SPARQ SYSTEMS INC.
(Formerly, SPARQ Corp.)

Management's Discussion and Analysis

For the years ended December 31, 2023 and 2022

Dated April 23, 2024

Management's Discussion and Analysis

This Management's Discussion and Analysis ("**MD&A**") has been prepared by management of SPARQ Systems Inc. (formerly, SPARQ Corp.) (the "**Company**") and should be read in conjunction with the Company's audited consolidated financial statements and notes thereto for the years ending December 31, 2023 and December 31, 2022 (the "**Financial Statements**"). The Financial Statements have been prepared using International Financial Reporting Standards (**"IFRS"**) issued by the International Accounting Standards Board and interpretations of the International Financial Reporting Interpretations Committee. All amounts are in Canadian dollars unless otherwise specified. The Financial Statements may be found under the Company's SEDAR+ profile at www.sedarplus.ca.

This MD&A contains commentary from the Company's management regarding the Company's strategy, operating results, financial position and outlook. Management is responsible for the accuracy, integrity, and objectivity of the MD&A, and develops, maintains and supports the necessary systems and controls to provide reasonable assurance as to the accuracy of the comments contained herein.

The Audit Committee and the Board of Directors provide an oversight role with respect to all public financial disclosures by the Company. The Board of Directors approves the Financial Statements and MD&A after the completion of its review and recommendation for approval by the Audit Committee, which meets periodically to review all financial reports prior to filing.

Forward-Looking Statements

Certain statements contained in this MD&A constitute "forward-looking information" and "forward-looking statements". All statements other than statements of historical fact contained in this MD&A. Such statements can, in some cases, be identified by the use of forward-looking terminology such as "expect," "likely", "may," "will," "should," "intend," or "anticipate," "potential," "proposed," "estimate" and other similar words, including negative and grammatical variations thereof, or statements that certain events or conditions "may" or "will" happen, or by discussions of strategy. The forward-looking statements included in this MD&A are made only as of the date of this MD&A and the Company assumes no obligation to update or revise them to reflect subsequent information, events or circumstances or otherwise, except as required by applicable securities laws.

Forward-looking statements in this MD&A are not guarantees of future performance and involve assumptions, risks and uncertainties that are difficult to predict. Therefore, actual results may differ materially from what is expressed, implied or forecasted in such forward-looking statements. Management provides forward-looking statements because it believes they provide useful information to readers when considering their investment objectives and cautions readers that the information may not be appropriate for other purposes.

Factors which could cause the actual results to differ materially from current expectations include but are not limited to:

- key contract risk;
- if demand for solar energy solutions does not grow or grows at a slower rate than anticipated, the Company's business will suffer;
- the rapidly changing solar industry makes it difficult to evaluate the Company's current business and future prospects;
- an increase in interest rates or tightening of the supply of capital in the global financial markets could make it difficult for end-users to finance the cost of a solar photovoltaic ("**PV**") system and could reduce the demand for smart energy products and thus demand for the Company's products;
- defects or performance problems in our products could result in loss of customers, reputational damage, and reduced revenue, and the Company may face warranty, indemnity, and product liability claims arising from defective products;
- the Company depends on sole-source and limited-source suppliers for key components and

products. If the Company is unable to source these components and products on a timely basis, the Company will not be able to deliver its products to customers;

- the Company depends upon a small number of outside contract manufacturers, and business and operations could be disrupted if the Company encounters problems with these contract manufacturers;
- if the Company or its contract manufacturers are unable to obtain raw materials in a timely manner or if the price of raw materials increases significantly, production time and product costs could increase, which may adversely affect the Company's business;
- manufacturing problems could result in delays in product shipments, which would adversely affect the Company's revenue, competitive position and reputation;
- the products manufactured by the Company use a number of electronic components such as semiconductor switches, semiconductor chips, magnetics and capacitors. The impact of COVID-19 initially resulted in a shortage of some of these components. The components supply has now improved but still not to returned to pre-COVID-19 levels. We are able to manufacture the products in modest volume, but the supply chain could still negatively impact the Company's ability to supply its products to customers, which could have an impact on revenue;
- the Company relies primarily on distributors, installers and providers of solar financing to assist in selling products to customers, and the failure of these customers to perform at the expected level, or at all, would have an adverse effect on the Company's business, financial condition and results of operations;
- mergers in the solar industry among the Company's current or potential customers may adversely affect its competitive position;
- the solar industry is highly competitive, and the Company expects to face increased competition as new and existing competitors introduce products or develop alternative technologies, which could negatively impact its business, financial condition and results of operations;
- the Company's microinverter products may not achieve broader market acceptance, which would prevent the Company from increasing its revenue and market share;
- the Company's recent and planned expansion into existing and new markets could subject it to additional business, financial and competitive risks;
- the Company may fail to capture customers in the new product and geographic markets that the Company is pursuing;
- if the Company fails to retain key personnel or if the Company fails to attract additional qualified personnel, the Company may not be able to achieve its anticipated level of growth and its business could suffer;
- any failure by management to properly manage growth could have a material adverse effect on its business, operating results, and financial condition;
- use of social media may materially and adversely affect the Company's reputation or subject it to fines or other penalties;
- the Company is subject to insurance-related risks;
- credit risk;
- liquidity risk;
- foreign currency risk;
- conflicts of interest;
- if the Company fails to protect or incur significant costs in defending its intellectual property and other proprietary rights, the Company's business and results of operations could be materially harmed;
- third parties may assert that the Company is infringing upon their intellectual property rights, which could divert management's attention, cause the Company to incur significant costs and prevent it from selling or using the technology to which such rights relate;
- the Company's failure to obtain the right to use necessary third-party intellectual property rights on reasonable terms, or the Company's failure to maintain, and comply with the terms and conditions applicable to these rights, could harm the Company's business and prospects;
- the Company may not be able to protect and enforce its trademarks and trade names, or build name recognition in our markets of interest thereby harming its competitive position;

- obtaining and maintaining patent protection depends on compliance with various required procedures, document submissions, fee payments and other requirements imposed by governmental patent agencies, and the Company's patent protection could be reduced or eliminated for non-compliance with these requirements;
- patent terms may be inadequate to protect the Company's competitive position on its products for an adequate amount of time;
- the Company relies on trade secrets;
- changes in laws and regulations;
- the Company's anticipated international sales subject us to additional risks that could adversely affect its business, results of operations and financial condition;
- the Company may be involved in legal proceedings from time to time and, while management cannot predict the outcomes of such proceedings and other contingencies with certainty, some of these outcomes could adversely affect the Company's business and financial condition;
- insufficiency of capital resources;
- the reduction, elimination or expiration of government subsidies and economic incentives for on-grid solar electricity applications could reduce demand for solar PV systems and harm the Company's business;
- the Company's gross profit may fluctuate over time, which could impair the Company's ability to achieve or maintain profitability;
- the Company may be under pressure to reduce the prices of its products, which may adversely affect the Company's gross margins;
- a drop in the retail price of electricity derived from the utility grid or from alternative energy sources, or a change in utility pricing structures, may harm the Company's business, financial condition and results of operations;
- if the Company does not forecast demand for its products accurately, the Company may experience product shortages, delays in product shipment, excess product inventory, difficulties in planning expenses or disputes with suppliers, any of which will adversely affect the Company's business and financial condition;
- parties with whom the Company does business may be subject to insolvency risks or may otherwise become unable or unwilling to perform their obligations to the Company;
- natural disasters, public health events, significant disruptions of information technology systems, data security breaches, or other catastrophic events could adversely affect the Company's operations;
- general global economic conditions;
- international conflict;
- inflation;
- access to capital;
- estimates or judgments relating to critical accounting policies;
- quarterly performance variation;
- market for the common shares;
- no history of payment of cash dividends;
- significant sales of common shares;
- analyst coverage; and
- tax issues.

Please refer to Schedule "A" attached hereto for a detailed description of the risk factors associated with the Company.

Description of the Company's Business

The Company was incorporated under the *Business Corporations Act* (Ontario) on November 13, 2018. On December 31, 2021, the Company completed its qualifying transaction pursuant to the rules of the TSX Venture Exchange (the **"Qualifying Transaction"**), resulting in a reverse takeover of the Company by SPARQ Systems Inc. ("**SPARQ**"). The Qualifying Transaction was completed by way of a three-cornered amalgamation (the "**Amalgamation**") pursuant to which, among other things, (i)

SPARQ amalgamated with a wholly-owned subsidiary of the Company, incorporated for the purposes of the Amalgamation, pursuant to the provisions of the *Business Corporations Act* (Ontario), and (ii) all of the outstanding common shares in the capital of SPARQ (the "**SPARQ Shares**") were cancelled and, in consideration therefor, the holders thereof received post-consolidation common shares in the capital of the Company on a 1:1 basis.

On January 1, 2023, the Company completed a short-form vertical amalgamation with SPARQ pursuant to the *Business Corporations Act* (Ontario) (the "**Vertical Amalgamation**"). Upon completion of the Vertical Amalgamation, the Company changed its name from "SPARQ Corp." to "SPARQ Systems Inc."

The Company designs and manufactures next generation single-phase microinverters for residential and commercial solar electric applications. The Company has developed a proprietary PV solution called the Quad; the Quad inverter optimizes four PV modules with a single microinverter, simplifying design and installation, and lowering cost for solar power installations when compared to existing market offerings.

The address of the Company's registered and head office is 945 Princess Street, Box 212, Kingston, Ontario K7L 0E9. The common shares are listed for trading on the TSX Venture Exchange under the symbol "SPRQ". The common shares are also quoted for trading on the OTCQX® Best Market under the symbol "SPRQF".

Highlights of the year ended December 31, 2023 and to the date of this MD&A

- On March 20, 2023, the Company announced that its Chief Executive Officer, Dr. Praveen Jain, was one of the recipients of the 2023 Killam Prize. The Killam Prize is awarded annually to active Canadian scholars who have distinguished themselves through sustained research excellence, making a significant impact in their respective fields of engineering, health sciences, humanities, natural sciences and social sciences. Dr. Jain was awarded the 2023 Killam Prize in Engineering as a result of his contributions to the field of engineering in respect of power electronics over the past 43 years.

- On March 27, 2023, the Company entered into a sales and distribution agreement (the "**Distribution Agreement**") with Rolaz Green Energy PVT. Ltd ("**Rolaz**"), a company based in India. Under the Distribution Agreement, the Company appointed Rolaz as its non-exclusive importer, vendor and distributor within the territory of India of all models of the Company's microinverters and its interface Sparq Linq as well as any newly developed products of the Company. The Distribution Agreement provides that, unless terminated earlier pursuant to its terms, the term of the Distribution Agreement is one year and shall automatically renew for additional nine month periods.

- On February 7, 2024, the Company entered into a manufacturing and supply agreement (the "Manufacturing and Supply Agreement") with Jio Things Limited, a leading technology player in India and a subsidiary of Jio Platforms Limited (collectively "Jio"), India's largest digital services player, whereby the parties have agreed to develop, manufacture and distribute microinverters in India, and incorporate the Company's microinverters into Jio's solutions globally. The Manufacturing and Supply Agreement sets out a framework under which the Company and Jio will collaborate to innovate and develop new products. The Company will engage a third-party contract manufacturing base in India to manufacture its microinverters. The Manufacturing and Supply Agreement provides for a long-term partnership leveraging each other's strengths to positively impact the industry, as well as certain volume commitments for the initial few years until the capacity volume is stabilized. The Manufacturing and Supply Agreement also provides the Company with certain agreed product margins.

Financing summary for the year ended December 31, 2023 and to the date of this MD&A

- On November 27, 2023, the Company entered into an unsecured loan agreement with an arm's length party for a principal amount of $500,000 (the "**November 2023 Loan**"). The November 2023 Loan bears interest at a rate of 12% per annum and the principal and accrued interest on the November 2023 Loan will be payable on earlier of: (i) May 27, 2024; and (ii) the date on which the Company completes an equity or debt financing. In connection with the November 2023 Loan, the lender was issued warrants to purchase up to 1,000,000 common shares in the capital of the Company (each, a "**Bonus Warrant**"). Each Bonus Warrant shall entitle the holder to purchase one common share at a price per share equal to the greater of: (i) $0.15; and (ii) the closing trading price of the common shares on the first date that the Company announces a proposed equity or debt financing. The Bonus Warrants are exercisable for a period of one year from the date of their issuance.

- Between February 5, 2024 and April 17, 2024, the Company entered into unsecured loan agreements with certain third party lenders to borrow an aggregate of $925,000 (the **"2024 Loans"**). The 2024 Loans bear interest at a rate of 12% per annum and the principal and any accrued interest on the 2024 Loans are payable on the earlier of: (i) May 27, 2024; and (ii) the date on which the Company completes an equity or debt financing.

Results of Operations

For the year ended December 31, 2023 ("**Fiscal 2023**"), the Company incurred a net loss and net comprehensive loss of $4,767,360, compared to a net loss and comprehensive loss of $3,928,314, for the year ended December 31, 2022 ("**Fiscal 2022**"). The reduction in net loss and net comprehensive loss is described below.

Revenue

During Fiscal 2023, the Company generated $189,976 in revenue under the Distribution Agreement with Rolaz ($Nil in Fiscal 2022). Previously, no revenues were earned as the Company remained in a research and development stage and was unable to build material quantities of inventory due to supply chain issues from the continued impact of COVID-19 and the lack of availability of supplies from China. The Company is reliant on these supplies for building its inventory to fill orders and to generate revenue. The Company's plan to generate material revenue is contingent upon the access and funding to acquire these supplies.

Cost of Finished Goods Sold

During Fiscal 2023, the Company recognized cost of sales of $1,346,377, which was comprised of $257,283 in costs of sales, an impairment charge of $972,618 to adjust inventory to its net realizable value, and an inventory write down charge of $116,475 representing a write-off of finished goods and raw materials for items no longer expected to be manufactured and sold. In Fiscal 2022, the costs of sales solely represented the write-off of finished goods and raw materials for items no longer expected to be manufactured and sold. The inventory is reviewed at the end of each reporting quarter to determine the amount of obsolescence.

Operating Expenses

For Fiscal 2023 and Fiscal 2022, total operating expenses are detailed as follows:

Expenses		**2023**	**2022**
Research and development	(i)	1,228,830	1,573,918
Sales and marketing	(ii)	94,171	24,724
General and administration	(iii)	1,895,211	1,208,345
Depreciation of property and equipment		109,803	32,642
Stock-based compensation	(iv)	332,488	738,000
		$ 3,660,503	**$ 3,577,629**

(i) Research and development costs include building prototypes, certification, testing, salaries of personnel working on projects, and consulting fees. There was a reduction of $345,088 in Fiscal 2023 compared to Fiscal 2022. The variances in the costs are illustrated below.

A breakdown of research and development costs for Fiscal 2023 and Fiscal 2022 is as follows:

	2023	**2022**
Personnel	$976,874	$1,020,624
Professional fees	78,285	97,913
Beta Testing	13,411	184,194
Administration	7,291	39,763
Equipment Rental	37,512	39,861
Lab Supplies and Materials	69,699	66,296
Certification and Safety Testing	45,758	125,267
	$1,228,830	**$1,573,918**

(ii) Sales and marketing costs relate to trade shows, costs of building a website, and developing and printing marketing materials. The $69,447 increase in such costs for Fiscal 2023 compared to Fiscal 2022 was due to the retention of a new sales consultant and attendances at additional trade shows.

(iii) General and administration expenses are the costs incurred by the Company that are not directly related to the production of goods or services. These expenses include items such as rent, utilities, office supplies, salaries of support staff, legal fees, accounting fees, insurance, and other general costs. The increase of $686,866 in Fiscal 2023 compared to Fiscal 2022 is primarily due to an increase in personnel to support operations.

A breakdown of general and administration costs for Fiscal 2023 and Fiscal 2022 is as follows:

	2023	**2022**
Professional fees	$ 553,904	$ 771,209
Salaries	991,790	220,130
Office and general	268,237	214,013
Regulatory	81,280	2,993
	$1,895,211	**$1,208,345**

(iv) Stock based compensation relates to the value of stock options issued that vested during the year and is a non-cash expense. The increase in stock-based compensation in Fiscal 2023 compared to Fiscal 2022 was due to more options vesting as well as the issuance of deferred share units to certain employees in lieu of cash payments.

Liquidity and capital resources

As at December 31, 2023, the Company had working capital of $1,634,719 (December 31, 2022 - $6,330,604). The reduction in working capital resulted from cash used for operating activities. As the Company has just commenced generating revenues, it has been unable to generate sufficient amounts of cash and cash equivalents from its operations in the short term to meet its planned growth.

Cash used in operating activities during Fiscal 2023 was $4,450,895 (Fiscal 2022 - $4,559,357). Cash outflows from operating activities mainly relate to the net loss for the periods and the negative impact of changes in working capital items, and primarily the cost to build up inventory.

Cash from financing activities in Fiscal 2023 was $445,370, comprised of proceeds from loans in the amount of $500,000, offset by CEBA loan repayments of $40,000, and lease payments in the amount of $14,621. There was no cash from financing activities in Fiscal 2022.

During Fiscal 2023, the Company used $294,179 in cash for the purchase of equipment (Fiscal 2022 - $151,115).

Capital Resources

The Company regularly monitors and manages its capital resources to assess the liquidity necessary to fund operations and capacity expansion. As at December 31, 2023, the Company had a cash balance of $287,832 and working capital of $1,634,719.

As of the date of this MD&A, the Company's current resources are not sufficient to settle its current liabilities for the next 12 months. The Company currently does not have any commitments regarding capital expenditures. Management will need to raise the capital necessary to execute its business objectives and to meet ongoing general and administrative requirements, including meeting its debt covenants. The Company has been successful in the past at raising necessary funds but the timing and ability to do so will depend on the liquidity of the financial markets, economic conditions, as well as the acceptance by investors of small cap companies. There can be no guarantee that the Company will be able to secure any required financing. Given the volatility in financial markets it may be difficult to raise financing when needed. Failure to implement the Company's business plan could have a material adverse effect on its financial condition and financial performance. Accordingly, there are material risks and uncertainties that cast significant doubt over the Company's ability to continue as a going concern.

Selected Quarterly Information (all amounts in accordance with IFRS)

The following table summarizes the Company's financial information for the last eight quarters:

Financial Results	**Q4 2023 $**	**Q3 2023 $**	**Q2 2023 $**	**Q1 2023 $**	**Q4 2022 $**	**Q3 2022 $**	**Q2 2022 $**	**Q1 2022 $**
Revenue	189,976	-	-	-	-	-	-	-
Gross Profit (Loss)	(1,048,650)	(38,693)	(32,578)	(36,480)	(291,011)	(35,380)	(13,758)	(34,780)
Total Expenses	757,034	961,084	942,713	999,672	1,643,245	876,531	874,833	859,949
Net Income (Loss)	(1,922,200)	(955,010)	(950,904)	(939,246)	(1,291,811)	(911,911)	(858,864)	(865,728)
Basic profit (loss) per share	(0.01)	(0.01)	(0.01)	(0.01)	(0.02)	(0.01)	(0.01)	(0.01)
Fully-diluted profit (loss) per share	(0.01)	(0.01)	(0.01)	(0.01)	(0.02)	(0.01)	(0.01)	(0.01)

The Company's level of activity and expenditures during a specific quarter have been influenced by the availability of working capital, the availability of additional external financing and the status of projects and level of expenditures required to complete them. Given the past start up phases of the Company, there has been no seasonality factors or other trends that have affected the quarterly results.

Proposed Transactions

As at the date of this MD&A there are no proposed transactions. However, the Company continues to evaluate future financing opportunities.

Off-balance Sheet Arrangements

As at the date of this MD&A, the Company does not have any off-balance sheet arrangements that have or are reasonably likely to have a current or future effect on the results of operations or financial condition of the Company.

Transactions Between Related Parties

(a) During Fiscal 2023, the Company was charged $300,000 (2022 - $300,000) for consulting services provided by PE Consultants Inc., an entity which is controlled by Praveen Jain, the Chief Executive Officer of the Company. These expenses have been recorded in research and development and general and administrative expenses. As at December 31, 2023, $131,500 of this amount is included in accounts payable and accrued liabilities.

(b) During Fiscal 2023, the Company was charged $36,000 (2022 - $38,500) for consulting services provided by CFO Advantage Inc., an entity which is controlled by Kyle Appleby, the Chief Financial Officer of the Company. These expenses have been recorded in general and administrative expenses. As at December 31, 2023, $22,170 of this amount is included in accounts payable and accrued liabilities.

(c) On June 16, 2022, the Company signed a manufacturing agreement (the "**Manufacturing Agreement**") with Ti-Lane Precision Electronic Company Limited ("**Ti-Lane**") to manufacture turn-key Q1200 microinverters for the Company on a high volume basis at Ti-Lane's facility based in GuangDong Province, China. The Manufacturing Agreement has an initial term of three years and will automatically renew for additional one year terms after expiration of the initial term unless terminated earlier by either the Company or Ti-Lane. Ti-Lane is a shareholder in the Company and is controlled by Baojun (Robbie) Luo, one of the Company's directors. During Fiscal 2023, the Company was charged $1,620,677 (2022 - $268,552) by Ti-Lane. As at December 31, 2023, $700,346 (2022 - $9,585) of this amount is included in accounts payable and accrued liabilities.

(d) Transactions with related parties are incurred during the course of normal operations and initially recorded at fair value. Key management includes directors and officers of the Company. Compensation awarded to key management was comprised of the following for the years ended December 31, 2023 and 2022:

		2023		2022
Short-term compensation	**$**	**336,000**	$	338,500
Share-based payments		**-**		727,727
Total	**$**	**336,000**	$	1,066,227

Risks and Uncertainties

The Company's business is subject to a number of risk factors which are described in detail in this MD&A. See "Forward-looking Statements" above for a summary of such risk factors.

Financial Risk Management

The Company is exposed in varying degrees to a variety of financial instrument related risks. The Company mitigates these risks by assessing, monitoring and approving the Company's risk management processes:

(a) Credit risk

Credit risk is the risk of a potential loss to the Company if one party of a financial instrument fails to meet its contractual obligations. The maximum credit exposure as at December 31, 2023 relates to the carrying amount of cash and cash equivalents, accounts receivable, investment tax credit recoverable, and government assistance receivable. To reduce credit risk, all significant cash balances are placed with major financial institutions and accounts receivable, investment tax credit receivable and government assistance receivable is due from the Government of Canada and therefore credit risk is low.

The Company provides credit to its customers in the normal course of its operations. It carries out, on a continuing basis, credit checks on its clients and maintains provisions for contingent credit losses which, once they materialize, are consistent with management's forecasts. The maximum exposure to credit risk is the carrying value of the accounts receivable. The Company does not normally require a guarantee. As at December 31, 2023, 89% of the Company's accounts receivables were comprised of overdue balances from customers (December 31, 2022- 0%).

The Company's expected credit loss allowance is estimated using historical loss information, current industry conditions and payment practices, as well as reasonable and supportable forecasts of future economic conditions. Credit risk is assessed based on days outstanding and utilizes both internal credit assessments and publicly available credit information. As a result, the allowance reflects anticipated effects caused by recent market deterioration. As at December 31, 2023, the current expected credit loss allowance was $nil (December 31, 2022 - $Nil).

(b) Liquidity risk

Liquidity risk is the risk that the Company will not be able to meet its financial obligations associated with financial liabilities. The Company manages liquidity risk through the effective management of its capital structure. The Company's approach to managing liquidity is to ensure that it will have sufficient liquidity at all times to settle obligations and liabilities when due. The Company has the following contractual obligations:

	Less than 1 year	**1 to 3 years**	**3 to 5 years**	**Greater than 5 years**	**Total**
	$	**$**	**$**	**$**	**$**
Accounts payable and accrued liabilities	916,156	-	-	-	916,156
CEBA Term Loan	-	38,196	-	-	38,196
December 31, 2022	**916,156**	**38,196**	**-**	**-**	**954,352**

	Less than 1 year	**1 to 3 years**	**3 to 5 years**	**Greater than 5 years**	**Total**
	$	**$**	**$**	**$**	**$**
Accounts payable and accrued liabilities	1,795,772	-	-	-	1,795,772
CEBA Term Loan	560,000	-	-	-	560,000
December 31, 2023	2,355,772	-	-	-	2,355,772

(c) Interest rate risk

Interest rate risk relates to the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in market interest rates. The Company's financial liabilities are non-interest bearing as at December 31, 2023, and therefore the Company is not exposed to interest rate risk.

(d) Foreign exchange risk

The Company is exposed to foreign exchange risk from various currencies, primarily the US dollar. Foreign exchange risk arises from sales and purchase transactions as well as recognized financial assets and liabilities that are denominated in a currency other than the Canadian dollar, which is the functional currency of the Company.

The Company's primary objective in managing its foreign exchange risk is to preserve sales values and cash flows and reduce variations in performance. Although management monitors exposure to such fluctuations, it does not employ any external hedging strategies to counteract the foreign currency fluctuations.

The following amounts were denominated in foreign currency:

	Currency	December 31, 2023	December 31, 2022
Cash	US Dollar	$ 53,573	$ 20,089
Accounts Receivable	US Dollar	$ 110,684	$ 5,685
Accounts Payable	US Dollar	$ 560,962	$ 516,824

On December 31, 2023, an increase of 1% in the value of US dollar will result in a gain of $535 (2022 - $200) in the value of cash, $1,106 (2022 - $55) in accounts receivable and loss of $5,609 (2022 - $5,160). Similarly, a reduction of 1% in the value of US dollar will have similar effects but in opposite direction.

Critical Accounting Estimates

Estimated Useful Lives and Depreciation of Property and Equipment

Depreciation of property and equipment is dependent upon estimates of useful lives which are determined through the exercise of judgment. The assessment of any impairment of these assets is dependent upon estimates of recoverable amounts that take into account factors such as economic and market conditions and the useful lives of assets.

Valuation of Deferred Tax Assets

Deferred tax assets, including those arising from tax loss carryforwards, require management to assess the likelihood that the Company will generate sufficient taxable income in future periods in order to utilize recognized deferred tax assets. Assumptions about the generation of future taxable profits depend on management's estimates of future cash flows. In addition, future changes in tax laws could limit the ability of the Company to obtain tax deductions in future periods. To the extent that future cash flows and taxable income differ significantly from estimates, the ability of the Company to realize the net deferred tax assets recorded at the reporting date could be impacted.

Going Concern Risk Assessment

The assessment of the Company's ability to continue as a going concern and meet its liabilities for the ensuing year involves significant judgment based on expectation of future events that are believed to be reasonable under the circumstances.

Valuation of Research and Development Costs and Tax Credits

The Company claims investment tax credits as a result of incurring scientific research and experimental development expenditures. Investment tax credits are recognized when the related expenditures are incurred, and there is reasonable assurance of their realization. Management has made a number of estimates and assumptions in determining the expenditures eligible for the investment tax credit claim. The Company's claim is subject to audit by Canada Revenue Agency which may allow more than the amount recorded or may disallow all or a portion of the amount recorded.

Fair Value of Stock Options

Stock-based compensation expense is measured by reference to the fair value of the stock options at the date at which they are granted. Estimating fair value for granted stock options requires determining the most appropriate valuation model which is dependent on the terms and conditions of the grant. This estimate also requires determining the most appropriate inputs to the valuation model including the expected life of the option, volatility, dividend yield, interest rate, and rate of forfeitures and making assumptions about them. Expected volatility is estimated using price history of comparable companies that are publicly listed over the expected life of the options granted.

Expected Credit Losses

The Company's accounts receivables are typically short-term in nature, with the exception of holdbacks and the Company recognized an amount equal to the lifetime expected credit losses ("**ECLs**"). The Company measures ECLs based on historical experience and forecasted economic conditions. The amount of the ECLs is sensitive to changes in future circumstance and economic conditions.

Valuation of Inventory

The Company's inventory is valued at the lower of average cost or net realizable value and management makes an estimate for any item that cannot be sold. If realization of inventory values differs from estimates, future earnings would be affected.

Outstanding Share Data

The authorized capital of the Company consists of an unlimited number of common shares. The Company has the following securities issued and outstanding as at the date of this MD&A:

Securities	**Number Outstanding**
Common shares	82,444,752
Options(1)	6,492,000
Deferred Share Units	550,817(2)
Bonus Warrants(3)	1,000,000

Notes:

(1) The Company has an omnibus equity incentive plan (the "**Equity Incentive Plan**"), which replaced the Company's existing stock option plan effective June 1, 2022. Under the terms of the Equity Incentive Plan, officers, directors, employees and consultants are eligible to receive grants of stock options, deferred share units ("**DSUs**"), restricted share units, performance share units, and other share-based awards. The Equity Incentive Plan allows for (a) the grant of up to such number of stock options as is equal 10% of the total issued and outstanding common shares at the date of the grant; and (b) the grant of other forms of equity incentive awards such that up to an aggregate maximum of 8,244,475 common shares may be issuable pursuant to those awards.

(2) On November 22, 2023, the Company granted an aggregate of 550,817 DSUs having a value of $62,243 to certain non-executive employees with an effective grant date of November 30, 2023. The DSUs vest one year following the date of grant.

(3) On November **27**, 2023, the Company issued an aggregate of 1,000,000 Bonus Warrants. See "Financing Summary for the year ended December 31, 2023 to the date of this MD&A" for further details.

Internal Control Over Financial Reporting

Management has established processes to provide them with sufficient knowledge to support representations that they have exercised reasonable diligence to ensure that (i) the 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 financial statements; and (ii) the financial statements fairly present in all material respects the financial condition, results of operations and cash flows of the Company, as of the date at 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**"), the Company uses the Venture Issuer Basic Certificate, which 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:

1. 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

2. 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 generally accepted accounting principles (IFRS). The Company'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.

Additional Information

Additional information relating to the Company can be found on SEDAR+ at www.sedarplus.ca.

Approval

The Board of Directors has approved the disclosure contained in this MD&A.

SCHEDULE "A"

RISK FACTORS

Risks Related to our Business, Operations and Our Industry

Key Contract Risk.

We are heavily dependent upon the Manufacturing and Supply Agreement with Jio. Under the Manufacturing and Supply Agreement, we have agreed with Jio to develop, manufacture and distribute microinverters in India, and incorporate our microinverters into Jio's solutions globally. The Manufacturing and Supply Agreement sets out a framework under which we will collaborate with Jio to innovate and develop new products. The Manufacturing and Supply Agreement provides for a long-term partnership leveraging each other's strengths to positively impact the industry, as well as certain volume commitments for the initial few years until capacity volume is stabilized. It also provides us with certain agreed product margins. Termination of the Manufacturing and Supply Agreement or Jio's failure to comply with the terms thereof could have a material adverse effect on the Company's business, financial condition or results of operations.

If demand for solar energy solutions does not grow or grows at a slower rate than anticipated, our business will suffer.

Our microinverter are utilized in solar PV installations, which provide on-site distributed power generation. As a result, our future success depends on continued demand for solar energy solutions and the ability of solar equipment vendors to meet this demand. The solar industry is an evolving industry that has experienced substantial changes in recent years, and we cannot be certain that consumers and businesses will adopt solar PV systems as an alternative energy source at levels sufficient to continue to grow our business. Traditional electricity distribution is based on the regulated industry model under which businesses and consumers obtain their electricity from a government regulated utility. For alternative methods of distributed power to succeed, businesses and consumers must adopt new purchasing practices. The viability and continued growth in demand for solar energy solutions, and in turn, our products, may be impacted by many factors outside of our control, including:

- market acceptance of solar PV systems based on our product platform;
- cost competitiveness, reliability and performance of solar PV systems compared to conventional and non-solar renewable energy sources and products;
- availability and amount of government subsidies and incentives to support the development and deployment of solar energy solutions;
- the extent to which the electric power industry and broader energy industries are deregulated to permit broader adoption of solar electricity generation;
- the cost and availability of key raw materials and components used in the production of solar PV systems;
- prices of traditional utility-provided energy sources;
- levels of investment by end-users of solar energy products, which tend to decrease when economic growth slows; and
- the emergence, continuance or success of, or increased government support for, other alternative energy generation technologies and products.

If demand for solar energy solutions does not grow, demand for our customers' products as well as demand for our products will decrease, which would have an adverse impact on our ability to increase our revenue and grow our business.

Short-term demand and supply imbalances, especially for solar module technology, have recently caused prices for solar technology solutions to decline rapidly. Furthermore, competition in the solar industry has increased due to the emergence of lower-cost manufacturers along the entire solar value chain causing further price declines, excess inventory and oversupply. These market disruptions may continue to occur and may increase pressure to reduce prices, which could adversely affect our business and financial results.

The rapidly changing solar industry makes it difficult to evaluate our current business and future prospects.

The solar energy industry is one of the fastest growing forms of renewable energy and is undergoing and subject to rapid change. The solar energy industry will take several more years to develop and further mature, which makes it difficult to evaluate our current business, and we cannot be certain that the market will grow to the size or at the rate we expect. We have encountered and will continue to encounter risks and difficulties frequently experienced by growing companies in rapidly changing industries, including increased expenses as we continue to grow the business. If we do not manage these risks and overcome these difficulties successfully, our business will suffer.

Since we began commercial shipments of our products, our revenue, gross profit and results of operations have varied and are likely to continue to vary from quarter to quarter due to a number of factors, many of which are not within our control. It is difficult to accurately forecast future revenue and gross profit and plan expenses accordingly and, therefore, it is difficult to predict future results of operations.

An increase in interest rates or tightening of the supply of capital in the global financial markets could make it difficult for end-users to finance the cost of a solar PV system and could reduce the demand for smart energy products and thus demand for our products.

Many end-users depend on financing to fund the initial capital expenditure required to develop, build, or purchase a solar PV system. As a result, an increase in interest rates or a reduction in the supply of project debt financing or tax equity investments, could reduce the number of solar projects that receive financing or otherwise make it difficult for our customers or the end-users, to secure the financing necessary to develop, build, purchase, or install a solar PV system on favorable terms, or at all, and thus lower demand for our products which could limit our growth or reduce our net sales. In addition, we believe that a significant percentage of end-users install solar PV systems as an investment, funding the initial capital expenditure through financing. An increase in interest rates could lower such end-user's return on investment on a solar PV system, increase equity return requirements or make alternative investments more attractive relative to solar PV systems, and, in each case, could cause such end-users to seek alternative investments.

Defects or performance problems in our products could result in loss of customers, reputational damage, and reduced revenue, and we may face warranty, indemnity, and product liability claims arising from defective products.

Although our products meet our stringent quality requirements, they may contain undetected errors or defects, especially when first introduced or when new generations are released. Errors, defects, or poor performance can arise due to design flaws, defects in raw materials or components or manufacturing difficulties, which can affect both the quality and the yield of the product. Any actual or perceived errors, defects, or poor performance in our products could result in the replacement or recall of our products, or components thereof, shipment delays, rejection of our products, damage to our reputation, lost revenue, diversion of our personnel from our product development efforts, and increases in customer service and support costs, all of which could have a material adverse effect on our business, financial condition, and results of operations. Furthermore, defective components may give rise to warranty, indemnity, or product liability claims against us that exceed any revenue or profit we receive from the affected products.

In most cases, we offer a minimum 12-year limited warranty for our inverters, extendable to 25 years for an additional cost. Our limited warranties cover defects in materials and workmanship of our products under normal use and service conditions. As a result, we bear the risk of warranty claims long after we have sold products and recognized revenue. While we do have accrued reserves for warranty claims, our estimated warranty costs for previously sold products may change to the extent future products are not compatible with earlier generation products under warranty. Our warranty accruals are based on our assumptions and we do not have a long history of making such assumptions. As a result, these assumptions could prove to be materially different from the actual performance of our systems, causing us to incur substantial unanticipated expense to repair or replace defective products in the future or to compensate customers for defective products. Our failure to accurately predict future claims could result in unexpected volatility in, and have a material adverse effect on, our financial condition.

If one of our products were to cause injury to someone or cause property damage then we could be exposed to product liability claims. We could incur significant costs and liabilities if we are sued and if damages are awarded against us. Further, any product liability claim we face could be expensive to defend and could divert management's attention. The successful assertion of a product liability claim against us could result in potentially significant monetary damages, penalties or fines, subject us to adverse publicity, damage our reputation and competitive position, and adversely affect sales of our products. In addition, product liability claims, injuries, defects, or other problems experienced by other companies in the residential solar industry could lead to unfavorable market conditions for the industry as a whole.

We depend on sole-source and limited-source suppliers for key components and products. If we are unable to source these components and products on a timely basis, we will not be able to deliver our products to our customers.

We depend on sole-source and limited-source suppliers for key components of our products, such as our application specific integrated circuits and lithium-ion batteries. Any of the sole-source and limited-source suppliers upon whom we rely could experience quality and reliability issues, stop producing our components, cease operations, or be acquired by, or enter into exclusive arrangements with, our competitors. We generally do not have long-term supply agreements with our suppliers, and our purchase volumes may currently be too low for us to be considered a priority customer by most of our suppliers. As a result, most of these suppliers could stop selling to us at commercially reasonable prices, or at all. Any such quality or reliability issue, or interruption or delay may force us to seek similar components or products from alternative sources, which may not be available on commercially reasonable terms, or at all. Switching suppliers may require that we redesign our products to accommodate new components, and may potentially require us to re-qualify our products, which would be costly and time-consuming. Any interruption in the quality or supply of sole-source or limited-source components for our products would adversely affect our ability to meet scheduled product deliveries to our customers and could result in lost revenue or higher expenses and would harm our business.

We depend upon two contract manufacturers, and business and operations could be disrupted if we encounter problems with these contract manufacturers.

We rely heavily upon our two contract manufacturers to manufacture most of our products. We mainly rely on two contract manufacturers. Any change in our relationship or contractual terms with our contract manufacturers, or changes in our contract manufacturers' ability to comply with their contractual obligations could adversely affect our financial condition and results of operations. Our reliance on two contract manufacturers makes us vulnerable to possible capacity constraints and reduced control over component availability, delivery schedules, manufacturing yields and costs. In addition, we will remain heavily dependent on suppliers of the components needed for our manufacturing. The revenues that our contract manufacturers generate from our orders represent a relatively small percentage of their overall revenues. As a result, fulfilling our orders may not be considered a priority in the event of constrained ability to fulfill all of their customer obligations in a timely manner.

If our contract manufacturers are unable or unwilling to manufacture our products in required volumes and at high quality levels or renew existing terms under supply agreements, we would have to identify, qualify, and select an acceptable alternative contract manufacturer, which may not be available to us when needed or may not be in a position to satisfy our quality or production requirements on commercially reasonable terms. Any significant interruption in manufacturing would require us to reduce our supply of products to our customers or increase our shipping costs to make up for delays in manufacturing, which in turn could reduce our revenues, harm our relationships with our customers, subject us to liquidated damages for late deliveries, and damage our reputation with local installers and potential end-users, all of which will cause us to forego potential revenue opportunities. Further, the ramp of a new contract manufacturer is time consuming and draining on the resources of our operations team.

If we or our contract manufacturers are unable to obtain raw materials in a timely manner or if the price of raw materials increases significantly, production time and product costs could increase, which may adversely affect our business.

The manufacturing and packaging processes used by our contract manufacturers depend on raw materials such as copper, aluminum, silicon and petroleum-based products. From time to time, suppliers may extend lead times, limit supplies or increase prices due to capacity constraints or other factors. Certain of our suppliers have the ability to pass along to us directly or through our contract manufacturers any increases in the price of raw materials. If the prices of these raw materials rise significantly, we may be unable to pass on the increased cost to our customers. While we may from time to time enter into hedging transactions to reduce our exposure to wide fluctuations in the cost of raw materials, the availability and effectiveness of these hedging transactions may be limited. Due to all these factors, our results of operations could be adversely affected if we or our contract manufacturers are unable to obtain adequate supplies of raw materials in a timely manner or at reasonable cost. In addition, from time to time, we or our contract manufacturers may need to reject raw materials that do not meet our specifications, resulting in potential delays or declines in output. Furthermore, problems with our raw materials may give rise to compatibility or performance issues in our products, which could lead to an increase in product warranty claims. Errors or defects may arise from raw materials supplied by third parties that are beyond our detection or control, which could lead to additional product warranty claims that may adversely affect our business and results of operations.

Manufacturing problems could result in delays in product shipments, which would adversely affect our revenue, competitive position and reputation.

We have in the past and may in the future experience delays, disruptions or quality control problems in our manufacturing operations. Our product development, manufacturing and testing processes are complex and require significant technological and production process expertise. Such processes involve a number of precise steps from design to production. Any change in our processes could cause one or more production errors, requiring a temporary suspension or delay in our production line until the errors can be researched, identified and properly addressed and rectified. This may occur particularly as we introduce new products, modify our engineering and production techniques, and expand our capacity. In addition, our failure to maintain appropriate quality assurance processes could result in increased product failures, loss of customers, increased production costs and delays. Any of these developments could have a material adverse effect on our business, financial condition, and results of operations.

A disruption could also occur in one of our contract manufacturer’s facilities due to any number of reasons, such as equipment failure or contaminated materials, which could adversely impact manufacturing yields or delay product shipments. As a result, we could incur additional costs that would adversely affect our gross profit, and product shipments to our customers could be delayed beyond the schedules requested, which would negatively affect our revenue, competitive position and reputation.

In particular, products manufactured by the Company use a number of electronics components such as semiconductor switches, semiconductor chips, magnetics and capacitors. There is a shortage of some of these components. It is unclear if the shortage will improve in the near future and such supply shortages could negatively impact the Company's ability to supply its products to customers, which could have an impact on revenue.

Additionally, manufacturing yields depend on a number of factors, including the stability and manufacturability of the product design, manufacturing improvements gained over cumulative production volumes, and the quality and consistency of component parts. Capacity constraints, raw materials shortages, logistics issues, labor shortages, and changes in customer requirements, manufacturing facilities or processes have historically caused, and may in the future cause, reduced manufacturing yields, negatively impacting the gross profit on, and our production capacity for, those products. Moreover, an increase in the rejection and rework rate of products during the quality control process before, during or after manufacture would result in our experiencing lower yields, gross profit and production capacity.

Component shortages have required us and may continue to require us to incur expedited shipping costs to meet delivery schedules, which impacts our revenue and gross profit.

The risks of these types of manufacturing problems are further increased during the introduction of new product lines, which has from time to time caused, and may in the future cause, temporary suspension of product lines while problems are addressed or corrected. Since our business is substantially dependent on a limited number of product lines, any prolonged or substantial suspension of an individual product line could result in a material adverse effect on our revenue, gross profit, competitive position, and distributor and customer relationships.

We rely primarily on distributors, installers and providers of solar financing to assist in selling our products to customers, and the failure of these customers to perform at the expected level, or at all, would have an adverse effect on our business, financial condition and results of our operations.

We sell our solutions primarily through distributors, as well as through direct sales to solar equipment installers and developers of third-party solar finance offerings. We do not have exclusive arrangements with all of these third parties. As a result, many of our customers also use or market and sell products from our competitors, which may reduce our sales. Our customers may generally terminate their relationships with us at any time, or with short notice. Our customers may fail to devote resources necessary to sell our products at the prices, in the volumes and within the time frames that we expect, or may focus their marketing and sales efforts on products of our competitors.

In addition, participants in the solar industry are becoming increasingly focused on vertical integration of the solar financing and installation process, which may lead to an overall reduction in the number of potential parties who may purchase and install our products. In addition, while we provide our distributors and installers with training and other programs, including accreditations and certifications, these programs may not be effective or utilized consistently. In addition, new partners may require extensive training and may take significant time and resources to achieve productivity. Our partners may subject us to lawsuits, potential liability, and reputational harm if, for example, any of our partners misrepresent the functionality of our platform or products to end-users, fail to perform services to end-users' expectations, or violate laws or our policies. In addition, our partners may utilize our platform to develop products and services that could potentially compete with products and services that we offer currently or in the future. Concerns over competitive matters or intellectual property ownership could constrain the growth and development of these partnerships or result in the termination of one or more partnerships. If we fail to effectively manage and grow our network of partners, or properly monitor the quality and efficacy of their service delivery, our ability to sell our products and efficiently provide our services may be impacted, and our operating results may be harmed.

Our future performance depends on our ability to effectively manage our relationships with our existing customers, as well as to attract additional customers that will be able to market and support our products effectively, especially in markets in which we have not previously distributed our products. Termination of agreements with current customers, failure by customers to perform as expected, or failure by us to cultivate new customer relationships, could hinder our ability to expand our operations and harm our revenue and operating results.

Mergers in the solar industry among our current or potential customers may adversely affect our competitive position.

There has been an increase in consolidation activity among distributors, large installers, and other strategic partners in the solar industry. If this consolidation continues, it will further increase our reliance on a small number of customers for a significant portion of our sales and may negatively impact our competitive position in the solar market.

The solar industry is highly competitive, and we expect to face increased competition as new and existing competitors introduce products or develop alternative technologies, which could negatively impact our business, financial condition and results of operations.

We compete primarily against string inverter manufacturers, as well as against new solutions and emerging technologies that directly compete with our business. A number of companies have developed or are developing microinverters and other products that will compete directly with our solutions in the module-level power electronics market.

Our direct competitors in the inverter market include, among others, Enphase Energy Inc., SolarEdge Technologies Inc., and AP Systems, Fronius International GmbH, SMA Solar Technology AG, Generac, Huawei Technologies Co. Ltd., Delta, Ginglong, Sungrow, Solax and other companies offering string inverters. Other existing or emerging companies may also begin offering alternative microinverter, direct current-to-direct current optimizer, energy storage, monitoring and other solutions that compete with our products. Competitors in the storage market include Tesla, LG Chem, Sonnen, Generac, Panasonic, BYD, E3/DC, Senec, Schneider, Goal Zero, Simpliphi and other producers of battery cells and integrated storage systems.

Several of our existing and potential competitors are significantly larger than we are and may have greater financial, marketing, distribution, and customer support resources, and may have significantly broader brand recognition, especially in certain markets. In addition, some of our competitors have more resources and experience in developing or acquiring new products and technologies and creating market awareness for these offerings. Further, certain competitors may be able to develop new products more quickly than we can and may be able to develop products that are more reliable or that provide more functionality than ours. In addition, some of our competitors have the financial resources to offer competitive products at aggressive or below-market pricing levels, which could cause us to lose sales or market share or require us to lower prices of our products in order to compete effectively. Suppliers of solar products, particularly solar modules, have experienced eroding prices over the last several years and as a result many have faced margin compression and declining revenues. If we have to reduce our prices, or if we are unable to offset any future reductions in our average selling prices by increasing our sales volume, reducing our costs and expenses or introducing new products, our revenues and gross profit would suffer.

Significant developments in alternative technologies, such as advances in other forms of distributed solar PV power generation, storage solutions such as batteries, the widespread use or adoption of fuel cells for residential or commercial properties or improvements in other forms of centralized power production may have a material adverse effect on our business and prospects. Any failure by us to adopt new or enhanced technologies or processes, or to react to changes in existing technologies, could result in product obsolescence, the loss of competitiveness of our products, reduced revenue and a loss of market share to competitors.

We also may face competition from some of our customers or potential customers who evaluate our capabilities against the merits of manufacturing products internally. Other solar module manufacturers could also develop or acquire competing inverter technology or attempt to develop components that directly perform direct current-to-alternating current conversion in the module itself. Due to the fact that such customers may not seek to make a profit directly from the manufacture of these products, they may have the ability to manufacture competitive products at a lower cost than we would charge such customers. As a result, these customers or potential customers may purchase fewer of our systems or sell products that compete with our systems, which would negatively impact our revenue and gross profit.

Our microinverter systems may not achieve broader market acceptance, which would prevent us from increasing our revenue and market share.

If we fail to achieve broader market acceptance of our products, including international acceptance of our microinverters, there would be an adverse impact on our ability to increase our revenue, gain market share and achieve and sustain profitability. Our ability to achieve broader market acceptance for our products will be impacted by a number of factors, including:

- our ability to produce PV systems that compete favorably against other solutions on the basis of price, quality, reliability and performance;
- our ability to timely introduce and complete new designs and timely qualify and certify our products;
- whether installers, system owners and solar financing providers will continue to adopt our systems, which have a relatively limited history with respect to reliability and performance;
- whether installers, system owners and solar financing providers will adopt our storage solution, which is a relatively new technology with a limited history with respect to reliability and performance;
- the ability of prospective system owners to obtain long-term financing for solar PV installations based on our product platform on acceptable terms or at all;
- our ability to develop products that comply with local standards and regulatory requirements, as well as potential in-country manufacturing requirements; and
- our ability to develop and maintain successful relationships with our customers and suppliers.

In addition, our ability to achieve increased market share will depend on our ability to increase sales to established solar installers, who have traditionally sold central or string inverters, or who currently sell direct current-to-direct current optimizers and single microinverters. These installers often have made substantial investments in design, installation resources and training in traditional central or string inverter systems or direct current optimizers and single microinverters, which may create challenges for us to achieve their adoption of our solutions.

Our recent and planned expansion into existing and new markets could subject us to additional business, financial and competitive risks.

We currently offer solar microinverter systems targeting the residential and commercial markets throughout the world, and we intend to expand into other international markets. Our success in new geographic and product markets will depend on a number of factors, such as:

- acceptance of microinverters in markets in which they have not traditionally been used;
- our ability to compete in new product markets to which we are not accustomed;

- our ability to manage manufacturing capacity and production;
- willingness of our potential customers to incur a higher upfront capital investment than may be required for competing solutions;
- timely qualification and certification of new products;
- our ability to reduce production costs in order to price our products competitively;
- availability of government subsidies and economic incentives for solar energy solutions;
- accurate forecasting and effective management of inventory levels in line with anticipated product demand;
- our customer service capabilities and responsiveness; and
- timely hiring of the skilled employees and efficient execution of our project plan.

Further, new geographic markets and larger commercial and utility-scale installation markets have different characteristics from the markets in which we currently sell products, and our success will depend on our ability to properly address these differences. These differences may include:

- differing regulatory requirements, including tax laws, trade laws, labor, safety, local content, recycling and consumer protection regulations, tariffs, export quotas, customs duties or other trade restrictions;
- limited or unfavorable intellectual property protection;
- risk of change in international political or economic conditions;
- restrictions on the repatriation of earnings;
- fluctuations in the value of foreign currencies and interest rates;
- difficulties and increased expenses in complying with a variety of U.S. and foreign laws, regulations and trade standards, including the Foreign Corrupt Practices Act and UK Bribery Act;
- potentially longer sales cycles;
- generally longer payment cycles and greater difficulty in collecting accounts receivable;
- higher volume requirements;
- increased customer concentrations;
- warranty expectations and product return policies; and
- cost, performance and compatibility requirements.

Failure to address these new markets successfully, to generate sufficient revenue from these markets to offset associated research and development, marketing and manufacturing costs, or to otherwise effectively anticipate and manage the risks and challenges associated with our potential expansion into new product and geographic markets, could adversely affect our revenues and our ability to achieve or sustain profitability.

We may fail to capture customers in the new product and geographic markets that we are pursuing.

We are pursuing opportunities in energy management and energy storage which are highly competitive markets. We have made investments in our infrastructure, increased our operating costs and forgone other business opportunities in order to seek opportunities in these areas and will continue to do so. Any new product is subject to certain risks, including component sourcing, strategic partner selection and execution, customer acceptance, competition, product differentiation, market timing, challenges relating to economies of scale in component sourcing and the ability to attract and retain qualified personnel. There can be no assurance that we will be able to develop and grow these or any other new concepts to a point where they will become profitable or generate positive cash flow. If we fail to execute on our plan with respect to new product introductions, these new potential business segments fail to translate into revenue in the quantities or timeline projected, thus, having a materially adverse impact on our revenue, operating results and financial stability.

If we fail to retain our key personnel or if we fail to attract additional qualified personnel, we may not be able to achieve our anticipated level of growth and our business could suffer.

Our future success and ability to implement our business strategy depends, in part, on our ability to attract and retain key personnel, and on the continued contributions of members of our senior management team and key personnel in areas such as engineering, marketing, and sales, any of whom would be difficult to replace. For example, we are highly dependent on our chief executive officer, Dr. Praveen Jain. Dr. Jain possesses technical knowledge of our business, operations and strategy, and he has substantial experience and contacts that help us implement our goals, strategy and plan. If we lose his services or if he decides to join a competitor or otherwise compete directly or indirectly with us, our business, operating results and financial condition could be materially harmed.

All of our employees, including our senior management, are free to terminate their employment relationships with us at any time. Competition for highly skilled executives and employees in the technology industry is intense, and our competitors have targeted individuals in our organization that have desired skills and experience. If we are not able to continue to attract, train and retain our leadership team and our qualified employees necessary for our business, the progress of our product development programs could be hindered, and we could be materially adversely affected. To help attract, retain and motivate our executives and qualified employees, we use stock-based incentive awards. If the value of such stock awards does not appreciate as measured by the performance of the price of our common shares, or if our share-based compensation otherwise ceases to be viewed as a valuable benefit, our ability to attract, retain and motivate our executives and employees could be weakened, which could harm our business and results of operations. Also, if the value of our stock awards increases substantially, this could potentially create substantial personal wealth for our executives and employees and affect our ability to retain our personnel. In addition, any future restructuring plans may adversely impact our ability to attract and retain key employees.

Additionally, our ability to attract qualified personnel, including senior management and key technical personnel, is critical to the execution of our growth strategy. Competition for qualified senior management personnel and highly skilled individuals with technical expertise is extremely intense, and we face challenges identifying, hiring, and retaining qualified personnel in all areas of our business. In addition, integrating new employees into our team could prove disruptive to our operations, require substantial resources and management attention, and ultimately prove unsuccessful. Our failure to attract and retain qualified senior management and other key technical personnel could limit or delay our strategic efforts, which could have a material adverse effect on our business, financial condition, results of operations, and prospects.

Any failure by management to properly manage growth could have a material adverse effect on our business, operating results, and financial condition.

If our business develops as currently expected, we anticipate that we will grow rapidly in the near future. Our expected rapid growth could place significant demands on our management, operations, systems, accounting, internal controls and financial resources, and it may also negatively impact our ability to retain key personnel. If we experience difficulties in any of these or other areas, we may not be able to expand our business successfully or effectively manage our growth. Any failure by management to manage our growth and to respond to changes in our business could have a material adverse effect on our business, financial condition and results of operations.

Use of social media may materially and adversely affect our reputation or subject it to fines or other penalties.

In the future, we may use the internet and social media networks including Facebook, Instagram, LinkedIn, X (formerly, Twitter) and YouTube to reach customers. Negative commentary regarding us or our products may be posted on social media platforms and may be adverse to our reputation or business. Our target consumers often value readily available information and often act on such information without further investigation and without regard to its accuracy. The harm may be immediate without affording us an opportunity for redress or correction. We also use these third party social media platforms as marketing tools. If we are unable to cost-effectively use social media platforms as marketing tools, our ability to reach new consumers and its financial condition may suffer. Furthermore, as laws and regulations rapidly evolve to govern the use of these platforms and devices, the failure by us, our employees or third parties, to abide by applicable laws and regulations in the use of these platforms and devices could subject us to regulatory investigations, lawsuits, liability, fines or other penalties and have a material adverse effect on our business, financial condition and results of operations.

In addition, an increase in the use of social media for product promotion and marketing may cause an increase in the burden on us to monitor compliance of such materials, and increase the risk that such materials could contain problematic product or marketing claims in violation of applicable regulations. The inability of or failure by us to timely or properly monitor all product promotion conducted online or through social media or elsewhere may also subject us to regulatory action, lawsuits, liability, fines or other penalties and have a material adverse effect on our business, financial condition or results of operations.

We are subject to insurance-related risks.

We maintain director and officer insurance, liability insurance, workers compensation insurance, professional liability insurance, automobile insurance and property insurance. Our insurance coverage includes deductibles, premiums, self-insured retentions, limits of liability and similar provisions. However, there is no guarantee that our insurance coverage will be sufficient, or that insurance proceeds will be paid in a timely manner to us. In addition, there are types of losses we may incur but against which we cannot be insured or which we believe are not economically reasonable to insure, such as losses due to acts of war or certain natural disasters. If we incur these losses and they are material, our business, operating results and financial condition may be adversely affected. Also, certain material events may result in sizable losses for the insurance industry and may materially adversely impact the availability of adequate insurance coverage or result in significant premium increases. Accordingly, we may elect to self-insure, accept higher deductibles or reduce the amount of coverage in response to such market changes.

Credit risk.

Credit risk is the risk of a financial loss to us if a customer or counterparty to a financial instrument fails to meet its contractual obligation. We are mainly exposed to credit risk from credit sales. We monitor the credit worthiness of our customers by performing background checks on all new customers focusing on publicity, reputation in the market and relationships with customers and other vendors. We also monitor the frequency of payments from our ongoing customers and performs frequent reviews of outstanding balances.

Liquidity risk.

Liquidity risk arises from our management of working capital and the finance charges and principal repayments on its debt instruments. It is the risk that we will encounter difficulty in meeting our financial obligations as they fall due. Our policy is to ensure we will always have sufficient cash to allow us to meet liabilities when they become due.

Foreign currency risk.

A portion of our revenues and expenses are expected to be incurred in foreign currencies. Our business will be subject to risks typical of an international business including, but not limited to, differing tax structures, regulations and restrictions and general foreign exchange rate volatility. Fluctuations in the exchange rate between the Canadian dollar and such other currencies may have a material effect on our business, financial condition, and results of operations.

Conflicts of interest.

We may be subject to various potential conflicts of interest because of the fact that some of our officers and directors may be engaged in a range of business activities. Our executive officers and directors may devote time to their outside business interests, so long as such activities do not materially or adversely interfere with their duties to us. In some cases, our executive officers and directors may have fiduciary obligations associated with these business interests that interfere with their ability to devote time to our business and affairs and that could adversely affect our operations. These outside business interests could require significant time and attention of the Company’s executive officers and directors.

In addition, we may also become involved in other transactions which conflict with the interests of our directors and the officers who may from time to time deal with persons, firms, institutions or companies with which we may be dealing, or which may be seeking investments similar to those desired by it. The interests of these persons could conflict with ours, and from time to time, these persons may be competing with us for available investment opportunities.

Conflicts of interest, if any, will be subject to the procedures and remedies provided under applicable laws. In particular, in the event that such a conflict of interest arises at a meeting of our directors, a director who has such a conflict will abstain from voting for or against the approval of such participation or such terms. In accordance with applicable laws, our directors are required to act honestly, in good faith and in our best interests.

Risks Related to our Intellectual Property and Technology

We could be subject to breaches of our information technology systems, which could cause significant reputational, legal and financial damages.

Like many companies, we use and store a wide variety of confidential and proprietary information relating to our business. The secure maintenance of this information is critical to our business and reputation. Despite our implementation of security measures, our systems are vulnerable to damages from computer viruses, computer denial-of-service attacks, worms, and other malicious software programs or other attacks, covert introduction of malware to computers and networks, unauthorized access, including impersonation of unauthorized users, efforts to discover and exploit any security vulnerabilities or securities weaknesses, and other similar disruptions. These types of attacks have increased, in general, as more businesses implement remote working environments. Although we make significant efforts to maintain the security and integrity of our information technology and related systems, and have implemented measures to manage the risk of a security breach or disruption, there can be no assurance that our security efforts and measures will be effective, or that attempted security breaches or disruptions would not be successful or damaging.

The techniques used in attempted cyber-attacks and intrusions are sophisticated and constantly evolving, and may be difficult to detect for long periods of time. We may be unable to anticipate these techniques or implement adequate preventative measures. Although to date we have not experienced any material breaches of our systems that could have material adverse effect on our business, attacks and intrusions on our systems will continue and we may experience a breach of our systems that compromises sensitive company information or customer data. In addition, hardware, software, or applications we develop or procure from third parties may contain defects in design or manufacture or other problems that could unexpectedly compromise information security. If we experience a significant data security breach, we could be exposed to reputational damage and significant costs, including to rebuild our systems, modify our products and services, defend litigation, respond to government enforcement actions, pay damages or take other remedial steps, any of which could adversely affect our business, results of operations, and financial condition. In addition, we may be required to incur significant costs to protect against damage caused by these disruptions or security breaches in the future.

We may also share information with contractors and third-party providers to conduct our business. Although such contractors and third-party providers typically implement encryption and authentication technologies to secure the transmission and storage of data, those third-party providers may experience a significant data security breach, which may also detrimentally affect our business, results of operations, and financial condition.

The software we use in providing system configuration recommendations or potential energy savings estimates to customers relies in part on third party information that may not be accurate or up-to-date; this may therefore generate inaccurate recommendations or estimates, resulting in a loss of reputation and customer confidence.

We provide our customers online tools to help them determine proper system sizing and configurations, estimates of bill savings, and potential revenues resulting from executing a specific curtailment strategy. These estimates are in turn based on a number of factors such as customer tariff structures, estimated wholesale electricity prices and estimates of the reduction in electricity usage as a result of a curtailment activity. If the estimates we provide prove to be significantly different from actual payments or savings received by our customers, it may result in the loss of reputation and/or customer confidence.

If we fail to protect, or incur significant costs in defending, our intellectual property and other proprietary rights, our business and results of operations could be materially harmed.

Our success depends to a significant degree on our ability to protect our intellectual property and other proprietary rights. We rely on a combination of patent, trademark, copyright, trade secret and unfair competition laws, as well as confidentiality and license agreements and other contractual provisions, to establish and protect our intellectual property and other proprietary rights. We have applied for patent and trademark registrations in Canada and in other countries, some of which have been issued. We cannot guarantee that any of **our pending applications** will be approved or that our existing and future intellectual property rights will be sufficiently broad to protect our proprietary technology, and any failure to obtain such approvals or finding that our intellectual property rights are invalid or unenforceable could force us to, among other things, rebrand or re-design our affected products. In countries where we have not applied for patent protection or where effective intellectual property protection is not available to the same extent as in Canada, we may be at greater risk that our proprietary rights will be misappropriated, infringed or otherwise violated.

To protect our unregistered intellectual property, including our trade secrets and know-how, we rely in part on trade secret laws and confidentiality and invention assignment agreements with our employees and independent contractors. We also require other third parties who may have access to our proprietary technologies and information to enter into nondisclosure agreements. Such measures, however, provide only limited protection, and we cannot assure that our confidentiality and non-disclosure agreements will prevent unauthorized disclosure or use of our confidential information, especially after our employees or third parties end their employment or engagement with us, or provide us with an adequate remedy in the event of such disclosure. Furthermore, competitors or other third parties may independently discover our trade secrets, copy or reverse engineer our products or portions thereof, or develop similar technology. If we fail to protect our intellectual property and other proprietary rights, or if such intellectual property and proprietary rights are infringed, misappropriated or otherwise violated, our business, results of operations or financial condition could be materially harmed.

In the future, we may need to take legal action to prevent third parties from infringing upon or misappropriating our intellectual property or from otherwise gaining access to our technology. Protecting and enforcing our intellectual property rights and determining their validity and scope could result in significant litigation costs and require significant time and attention from our technical and management personnel, which could significantly harm our business. In addition, we may not prevail in such proceedings. An adverse outcome of any such proceeding may reduce our competitive advantage or otherwise harm our financial condition and our business.

Third parties may assert that we are infringing upon their intellectual property rights, which could divert management's attention, cause us to incur significant costs and prevent us from selling or using the technology to which such rights relate.

Our competitors and other third parties hold numerous patents related to technology used in our industry, and claims of patent or other intellectual property right infringement or violation have been litigated against our competitors. We may also be subject to such claims and litigation. Regardless of their merit, responding to such claims can be time consuming, divert management's attention and resources, and may cause us to incur significant expenses. While we believe that our products and technology do not infringe upon any intellectual property rights of third parties, we cannot be certain that we would be successful in defending against any such claims. Furthermore, patent applications in Canada and most other countries are confidential for a period of time before being published, so we cannot be certain that we are not infringing third parties' patent rights or that we were the first to conceive or protect inventions covered by our patents or patent applications. An adverse outcome with respect to any intellectual property claim could invalidate our proprietary rights and force us to do one or more of the following:

- obtain from a third-party claiming infringement a license to sell or use the relevant technology, which may not be available on reasonable terms, or at all;
- stop manufacturing, selling, incorporating or using products that embody the asserted intellectual property;
- pay substantial monetary damages;
- indemnify our customers under some of our customer contracts; or
- expend significant resources to redesign the products that use the infringing technology, or to develop or acquire non-infringing technology.

Any of these actions could result in a substantial reduction in our revenue and could result in losses over an extended period of time.

Our failure to obtain the right to use necessary third-party intellectual property rights on reasonable terms, or our failure to maintain, and comply with the terms and conditions applicable to these rights, could harm our business and prospects.

We have licensed, and in the future we may choose or be required to license, technology or intellectual property from third parties in connection with the development and marketing of our products. We cannot provide assurances that such licenses will be available to us on commercially reasonable terms, or at all, and our inability to obtain such licenses could require us to substitute technology of lower quality or of greater cost.

Further, such licenses may be non-exclusive, which could result in our competitors gaining access to the same intellectual property. The licensing or acquisition of third party intellectual property rights is a competitive area, and other established companies may pursue strategies to license or acquire third party intellectual property rights that we may consider attractive or necessary. These established companies may have a competitive advantage over us due to their size, capital resources or greater development or commercialization capabilities. In addition, companies that perceive us to be a competitor may be unwilling to assign or license rights to us. We could encounter delays and incur significant costs, in product or service introductions while we attempt to develop alternative products or services, or redesign our products or services, to avoid infringing third party patents or proprietary rights. Failure to obtain any such licenses or to develop a workaround could prevent us from commercializing products or services, and the prohibition of sale or the threat of the prohibition of sale of any of our products or services could materially affect our business and our ability to gain market acceptance for our products or services.

In addition, we incorporate open source software code in our proprietary software. Use of open source software can lead to greater risks than use of third-party commercial software, since open source licensors generally do not provide warranties or controls with respect to origin, functionality or other features of the software. Further, companies that incorporate open source software into their products have, from time to time, faced claims challenging their use of open source software and compliance with open source license terms. As a result, we could be subject to lawsuits by parties claiming ownership of what we believe to be open source software or claiming noncompliance with open source licensing terms. Some open source software licenses require users who distribute open source software as part of their products to publicly disclose all or part of the source code in their software and make any derivative works of the open source code available for limited fees or at no cost. Although we monitor our use of open source software, open source license terms may be ambiguous, and many of the risks associated with the use of open source software cannot be eliminated. If we were found to have inappropriately used open source software, we may be required to release our proprietary source code, re-engineer our software, discontinue the sale of certain products in the event re-engineering cannot be accomplished on a timely basis, or take other remedial action. Furthermore, if we are unable to obtain or maintain licenses from third parties or fail to comply with open source licenses, we may be subject to costly third party claims of intellectual property infringement or ownership of our proprietary source code. There is little legal precedent in this area and any actual or claimed requirement to disclose our proprietary source code or pay damages for breach of contract could harm our business and could help third parties, including our competitors, develop products and services that are similar to or better than ours. Any of the above could harm our business and put us at a competitive disadvantage.

We may not be able to protect and enforce our trademarks and trade names, or build name recognition in our markets of interest thereby harming our competitive position.

The registered or unregistered trademarks or trade names that we own may be challenged, infringed, circumvented, declared generic, lapsed or determined to be infringing on or dilutive of other marks. We may not be able to protect our rights in these trademarks and trade names, which we need in order to build name recognition. In addition, third parties have filed, and may in the future file, for registration of trademarks similar or identical to our trademarks, thereby impeding our ability to build brand identity and possibly leading to market confusion. If they succeed in registering or developing common law rights in such trademarks, and if we are not successful in challenging such rights, we may not be able to use these trademarks to develop brand recognition of our technologies, products or services. In addition, there could be potential trade name or trademark infringement claims brought by owners of other registered trademarks or trademarks that incorporate variations of our registered or unregistered trademarks or trade names. If third parties succeed they succeed in registering such trademarks in Canada or other countries, and if we are not successful in challenging such third party rights, we may not be able to use these trademarks to market our products and technologies such countries. If we do not secure registrations for our trademarks, we may encounter more difficulty in enforcing them against third parties than we otherwise would. If we are unable to establish name recognition based on our trademarks and trade names, we may not be able to compete effectively, which could harm our business, financial condition, results of operations and prospects. And, over the long-term, if we are unable to establish name recognition based on our trademarks, then our marketing abilities may be materially adversely impacted.

Obtaining and maintaining our patent protection depends on compliance with various required procedures, document submissions, fee payments and other requirements imposed by governmental patent agencies, and our patent protection could be reduced or eliminated for non-compliance with these requirements.

Periodic maintenance fees, renewal fees, annuity fees and various other governmental fees on patents and/or applications will be due to be paid to the Canadian Intellectual Property Office ("**CIPO**") and various governmental patent agencies outside of Canada at several stages over the lifetime of the patents and/or applications. We have systems in place to remind us to pay these fees, and we engage an outside service and rely on our outside counsel to pay these fees due to non-Canadian patent agencies. CIPO and various non-Canadian governmental patent agencies require compliance with a number of procedural, documentary, fee payment and other similar provisions during the patent application process. We employ reputable law firms and other professionals to help us comply, and in many cases, an inadvertent lapse can be cured by payment of a late fee or by other means in accordance with the applicable rules. However, there are situations in which non-compliance can result in abandonment or lapse of the patent or patent application, resulting in partial or complete loss of patent rights in the relevant jurisdiction. In such an event, our competitors may be able to enter the market without infringing our patents and this circumstance would have a material adverse effect on our business.

Patent terms may be inadequate to protect our competitive position on our products for an adequate amount of time.

Patents have a limited lifespan. In Canada, if all maintenance fees are timely paid, the natural expiration of a patent is generally 20 years from its earliest Canadian non-provisional filing date. Various extensions may be available, but the life of a patent, and the protection it affords, is limited. Even if patents covering our products are obtained, once the patent life has expired, we may be open to competition from competitive products. If one of our products requires extended development, testing and/or regulatory review, patents protecting such products might expire before or shortly after such products are commercialized. As a result, our owned and licensed patent portfolio may not provide us with sufficient rights to exclude others from commercializing products similar or identical to ours.

We rely on trade secrets.

We rely on third parties to develop our products and as a result, we must share our trade secrets with them. We seek to protect our proprietary technology in part by entering into confidentiality agreements and, if applicable, material transfer agreements, collaborative research agreements, consulting agreements or other similar agreements with its collaborators, advisors, employees and consultants prior to beginning research or disclosing proprietary information. These agreements typically restrict the ability of our collaborators, advisors, employees and consultants to publish data potentially relating to our trade secrets. Our academic and clinical collaborators typically have rights to publish data, provided that we are notified in advance and may delay publication for a specified time in order to secure any intellectual property rights arising from the collaboration. In other cases, publication rights are controlled exclusively by us, although in some cases we may share these rights with other parties. We may also conduct joint research and development programs which may require us to share trade secrets under the terms of research and development collaboration or similar agreements. Despite our efforts to protect our trade secrets, our competitors may discover our trade secrets, either through breach of these agreements, independent development or publication of information. A competitor's discovery of our trade secrets may impair our competitive position and could have a material adverse effect on our business and financial condition.

Risks related to Legal Proceedings and Regulations

Changes in laws and regulations.

Changes in current laws or regulations or the imposition of new laws or regulations, or new interpretations thereof, in the solar energy sector or international trade, by federal or state agencies in Canada or foreign jurisdictions could impair our ability to compete, and could materially harm our business, financial condition and results of operations. There has been and will continue to be regulatory uncertainty in the clean energy sector generally and the solar energy sector in particular. Changes in current laws or regulations, or the imposition of new laws and regulations around the world, could materially and adversely affect our business, financial condition and results of operations. In addition, changes in our products or further changes in tariffs, export and import laws and implementing regulations may create delays in the introduction of new products in international markets, prevent our customers from deploying our products internationally or, in some cases, prevent the export or import of our products to certain countries altogether.

While we are not aware of any other current or proposed export or import regulations that would materially restrict our ability to sell our products in countries where we offer our products for sale, any change in export or import regulations or related legislation, shift in approach to the enforcement or scope of existing regulations, or change in the countries, persons or technologies targeted by these regulations, could result in decreased use of our products by, or in our decreased ability to export or sell our products to, existing or potential international customers. In such event, our business and results of operations could be adversely affected.

From time to time we may be involved in legal proceedings and, while we cannot predict the outcomes of such proceedings and other contingencies with certainty, some of these outcomes could adversely affect our business and financial condition.

We may become party to litigation from time to time in the ordinary course of business which could adversely affect our business. Should any litigation in which we become involved be determined against us, such a decision could adversely affect our ability to continue operating and the value of the common shares and could use significant resources. Even if we are involved in litigation and win, litigation can redirect significant resources, including the time and attention of management and available working capital. Litigation may also create a negative perception of our brand.

Risks Related to Financial Condition and Liquidity

Insufficiency of Capital Resources.

As of the date of this MD&A, the Company’s current resources are not sufficient to settle its current liabilities for the next 12 months. The Company will need to raise the capital necessary to execute its business objectives and to meet ongoing general and administrative requirements, including meeting its debt covenants. The Company has been successful in the past at raising necessary funds but the timing and ability to do so will depend on the liquidity of the financial markets, economic conditions, as well as the acceptance by investors of small cap companies. There can be no guarantee that the Company will be able to secure any required financing. Given the volatility in financial markets it may be difficult to raise financing when needed. Failure to raise sufficient funds and/or implement the Company’s business plan could have a material adverse effect on its financial condition and financial performance. Accordingly, there are material risks and uncertainties that cast significant doubt over the Company’s ability to continue as a going concern.

The reduction, elimination or expiration of government subsidies and economic incentives for on-grid solar electricity applications could reduce demand for solar PV systems and harm our business.

The market for on-grid applications, where solar power is used to supplement a customer’s electricity purchased from the utility network or sold to a utility under tariff, depends in large part on the availability and size of government and economic incentives that vary by geographic market. Because our customers' sales are typically into the on-grid market, the reduction, elimination or expiration of government subsidies and economic incentives for on-grid solar electricity may negatively affect the competitiveness of solar electricity relative to conventional and non-solar renewable sources of electricity and could harm or halt the growth of the solar electricity industry and our business.

In general, the cost of solar power currently exceeds retail electricity rates, and we believe this tendency will continue in the near term. As a result, national, state and local government bodies in many countries, including the U.S., have provided incentives in the form of feed-in tariffs ("**FiTs**"), rebates, tax credits and other incentives to system owners, distributors, system integrators and manufacturers of solar PV systems to promote the use of solar electricity in on-grid applications and to reduce dependency on other forms of energy. Many of these government incentives expire, phase out over time, terminate upon the exhaustion of the allocated funding, require renewal by the applicable authority or are being changed by governments due to changing market circumstances or changes to national, state or local energy policy.

Electric utility companies or generators of electricity from other non-solar renewable sources of electricity may successfully lobby for changes in the relevant legislation in their markets that are harmful to the solar industry. Reductions in, or eliminations or expirations of, governmental incentives in regions where we focus our sales efforts could result in decreased demand for and lower revenue from solar PV systems there, which would adversely affect sales of our products. In addition, our ability to successfully penetrate new geographic markets may depend on new countries adopting and maintaining incentives to promote solar electricity, to the extent such incentives are not currently in place. Furthermore, electric utility companies may establish pricing structures or interconnection requirements that could adversely affect our sales and be harmful to the solar and distributed rooftop solar generation industry.

Our gross profit may fluctuate over time, which could impair our ability to achieve or maintain profitability.

Our gross profit has varied in the past and is likely to continue to vary significantly from period to period. Our gross profit may be adversely affected by numerous factors, some of which are beyond our control, including:

- changes in customer, geographic or product mix;
- increased price competition, including the impact of customer and competitor discounts and rebates;
- our ability to reduce and control product costs, including our ability to make product cost reductions in a timely manner to offset declines in our product prices;
- warranty costs and reserves, including changes resulting from changes in estimates related to the long-term performance of our products, product replacement costs and warranty claim rates, as well as changes in the discount rates;
- loss of cost savings due to changes in component or raw material pricing or charges incurred due to inventory holding periods if product demand is not correctly anticipated;
- introduction of new products;
- ordering patterns from our distributors;
- price reductions on older products to sell remaining inventory;
- component shortages and related expedited shipping costs;

- our ability to reduce production costs, such as through technology innovations, in order to offset price declines in our products over time;
- changes in shipment volume;
- changes in distribution channels;
- excess and obsolete inventory and inventory holding charges;
- expediting costs incurred to meet customer delivery requirements;
- tariffs assessed on our products imported to the U.S. and elsewhere; and
- fluctuations in foreign currency exchange rates.

Fluctuations in gross profit may adversely affect our ability to manage our business or achieve or maintain profitability.

We may be under pressure to reduce the prices of our products, which may adversely affect our gross margins.

The solar power industry has been characterized by declining product prices over time. We have reduced the prices of our products in the past, and we expect to continue to experience pricing pressure for our products in the future, including from our future major customers. In addition, we have reduced our prices ahead of planned cost reductions of our products, which has adversely affected our gross margins. When seeking to maintain or increase their market share, our competitors may also reduce the prices of their products. In addition, our customers may have the ability or seek to internally develop and manufacture competing products at a lower cost than we would otherwise charge, which would add additional pressure on us to lower our selling prices. If we are unable to offset any future reductions in our average selling prices by increasing our sales volume, reducing our costs and expenses or introducing new products, our gross margins would continue to be adversely affected.

Given the general downward pressure on prices for our products driven by competitive pressure and technological change, a principal component of our business strategy is reducing the costs to manufacture our products to remain competitive. If our competitors are able to drive down their manufacturing costs faster than we can or increase the efficiency of their products, our products may become less competitive even when adjusted for efficiency, and we may be forced to sell our products at a price lower than our cost. Further, if raw materials costs and other third-party component costs were to increase, we may not meet our cost reduction targets. If we cannot effectively execute our cost reduction roadmap, we may not be able to remain price competitive, which would result in lost market share and lower gross margins.

A drop in the retail price of electricity derived from the utility grid or from alternative energy sources, or a change in utility pricing structures, may harm our business, financial condition and results of operations.

We believe that a system owner's decision to purchase a solar PV system is strongly influenced by the cost of electricity generated by solar PV installations relative to the retail price of electricity from the utility grid and the cost of other renewable energy sources, including electricity from solar PV installations using central inverters. Reductions in the retail prices of electricity from the utility grid would make it more difficult for all solar PV systems to compete. In particular, growth in unconventional natural gas production and an increase in global liquefied natural gas capacity are expected to keep natural gas prices relatively low for the foreseeable future. Persistent low natural gas prices, lower prices of electricity produced from other energy sources, such as nuclear power or coal-fired plants, or improvements to the utility infrastructure could reduce the retail price of electricity from the utility grid, making the purchase of solar PV systems less economically attractive and depressing sales of our products. In addition, energy conservation technologies and public initiatives to reduce demand for electricity also could cause a fall in the retail price of electricity from the utility grid. Moreover, technological developments by our competitors in the solar industry, including manufacturers of central inverters and direct current-to-direct current optimizers, could allow these competitors or their partners to offer electricity at costs lower than those that can be achieved from solar PV installations based on our product platform, which could result in reduced demand for our products. Additionally, as increasing adoption of distributed generation places pressure on traditional utility business models or utility infrastructure, utilities may change their pricing structures to increase the cost of installation or operation of solar distributed generation. Such measures can include grid access fees, costly or lengthy interconnection studies, limitations on distributed generation penetration levels, or other measures. If the cost of electricity generated by solar PV installations incorporating our solutions is high relative to the cost of electricity from other sources, our business, financial condition and results of operations may be harmed.

If we do not forecast demand for our products accurately, we may experience product shortages, delays in product shipment, excess product inventory, difficulties in planning expenses or disputes with suppliers, any of which will adversely affect our business and financial condition.

We manufacture our products according to our estimates of customer demand. This process requires us to make multiple forecasts and assumptions relating to the demand of our distributors, their end customers and general market conditions. Because we sell most of our products to distributors, who in turn sell to their end customers, we have limited visibility as to end-customer demand. We depend significantly on our distributors to provide us visibility into their end-customer demand, and we use these forecasts to make our own forecasts and planning decisions. If the information from our distributors turns out to be incorrect, then our own forecasts may also be inaccurate. Furthermore, we do not have long-term purchase commitments from our distributors or end customers, and our sales are generally made by purchase orders that may be canceled, changed or deferred without notice to us or penalty. As a result, it is difficult to forecast future customer demand to plan our operations.

If we overestimate demand for our products, or if purchase orders are canceled or shipments are delayed, we may have excess inventory that we cannot sell. We may have to make significant provisions for inventory write-downs based on events that are currently not known, and such provisions or any adjustments to such provisions could be material. We may also become involved in disputes with our suppliers who may claim that we failed to fulfill forecast or minimum purchase requirements. Conversely, if we underestimate demand, we may not have sufficient inventory to meet end-customer demand, and we may lose market share, damage relationships with our distributors and end customers and forgo potential revenue opportunities. Obtaining additional supply in the face of product shortages may be costly or impossible, particularly in light of our outsourced manufacturing processes, which could prevent us from fulfilling orders in a timely and cost-efficient manner or at all. In addition, if we overestimate our production requirements, our contract manufacturers may purchase excess components and build excess inventory. If our contract manufacturers, at our request, purchase excess components that are unique to our products and are unable to recoup the costs of such excess through resale or return or build excess products, we could be required to pay for these excess parts or products and recognize related inventory write-downs.

In addition, we plan our operating expenses, including research and development expenses, hiring needs and inventory investments, in part on our estimates of customer demand and future revenue. If customer demand or revenue for a particular period is lower than we expect, we may not be able to proportionately reduce our fixed operating expenses for that period, which would harm our operating results for that period.

Parties with whom we do business may be subject to insolvency risks or may otherwise become unable or unwilling to perform their obligations to us.

We are a party to contracts, transactions and business relationships with various third parties, notably customers, contractors and suppliers. If any of these third parties were to become subject to bankruptcy, receivership or similar proceedings, our rights and benefits in relation to its contracts, transactions and business relationships with such third parties could be terminated, modified in a manner adverse to us or otherwise impaired. We cannot make any assurances that we would be able to arrange for alternate or replacement contracts, transactions or business relationships on terms as favorable as existing contracts, transactions or business relationships, if at all. Any inability on our part to do so could have a material adverse effect on its business and results of operations.

General Risks Related to our Business

Natural disasters, public health events, significant disruptions of information technology systems, data security breaches, or other catastrophic events could adversely affect our operations.

Our worldwide operations could be subject to natural disasters, public health events and other business disruptions, which could harm our future revenue and financial condition and increase our costs and expenses. We rely on third-party manufacturing facilities including for all product assembly and final testing of our products, which are performed at third-party manufacturing facilities in India. There may be conflict or uncertainty in the countries in which we operate, including public health issues (for example, an outbreak of other contagious diseases or health epidemics), safety issues, natural disasters, fire, disruptions of service from utilities, nuclear power plant accidents or general economic or political factors. Such risks could result in an increase in the cost of components, production delays, general business interruptions, delays from difficulties in obtaining export licenses for certain technology, tariffs and other barriers and restrictions, longer payment cycles, increased taxes, restrictions on the repatriation of funds and the burdens of complying with a variety of foreign laws, any of which could ultimately have a material adverse effect on our business.

Further, any terrorist attacks, material disruption to our information technology systems or any data security breaches, including due to cyber-attacks, especially any aimed at energy or communications infrastructure suppliers or our cloud-based monitoring service, could hinder or delay the development and sale or performance of our products or otherwise adverse affect us. Such significant disruptions of our, our third party vendors' and/or business partners' information technology systems or data security breaches could adversely affect our business operations and/or result in the loss, misappropriation, and/or unauthorized access, use or disclosure of, or the prevention of access to, confidential information (including trade secrets or other intellectual property, proprietary business information and personal information), and could result in financial, legal, business and reputational harm to us. Any such event that leads to unauthorized access, use or disclosure of personal information, including personal information regarding our customers, could harm our reputation, compel us to comply with federal and/or state breach notification laws and foreign law equivalents, subject us to mandatory corrective action, require us to verify the correctness of database contents and otherwise subject us to liability under laws and regulations that protect the privacy and security of personal information, which could disrupt our business, result in increased costs or loss of revenue, and/or result in legal and financial exposure. In addition, security breaches and other inappropriate access can be difficult to detect, and any delay in identifying them may further harm us. Moreover, the prevalent use of mobile devices to access confidential information increases the risk of security breaches. While we have implemented security measures to protect our information technology systems and infrastructure, there can be no assurance that such measures will prevent service interruptions or security breaches that could adversely affect our business. In addition, failure to maintain effective internal accounting controls related to security breaches and cybersecurity in general could impact our ability to produce timely and accurate financial statements and subject us to regulatory scrutiny.

In the event that natural disasters, public health epidemics or technical catastrophes were to damage or destroy any part of our facilities or those of our contract manufacturer, destroy or disrupt vital infrastructure systems or interrupt our operations or services for any extended period of time, our business, financial condition and results of operations would be materially and adversely affected.

General global economic conditions.

The demand for our products is influenced by macroeconomic factors, such as global economic conditions, demand for electricity, supply and prices of electricity, renewable power and other energy products, such as oil, coal and natural gas, as well as government regulations and policies concerning the electric utility industry, and other alternative energy industries and the environment. As a result of global economic conditions, some governments may implement measures that reduce the subsidies designed to benefit the power service industry, which may have an indirect impact on demand for our products. A reduction in solar power tariffs in many markets has resulted in downward pressure on the price of renewable power systems in those and other markets. In addition, reductions in oil and coal prices may reduce the demand for electric power which may lead to a reduction in demand for electric power services. Our growth and profitability depend on the demand for and the prices of electric and solar power. If we experience negative market and industry conditions and demand for electric and solar power projects and electric and solar products weaken as a result, our business and results of operations may be adversely affected.

International conflict.

International conflicts and other geopolitical tensions and events, including war, military action, terrorism, trade disputes and international responses thereto have historically led to, and may in the future lead to, uncertainty or volatility in global commodity and financial markets and supply chains. In particular, current conflicts in Eastern Europe and the Middle East has resulted in a significant increase in tension in such regions and may have far reaching effects on the global economy. Volatility in commodity prices and supply chain disruptions may adversely affect the Company's business, financial condition and results of operations. The extent and duration of the current conflicts and related international action cannot be accurately predicted at this time and the effects of such conflict may magnify the impact of the other risks identified in this MD&A, including those relating to commodity price volatility and global financial conditions. The outcome of these conflicts is uncertain, and these conflicts may escalate and may result in escalated tensions within and outside of Eastern Europe and the Middle East. This could result in significant disruption of supplies of oil and natural gas from the region and could cause a significant worldwide supply shortage of oil and natural gas and have a significant impact on worldwide prices of oil and natural gas. A lack of supply of energy and high prices of oil and natural gas could have a significant adverse impact on the world economy. The situation is rapidly changing and unforeseeable impacts, including on the Company's shareholders and counterparties on which the Company relies and transacts with, may materialize and may have an adverse effect on the Company's operations and trading price of the common shares.

Inflation.

The general rate of inflation impacts the economies and business environments in which the Company operates. Increased inflation and any economic conditions resulting from governmental attempts to reduce inflation, such as the imposition of higher interest rates or wage and price controls, may increase costs related to the Company's business and negatively impact levels of demand for the Company's products, which could have a material adverse effect on the Company's business, financial condition and results of operations. Higher interest rates as a result of inflation could also negatively impact the Company's borrowing costs, which could have a material adverse effect on the Company's business, financial condition and results of operations.

Financial and Accounting Risks

Access to capital.

In executing our business plan, we make, and will continue to make, substantial investments and other expenditures related to acquisitions, research and development and marketing initiatives. Since our incorporation, we have financed these expenditures through offerings of its equity securities and debt financing. We will have further capital requirements and other expenditures as we proceed to expand our business or take advantage of opportunities for acquisitions or other business opportunities that may be presented to it. We may incur major unanticipated liabilities or expenses. We can provide no assurance that it will be able to obtain financing to meet our growth needs.

Estimates or judgments relating to critical accounting policies.

The preparation of financial statements in conformity with IFRS requires management to make estimates and assumptions that affect the amounts reported in the financial statements and accompanying notes. We base our estimates on historical experience and on various other assumptions that we believe to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets, liabilities, equity, revenue and expenses that are not readily apparent from other sources. Our operating results may be adversely affected if the assumptions change or if actual circumstances differ from those in the assumptions, which could cause our operating results to fall below the expectations of securities analysts and investors, resulting in a decline in our share price. Significant assumptions and estimates used in preparing the financial statements include those related to the credit quality of accounts receivable, income tax credits receivable, share-based payments, impairment of non-financial assets, as well as revenue and cost recognition.

Common Shares

Quarterly performance variation.

Financial results may vary significantly from quarter to quarter due to a number of factors, which may lead to volatility in the Company's share price. the Company's results of operations have varied in the past and may continue to vary significantly from quarter to quarter. As a result, the trading price of the common shares is likely to be volatile and could be subject to wide fluctuations in response to various factors, some of which are beyond our control. In addition, the trading prices of the securities of solar companies in general have been highly volatile, and the volatility in market price and trading volume of securities is often unrelated or disproportionate to the financial performance of the companies issuing the securities. Factors the could affect the market price of the common shares include:

- seasonal and other fluctuations in demand for products;
- the timing, volume and product mix of sales of products, which may have different average selling prices or profit margins;
- changes in pricing and sales policies or the pricing and sales policies of competitors;
- the Company's ability to design, manufacture and deliver products to our customers in a timely and cost-effective manner and that meet customer requirements;
- the Company's ability to manage relationships with contract manufacturers, customers and suppliers;
- quality control or yield problems in manufacturing operations;
- the anticipation, announcement or introductions of new or enhanced products by competitors and the Company;
- reductions in the retail price of electricity;
- changes in laws, regulations and policies applicable to our business and products, particularly those relating to government incentives for solar energy applications;
- the impact of tariffs on the solar industry in general and the Company's products in particular;

- unanticipated increases in costs or expenses;
- the amount and timing of operating costs and capital expenditures related to the maintenance and expansion of the Company's business operations;
- the impact of government-sponsored programs on the Company's future customers;
- the Company's exposure to the credit risks of customers, particularly in light of the fact that some customers are relatively new entrants to the solar market without long operating or credit histories;
- the Company's ability to estimate future warranty obligations due to product failure rates, claim rates or replacement costs;
- the Company's ability to forecast customer demand and manufacturing requirements, and manage inventory;
- fluctuations in gross profit;
- the Company's ability to predict revenue and plan expenses appropriately;
- fluctuations in foreign currency exchange rates;
- announcement of acquisitions or dispositions of assets or business operations;
- issuances of common shares;
- changes in management;
- technical factors in the public trading market for common shares that may produce price movements that may or may not comport to macro, industry or company-specific fundamentals, including, without limitation, the sentiment of retail investors (including as may be expressed on financial trading and other social media sites), the amount and status of short interest in the common shares, access to margin debt, trading in options and other derivatives on the common shares and any related hedging or other technical trading factors;
- general economic conditions and changes in such conditions specific to target markets; and
- actions by research analysts, such as if they issue unfavorable commentary or downgrade the common shares or cease publishing reports about the Company or its business.

The above factors are difficult to forecast, and these, as well as other factors, could materially and adversely affect our quarterly and annual results of operations. Any failure to adjust spending quickly enough to compensate for a revenue shortfall could magnify the adverse impact of this revenue shortfall on our results of operations. Moreover, the Company's results of operations may not meet its announced guidance or the expectations of research analysts or investors, in which case the price of the common shares could reduce significantly. There can be no assurance that the Company will be able to successfully address these risks.

No history of payment of cash dividends.

The Company has never declared or paid cash dividends on the common shares. The Company intends to retain future earnings to finance the operation, development and expansion of the business. The Company does not anticipate paying cash dividends on the common shares in the foreseeable future. Payment of future cash dividends, if any, will be at the discretion of the Board and will depend on the

Company’s financial condition, results of operations, contractual restrictions, capital requirements, business prospects and other factors that the Board considers relevant.

Significant sales of Common Shares.

Common shares held by the Company’s directors, executive officers, control persons and certain other securityholders of the Company are subject to contractual lock-up restrictions and escrow and seed share resale restrictions (“**SSRR**”) pursuant to the policies of the TSXV. Sales of a substantial number of the common shares in the public market after the expiry of lock-up, SSRR or escrow restrictions, or the perception that these sales could occur, could adversely affect the market price of the common shares and may make it more difficult for investors to sell the common shares at a favourable time and price.

Analyst coverage.

The trading market for the common shares depend, to some extent, on the research and reports that securities or industry analysts publish about the Company and its business. The Company does not have any control over these analysts. If one or more of the analysts who covers the Company should downgrade the common shares or change their opinion of the Company’s business prospects, the price of common shares would likely decline. If one or more of these analysts ceases coverage of the Company or fails to regularly publish reports on the Company, the Company could lose visibility in the financial markets, which could cause the price or trading volume of the common shares to decline.

Tax issues.

There may be income tax consequences in relation to the common shares, which will vary according to circumstances of each investor. Prospective investors should seek independent advice from their own tax and legal advisers.