MANAGEMENT DISCUSSION AND ANALYSIS

For the three months ended March 31, 2020

June 12, 2020

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**") for the three months ended March 31, 2020 has been prepared to provide material updates to the business operations, liquidity and capital resources of the Company since its last annual management discussion & analysis, being the Management Discussion and Analysis ("**Annual MD&A**") for the year ended December 31, 2019. This interim MD&A does not provide a general update to the Annual MD&A, or reflect any non-material events since the date of the Annual MD&A.

This MD&A has been prepared in compliance with the requirements of section 2.2.1 of Form 51-102F1, in accordance with National Instrument 51-102 – Continuous Disclosure Obligations. This discussion should be read in conjunction with the audited financial statements of the Company for the years ended December 31, 2019 and 2018, and the unaudited condensed consolidated interim financial statements for the three months ended March 31, 2020 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 three months ended March 31, 2020 are not necessarily indicative of the results that may be expected for any future period. Information contained herein is presented as at June 12, 2020 unless otherwise indicated.

The unaudited condensed consolidated interim financial statements for the three months ended March 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**"). The unaudited condensed consolidated interim financial statements have been prepared in accordance with International Standard 34, Interim Financial Reporting.

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 as a result 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.

Description of Business

The Company was incorporated under the Business Corporations Act (British Columbia) on February 4th, 2011. The Company's shares are listed on the Canadian Securities Exchange (the "**CSE**") under the trading symbol "SHRC"; the Frankfurt Börse (FRANKFURT: IWI) and in the United States (OTCQB: INTWF).

The Company provides wastewater heat exchange products and services. The registered office of the Company is located at 1443 Spitfire Place, Port Coquitlam, British Columbia, V3C 6L4.

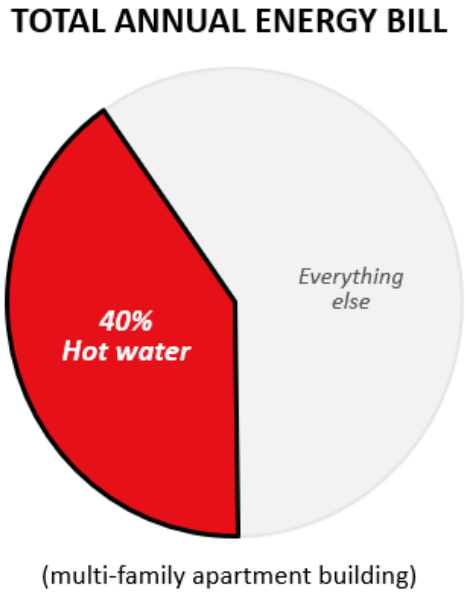
Going Public Transaction and Corporate Structure Overview

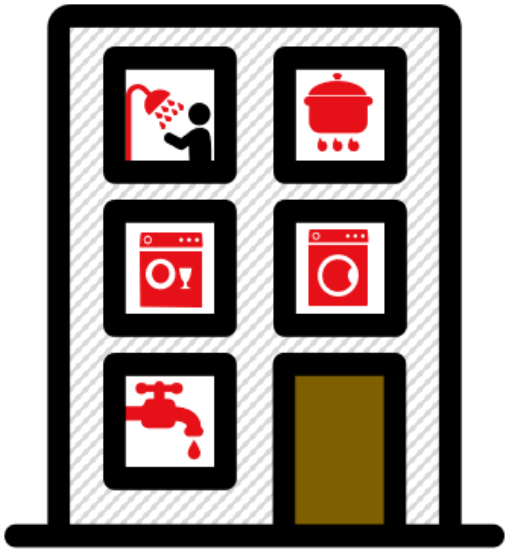
The Company's wholly owned subsidiary, SHARC Energy Systems Inc. ("**SES**") was incorporated under the Business Corporations Act (British Columbia) on May 30th, 2011. On October 27th, 2015, the Company completed the acquisition (the "**Acquisition**") of SES pursuant to a share exchange agreement dated 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	March 31, 2020 Ownership %	Dec 31, 2019 Ownership %
SHARC Energy Systems Inc. ("**SES**")	Canada	100	100
SHARC Energy Systems Australia Pty Ltd. ("**SHARC Australasia"**) [(2)]	Australia	80	80
2336882 Ontario Inc. [(2)]	Canada	100	100

What Problem Does SHARC Energy solve?





The above infographic is an example to help illustrate what SHARC Energy does. Domestic hot water production, specifically in multi-family residential buildings, makes up 40% or more of annual energy use. In commercial or industrial applications, such as food processing with the volume of hot water required for food production and rigorous sanitation standards, this energy requirement is significantly higher. The money spent to provide that energy is literally lost down the drain and until recently, the accepted standard for water heating was gas boilers.

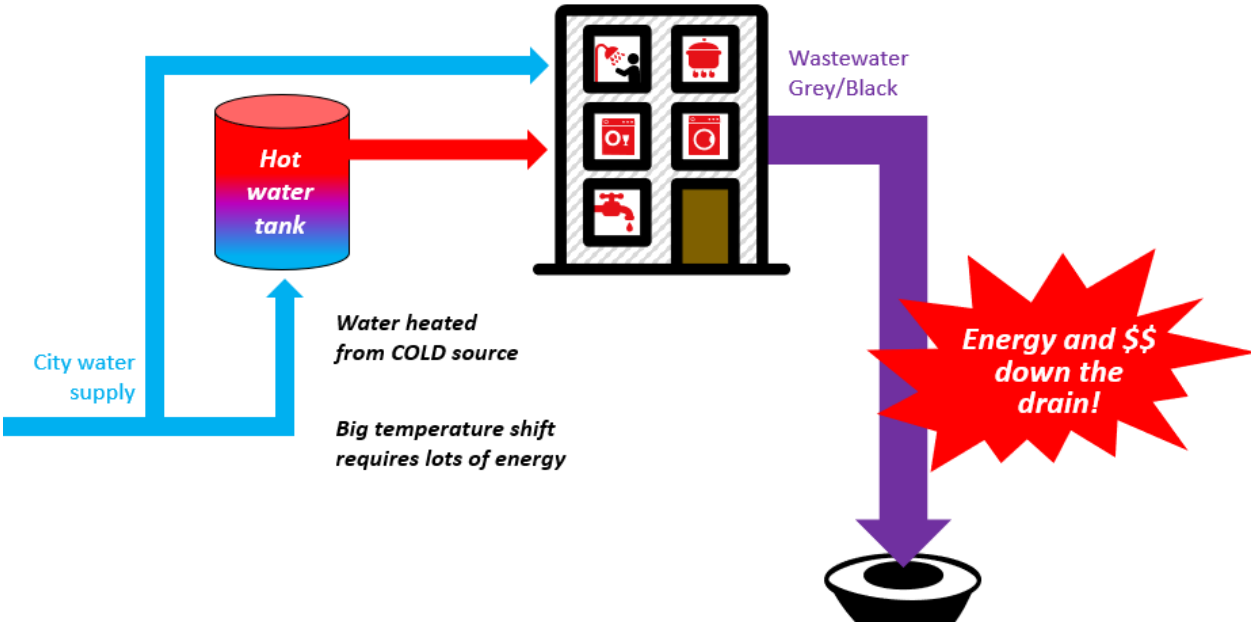
Although natural gas has reigned supreme over electric alternatives in most regions globally for decades, people, businesses, municipalities, provincial, state and federal governments and industries are realizing that the by-product of this standard is hundreds of millions of tonnes of carbon emissions being emitted into the atmosphere every year. Scientists and climate activists have directly linked these carbon emissions as the root cause of global warming and the world is scrambling to reverse the trend and reduce its carbon footprint. A movement has been born – Electrification and Decarbonization.

These words are becoming common place in every day life. They are driving decision making and shaping political and fiscal policy and framework creating an environment that incentivizes and encourages the reduction of carbon emissions. Absent from mandated policy or social conscious decision making, the movement requires a business case or cost analysis of the electric and gas alternatives. Are there viable or cost-effective solutions and equipment to allow for Electrification and Decarbonization of hot water production?

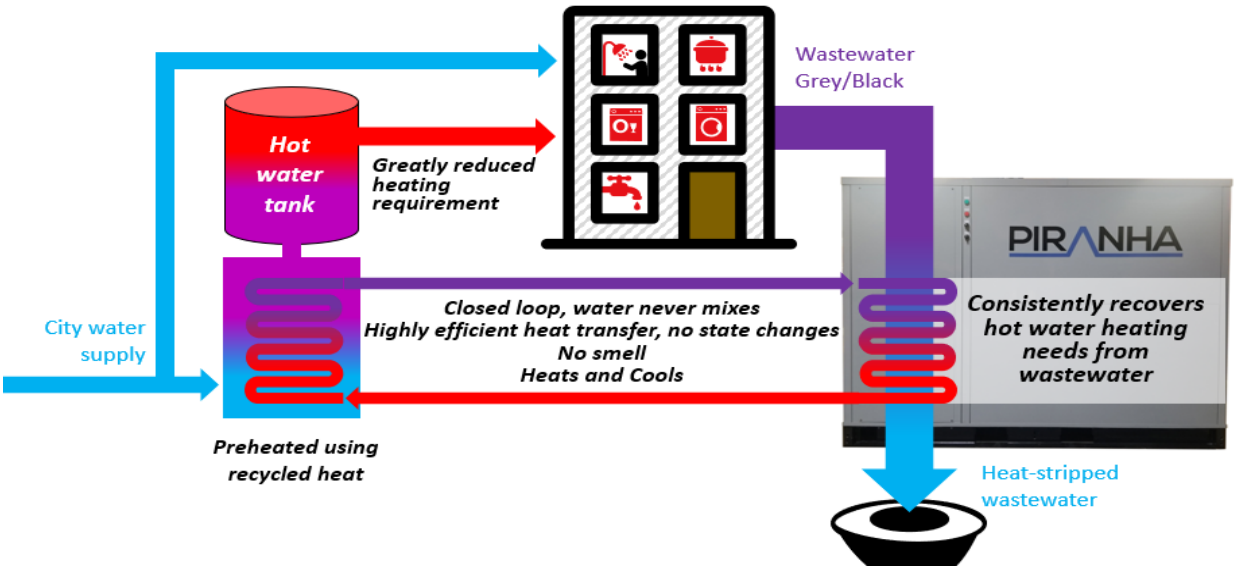
Enter SHARC Energy technology, one of the most cost effective and efficient electric alternative to domestic and industrial gas and electric hot water production that, through recycling of the heat typically discarded down the drain and into the sewers to never be used again, provides the solutions needed to support the Electrification and Decarbonization movement in reducing global carbon footprint through clean and recycled energy.

How Does It Work?

The following image highlights the current hot water process in a multi-family residential building.



Cold city water enters the building at 10 degrees Celsius (°C) or 50 degrees Fahrenheit (°F) and is heated to 60°C or 140°F which requires a lot of energy and therefore money. After using this heated water, it goes down the drain as waste water and into the sewer at an average temperate of 21°C or 70°F and in certain cases, it may be even higher due to greywater separation or certain industrial processes.

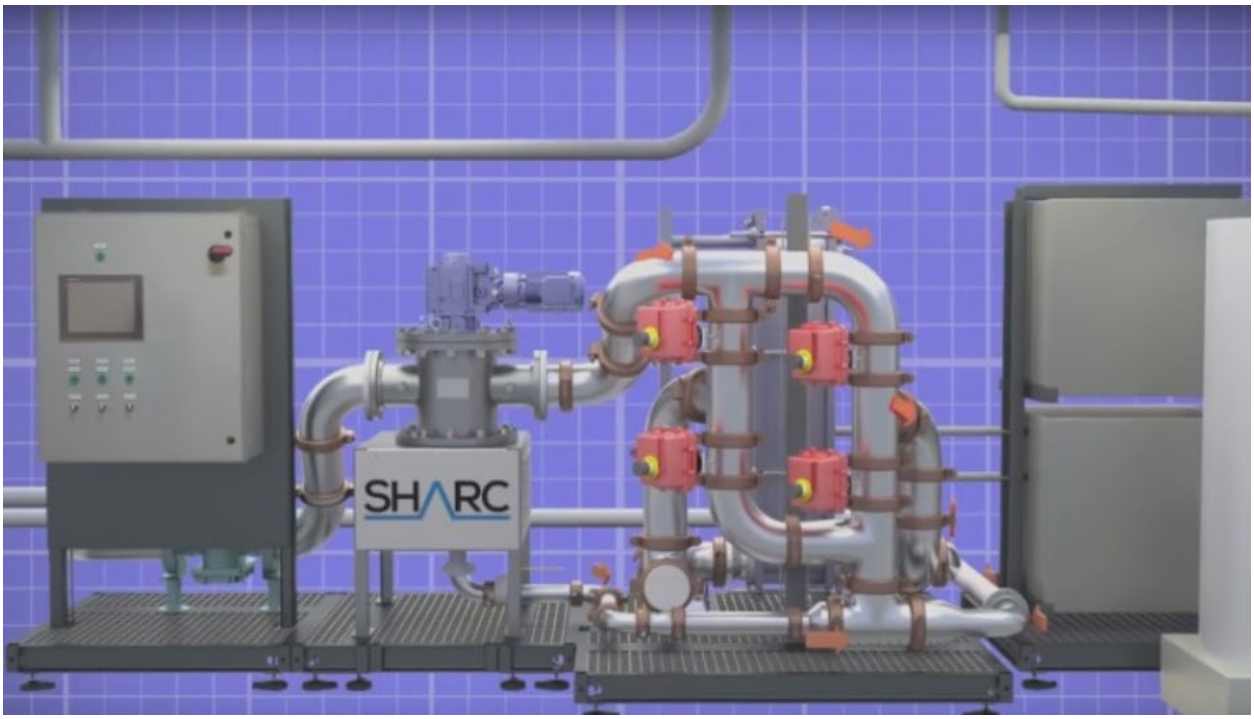


The above image shows how we would retrofit SHARC Energy technology, in this case a PIRANHA™, to recover waste water and the heat energy typically lost down the drain. The PIRANHA removes the heat out of the passing waste water, then transfers that heat through a closed loop system to a pre-heating tank that greatly reduces the energy requirement to heat your water.

When comparing PIRANHA to alternative electric hot water equipment, PIRANHA is significantly more efficient due to its high Co-efficiency of Performance ("**COP**") ranging from 300% to 700% depending on a building's installation and source inputs. In other words, for every $1 of energy input, the PIRANHA is able to output $3 to $7 worth of energy providing for superior efficiency and cost savings compared to electric competitors. As policy continues to shift towards Electrification and Decarbonization, SHARC Energy technology is poised to be a big player in the energy retrofit and new build market.

The PIRANHA is ideal for containing the energy that would typically be lost down the drain from a residential, commercial, or industrial building depending on flow rates of waste water and heating output requirements.

If a potential customer has access to waste water flow rates of 100 to 4,500 gallons per minute (gpm) or more through industrial processes or has the ability to tap into sewer lines to access waste water, a single specifically sized SHARC system can provide 0.25 Megawatts (MW) or heat transfer of ~850,000 BTU/h up to 6.5MW and 22,179,000 BTU/h. Additional flow rates and larger heating and cooling output can be managed by adding on additional SHARC systems to provide larger district heating solutions.



Our SHARC waste water filtration unit, which is patent pending and soon to be published in Canada and the United States of America, is the critical component to managing the flow rates and energy output in a waste water heat recovery district energy solution. There are alternative systems on the market but they do not provide a comparable level of filtration, they consume fresh water and require significantly more operational maintenance and downtime. Furthermore, the alternative systems are an "open" system that emits strong odours. In comparison to SHARC, it is clear our technology is the superior solution.

Overall Business Model & Growth Strategy

2019 marked a year of truly transitioning out of research and development phase and into commercialization and becoming a sale driven organization. The Company began the year focused on commercializing through two sales and value models:

- Equipment Sales and leasing (also referred to as "**OEM**")
  - Customer purchases or leases SHARC Energy technology products for its needs, whether it is energy savings, carbon reduction goals and/or building code requirements.
  - Servicing and maintenance are performed by SHARC Energy for a fee or outsourced to local techs supported by SHARC Energy.
  - An example of equipment sales is Sechelt Water. (see Global Installations)
  - An example of leasing is Lake Louise Inn. (see Global Installations)

- Design, Build, Finance and Operate ("**DBFO**")
  - SHARC Energy designs, builds, operates and finances (owns) a district heating system where SHARC Energy will benefit from heat supply revenues secured through Heat Supply Agreements ("**HSA**") with customers/tenants and payments received from the government depending on policy.
  - SHARC Energy creates long term, sustainable value for shareholders and develops an asset that can be refinanced or sold to a customer.
  - An example of this would be the Borders College. (see Global Installations)

Entering the year, the SES was focused on OEM sales in North America while SHARC Energy Limited ("**SHARC UK**"), driven by "green" incentives for developing and selling low carbon heating and cooling, was focused on the DBFO model. Unfortunately, operating under two models as the Company was transitioning to commercialization ultimately stalled SHARC Energy's ability to establish its technology in the marketplace. SHARC UK, which had seen cost overruns and project delays, required significant human and financial capital and all of SHARC Energy's resources had to be focused on supporting the effort to bring these projects to completion.

By the summer of 2019, it was apparent the challenges faced by the UK operation had brought the Company to a critical financial juncture and in late summer 2019, the Company made the decisive decision

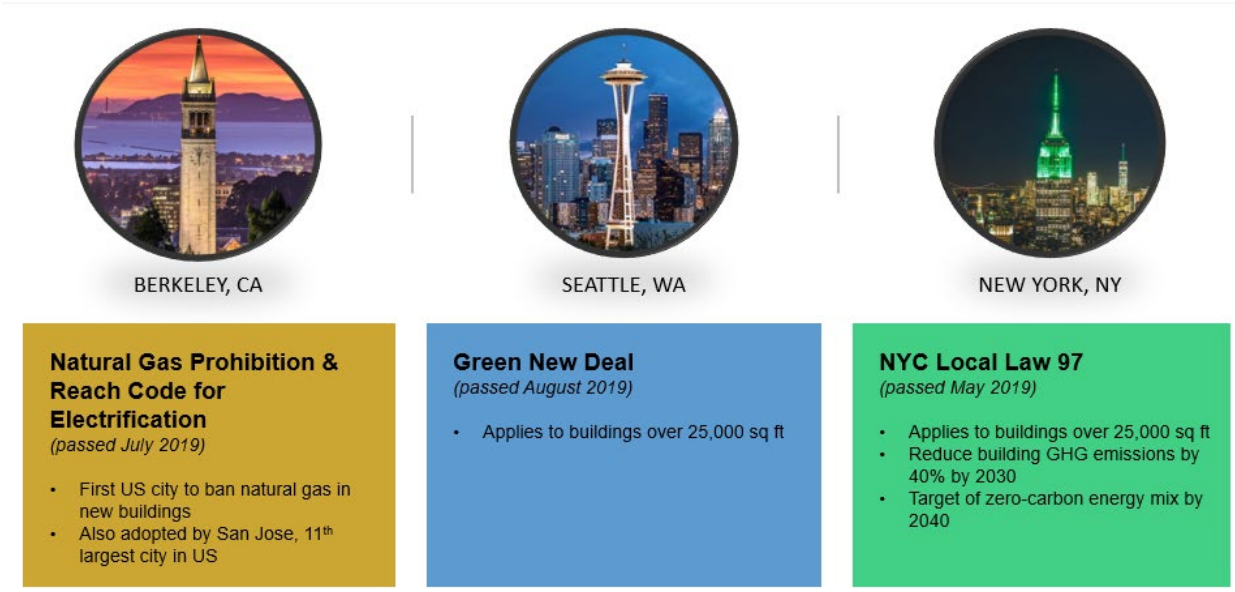
to begin to reduce its financial commitments and restructure its balance sheet while focusing on the lower cost and higher return model, OEM.

On September 17, 2019, the Company agreed to sell its 50% interest in Bandwidth Energy Ltd. ("**Bandwidth**") and the Aqualibrium project for $16,929 (£10,000) cash and terminated the agreement for the execution of certain works, namely the design, installation, testing and commissioning of a new waste water heat recovery system for $25,394 (£15,000) totaling $42,323 (£25,000). The Company continues to assist Scottish Water Horizons Ltd. with completion of the project and to discuss future opportunities.

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 SHARC Highlands Ltd. ("**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. As at December 31, 2019, the total insolvency of net assets and loss on discontinued operations was $1,205,159.

SHARC Energy spent Q4 2019 and year to date 2020 hiring sales and marketing personnel to drive the change to a sale driven organization and reallocating internal resources from research and development or technical positions to inside sales, training, project management and customer support positions.

Furthermore, the Company has overhauled its Manufacturer Representative ("**Representative**") network and secured Manufacturer's Representative Agreement ("**MRA**") with highly reputable and long standing organizations that provide coverage over the most progressive markets in Canada and the United States of America including but not limited to British Columbia, Ontario, New York City and State, Northern California including San Jose and San Francisco, Texas, Washington State and Oregon and many more.



For example, New York City Local Law 97, 1 of 10 bills in the sweeping Climate Mobilization Act, requires 50,000 of the largest buildings to reduce their carbon emissions.

As an idea of the size of the market, an analysis published by Urban Green Council in June 2019 found that if all 50,000 covered buildings opted for efficiency upgrades to meet the carbon caps, it would create an energy retrofit market opportunity as large as $24.3 billion in New York City

These MRA clearly establish terms and conditions that create a clear and transparent relationship between SHARC Energy and its Representative. The following are some of the terms and conditions:

- Pricing - provides Representative the ability to actively quote jobs and leads within their respective territory with confidence.
- Training – requires Representative to participate in sales and technical training to ensure they are knowledgeable of SHARC Energy products and SHARC Energy agrees to provide as much training as necessary
- Support – SHARC Energy agrees to provide Representative and its staff with sufficient training and marketing materials and to actively seek and provide leads for accounts or prospective accounts within the Representative's territory.

These highly reputable Representatives have established customer networks that SHARC Energy can leverage to bring brand and product awareness faster and to a larger targeted area for minimal investment while shortening sales lead times. Through their representation, SHARC Energy technology is being validated by the markets it seeks to gain significant transaction in and the feedback from our Representatives remains positive and encouraging that SHARC Energy is positioned well for the growing energy retrofit market.

Furthermore, SHARC Energy technology has received a significant acknowledgement and market validation when in May 2020, the Company won the opportunity to collaborate on a pilot project funded by the Electric Power Research Institute ("**EPRI**") after presenting at the Incubatenergy© Labs Challenge. After being selected as 1 of 17 finalists from a pool of over 130 applicants, SHARC Energy made a virtual pitch on April 7th, 2020. The Company has now been selected as 1 of 10 companies to demonstrate innovative power delivery and use technologies under the leadership of EPRI, Ameren Corporation, Tennessee Valley Authority and Southern California Edison. Nine additional utilities will participate in the projects to provide industry perspective and guidance.

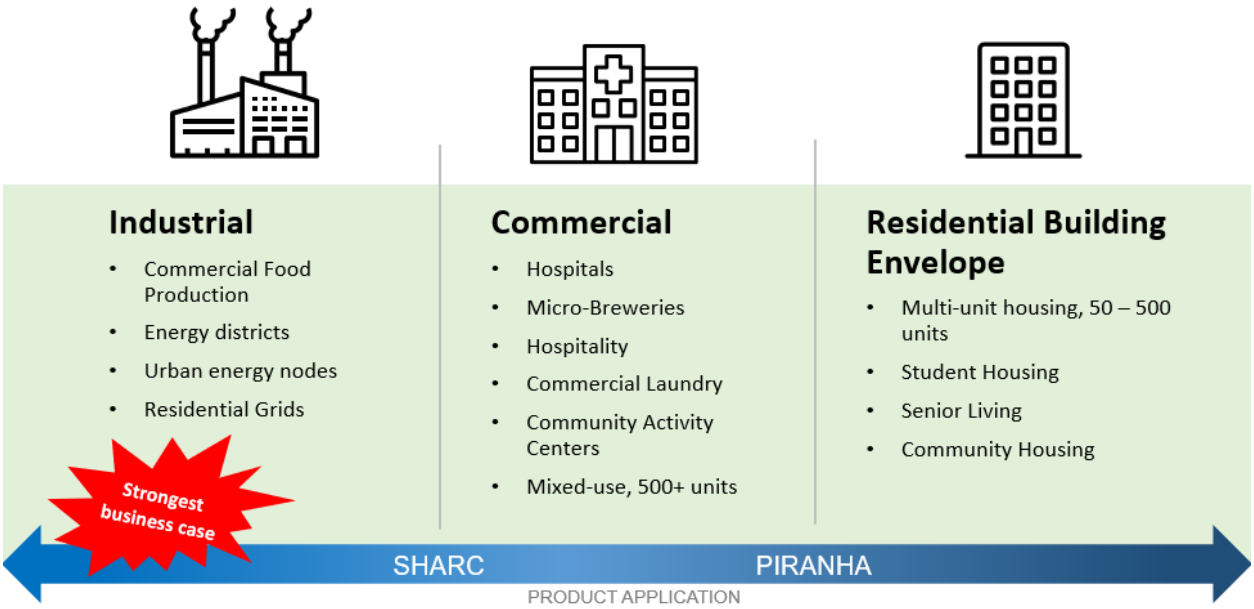
EPRI
ELECTRIC POWER
RESEARCH INSTITUTE

incubatenergy labs

Incubatenergy Labs is a project created by EPRI that connects early-stage businesses focused on electrification and decarbonization with utilities and industry stakeholders. By combining introductions to key members in EPRI's network with collaborative paid demonstration projects, EPRI links leading start-ups with utilities that have the capacity to further these innovative technologies.

Through our innovative wastewater heat recovery systems, SHARC Energy has earned a paid demonstration supported by Incubatenergy Labs. The project will commence on June 1st and SHARC Energy will work with EPRI and participating American utilities to install a PIRANHA HC. The results will be presented at the Incubatenergy Labs "Demo Day" currently scheduled for October 14, 2020 in St Louis, Missouri and hosted by Ameren Corporation. It goes without saying that this is a large opportunity for the Company and could be a key catalyst in driving mass brand awareness and market acceptance of our technology.

Customers and Sales Cycle



As illustrated above, there are a wide ranging of customers and verticals that SHARC Energy technology is directly marketing and selling too. As we move from left to right, the technology most suitable is SHARC to PIRANHA. With different customers and verticals, the sales cycle can vary.

In industrial settings like food processing, clothing and textiles, and pulp and paper, the anticipated sales lead time will be less than 12 months as these typically have the space for a SHARC system to be installed in a retrofit fashion and have the volume of waste water required.

The PIRANHA sales cycle can be a much shorter process and is a critical player in the energy retrofit market. Retrofits can be anywhere from 1 to 3 months in turn around time in comparison to new build installations which can take from 12 to 36 months.

The Company's sales cycle for its SHARC Energy district heating projects and new build installations are typically 12 to 36 months. This is primarily because, to date, the bulk of projects supported by the Company are more widely infrastructure based, involving extended periods of development and planning. Moreover, the innovative and pioneering nature of the Company's approach to heat delivery requires a significant amount of engagement and educational support to get customers and their technical engineering teams comfortable with the technology and its capability.

Competition

The Company has several fringe competitors who offer an alternative for heat recovery through waste water. However, due to the strength and robustness of SHARC Energy's technology, the following competitors do not provide a threat currently with their present product portfolio:

HUBER ThermWin

Based in Germany, HUBER specializes in water and wastewater treatment. As part of that, they offer wastewater filtration and heat extraction equipment (called the ThermWin), but in general the system lacks the flexibility to be integrated into the wide variety of projects that SHARC Energy offers. The design team or client would have to consider both higher up-front capital costs and a reduced COP (coefficient of performance) due to equipment design. In addition, the equipment is not suitable for standard buildings due to their method of wastewater solids extraction and non-odour-free design.

Rabtherm Energy Systems

Rabtherm Energy Systems is another German manufacturer that takes an alternative approach to wastewater heat recovery. Unlike SHARC Energy and HUBER, whose systems are external to the primary wastewater flow, Rabtherm's products are integrated into or replace the sewer line itself. They use heat exchangers lining the bottom of the pipe or embedded into the pipe walls with the intent of capturing the heat from the wastewater and transferring it to other equipment for reuse. Massive infrastructure costs and the issue of sediment build up on the bottom of the sewer pipe lead to long payback periods. Additionally, without a wastewater holding tank, it runs the risk of low-flow periods when heat cannot be recovered.

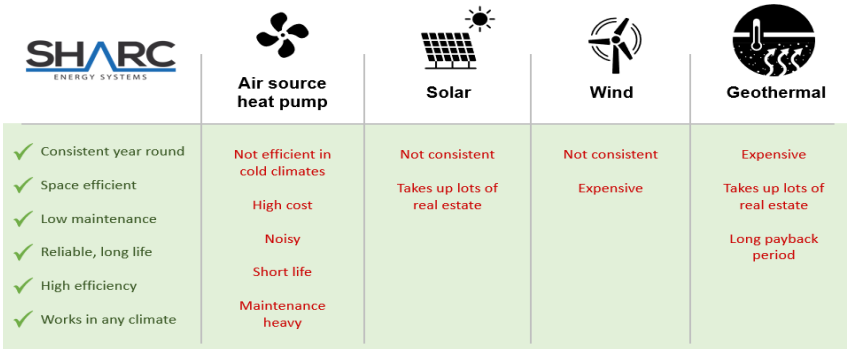
RenewABILITY Power-Pipe

The Power-Pipe is a heat recovery system produced by RenewABILITY Energy Inc., involving a heat extraction coil wrapped around a drainpipe. The intended purpose to capture wastewater heat as it passes through the drainpipe into the coil. The recovered heat is transferred to the building's hot water source.

The system is completely passive, with no moving parts, and so it requires no energy to operate. However, it entails extremely long payback periods due to low heat recovery rates (and thus energy cost savings) relative to installation costs. Moreover, in multi-family dwellings, one must consider the possibility of having to access the Power-Pipe though other owners' properties.

Traditional Clean energy technologies

Furthermore, SHARC and PIRANHA compete against alternative clean energy technology that are more established and accepted by the market. However, as illustrated below, SHARC Energy is poised to be a significant player in the clean alternative energy space and provides the highest return per dollar of investment when comparing carbon emission tonnes reduced and payback over the lifespan of the operation of SHARC Energy equipment in comparison to these alternative clean energy technologies.



Global Installations

The following is a sample of these projects:

Installations - *In order to test the scalable solutions for the organization the Company has embraced a variety of opportunities to establish the most productive and profitable route to market.*

Borders College, Galashiels, Scotland

This SHARC system is connected to the local wastewater system and provides around 85% of the heat needed by the Galashiels Campus, with no impact of the normal operation of the wastewater network, to target reducing the associated carbon footprint by 250 tonnes per year. Alongside Scottish Water Horizons, the Company has helped Borders College win the "Best Newcomer" category at the prestigious Green Gown Awards and the "Innovation of the Year" award at the Scottish Green Energy Awards.

The Green Gown Awards, established in 2004, recognize the exceptional sustainability initiatives being undertaken by universities and colleges. With sustainability becoming increasingly important, the Awards have become established as the most prestigious recognition of best practice within the further and higher education sector.

Similarly, the Scottish Green Energy Awards were established by Scottish Renewables, the voice of renewable energy in Scotland, to recognize, support, and celebrate exceptional contributions from a wide range of stakeholders involved in the Scottish Energy revolution and assisting the Scottish Government to realize the full economic, social, and environmental benefits of renewable energy for the country.

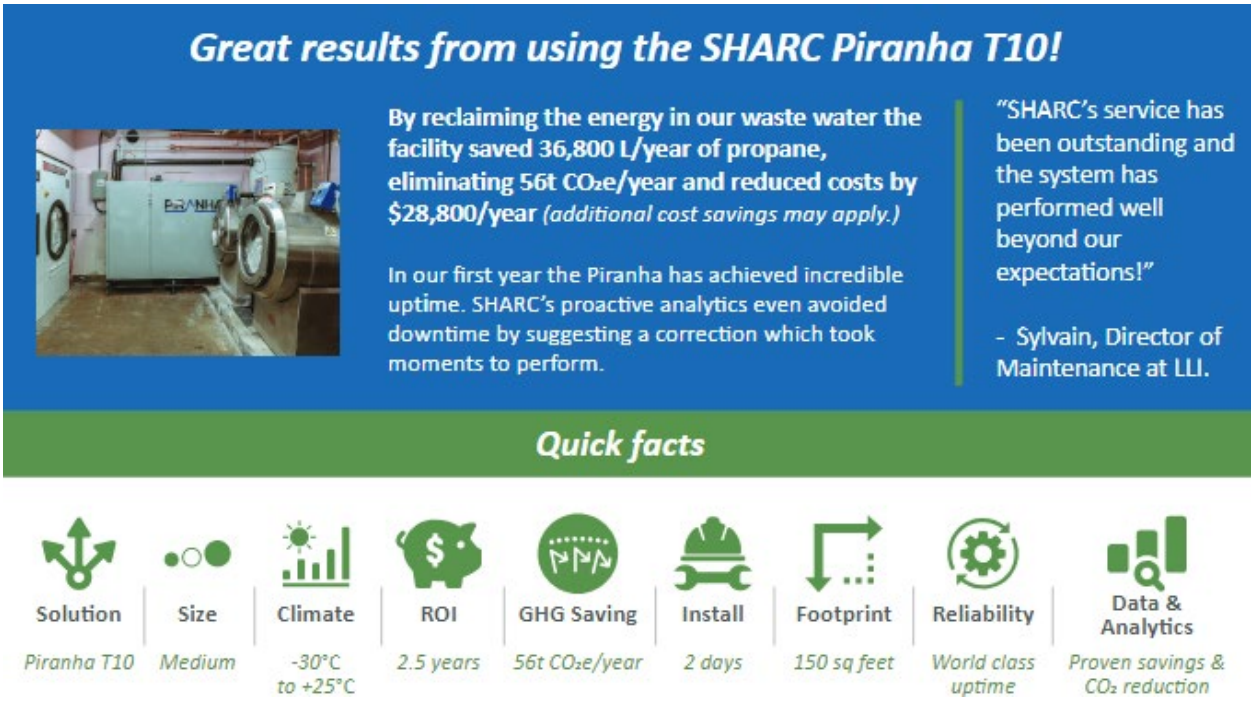
District of Columbia Water and Sewer Authority Headquarters, Washington, DC, USA.

This SHARC system was completed and commissioned in July 2018 and provides the 168,000-ft2 building with a combination of heating, air conditioning, and water heating. Savings are projected to be 35% for cooling and 85% for heating while saving 5 million gallons of freshwater per year that otherwise would have been used by the cooling towers. This building is designed to LEED® Platinum Class A standards and is the greenest building in North America.

Figure 1 - District of Columbia Water and Sewer Authority Headquarters

Lake Louise Inn (LLI), Lake Louise, B.C., Canada

LLI, managed by Canadian hotelier Atlific Hotels, is SHARC Energy's first installation in Alberta and the fourth PIRANHA installation across Canada. It is also the first ever installation in a hotel, an enterprise that produces and wastes significant quantities of hot water. The system allows for the hotel to collect hot water from their laundry systems and reuse the heat in future laundry loads. Below are some highlights of the installation:



The unit is leased for $1,200 a month until October 2023.

Southeast False Creek Neighbourhood Energy Utility (NEU), Vancouver, B.C., Canada

The NEU, with the assistance of a SHARC Energy waste water filtration system, provides low-carbon heat and hot water to buildings in the False Creek area through the recycling of waste water heat and the use of renewable natural gas for 395,000 m2 of residential, commercial, and institutional space. This results in substantial reduction of greenhouse gas (GHG) emissions from the building sector compared with the traditional methods of providing building heating and hot water.

This facility is a large-scale district heating network serving Vancouver's Olympic Village, in operation since 2010. In 2017, two SHARC waste water filtration units were installed for filtration of wastewater on a trial basis.

In December 2019, the City of Vancouver completed its trial of the SHARC Energy waste water filtration system and has agreed to lease the system for a 12-month period at $9,000 per month with the option to negotiate an extension. During the trial, the NEU determined that the main advantages of the SHARC system compared to the original screening system in operation during the 2010 Vancouver Olympics is that it provides superior filtration, consumes no fresh water and requires significantly less maintenance and operational downtime. Furthermore, the old system was an "open" system with strong odours while the SHARC system is a closed system and provides efficient filtration with minimal to no odour.

The NEU customer base has expanded by more than 300% since it first began operation in Southeast False Creek in 2010. In accordance with a Council-approved decision framework for major infrastructure expansions, expansion is now underway to supply low-carbon energy to new developments in parts of Mount Pleasant, Northeast False Creek and the False Creek flats.

The NEU currently operates with a target for 70% of its energy to be supplied from renewable sources. In alignment with the Climate Emergency Response report approved by Council in April 2019, the NEU will be transitioning to 100% renewable energy before 2030. This will allow the NEU to deliver zero emissions energy to all buildings served by the system.

The City is also actively working to support renewable energy initiatives by third party utilities and other public sector authorities, including the conversion of existing fossil fuel-based heating systems to renewables and new low-carbon systems to serve major developments. These systems are a key action under the Greenest City Action Plan and the Renewable City Action Plan.

As per the Vancouver Draft 2020 Budget and Five-Year Financial Plan, one of the NEU priority plans for 2020, which are subject to council approval, is initiating the construction of a 5-megawatt expansion of waste water heat recovery in order to achieve GHG performance targets while serving the growing customer base. It is SHARC Energy's intention to submit a bid to be the selected waste water filtration and screening equipment utilized in this future expansion when the City of Vancouver and NEU open the process in late 2020. For more information with regards to the NEU, please review the NEU section in the Vancouver 2020 Budget Financial Plan.

Sechelt Water Resource Centre, Sechelt, B.C., Canada

This project was implemented to supply space heating and cooling at a state-of-the-art wastewater treatment plant using their untreated influent. The SHARC system was commissioned in Spring 2015, contributing to LEED® Gold certification for the facility, eliminating the need for an air conditioning cooling tower. It provided typical heat transfer of 630,000 BTU/hr for heating and 500,000 BTU/hr for cooling, with a measured peak heat transfer of 1,500,000 BTU/hr and CO_2 emission reduction of 96 tonnes per year.

Paul Nash, project coordinator for the wastewater treatment plant: *"This place is a tertiary level treatment plant that was built with the specific purpose of producing really high-quality water for reclaimed water purposes. A unique feature of this treatment plant is the greenhouse. They help the treatment process, but also in winter the greenhouse has to be heated, and we didn't want to use electricity or natural gas to heat it, but the idea of getting the heat out of the wastewater itself was a great one. So the SHARC system is able to provide the space heating for the greenhouse and all the office areas of the building. We expect our actual outside energy use of electricity for heating will be about one quarter of what it would otherwise be if we had to do this in a normal way."*

Wall Centre Central Park, Vancouver, B.C, Canada

Wall Centre Central Park is a two-phase real estate development showcases both SHARC and PIRANHA technology. Phase 1 contains 700 residential units and incorporates a SHARC 660 system, commissioned in July 2017. Phase 2 contains 350 residential units and implements two Piranha T10 units, commissioned in July 2018.

The systems save approximately $50k in energy by utilizing waste heat recovery and reduces CO_2 emissions by 260 tonnes a year. This building was built to LEED® Gold Certification standards.

Selected Annual Financial Information

	Year Ended December 31, 2019	Year Ended December 31, 2018	Year Ended December 31, 2017
Revenue	143,584	530,864	227,717
Loss from continuing operations	(3,294,786)	(4,428,538)	(3,708,945)
Loss for the year	(4,499,945)	(5,896,476)	(4,521,541)
Continuing operations Basic and Diluted Loss Per Share	(0.08)	(0.13)	(0.13)
Total Basic and Diluted Loss per Share	(0.11)	(0.17)	(0.16)
	As at December 31, 2019	**As at December 31, 2018**	**As at December 31, 2017**
Total assets	1,070,761	5,878,525	1,704,486
Long-term liabilities	3,050,251	3,605,524	1,911,974

2017 into 2019 was a period of research and development transitioning into a sales driven organization. We intended to commercialize through two sales models:

- OEM in North America and outside of the UK
- 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 we 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 UK and Highlands and began the process of restructuring operations to focus on a lower cost sales model, OEM.

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 ($)	Per Share ($)	
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
December 31, 2018	58,527	(2,053,684)	(0.06)	(2,921,085)	(0.08)	5,878,525
September 30, 2018	43,237	(1,221,035)	(0.04)	(1,068,051)	(0.03)	2,725,098
June 30, 2018	10,853	(686,392)	(0.02)	(1,111,039)	(0.03)	3,806,163

In the first half of 2018, the Company completed financings totalling approximately $3.9M in equity financing. During the second half of 2018, the Company began development and construction on Aqualibrium and Clyde Gateway project 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 a financing totalling approximately $2.69M and continued its focus and investment in OEM sales.

Overall Financial Performance

The consolidated statements of financial position as of March 31, 2020, indicate a cash position of $1,202,646 (December 31, 2019 - $109,510) and total current assets of $501,955 (December 31, 2019 - $3,575,789). Current liabilities at March 31, 2020, total $3,181,486 (December 31, 2019 - $3,974,734).

For the three months ended March 31, 2020, the Company had a working capital deficit of $1,479,327 (December 31, 2019 – working capital deficit of $3,472,779).

During the three months ended March 31, 2020, the Company reported a loss from continuing operations of $871,276 ($0.02 basic and diluted loss per share) on revenue of $54,675 and a gross margin of $47,210. This compared to a loss from continuing operations of $28,331 ($0.02 basic and diluted loss per share) on revenue of $28,331 and a gross margin of $21,606, for the three months ended March 31, 2019.

During the three months ended March 31, 2020, the Company reported a loss from discontinued operations of $Nil ($Nil basic and diluted loss per share). This compared to a loss from discontinued operations of $195,472 ($0.01 basic and diluted loss per share) on revenue of $421,393 and a gross margin of $185,930, for the three months ended March 31, 2019.

Discussion of Operations

Three months ended March 31, 2020 compared with three months ended March 31, 2019

Continued Operations

SHARC Energy's loss from continuing operations totaled $871,276 for the three months ended March 31, 2020, or a basic and diluted loss per share of $0.02. This compares with a loss from continuing operations of $753,525 with basic and diluted loss per share of $0.02 for the three months ended March 31, 2019. The increase of $117,751 in loss from continuing operations was principally because:

- For the three months ended March 31, 2020, revenue increased by $26,344, cost of sales increased $740 and the gross margin increased by $25,604.
    - For the three months ended March 31, 2020, revenue consisted of $31,800 from equipment leases and $22,764 from service and service agreement revenue from Vancouver, B.C. and Greater Vancouver Region installations.
    - For the three months ended March 31, 2019, revenue consisted of $3,600 from equipment leases, $24,731 from service and service agreement revenue from Vancouver, B.C. and Greater Vancouver Region installations.
    - Cost of goods sold in the three months ended March 31, 2020 and March 31, 2019 consisted of service and service agreement costs.
    - Gross margin and gross margin percentage in the three months ended March 31, 2020 and 2019 is $47,210 and 86% compared to $21,606 and 76%. These gross margins are consistent with an OEM sales model and validates the Company's decision to move away from the DBFO model it was operating under in the United Kingdom
- For the three months ended March 31, 2020, interest and financing expense increased by $194,346. The increase is due to an increase in accretion expense on convertible debt as this quarter includes accretion expense associated with convertible debt raised in May, June and December 2019 as well as February 2020.
- For the three months ended March 31, 2020, consulting expenses increased by $7,467. The Consulting fees consist of fees paid to the Chief Financial Officer and management consultants while the comparative period had approximately $42,000 relating to sales and marketing consultants. Over the course of 2019, the Company reduced the use of sales and marketing consultants and reallocated this consulting spend to management consultants that help reduce general administration salaries and wages and other general and administrative spend such as legal. Furthermore, these sales and marketing consultant positions have been transitioned to internal resources and the Company has hired additional in-house sales capacity.
- For the three months ended March 31, 2020, the Company had $196,762 in share-based payments versus $68,105 in the comparable period. The share-based payments amount in the three months ended March 31, 2020 is due to the issuance of 4,400,000 options granted to certain directors, officers, employees and consultants and common shares issued for services.

Adjusted EBITDA

	Three months Ended March 31, 2020 $	Three months Ended March 31, 2019 $
Loss from continuing operations before income taxes	(1,079,480)	(807,861)
Adjustments:		
Interest and financing expense	332,169	137,823
Depreciation	34,746	17,404
Bad debt recovery	(7,311)	—
Share-based payments	196,762	68,105
Expenses paid by shares	48,126	—
Foreign exchange	759	6,085
Adjusted EBITDA loss	**474,229**	**578,444**

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 ended March 31, 2020, Adjusted EBITDA loss was $474,988 compared with $578,444 for the comparative period. This improvement was due to effective cost containment initiatives and reallocation of internal resources as well as increased revenue from leasing equipment.

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 believes providing Adjusted EBITDA 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.

Discontinued Operations

SHARC Energy's loss from discontinued operations for the three months ended March 31, 2020 is $Nil and or a basic and diluted loss per share of $Nil. This compares with a loss from discontinued operations of $195,472 and with a basic and diluted loss per share of $0.01 for the three months ended March 31, 2019. The decrease of $195,472 in loss from discontinued operations when comparing quarter over quarter and year over year, respectively, was principally due to no activity in the three months ended March 31, 2020 due to the UK operations entering into insolvency procedures.

For the three months ended March 31, 2019, revenue was $421,393, cost of sales was $235,463 and the gross margin was $185,390 or 44%. The margin is largely due to an OEM sale for a SHARC 880 system, recognized on a percentage of completion basis, for $354,729 that earned a margin of $302,149 or 85% margin. This sale was offset by a negative margin of $117,081 on Aqualibrium installation costs.

The OEM sale reaffirms the Company shift of strategies to focus on a lower cost sales model where we sell

equipment and servicing solely and do not take on financial risk of owning heating and cooling infrastructure based around SHARC systems.

The Company is in the process of relaunching in the UK under its new OEM sales model and anticipates providing update in the back half of 2020 on the strategy.

For the year ended December 31, 2019

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 the year ended December 31, 2019.

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**

Liquidity and Financial Position

As at March 31, 2020 the Company's cash balance was $1,202,646 (December 31, 2019 - $109,510) and the Company had working capital deficit of $1,479,330 (December 31, 2019 – working capital deficit of $3,472,779).

As of March 31, 2020, the Company had 50,701,434 common shares issued and outstanding, 40,637,472 warrants outstanding that would raise $15,442,439 if exercised in full and 4,908,000 options outstanding that would raise $539,880 if exercised in full. Subsequent to quarter end, 10,145,145 warrants expired unexercised

Cash used in continuing operating activities was $501,012 for the three months ended March 31, 2020. Operating activities were affected by the loss from continuing operations of $871,276 partially offset by non-cash expenses of $393,049 and a change in non-cash working capital balances of $22,785 largely because of an increase of accounts payable and accrued liabilities.

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:

	Three months Ended March 31, 2020 $	Three months Ended March 31, 2019 $
Consulting fees [i]	39,500	15,000
Wages and benefits [ii]	98,733	167,588
Share-based payments [iii]	85,499	27,607
Inventory/cost of sales [iv]	—	4,939
	223,732	**187,527**

(i) The Company paid consulting fees to company controlled by the Chief Financial Officer

(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 $97,420. Furthermore, options were terminated and cancelled during the year which resulted in reversal of $11,921.

(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.

	Three Months ended March 31, 2020 ($)	Three Months ended March 31, 2019 ($)
Lynn Mueller	74,400	50,000
Daryle Anderson	22,500	22,500
Russ Burton	—	43,288
Hanspaul Pannu	33,000	15,000
Jas Sahota	8,333	51,800
Ian Craft	—	4,939
Total	**138,233**	**187,527**

Other transactions with related parties included:

Included in accounts payable is $216,512 (December 31, 2019 – $672,587) due to related parties.

	March 31, 2020 ($)	December 31, 2019 ($)
Lynn Mueller	2,738	86,962
Daryle Anderson	97,206	330,000
Company controlled by Jas Sahota and Jas Sahota	116,567	107,909
Company controlled by Russ Burton and Russ Burton	—	81,540
Company controlled by Hanspaul Pannu	—	66,176
Total	**216,512**	**672,587**

On February 11, 2020, the Chief Financial Officer and a Director of the Company settled $326,794 of accounts payable for equity units in a financing.

Share Capital

As of the date of this MD&A, the Company had 55,871,889 (March 31, 2020 – 50,701,434) 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
3,714,286	November 22, 2021	$0.35
1,266,030	March 7, 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
2,972,404	February 11, 2022	$0.25
942,857	May 30, 2022	$0.25
730,714	June 29, 2022	$0.25
700,000	December 23, 2022	$1.00
8,820,000	February 13, 2023	$0.20
1,380,000	February 24, 2023	$0.20
6,665,997	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
408,000	October 29, 2024	$0.09
2,900,000	January 19, 2025	$0.075
950,000	February 26, 2025	$0.105
200,000	March 1, 2025	$0.14
350,000	March 16, 2025	$0.105

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

Warrants	Expiry Date	Exercise Price
48	March 8, 2022	$1,000
80	May 9, 2022	$1,000
30	June 28, 2022	$1,000
33	December 20, 2022	$1,000
176	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 May 7, 2020, the Company issued 45,455 common shares to settle an outstanding debt of $8,925.

[b] On May 29, 2020, the Company issued unsecured convertible debenture units with a principal amount of $2,000,000. The debenture matures on May 29, 2023 and bears 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 for three years from issuance.

Total finders' fee of $100,000 in cash and 200 debenture warrants were incurred on the issuances. Each compensation warrant is exercisable into one debenture unit of the Company at $1,000 per unit three years from issuance under the same terms as this units in the placement.

[c] On May 29, 2020, the Company settled with all holders ("**Debentureholders**") of the Company's $1,320,000 and $1,023,000 12% unsecured, convertible debentures which were set to mature on May 30, 2020 and June 29, 2020 (the "**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. 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 will be repriced to $0.25 from $1.05 (collectively, the "**Warrant Amendments**"). The Warrant Amendments are subject to the approval of the CSE.

[d] On June 12, 2020, the Company issued unsecured convertible debenture units with a principal amount of $700,000. The debenture matures on June 12, 2023 and bears 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 for three years from issuance.

Total finders' fee of $34,475 in cash and 69 debenture warrants 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 this units in the placement.

[e] Subsequent to March 31, 2020, 10,145,145 common share purchase warrants expired unexercised.

[f] Subsequent to March 31, 2020, holders of convertible debentures converted $650,000 of principal into 5,125,000 common shares.

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. Management is required to assess the functional currency of the Company. The determination of functional currency often requires significant judgment where the primary economic environment in which they operate may not be clear. This can have a significant impact on the consolidated results of the Company based on the foreign currency translation method.

III. 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.

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.

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 period. 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.

[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 March 31, 2020 and December 31, 2019, the Company is exposed to 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. The Company is exposed to liquidity risk.

[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 March 31, 2020, the Company is not exposed to any significant interest rate risk.

[ii] Currency risk

Foreign exchange risk is the risk that the fair value of future cash flows will fluctuate as a result of changes in foreign exchange rates. The Company did not hedge its exposure to currency fluctuations. As at March 31, 2020, the Company is not exposed to currency 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 waste water flows is a relatively new market and its long-term growth prospects are uncertain. Should the raw waste water 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.