TANTALUS SYSTEMS HOLDING INC.

Management's Discussion and Analysis of Financial Condition and Results of Operations

For the Years Ended December 31, 2019, 2018 and 2017

This Management's Discussion and Analysis ("MD&A") of the financial condition and results of Tantalus Systems Holding Inc (the "Company", "we", "TSHI" or "Tantalus") is provided to assist our readers to assess our financial condition and our financial performance, including our liquidity and capital resources, for the year ended December 31, 2019 compared with the years ended December 31, 2018 and December 31, 2017. The information in this MD&A is current as of January 4, 2021, and should be read in conjunction with the audited consolidated financial statements as at December 31, 2019 and 2018 and for the years ended December 31, 2019, 2018 and 2017.

The Company's audited consolidated financial statements and notes thereto as at December 31, 2019 and 2018 and for the years ended December 31, 2019, 2018 and 2017 have been prepared in accordance with International Financial Reporting Standards ("IFRS") as issued by the International Accounting Standards Board ("IASB") and interpretations of the International Financial Reporting Interpretations Committee ("IFRIC"), and are presented in United States ("US") dollars which is the functional currency of the Company. Certain dollar amounts in this MD&A have been rounded to the nearest millions or thousands of dollars.

This MD&A contains non-IFRS measures, including Adjusted EBITDA[1], Adjusted EBITDA Margin[2], Gross Profit[3] and Adjusted Working Capital[4]. See section "Adjusted EBITDA" below for information on the calculation of Adjusted EBITDA. See section "Results of Operations" for information on the calculation of Gross Profit. See section "Liquidity" for information on the calculation of Adjusted Working Capital.

This MD&A was prepared by management of the Company and approved by its Board of Directors prior to its release. Unless otherwise stated, the Company has considered all information available to it through January 3, 2021 in preparing this MD&A. Additional information relating to the Company can be found on its website.

[1] Adjusted EBITDA or Earnings before Finance expenses are comprised of interest expense on bank loan and lease liabilities in addition to EDC fees required for the Company's bank loan., Taxes, Depreciation and Amortization, Stock-based Compensation, change in fair value of FVTPL instruments, loss on disposal and non-recurring business expenses. It is a non-IFRS measure that does not have a standardized meaning and may not be comparable to a similar measure disclosed by other issuers. This measure is used by the Company to manage and evaluate operating income (loss) of the business.

[2] Adjusted EBITDA Margin represents Adjusted EBITDA expressed as a percentage of the Company's revenues. It is a non-IFRS measure that does not have a standardized meaning and may not be comparable to a similar measure disclosed by other issuers.

[3] Gross Profit referenced here relates to revenues less cost of sales. It is a non-IFRS measure that does not have a standardized meaning and may not be comparable to a similar measure disclosed by other issuers. This measure does not have a comparable IFRS measure and is used by the Company to manage and evaluate the operating performance of the Company.

[4] Adjusted Working Capital as referenced herein is defined as current assets less current liabilities exclusive of the Company's bank loan. It is a non-IFRS measure that does not have a standardized meaning and may not be comparable to a similar measure disclosed by other issuers. This measure does not have a comparable IFRS measure. The Company believes that the inclusion of this non-IFRS financial measure provides investors with an alternative presentation useful to investors' understanding of the Company's core operating results and trends.

NOTE REGARDING FORWARD-LOOKING INFORMATION

This MD&A contains “forward-looking information” and “forward-looking statements” (collectively, “forward-looking information”) within the meaning of applicable securities laws. Forward-looking information may relate to our financial outlook and anticipated events or results and may include information regarding our financial position, business strategy, growth strategies, addressable markets, budgets, operations, financial results, taxes, dividend policy, plans and objectives. Particularly, information regarding our expectations of future results, performance, achievements, prospects or opportunities or the markets in which we operate and the impact of the COVID-19 pandemic declared by the World Health Organization on March 11, 2020 (the "COVID-19 Pandemic") thereon is forward-looking information.

In some cases, forward-looking information can be identified by the use of forward-looking terminology such as “plans”, “targets”, “expects” or “does not expect”, “is expected”, “an opportunity exists”, “budget”, “scheduled”, “estimates”, “outlook”, “forecasts”, “projection”, “prospects”, “strategy”, “intends”, “anticipates”, “does not anticipate”, “believes”, or variations of such words and phrases or statements that certain actions, events or results “may”, “could”, “would”, “might”, “will”, “will be taken”, “occur” or “be achieved”, the negative of these terms and similar terminology. In addition, any statements that refer to expectations, intentions, projections or other characterizations of future events or circumstances contain forward-looking information. Statements containing forward-looking information are not historical facts but instead represent management’s expectations, estimates and projections regarding future events or circumstances based on currently available information.

This forward-looking information includes, among other things, statements relating to: expectations regarding industry trends; our growth rates and growth strategies; addressable markets for our solutions; the achievement of advances in and expansion of our offerings and markets; expectations regarding our revenue and the revenue generation potential of our products, services and other solutions; our business plans and strategies; and our competitive position in our industry.

The forward-looking information contained herein is based on our opinions, estimates and assumptions in light of our experience and perception of historical trends, current conditions and expected future developments, as well as other factors that we believe are appropriate and reasonable in the circumstances based on currently available information. Despite a careful process to prepare and review the forward-looking information, there can be no assurance that the underlying opinions, estimates and assumptions will prove to be correct. Certain assumptions in respect of our ability to build our market share and enter new markets; our ability to retain key personnel; our ability to execute on our expansion plans; our ability to continue investing in research and development to support our growth; our ability to obtain and maintain existing financing on acceptable terms; currency exchange and interest rates; the impact of competition; the changes and trends in our industry or the global economy; and the changes in laws, rules, regulations, and global standards are material factors made in preparing forward-looking information and management’s expectations.

Forward-looking information is necessarily based on a number of opinions, estimates and assumptions that we considered appropriate and reasonable as of the date such statements are made, are subject to known and unknown risks, uncertainties, assumptions and other factors that may cause the actual results, level of activity, performance or achievements to be materially different from those expressed or implied by such forward-looking information, including but not limited to the factors described in the “Risk Factors” section of our Filing Statement to which this MD&A is attached (the “Filing Statement”).

If any of these risks or uncertainties materialize, or if the opinions, estimates, or assumptions underlying the forward-looking information prove incorrect, actual results or future events might vary materially from those anticipated in the forward-looking information. The opinions, estimates or assumptions referred to above should be considered carefully by prospective investors.

Although we have attempted to identify important risk factors that could cause actual results to differ materially from those contained in forward-looking information, there may be other risk factors not presently known to us or that we presently believe are not material that could also cause actual results or future events to differ materially from those expressed in such forward-looking information. There can be no assurance that such information will prove to be accurate, as actual results and future events could differ materially from those anticipated in such information. No forward-looking statement is a guarantee of future results. Accordingly, you should not place undue reliance on forward-looking information, which speaks only as of the date made. The forward-looking information contained in this MD&A represents our expectations as of the date of hereof (or as of the date they are otherwise stated to be made), and are subject to change after such date. However, we disclaim any intention or obligation or undertaking to update or revise any forward-looking information whether as a result of new information, future events or otherwise, except as required under applicable securities laws.

All of the forward-looking information contained in this MD&A is expressly qualified by the foregoing cautionary statements.

DESCRIPTION OF BUSINESS

History of the Business:

Tantalus Systems, Corp. ("TSC") was founded in 1989 in Burnaby, British Columbia, Canada by a collection of individuals who sought to leverage technology to transform the delivery of data through wireless communications networks. By 1999, TSC had centered its focus on leveraging radio frequency ("RF") technology to assist electric utilities in accessing information from meters deployed across rural and challenging terrain, and to automate meter-to-cash and billing processes for residential, commercial and industrial customers. From leveraging our expertise in accessing devices and collecting data, Tantalus has evolved into a leading provider of smart grid technology solutions to public power and electric cooperative utilities responsible for delivering electricity, water and gas across the United States, Canada and the Caribbean Basin.

At Tantalus, we pride ourselves on aligning our purpose with our customers' purpose . . .

- To support the safety, prosperity and autonomy of the local communities our public power and electric cooperative customers serve;
- To help these communities thrive by helping our customers power their economic prosperity, environmental sustainability and social progress;
- To ensure these communities are empowered to shape the future of their own smart grids as the adoption of distributed energy resources such as solar panels, distributed storage and electric vehicles transform distribution grids; and
- To give our customers the flexibility and expandability they need to serve their communities today and well into the future.

WHO WE ARE	WHAT WE DO	WHY WE'RE DIFFERENT	HOW WE DELIVER	WHY IT MATTERS
A smart grid provider focused on the public power & electric cooperative utility market in North America and the Caribbean Basin	Deliver mission-critical solutions to help utilities make smarter decisions and prepare for the adoption of distributed energy resources	Deliver an edge-computing platform on every connected endpoint to support multiple applications and deliver data analytics	Robust R&D and customer service organizations delivering hosted, on-premise and cloud-based solutions	Improve the environment while delivering social and economic value to communities

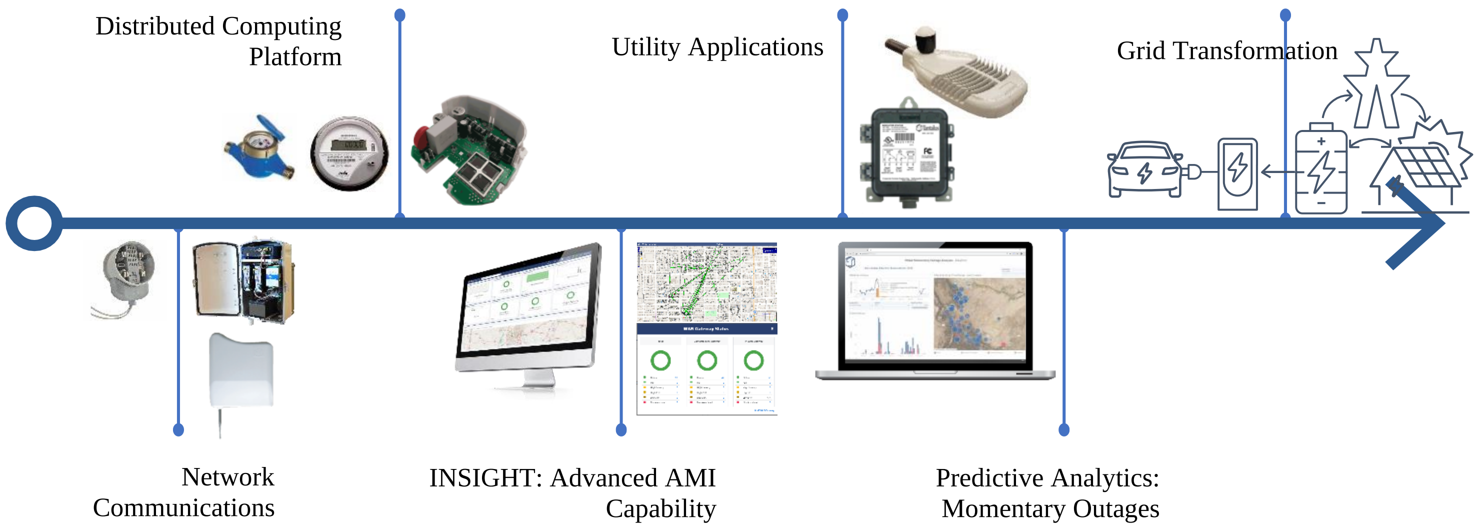
As described in the Filing Statement, through a series of common control transactions commencing in 2017, Tantalus Systems, Corp. became Tantalus Systems Holding Inc., which was incorporated pursuant to the provisions of the CBCA on July 26, 2017. TSHI operates as a holding company with operating subsidiaries, collectively referred to as "Tantalus" or the "Company" within this MD&A. The Company's business operations are in Canada and in the United States. The Company's registered office is at 3555 Gilmore Way, Suite 200, Burnaby, British Columbia, V5G 0B3, Canada. TSHI is not a "reporting issuer" under applicable securities legislation and its securities are not listed for trading on any stock exchange as of the date of this MD&A.

General Description of the Business:

Tantalus develops and delivers technology solutions to help public power and electric cooperative utilities digitally transform and automate their distribution grids, helping make their systems more reliable, stable and efficient. Tantalus' solutions are specifically designed to help utilities transition from aging one-way distribution grids to multi-directional intelligent systems capable of supporting the deployment of new technologies and services while meeting the changing expectations of customers. TSHI's technology solutions establish smart grids for utilities which consist of an intelligent network of connected devices that work in a coordinated manner to provide visibility to the utility of changes in the flow, consumption and quality of power. TSHI's solutions also help water utilities identify leaks and automate the delivery and billing of water and gas. TSHI's solutions include a comprehensive industrial Internet-of-Things ("IoT") communications network, edge-computing endpoints, a suite of software applications that are used across all departments within a utility, and data analytic tools to help utilities proactively anticipate and manage their infrastructure and professional services. By leveraging Tantalus' technology solutions, utilities are positioned to transform their distribution grids into an intelligent network that:

- safely and reliably delivers electricity, water and gas to residential, commercial and industrial customers and communities;
- prepares for the broad adoption of renewable and distributed energy resources such as solar panels, distributed storage and electric vehicles which impact the flow of power across existing one-way distribution grids;
- empowers the utility to efficiently respond to service interruptions resulting from severe storms or major events;
- enables proactive and personalized engagement with the utility's customers and members; and
- integrates on a single smart grid communication network with multiple applications creating a smarter community.

Evolution of Tantalus' Technology Solutions:



Communications Network

Over the past 30 years, Tantalus has evolved its technology solutions from initially deploying a long-range communications network leveraging RF technology into a comprehensive industrial IoT platform leveraging a variety of communication technologies including fiber, WiMAX, cellular and RF tools. Tantalus currently delivers a network that is secure, reliable and capable of supporting a growing number of applications as the needs of our customers expand over time.

Connected Devices

In 2013, Tantalus introduced the first Linux-based edge-computing platform for utilities which was embedded on a communications module that could be integrated under the glass of residential, commercial and industrial meters. The evolution of its communication module has enabled Tantalus to deliver on-board analysis at the edge of a utility's distribution grid whereby intelligent meters, load control switches, distribution automation equipment, street and security lighting and other sensors can be controlled remotely, act autonomously based on configurable parameters and empower a utility to leverage a predictive and responsive distribution grid to improve their reliability and resiliency. The advancements in computing capability at the edge of a utility's network is also setting the foundation for the anticipated transformation of the distribution grid due to the proliferation and adoption of distributed energy resources, such as solar panels, distributed storage and electric vehicles.

Beyond metering, Tantalus is rapidly expanding the number of devices that can connect to its comprehensive IoT smart grid communications network including load control switches, lighting fixtures, distribution automation equipment and other utility sensors.

Software & Analytics

By leveraging its comprehensive IoT network and edge-computing platform, Tantalus continues to expand its library of software applications and analytic tools designed to meet the specific needs and challenges of public power and electric cooperative utilities. At the heart of Tantalus' software applications and data analytics is TUNet Insight, which was launched in 2018 after successful field trials in 2017.

Grid Transformation

Tantalus is proactively working alongside its growing community of utilities to plan for the transformation of the electric, water and gas distribution grid as the introduction of affordable and reliable solar installations, distributed storage and other distributed energy resources ("DERs"). As DERs are deployed, Tantalus' IoT network, connected devices and software and analytics tools enable utilities to prepare for the changing dynamics of the electric distribution grid whereby power is generated at homes or buildings as compared to a central source of power generation.

Overview of Tantalus' Market Opportunity:

TSHI deploys its technology solutions to the utility market across North America and the Caribbean Basin. Specifically, TSHI is focused on electric and multi-commodity utilities. Multi-commodity utilities are responsible for the delivery of electricity and/or water and gas. Across North America, the electric utility industry is further segmented into several categories including larger, investor-owned utilities, referred to as "IOUs", public power utilities (including municipal and public district utilities) and electric cooperative utilities.

TSHI's Target Market

TSHI centers its focus on public power and electric cooperative utilities. By focusing attention on this segment of the utility industry and delivering solutions that meet the specific needs of this market segment, TSHI expects to be able to establish clear differentiation from a technical, operational and cultural perspective.

Industry Trends

Within the public power and electric cooperative utility segment, there are a number of industry trends that are motivating utilities to purchase TSHI's smart grid solutions, including:

- the need to transform existing distribution grids from traditional systems designed to support the one-way flow of power from a centralized source of generation delivering power through substations to homes and buildings, to a multi-directional, integrated smart grid capable of supporting two-way power flows as homes and buildings adopt distributed energy resources such as solar panels, electric vehicles, distributed storage and microgrids;
- the need for more granular and real-time information for energy forecasting, planning and trading;

- increasing expectations from customers and end-users of electricity, water and gas which require customer service representatives of the utility to have access to more granular data to explain and address monthly bill complaints and questions and addressing power quality issues;
- the need to proactively respond to power outages resulting from storms or major events; and
- changes to the traditional business model where the consumption of electricity is dropping but costs to maintain legacy infrastructure are increasing requiring better tools for maintaining that infrastructure and extending its useful life.

TSHI’s solutions are designed to provide our public power and electric cooperative customers with the necessary tools and services to address these trends.

<u>Key Operating Highlights During the Period:</u>

Operating Highlights Through December 31, 2017:

Throughout 2017, Tantalus witnessed strong growth of its customer roster (its "User Community"), delivered positive Adjusted EBITDA for the full calendar year, qualified as a Canadian-controlled private company ("CCPC") and acquired Energate Inc., a company focused on delivering demand response solutions to electric utilities in Canada and the United States.

1) <u>Expansion of our Board of Directors</u>: In 2017, Tantalus added a veteran of the utility industry by naming Ms. Laura Formusa to its Board of Directors. Prior to joining the Board of Tantalus, Ms. Formusa served as the President & CEO of Hydro One, one of the largest electric utilities within Canada. Ms. Formusa joined Hydro One in 1980, holding several leadership roles including Vice President and General Counsel prior to being named CEO. Ms. Formusa brings more than 30 years of experience in the utilities industry including deep expertise in energy management technologies to the Board of Tantalus.

2) <u>Growth of Tantalus' User Community</u>: Tantalus signed AMI/Smart Grid contracts with 24 new utilities over the course of 2017, further cementing its market-leading position in the public power and electric cooperative market segment. Tantalus focused on developing partnerships with utility joint action agencies and entered into a preferred smart grid provider agreement with ElectriCities of Georgia. Tantalus expanded its sales channel partner network across the United States with both manufacturer's representative and reseller agreements.

3) <u>Financial Results</u>: As outlined in more detail below, Tantalus delivered $32.3 million in revenue for the calendar year while reporting Gross Profit of approximately 49% for the full year. Tantalus generated positive Adjusted EBITDA in 2017 of $1.2 million representing an Adjusted EBITDA Margin of 4%.

4) <u>CCPC Qualification</u>: Through a series of common control transactions during the first half of 2017, Tantalus qualified as a CCPC. In so doing, Tantalus was able to begin submitting claims for Scientific Research & Experimental Development tax credits to expand its investment in research and development initiatives.

5) <u>Research & Development</u>: During the course of 2017, Tantalus delivered a number of enhanced software features and connected devices including:

    a. *TUNet Insight User Interface ("UI")*: Tantalus delivered its first field trial of a new user interface to provide improved visibility, management and control of smart grid applications to utilities. The transformative UI replaced Tantalus' legacy system with cutting-edge web-based tools to assist utility personnel navigate to any data available through Tantalus' smart grid solutions in an efficient and comprehensive manner. The UI delivered customizable screens and leveraged a series of widgets to allow users to configure the data and analytic tools most appropriate for their day-to-day responsibilities. Insight was designed and developed after gathering direct input from Tantalus' existing utility customers.

b. *Service Limiting*: Tantalus delivered its service limiting software-configurable feature ("Service Limiting") to enable utilities to remotely disconnect and reconnect power through the Tantalus UI on a 30-minute basis (30 minutes on / 30 minutes off) to incentivize their customers to pay utility bills. Rather than completely turn off power to homes and customers who failed to remain current with their utility bills, utilities are able to leverage this Service Limiting feature to maintain basic services, particularly during cold winter months or hot summer months when disconnecting power to homes could threaten the lives of their customers.

c. *Street Light Controller*: Tantalus delivered its first street light control to enable utilities to connect, network and automate the management of new LED street lighting fixtures. The automation of street lighting infrastructure enables utilities to identify lighting fixtures that are malfunctioning or not illuminating during the evening hours.

6) Customer Operations: Over the course of 2017, Tantalus initiated a number of key initiatives to improve customer service to support utilities in an efficient and proactive manner. Specifically, Tantalus launched an effort to deploy a customer portal through a Salesforce.com tool, referred to as Community, to help utilities track frequently asked questions, engage with other utilities, gain access to Tantalus' technical support team, warehouse solution documentation, establish an event calendar and enable utilities to automate the submission for RMAs.

7) Awards and Recognitions: Tantalus was recognized as one of the Top 10 Best Smart Grid Solution Providers by Energy CIO Insights magazine. Energy CIO Insights ranked Tantalus based on its ability to deliver long-term value to all utility stakeholders through a differentiated and secure communications networks which include powerful and intelligent computing power to the edge of the distribution grid.

8) Transactions: On July 26, 2017, Tantalus completed an acquisition of Energate Inc., a company that was based in Ottawa, Ontario with a history of delivering demand response solutions to electric utilities in Canada and the United States. After completing the acquisition in 2017, the Energate office was moved to Kanata, Ontario to support its employees and gain access to a broader set of software developers and engineers. Additional details regarding the acquisition are included in the Company's accompanying audited financial statements and the Filing Statement. The acquisition enabled Tantalus to diversify its product offering to support its broader strategic roadmap to assist utility customers in planning for the adoption of distributed energy resources such as solar panels, distributed storage and electric vehicles.

Developments Through December 31, 2018:

Throughout 2018, Tantalus witnessed continued growth of its User Community, delivered a second consecutive year of positive Adjusted EBITDA for the full calendar year and continued to expand its solution offering.

1) Board of Directors: In 2018, the Board of Tantalus elected Ms. Laura Formusa to serve as Chairperson of the Board of Directors of the Company. Ms. Formusa continues to serve as the Chairperson of the Board of Directors of Tantalus.

2) Growth of Tantalus' User Community: Tantalus signed AMI/Smart Grid contracts with 25 new utilities over the course of 2017, further cementing its market leading position in the public power and electric cooperative market segment.

3) Financial Results: As outlined in more detail below, Tantalus delivered $40.4 million in revenue for the calendar year as compared to $32.3 million in revenue for the previous year in 2017, an increase of 25%. Tantalus also reported Gross Profit of 44% for the full year. Tantalus delivered its second consecutive year of positive Adjusted EBITDA in 2018 reporting $2.6 million, representing an Adjusted EBITDA Margin of 6%.

4) Research & Development: During the course of 2017, Tantalus delivered a number of enhanced software features and connected devices including:

    a. *TUNet Insight User Interface*: After successfully delivering and tracking the progress of field trials initiated in 2017, Tantalus' new UI became commercially available to all of its existing and new customers in 2018. The commercially available offering delivered a comprehensive UI designed to meet the specific needs of public power and electric cooperative utilities. Insight was a major redesign of the Company's legacy User Interface leveraging new software technologies and a robust architecture to support multiple capabilities, including analytics. Since launching TUNet Insight, Tantalus has successfully transitioned all of its utility customers to the new UI.

    b. *Energate Load Control Switch Integration*: Following the acquisition of Energate in 2017, Tantalus successfully delivered a fully integrated load control switch onto Tantalus' smart grid communications network to enable utilities to manage, monitor and control specific appliances within a home, such as air conditioning units to offset peak demand charges and balance a utility's load profile.

    c. *Expansion of Devices Connected to Tantalus' Communications Network*: In partnership with Itron Inc., a publicly-listed company on NASDAQ, Tantalus successfully delivered the integration of Itron's R400 electric encoder receiver transmitter ("ERT") device to support existing infrastructure and assist utilities commence the migration from legacy drive-by meter reading systems to an automated system through Tantalus' smart grid capabilities.

5) Expansion of Tantalus' Supply Chain and Manufacturing Locations: Tantalus has historically relied on a contract manufacturer ("CM") to build and ship its connected devices and infrastructure products to utilities. The CM maintained operations and factories in China, where

Tantalus' products were built. In 2018, Tantalus worked with its CM to diversify its supply chain by commencing production, final assembly and testing of products in one of the CM's factories located in Laguna, Philippines. Tantalus migrated volume production throughout the second half of 2018.

6) Customer Operations: Tantalus continued to expand its automation and tools to improve customer service to its growing User Community of utilities by enhancing Community, its online support application and implemented Financial Force Service for the project planning and tracking. Network design tools and processes were also enhanced.

7) Transactions: The company did not pursue or execute any acquisitions in 2018 and instead focused on the integration of the Energate team and its technology into Tantalus.

Developments Through December 31, 2019:

1) Board of Directors: Tantalus did not make any changes to its Board of Directors during the course of 2019.

2) Growth of Tantalus' User Community: Tantalus added 15 new utilities throughout the course of 2019 expanding the number of utilities leveraging Tantalus' solutions. While the total number of utilities secured during 2019 was fewer than previous years, the new utilities represented approximately 340,000 new meters to upgrade and replace over time.

3) Financial Results: Tantalus delivered $41.6 million in revenue for the calendar year as compared to $40.4 million in revenue for the previous year in 2018, an increase of 3%. Tantalus reported Gross Profit of 44% for the full year. Tantalus delivered its third consecutive year of positive Adjusted EBITDA in 2019 of $3.0 million representing an EBITDA Margin of 7%.

4) Research & Development: Tantalus continued to make substantial progress in expanding the functionality and features of its UI, TUNet Insight, throughout 2019 and the team also delivered and launched several key items including:

   a. *Landis+Gyr Focus Axe Meter Platform Integration*: Tantalus diversified its partnerships with meter manufacturers by integrating its edge-computing module onto Landis+Gyr's residential meter platform. The integration provided additional optionality to electric utilities seeking to diversify the meters deployed across their distribution grids.

   b. *Load Champ*: Tantalus delivered a new software feature referred to as Load Champ, which assists utilities in managing premises and buildings with high current loads to improve forecasting and resiliency of their distribution grids.

   c. *Residential Peak Demand*: Tantalus delivered a software feature referred to as "Residential Peak Demand" which was designed to support the Itron Centron C1S residential meter platform.

   d. *Delivery of the first 4-Relay Load Control Switch*: Further to the integration of load control switches acquired through the transaction with Energate in 2017, Tantalus delivered a first-of-its-kind direct load control switch capable of controlling four independent loads within a premise or building. The ability to manage four different loads independently while tracking event execution through two-way communications allows a utility to effectively target load management and improve the efficiency and resiliency of its electric distribution network while minimizing impact to the utility's customers.

e. *Integration to S&C's leading Distribution Automation Device*: In collaboration with S&C Electric Company ("S&C"), a leading distribution automation company based in the United States, Tantalus delivered the integration of S&C's TripSaver® II Cutout-Mounted Reclosers onto the Tantalus smart grid communications network. The integrated solution enables utilities to improve grid reliability while also optimizing the performance of their distribution grid by mitigating their exposure and costs resulting from sustained outages. By utilizing Tantalus' smart grid communications network as a multi-use application to access information from the TripSaver® II Cutout-Mounted Recloser, utilities gain higher reliability, better remote visibility and detailed system information.

5) Customer Operations: Tantalus further enhanced technical support and customer service with the addition of online chat capability.

6) Supply Chain and Manufacturing: Tantalus completed the migration of production of lower volume devices to our CM's factory in the Philippines.

7) Transactions: The Company signed an original equipment manufacturer agreement with Landis+Gyr ("L+G") to provide integrated load control switches under the L+G brand. The company did not pursue or execute any acquisitions in 2019.

Description of Tantalus' Operating Segments:

Tantalus has two primary reportable operating segments that collectively deliver TSHI's technology solutions to utilities including:

1) The Connected Devices and Infrastructure Segment. This segment is responsible for the sale of TSHI's proprietary edge-computing modules that are integrated into multiple devices deployed across a utility's distribution grid including meters, sensors, load control switches, street lighting fixtures and distribution automation equipment. Revenue generated from this segment also includes the sale of TSHI's proprietary multi-relay load control switches and a suite of communications infrastructure devices that are deployed to deliver an industrial network-of-things / IoT smart grid including base stations, repeaters and collectors; and

2) The Utility Applications and Services Segment. This segment is responsible for the sale of TSHI's proprietary mission-critical software applications and a suite or professional services to support utilities. Revenue is generated from this segment through the sale of software licenses, hosting services, professional services (including project management, deployment, installation and engineering support), and post-contract technical support and annual software maintenance services.

SELECTED ANNUAL FINANCIAL INFORMATION

The following selected annual information of the results of operations for the year-ended December 31, 2019 includes comparisons to the years-ended December 31, 2018 and 2017, respectively:

	Year ended December 31, 2019	Year ended December 31, 2018	Year ended December 31, 2017
Revenue	$41,588,462	$40,412,821	$32,331,644
Cost of sales	23,203,522	22,490,993	16,631,742
Gross Profit	18,384,940	17,921,828	15,699,902
Expenses	17,832,827	18,562,397	15,332,193
Operating income / (loss)	$552,113	($640,569)	$367,709
Other earnings (expenses)	(1,148,083)	(828,824)	(17,824,287)
Loss before income taxes	(595,970)	(1,469,393)	(17,456,578)
Income tax expense	9,950	-	-
Loss for the year	(605,920)	(1,469,393)	(17,456,578)
Loss per share (basic and diluted)	($0.01)	($0.03)	($0.91)
Adjusted EBITDA	$3,009,168	$2,618,774	$1,223,803

The Company had total assets as follows as at December 31, 2019 and December 31, 2018:

	December 31, 2019	December 31, 2018
Total Assets	$20,138,614	$20,833,266

RECONCILIATION OF NET LOSS TO ADJUSTED EBITDA

	Year ended December 31, 2019	Year ended December 31, 2018	Year ended December 31, 2017
Net loss for the year	($605,920)	($1,469,393)	($17,456,578)
Finance expense[(a)]	921,206	891,093	893,692
Depreciation and amortization	1,501,493	1,356,029	1,038,615
Income taxes	9,950	-	-
Stock-based compensation	458,038	924,483	44,585
Non-recurring expenses[(b)]	724,401	916,562	-
Change of fair value of FVTPL instruments	-	-	8,276,389
Impairment loss[(c)]	-	-	8,427,100
Adjusted EBITDA	$3,009,168	$2,618,774	$1,223,803

(a) Finance expense comprised of interest expense on bank loan and lease liabilities in addition to EDC fees required for the Company's bank loan.

(b) Non-recurring expenses are comprised of fees and expenses related to the Company's arbitration arising from the acquisition of Energate (see Subsequent Events).

(c) Impairment loss attributable to the Energate acquisition (see Subsequent Events).

Selected quarterly information of the results of the Company's operations is as follows:

	Three months ended December 31, 2019	Three months ended September 30, 2019	Three months ended June 30, 2019	Three months ended March 31, 2019	Three months ended December 31, 2018	Three months ended September 30, 2018	Three months ended June 30, 2018	Three months ended March 31, 2018
Revenue	$10,068,296	$10,680,926	$11,196,308	$9,642,932	$9,675,392	$10,590,043	$10,870,000	$9,277,385
Cost of sales	5,431,400	5,825,712	6,758,399	5,188,011	5,626,719	6,214,770	5,860,575	4,788,929
Gross Profit	4,636,896	4,855,214	4,437,909	4,454,921	4,048,673	4,375,273	5,009,425	4,488,457
Expenses	4,254,567	4,364,650	4,728,818	4,484,792	4,759,095	4,549,602	4,967,761	4,285,939
Operating income (loss)	382,329	490,564	(290,909)	(29,871)	(710,422)	(174,328)	41,664	202,518
Other earnings (expenses)	(308,006)	(222,467)	(375,817)	(241,792)	(166,297)	(262,461)	(226,293)	(173,772)
Loss before income taxes	74,323	268,097	(666,727)	(271,663)	(876,719)	(436,790)	(184,629)	28,746
Income tax expense	($50)	-	-	10,000	-	-	-	-
Income (loss) for the period	$74,373	$268,097	($666,727)	($281,663)	($876,719)	($436,790)	($184,629)	$28,746
Loss per share (basic and diluted)	$0.00	$0.01	($0.03)	($0.01)	($0.02)	($0.02)	($0.01)	$0.00
Adjusted EBITDA	$697,185	$1,360,327	$492,513	$459,143	$335,756	$830,622	$789,788	$662,609

Selected quarterly excerpts from the Company's statement of financial position are as follows:

	December 31, 2019	September 30, 2019	June 30, 2019	March 31, 2019	December 31, 2018	September 30, 2018	June 30, 2018	March 31, 2018
Cash	$5,368,086	$3,682,681	$3,231,206	$3,883,085	$3,640,507	$6,592,273	$3,866,503	$4,660,935
Adjusted Working Capital	$2,849,441	$2,574,767	$3,171,232	$3,168,032	$2,887,774	$3,300,995	$3,592,078	$3,573,682
Total assets	$20,138,614	$22,170,831	$19,513,273	$22,999,445	$20,833,266	$24,717,010	$20,808,528	$21,077,705
Shareholders' deficit	($2,860,352)	($3,029,427)	($3,038,521)	($2,922,320)	($2,726,641)	($900,254)	($1,298,712)	($1,990,174)

Results of Operations for the Years Ended December 31, 2019, 2018 and 2017

Revenue

Revenue by Source	Year ended ended December 31, 2019	%	Year ended ended December 31, 2018	%	Year ended ended December 31, 2017	%
Connected Devices and Infrastructure	$28,984,477	70%	$28,548,624	71%	$22,487,108	70%
Utility Applications and Services	12,603,985	30%	11,864,197	29%	9,844,536	30%
Total revenue	$41,588,462	100%	$40,412,821	100%	$32,331,644	100%

Revenue increased by 3% in the year ended December 31, 2019 from the year ended December 31, 2018 and by 25% from the year ended December 31, 2017. The increase over the prior comparable periods was due to the continued growth of the business in expanding deployments with existing customers and continuing to win new utility accounts.

Connected Devices and Infrastructure revenue was approximately $29.0 million during the year ended December 31, 2019 as compared to approximately $28.5 million for the year ended December 31, 2018 and approximately $22.5 million for the year ended December 31, 2017. This increase over the comparative periods was due to higher sales of the Company's Connected Devices and Infrastructure products. There were several large customer deployments during the years ended December 31, 2019 and December 31, 2018 which resulted in increased revenue compared to the year ended December 31, 2017.

Utility Applications and Services revenue was approximately $12.6 million during the year ended December 31, 2019 as compared to approximately $11.9 million for the year ended December 31, 2018 and approximately $9.8 million for the year ended December 31, 2017. This increase over the comparative periods was due to higher sales of the Company's Utility Applications software and related services as well as several large customer deployments during the years ended December 31, 2019 and December 31, 2018 which resulted in increased revenue compared to the year ended December 31, 2017

The Company earned revenues attributed to the following geographical regions based on the location of the customer, a majority of which is generated from the United States market:

	Year ended December 31, 2019	%	Year ended December 31, 2018	%	Year ended December 31, 2017	%
United States (1)	$41,352,360	99%	$40,030,786	99%	$31,974,138	99%
Canada	83,587	<1%	233,874	<1%	277,390	<1%
Other	152,515	<1%	148,161	<1%	80,116	<1%
	$41,588,462	100%	$40,412,821	100%	$32,331,644	100%

(1) – United States includes revenues attributed to the US Virgin Islands based in the Caribbean Basin.

Gross Profit

The Company reports its Gross Profit on a blended basis.

	Year ended December 31, 2019	%	Year ended December 31, 2018	%	Year ended December 31, 2017	%
Revenues	$41,588,462	100%	$40,412,821	100%	$32,331,644	100%
Cost of sales	$23,203,522	56%	$22,490,993	56%	16,631,742	51%
Gross Profit	$18,384,940	44%	$17,921,828	44%	$15,699,902	49%

Gross Profit as a percentage of revenues for the years ended December 31, 2019 and December 31, 2018 was 44% which was lower than the 49% Gross Profit as a percentage of revenue for the year ended December 31, 2017. The Company experienced lower Gross Profits as a percentage of revenue during the years ended December 31, 2019 and December 31, 2018 as compared to the year ended December 31, 2017 due to increased installation service revenue in such years for which the Company generally earned a lower Gross Profit and product mix.

Expenses

	Year ended December 31, 2019	Year ended December 31, 2018	Year ended December 31, 2017
Sales and marketing	$6,232,907	$6,687,486	$6,078,947
Research and development	4,969,106	5,306,754	4,158,892
General and administrative	5,129,321	5,212,128	4,055,739
Depreciation and amortization	1,501,493	1,356,029	1,038,615
Total expenses	$17,832,827	$18,562,397	$15,332,193
As a percentage of total revenue	43%	46%	47%

TSHI has centralized its sales and marketing functions, product development and research and development functions, corporate management and corporate development. TSHI has developed and continues to enhance the vision and concepts of its products and services, and develops products and software applications through its employees and contractors. TSHI relies on third-party contract manufacturers to build and assemble its hardware products.

The Company's total expenses include non-cash share-based compensation of $458,038, $924,483 and $44,585 for the above years ended December 31, 2019, 2018 and 2017, respectively. Expenses during the year ended December 31, 2019 were lower than the year ended December 31, 2018 due to a decrease in employee-related costs, product development costs, stock-based compensation expense and lower marketing expenses which were partially offset by increased consulting and agent fees.

Expenses during the year ended December 31, 2018 were higher than the year ended December 31, 2017. This was due to increased product development and technical support expenses, commissions, professional fees and employee-related costs attributable to the Company's acquisition of Energate during the year ended December 31, 2017 and an increase in stock-based compensation.

Sales and Marketing

	Year ended December 31, 2019	Year ended December 31, 2018	Year ended December 31, 2017
Sales and marketing	$6,232,907	$6,687,486	$6,078,947
As a percentage of total revenue	15%	17%	19%

The Company's sales and marketing expenses include non-cash share-based compensation of $84,311, $186,953 and $nil for the above years ended December 31, 2019, 2018 and 2017, respectively.

Sales and marketing expenses consist primarily of salaries and related personnel costs, sales commissions, consulting fees, trade show expenses, marketing collateral, advertising costs and facilities. The decrease in such expenses during the year ended December 31, 2019 over the prior year ended December 31, 2018 is primarily attributable to reduced personnel expense and lower stock-based compensation. The increase during the year ended December 31, 2018 over the prior year ended December 31, 2017 is due to increased variable sales compensation expense arising from increased revenue experienced by the Company as well as increased stock-based compensation during the year ended December 31, 2018 over the prior year.

Research and Development

	Year ended December 31, 2019	Year ended December 31, 2018	Year ended December 31, 2017
Research and development	$4,969,106	$5,306,754	$4,158,892
As a percentage of total revenue	12%	13%	13%

The Company's research and development expenses include non-cash stock-based compensation of $120,368, $161,381 and $nil for the above years ended December 31, 2019, 2018 and 2017, respectively. Research and development expenses relate primarily to salaries and related benefit costs, and also include materials related to the development of the Company's embedded computing products.

Research and development costs for the year-ended December 31, 2019 were lower than the prior year-ended December 31, 2018 due to reduced product development costs but was higher than the year-ended December 31, 2017 due to the Company increasing its research and development activities after this date through the acquisition of Energate during the year ended December 31, 2017. The Company has access to certain Canadian federal and provincial tax incentives for qualified research and development in Canada. Additionally, certain research and development activities and related expenditures performed by the Company qualify for funding reimbursement from the Canadian government subsidy programs inclusive of scientific research and experimental development expenditures, the National Research Council of Canada Industrial Research Assistance Program ("IRAP") and other investment tax credits. These investment tax credits are recorded as a reduction to the related expenditures in the fiscal year when there is reasonable assurance that such credits will be realized. The Company's research and development expenses are expressed net of $982,868, $987,648 and $695,300 of accrued investment tax credits during the years ended December 31, 2019, 2018 and 2017, respectively.

General and Administrative

	Year ended December 31, 2019	Year ended December 31, 2018	Year ended December 31, 2017
General and administrative	$5,129,321	$5,212,128	$4,055,739
As a percentage of total revenue	12%	13%	13%

The Company's general and administrative expenses include non-cash stock-based compensation of $216,915, $493,730 and $44,585 for the above years ended December 31, 2019, 2018 and 2017, respectively. General and administrative expenses include executive and administrative staff salaries and benefit costs, facilities, insurance, corporate variable compensation accruals, accounting, legal and strategic consulting fees as well as various general administrative costs.

The decrease during the year ended December 31, 2019 over the year ended December 31, 2018 is attributable to lower stock-based compensation recorded in the year ended December 31, 2019 over the prior year period offset by increased consulting fees. The increase during the year ended December 31, 2018 over the year ended December 31, 2017 is attributable to increased stock-based compensation expense and insurance and other administrative expenses to support the growth of the Company over the year ended December 31, 2017 as well as increased professional fees incurred pertaining to the Company's arbitration arising from its acquisition of Energate (see Subsequent Events).

Depreciation and Amortization

	Year ended December 31, 2019	Year ended December 31, 2018	Year ended December 31, 2017
Depreciation of equipment	$441,270	$355,219	$428,128
Amortization of intangible assets	650,166	590,753	290,012
Amortization of right-of-use assets	410,057	410,057	320,475
Total other operating expenses	$1,501,493	$1,356,029	$1,038,615

The Company's depreciation and amortization is attributable to the property and equipment, intangible assets and right-of-use asset pertaining to its facility leases. The increase in the depreciation and amortization during the year ended December 31, 2019 over the prior year ended December 31, 2018 is due to the Company's incremental investment in computer and test equipment as well as business software. The increase in the amortization of intangible assets during the year ended December 31, 2018 over the prior year ended December 31, 2017 is primarily attributable to the Company's acquisition of Energate in the year ended December 31, 2017.

Other Earnings (Expenses)

	Year ended December 31, 2019	Year ended December 31, 2018	Year ended December 31, 2017
Foreign exchange gain (loss)	($226,877)	$62,269	($227,106)
Finance expenses	(921,206)	(891,093)	(893,692)
Change in fair value of FVTPL instruments			(8,276,389)
Impairment loss			(8,427,100)
Total other earnings (expenses)	($1,148,083)	($828,824)	($17,824,287)

Other expenses for the year ended December 31, 2019 were attributable to a foreign exchange loss of $226,877 and finance expenses of $921,206 compared to a foreign exchange gain of $62,269 offset by finance expenses of $891,093 for the year ended December 31, 2018 and a foreign exchange loss of $227,106, finance expenses of $893,692, an impairment loss pertaining to intangible assets obtained through the Company's acquisition of Energate of $8.4 million and a loss of $8.3 million attributable to the change in fair value of the Company's Class B and D convertible debentures and preferred shares financial instruments designated as FVPTL for the year ended December 31, 2017.

Finance expenses are comprised of interest expense on bank loan and lease liabilities in addition to EDC fees required for the Company's bank loan and were relatively consistent between the years ended December 31, 2019 2018 and 2017.

The Company maintains certain assets and has liabilities in Canadian dollars which are translated into its US dollar functional currency which accounted for the majority of the foreign exchange loss reported above due to the weakening of the Canadian dollar as at December 31, 2019 over the year prior period.

Total Comprehensive Loss

	Year ended December 31, 2019	Year ended December 31, 2018	Year ended December 31, 2017
Operating income (loss)	$552,113	($640,569)	$367,709
Total other earnings (expenses)	(1,148,083)	(828,824)	(17,824,287)
Income tax expense	(9,950)	-	-
Loss for the year	(605,920)	(1,469,393)	(17,456,578)
Foreign currency translation adjustment	14,171	56,921	(37,374)
Total comprehensive loss	($591,749)	($1,412,472)	($17,493,952)
Loss per share (basic and fully diluted)	($0.01)	($0.03)	($0.91)

The Company experienced a loss for the year ended December 31, 2019 of $591,749 or $0.01 loss per share compared to a loss for the year ended December 31, 2018 of $1,412,472 or $0.03 loss per share and a loss of $17,493,952 or loss per share of $0.91 for the year ended December 31, 2017.

LIQUIDITY AND CAPITAL RESOURCES

Capital Management

The Company's capital management objective is to ensure that the Company is capitalized in a manner which appropriately supports working capital needs and business expansion. The Company's capital management practices are focused on preserving the quality of its financial position, and to that end, the Company regularly assesses its capital management practices in response to changing economic conditions. The Company's capital is primarily utilized in its ongoing business operations to support working capital requirements, business expansion and other strategic objectives.

Cash and Adjusted Working Capital

As at December 31, 2019, the Company had cash totaling approximately $5.4 million as compared to cash of approximately $3.6 million as at December 31, 2018. The Company is required to classify its long-standing bank loan as a current liability under IFRS. Adjusted Working Capital excludes the Company's long-standing bank loan with Comerica which it has renewed on a continuous annual basis since 2012. As at December 31, 2019, the Company had Adjusted Working Capital of approximately $2.8 million, exclusive of the bank loan of $8.2 million, as compared to Adjusted Working Capital of approximately $2.9 million, exclusive of the bank loan of $8.0 million, as at December 31, 2018.

Cash Flows

Cash provided by (used in):	**Year ended December 31, 2019**	**Year ended December 31, 2018**	**Year ended December 31, 2017**
Operating activities	$3,201,792	$1,822,503	($535,818)
Investing activities	(1,094,896)	(562,804)	(122,190)
Financing activities	(448,911)	(560,274)	(393,807)
Effect of foreign exchange on cash	69,594	(111,209)	16,062
Increase (decrease) in cash	**$1,727,579**	**$588,216**	**($1,035,753)**

Cash provided by (used in) operating activities for comparable periods was attributable to the Company's financial performance. Cash provided by (used in) investing activities for comparable periods was attributable to the Company's investment in property and equipment as well as intangibles. Cash provided by (used in) financing activities for comparable periods was attributable to the Company's lease liability payments in addition to the net change in its bank loan facility.

The Company generated positive cash flows from its operating activities during the years ended December 31, 2019 and December 31, 2018 which is attributable to the increased revenues and Adjusted EBITDA in addition to working capital movements during these periods over the year ended December 31, 2017. The Company increased its investment in computer, testing and other business equipment as well as business software during the years ended December 31, 2019 and December 31, 2018, respectively over the year ended December 31, 2017 to accommodate the Company's business growth during this period. The Company invested at an increased level in its business equipment, primarily comprised of computing related equipment and software, during the year ended December 31, 2019 over the prior year ended December 31, 2018.

Commitments

Contractual Obligations	Total	Less than 1 year	1 - 5 years	After 5 years
Accounts Payable and accrued liabilities	$9,968,915	$9,968,915	$ -	$ -
Bank loan[(a)]	8,196,892	8,196,892	-	-
Lease liabilities	3,075,665	1,183,123	1,892,542	-
Total Contractual Obligations	**$21,241,472**	**$19,348,930**	**$1,892,542**	**$ -**

(a) See Bank Loan.

In the ordinary course of business, the Company may enter into performance bonds with customers as part of a sales contract. As at December 31, 2019, the Company did not have any performance bonds outstanding.

In the ordinary course of business, the Company enters into purchase order commitments for the delivery of its products pertaining to existing and anticipated customer orders over the next twelve months from its primary vendors.

Bank Loan

The Company entered into a loan agreement on April 12, 2012, and subsequent amendments (together the "Agreement") with Comerica Bank (the "Bank") to fund ongoing Adjusted Working Capital requirements. The bank loan which is comprised of two line of credit facilities and a term loan had an aggregate total payable by the Company of USD$8,196,892 as at December 31, 2019. Subsequent to December 31, 2019, the Company entered into an amendment agreement with the Bank which extended the maturity date of the line of credit facility from February 26, 2020 to February 26, 2021.

Facilities

TSHI maintains four office locations across North America, including:

- Burnaby, British Columbia, Canada (headquarters) ("Burnaby");
- Kanata, Ontario, Canada ("Kanata");
- Norwalk, Connecticut, United States of America ("Norwalk"); and
- Raleigh, North Carolina, United States of America ("Raleigh").

Each office is based on a lease with a third-party building manager or landlord. TSHI's Burnaby office lease, of approximately 32,000 square feet was entered into on August 1, 2014 and is expected to expire on January 31, 2022. TSHI's Kanata office lease, of approximately 8,200 square feet was entered into on November 1, 2017 and is expected to expire on February 1, 2025. TSHI's Norwalk office lease, of approximately 800 square feet was entered into on March 1, 2018 and has been renegotiated to expand the office space to 2,350 and which is now expected to expire on

February 1, 2025. TSHI's Raleigh office lease, of approximately 5,602 square feet was entered into on February 1, 2016 and is expected to expire on May 1, 2022. All of TSHI's office leases are with arm's length parties.

FINANCIAL POSITION

The following table shares the variance that have occurred in the Company's financial position for the years ended December 31, 2019 and December 31, 2018:

Assets	**December 31, 2019**	**December 31, 2018**	**Variance**
Cash	$5,368,086	$3,640,507	$1,727,579
Accounts receivable	4,819,166	5,749,823	(930,657)
Investment tax credits receivable	960,728	1,439,769	(479,041)
Inventory	5,038,119	5,474,661	(436,542)
Prepaid expenses and deposits	563,035	732,429	(169,394)
Total current assets	$16,749,134	$17,037,189	($288,055)
Property and equipment	1,477,160	1,086,102	391,058
Intangible assets	759,445	1,147,043	(387,598)
Right of Use assets	1,152,875	1,562,932	(410,057)
Total assets	**$20,138,614**	**$20,833,266**	**($694,652)**
Liabilities			
Accounts payable and accrued liabilities	9,968,915	12,559,692	(2,590,777)
Deferred revenue and deposits	3,250,183	919,443	2,330,740
Lease liabilities	680,595	670,280	10,315
Bank loan	8,196,892	8,044,375	152,517
Total current liabilities	$22,096,585	$22,193,790	($97,205)
Lease Liabilities	902,381	1,366,117	(463,736)
Total liabilities	**$22,998,966**	**$23,559,907**	**($560,941)**

Accounts Receivable Insurance

The Company entered into an agreement with Export Development Canada ("EDC") whereby EDC agreed to provide 90% insurance coverage for the Company's invoiced sales up to a maximum of $3,000,000 with certain customers excluded from this coverage.

OTHER ITEMS

Off-Balance Sheet Arrangements

The Company does not have any off-balance sheet arrangements other than as disclosed in the Company's consolidated financial statements for the year ended December 31, 2019.

Transactions with Related Parties

Related parties include key management includes the Company's senior management.

The remuneration of key management of the Company for the years ended December 31, 2019, 2018 and 2017 are as follows:

	Year ended December 31, 2019	**Year ended December 31, 2018**	**Year ended December 31, 2017**
Short-term compensation	$1,316,192	$1,293,663	$1,014,710
Share-based payments	211,995	422,780	44,585
	$1,528,187	$1,716,443	$1,059,295

Short-term compensation for the years ended December 31, 2019, 2018 and 2017 included the Company's annual performance corporate bonus totalling an amount of $386,195, $407,609 and $167,617, respectively, which was paid to its management.

There were no amounts owing to related parties as at December 31, 2019, 2018 and 2017, respectively.

FINANCIAL INSTRUMENTS AND OTHER INSTRUMENTS

Financial instruments are measured at amortized cost or fair value. Fair value represents the estimated amounts at which financial instruments could be exchanged between knowledgeable and willing parties in an arm's length transaction. Determining fair value requires management judgment. The following financial instruments are all measured at amortized cost. The fair value of each approximates the carrying value due to their short-term nature.

	December 31, 2019		**December 31, 2018**	
	Carrying Value	**Fair Value**	**Carrying Value**	**Fair Value**
Financial Assets				
Cash	$5,368,086	$5,368,086	$3,640,507	$3,640,507
Accounts receivable	$4,819,166	$4,819,166	$5,749,823	$5,749,823
Investment tax credits receivable	$960,728	$960,728	$1,439,769	$1,439,769
Financial Liabilities				
Accounts payable and accrued liabilities	$9,968,915	$9,968,915	$12,559,692	$12,559,692
Bank loan	$8,196,892	$8,196,892	$8,044,375	$8,044,375

Disclosures relating to exposure to risks, in particular credit risk, liquidity risk, foreign currency risk, and interest rate risk are provided below.

Credit Risk

Credit risk is the risk of an unexpected loss if a customer or counterparty to a financial instrument fails to meet its contractual obligations. The Company's financial instruments that are exposed to concentrations of credit risk are primarily cash and cash equivalents, short-term investments and trade and other receivables. With respect to trade and other receivables, the Company engages EDC to perform ongoing credit evaluations of the Company's customers' financial condition and requires letters of credit or other guarantees whenever deemed necessary.

Aging analysis of trade receivables is as follows:

	December 31, 2019	December 31, 2018
Not past due	$1,226,036	$2,327,896
31-90 days	2,816,995	1,438,000
91-180 days	173,674	1,505,259
Over 180 days	602,461	478,668
Total	**$4,819,166**	**$5,749,823**

Liquidity Risk

Liquidity risk is the risk that the Company will not be able to meet its financial obligations as they fall due. The Company's approach to managing liquidity risk is to ensure, as far as possible, that it will always have sufficient liquidity to meet liabilities when due. The contractual maturity of the majority of accounts payable is within one month.

Foreign Currency Risk

Although substantially all of the Company's revenues are received in US dollars, the Company incurs operating costs primarily attributable to its research & development and manufacturing in Canadian dollars. Fluctuations in the exchange rates between the US dollar and Canadian dollar could have an effect on the business, financial condition and results of operations. The Company maintains certain assets, inclusive of a portion of its treasury investments, in Canadian dollars which are translated to its US dollar functional currency resulting in an unrealized foreign exchange gain or loss. With all other variables remaining constant, the table below reflects the impact of a 10% fluctuation of the Canadian dollar versus the US dollar:

Source of net earnings/loss variability from changes in foreign exchange rates	**Year ended December 31, 2019**	**Year ended December 31, 2018**	**Year ended December 31, 2017**
Statement of Financial Position exposure	$ 141,032	$ 183,739	$ 158,986
Cost of Sales/Operating Expenses (net exposure)	1,347,863	1,307,536	1,212,142
Net exposure	**$1,488,895**	**$1,491,275**	**$1,371,128**

Interest Rate Risk

All of the Company's financial assets and liabilities are non-interest bearing except for cash which generates interest income at market rates. The credit facilities bear interest at a floating rate based on the bank's prime rate and had a balance of $8,196,892 as at December 31, 2019 and $8,044,375 as at December 31, 2018. A potential percentage change in the bank's prime rate of 100 basis points will have an impact of $81,969 for the year ended December 31, 2019 and $80,444 for the year ended December 31, 2018 on the Company's annual interest expense pertaining its line of credit facility. This analysis assumes that all other variables, in particular foreign currency rates, remain constant.

DISCLOSURE OF OUTSTANDING SHARE DATA

The Company is authorized to issue an unlimited number of common shares. As of December 31, 2019, the Company has 43,018,997 common shares issued and outstanding.

CRITICAL ACCOUNTING POLICIES AND ESTIMATES

The consolidated financial statements of the Company have been prepared in accordance with International Financial Reporting Standards ("IFRS") and their interpretations adopted by the International Accounting Standards Board ("IASB"). See Note 3 in the Company's audited financial statements for the years ended December 31, 2019, 2018 and 2017.

Revenue Recognition

The Company's revenues are derived through two operating segments, including:

1) The Connected Devices and Infrastructure Segment. This segment is responsible for the sale of TSH's proprietary edge computing modules that are integrated into multiple devices deployed across a utility's distribution grid including meters, sensors, load control switches, street lighting fixtures and distribution automation equipment. Revenue generated from this segment also includes the sale of TSH's proprietary multi-relay load control switches and a suite of communications infrastructure devices that are deployed to deliver an industrial network-of-things / IoT smart grid including base stations, repeaters and collectors; and

2) The Utility Applications and Services Segment. This segment is responsible for the sale of TSH's proprietary mission-critical software applications and a suite or professional services to support utilities. Revenue is generated from this segment through the sale of software licenses, hosting services, professional services (including project management, deployment, installation and engineering support), and post-contract technical support and annual software maintenance services ("PCS").

Revenue from the sale of the Company's connected devices and infrastructure network products and utility software application licenses is recognized at a point in time when control of the hardware products and software is transferred to the customers, primarily upon delivery on a freight on board (“FOB”) basis upon shipment or providing access to customer.

Installation services are for the installation of the Company’s connected devices and infrastructure network products and utility software applications. Engineering services are primarily consulting, implementation and integration services entered into either on a time & materials or fixed fee basis. Revenue from installation and engineering services is recognized over time, using input method to measure progress towards complete satisfaction of the service.

Revenue from PCS is recognized ratably over the term of the PCS. Any unrecognized revenue is recorded in deferred revenue.

The Company recognizes revenue when it satisfies performance obligations under the terms of its contracts, and control of its products is transferred to its customers in an amount that reflects the considerations the Company expects to receive from its customers in exchange for those products.

The Company determines revenue recognition through the following steps:

- Identification of the contract, or contracts, with a customer;
- Identification of the performance obligations in the contract
- Determination of the transaction price
- Allocation of the transaction price to the performance obligations in the contract; and
- Recognition of revenue when, or as, the Company satisfies a performance obligation.

The Company’s contracts often include a number of promised goods or services. Many of the Company’s goods and services are distinct from other performance obligations and accounted for as separate performance obligations. When an arrangement involves multiple products and is negotiated as a package solution, the Company accounts for it as a single performance obligation. A good or service is distinct if the customer can benefit from it on its own or together with other components of the Company’s products, and the Company’s promise to transfer the good or service is separately identifiable from other promises in the contractual arrangement with the customer. In determining the transaction price of contract with a customer, the Company considers the effects of consideration payable by the customer. If a contract has more than one performance obligation, the Company allocates the total transaction price to each performance obligation in an amount based on estimated relative standalone selling prices of the goods and services.

New Standards and Interpretations Not Yet Adopted

Standards and amendments issued but not yet applicable to the Company’s financial statements are listed below. This listing of standards and amendments issued are those that the Company reasonably expects to have an impact on disclosures, financial position or performance when applied at a future date.

Amendments and interpretations	Effective dates
Definition of a Business - Amendments to IFRS 3	January 1, 2020
Amendments to References to the Conceptual Framework in IFRS Standards	January 1, 2020
Definition to Material - Amendments to IAS 1 and IAS 8	January 1, 2020

The impact of adopting these standards or amendments is not expected to be material.

RISK FACTORS

Please refer to the risk factors described in the “Risk Factors” section of the Filing Statement.

SUBSEQUENT EVENTS

The Company engaged in an arbitration proceeding against the former shareholders of Energate regarding breaches of representations and other conduct arising from the acquisition of Energate. The arbitrator delivered an award in the amount of CDN$3,000,000 to the claimants to be applied by cancelling common shares of the Company held by the respondent having a value equal to such amount in accordance with the terms of the share purchase agreement pursuant to which the Company acquired Energate. Accordingly, the Company cancelled 1,754,386 common shares of the Company pursuant to a supplementary consent award executed by the arbitrator and effective as of July 8, 2020. The arbitrator issued a costs award in favor of the Company for reimbursement of costs incurred in connection with the arbitration in the amount of CDN$861,709 and the parties entered into a settlement agreement effective as of September 25, 2020 pursuant to which the parties agreed that the Company would cancel an additional 503,923 commons shares of the Company held by the former shareholders of Energate as settlement of the costs award. The Company incurred total legal costs of US$724,401 pertaining to this arbitration during the year ended December 31, 2019 and US$916,562 during the year ended December 31, 2018.

The Company continues to actively monitor the current international and domestic impacts of and responses to the COVID-19 Pandemic and its related risks, and continues to prepare accordingly. As the situation is dynamic and the ultimate duration and magnitude of the impact on the economy is not known, an estimate of the financial effect on the Company is not practicable at this time.

The COVID-19 Pandemic has developed rapidly in 2020, with a significant number of cases. Measures taken by various governments to contain the virus have affected economic activity and the group’s business in various ways inclusive of a reduction in the supply of goods and materials from the Company’s contract manufacturer supplier which has affected our ability to continue the production of the Company’s products as well as the reduction of economic activity/requirement to close our office facilities with the requirement for the large majority of our employees to work from home which has resulted in a significant reduction in sales/productivity during the year ending December 31, 2020.

Governments in the countries in which we operate have also announced the implementation of government assistance measures which might mitigate some of the impact of the COVID-19

Pandemic on our results and liquidity. To the extent appropriate, we have applied for and received such government assistance in the countries in which we operate. The details of all of the arrangements that might be available to us and the period throughout which they will remain available are continuing to evolve and remain subject to uncertainty. We are continuing to assess the implications for our business when these arrangements are no longer available. Depending on the duration of the COVID-19 Pandemic and continued negative impact on economic activity, the group might experience further negative results, and liquidity restraints and incur additional impairments on its assets in future. The exact impact on our existing and future activities cannot be predicted.

On September 8, 2020, TSHI and RiseTech Capital Corp., a TSX Venture Exchange-listed capital pool company, entered into a non-binding letter of intent, pursuant to which the parties agreed to complete a plan of arrangement, merger, amalgamation, share exchange and/or other similar transaction. On November 19, 2020, the Company entered into a definitive agreement with RiseTech to complete a merger of the two entities and closed a concurrent financing of approximately CND$8.8 million through a subscription receipt offering (the proceeds from which shall be released to the Company upon the satisfaction of certain conditions, namely the approval of the Company for public listing on the TSX-V exchange).