claims of liability, we are not always able to negotiate such protections. In addition, no assurance can be given that all claims will be barred by the contractual provisions limiting liability or that the provisions will be enforceable. We may be liable for failure regarding the use of our products or services. A significant liability claim against us could have a material adverse effect on our operating results and financial position

Reliance on Key Inputs

The Company's business will be dependent on a number of key inputs and their related costs including raw materials and supplies related to its growing operations, as well as electricity, water and other local utilities. Any significant interruption or negative change in the availability or economics of the supply chain for key inputs could materially impact the business, financial condition and operating results of the Company. Some of these inputs may only be available from a single supplier or a limited group of suppliers. If a sole source supplier was to go out of business, the Company might be unable to find a replacement for such source in a timely manner or at all. If sole source supplier were to be acquired by a competitor, that competitor may elect not to sell to the Company in the future. Any inability to secure required supplies and services or to do so on appropriate terms could have a materially adverse impact on the business, financial condition and operating results of the Company.

Dependence on Suppliers and Skilled Labour

The ability of the Company to compete and grow will be dependent on it having access, at a reasonable cost and in a timely manner, to skilled labour, equipment, parts and components. No assurances can be given that the Company will be successful in maintaining its required supply of skilled labour, equipment, parts and components.

Management of Growth

The Company has, and may in the future, experience rapid growth and development in a relatively short period of time by aggressively marketing its products and services. The Company may be subject to growth related risks including capacity constraints and pressure on its internal systems and controls. The ability of the Company to manage growth effectively will require it to continue to implement and improve its operational and financial systems and to expand, train and manage its employee base. The inability of the Company to deal with this growth may have a material adverse effect on the Company's business, financial condition, results of operations and prospects

Conflicts of Interest

Certain of the directors and officers of the Company are also directors and officers of other companies, and conflicts of interest may arise between their duties as officers and directors of the Company and as officers and directors of such other companies.

Litigation

The Company may be forced to litigate, enforce, or defend its intellectual property rights, protect its trade secrets, or determine the validity and scope of other parties' proprietary rights. Such litigation would be a drain on the financial and management resources of the Company which may affect the operations and business of the Company.

The Company may become party to litigation from time to time in the ordinary course of business which could adversely affect its business. Should any litigation in which the Company becomes involved be determined against the Company such a decision could adversely affect the Company's ability to continue operating and the market price for Company Shares and could use significant resources. Even if the Company is involved in litigation and wins, litigation can redirect significant company resources.

The Market Price of Company Shares May Be Subject to Wide Price Fluctuations

The market price of Company Shares may be subject to wide fluctuations in response to many factors, including variations in the operating results of the Company, divergence in financial results from analysts' expectations, changes in earnings estimates by stock market analysts, changes in the business prospects for the Company, general economic conditions, legislative changes, and other events and factors outside of the Company's control. In addition, stock markets have from time to time experienced extreme price and volume fluctuations, which, as well as general economic and political conditions, could adversely affect the market price for Company Shares.

Environmental and Employee Health and Safety Regulations

The Company's operations will be subject to environmental and safety laws and regulations concerning, among other things, emissions and discharges to water, air and land, the handling and disposal of hazardous and non-hazardous materials and wastes, and employee health and safety. The Company will incur ongoing costs and obligations related to compliance with environmental and employee health and safety matters. Failure to comply with environmental and safety laws and regulations may result in additional costs for corrective measures, penalties or in restrictions on our manufacturing operations. In addition, changes in environmental, employee health and safety or other laws, more vigorous enforcement thereof or other unanticipated events could require extensive changes to the Company's operations or give rise to material liabilities, which could have a material adverse effect on the business, results of operations and financial condition of the Company.

Disclosure of Internal Controls

Management has established processes to provide them sufficient knowledge to support representations that they have exercised reasonable diligence that (i) the consolidated financial statements do not contain any untrue statement of material fact or omit to state a material fact required to be stated or that is necessary to make a statement not misleading in light of the circumstances under which it is made, as of the date of and for the periods presented by the consolidated financial statements; and (ii) the consolidated financial statements fairly present in all material respects the financial condition, results of operations and cash flows of the Company, as of the date of and for the periods presented.

In contrast to the certificate required for non-venture issuers under National Instrument 52-109 Certification of Disclosure in Issuers' Annual and Interim Filings ("NI 52-109"), this Venture Issuer Basic Certificate does not include representations relating to the establishment and maintenance of disclosure controls and procedures ("DC&P") and internal control over financial reporting ("ICFR"), as defined in NI 52-109. In particular, the certifying officers filing this certificate are not making any representations relating to the establishment and maintenance of:

i) controls and other procedures designed to provide reasonable assurance that information required to be disclosed by the issuer in its annual filings, interim filings or other reports filed or submitted under securities legislation is recorded, processed, summarized and reported within the time periods specified in securities legislation; and

ii) a process to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with the issuer's GAAP (IFRS).

The issuer's certifying officers are responsible for ensuring that processes are in place to provide them with sufficient knowledge to support the representations they are making in this certificate. Investors should be aware that inherent limitations on the ability of certifying officers of a venture issuer to design and implement on a cost-effective basis DC&P and ICFR as defined in NI 52-109 may result in additional risks to the quality, reliability, transparency and timeliness of interim and annual filings and other reports provided under securities legislation.