



**ANNUAL INFORMATION FORM
FOR THE YEAR ENDED
DECEMBER 31, 2024**

May 26, 2025

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FORWARD-LOOKING STATEMENTS

This Annual Information Form (“AIF”), and the documents incorporated herein by reference, contain forward-looking statements regarding the future growth, results of operations, performance, business prospects and opportunities of Sparq Systems Inc. (“Sparq” or the “Company”). Words such as “expects”, “anticipates”, “intends”, “plans”, “believes”, “estimates”, or similar expressions, are forward-looking statements. Forward-looking statements include, without limitation, the information concerning possible or assumed future results of operations of Sparq set out under “*Description of the Business*”. These statements are not historical facts but instead represent only Sparq’s expectations, estimates and projections regarding future events. These statements 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.

Some of the risks which could affect future results and could cause results to differ materially from those expressed in the forward-looking statements contained herein include, but are not limited to:

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 currently depends upon one outside contract manufacturer, and business and operations could be disrupted if the Company encounters problems with this contract manufacturer;
- if the Company or its contract manufacturer(s) 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 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 imposition of tariffs;
- 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;
- analyst coverage; and
- tax issues.

Details of the risk factors relating to Sparq and its business are discussed under the heading "*Risk Factors*" below. The risk factors contained in this AIF supersede the risk factors set out in the Company's management's discussion & analysis dated April 25, 2025 for the year ended December 31, 2024.

In addition to the factors set out above and those identified under the heading "Risk Factors" below, other factors not currently viewed as material could cause actual results to differ materially from those described in the forward-looking statements. Although Sparq has attempted to identify important risks and factors that could cause actual actions, events or results to differ materially from those described in forward-looking statements, there may be other factors and risks that cause actions, events or results not to be anticipated, estimated or intended. Accordingly, readers should not place any undue reliance on forward-looking statements.

The forward-looking statements in this AIF are based on numerous assumptions regarding Sparq’s present and future business strategies and the environment in which Sparq will operate in the future, including, without limitation, assumptions regarding business and operating strategies, and Sparq’s ability to operate on a profitable basis. Sparq does not undertake any obligation to update or release any revisions to these forward-looking statements to reflect events or circumstances after the date of this report, except as may be required by law.

CERTAIN DEFINITIONS, CONVENTIONS AND CURRENCY PRESENTATION

This AIF has been prepared using a number of conventions, which a reader should consider when reading the information contained herein. The term “Company” or “Sparq”, is a reference to Sparq Systems Inc. itself, or to Sparq Systems Inc. and its consolidated subsidiaries, as the context requires.

Unless otherwise indicated, all dollar amounts in this AIF are expressed in Canadian dollars.

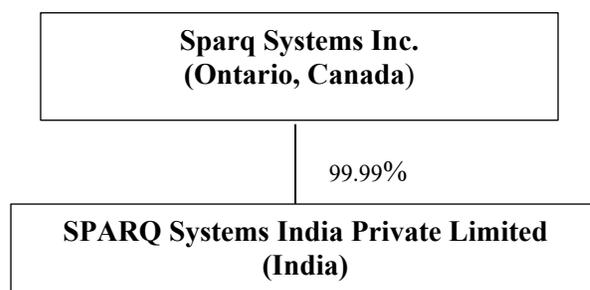
CORPORATE STRUCTURE

The Company was incorporated under the *Business Corporations Act* (Ontario) (the “**OBCA**”) on November 13, 2018. On December 31, 2021, the Company completed its qualifying transaction (the “**Qualifying Transaction**”) pursuant to the rules of the TSX Venture Exchange (the “**TSXV**”), resulting in a reverse takeover of the Company by SPARQ Systems Inc. (“**Sparq Opco**”). The Qualifying Transaction was completed by way of a three-cornered amalgamation (the “**Amalgamation**”) pursuant to which, among other things, (i) Sparq Opco amalgamated with a wholly-owned subsidiary of the Company, incorporated for the purposes of the Amalgamation, pursuant to the provisions of the OBCA, and (ii) all of the outstanding common shares in the capital of Sparq Opco 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 Opco pursuant to the OBCA (the “**Vertical Amalgamation**”). Upon completion of the Vertical Amalgamation, the Company changed its name from “SPARQ Corp.” to “Sparq Systems Inc.”

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 TSXV under the symbol “SPRQ”. The common shares are also quoted for trading on the OTCQB under the symbol “SPRQF” and on the Frankfurt Stock Exchange under the symbol “M26”.

The following chart sets out the Company’s only subsidiary as at the date hereof, the jurisdiction of incorporation of each of the Company and its subsidiary, and the Company’s direct and indirect voting interest in the subsidiary.



Note:

- (1) The remaining 0.01% of the shares of SPARQ Systems India Private Limited are held by an employee of the Company as nominee of Sparq.

GENERAL DEVELOPMENT OF THE BUSINESS

Year Ended December 31, 2022

Listing on TSX Venture Exchange

On January 7, 2022, the common shares of the Company commenced trading on the TSXV under the symbol “SPRQ”. Common share purchase warrants issued pursuant to the Qualifying Transaction commenced trading under the symbol “SPRQ.WT”.

Appointment of Arul Shanmugasundaram to the Board of Directors

On February 24, 2022, the Company announced the appointment of Dr. Arul Shanmugasundaram to the Board of Directors of the Company (the “**Board**”).

Ti-Lane Manufacturing Agreement

On June 16, 2022, the Company entered into a manufacturing agreement (the “**Ti-Lane 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 Ti-Lane Manufacturing Agreement had an initial term of three years and was mutually terminated by the Company and Ti-Lane on November 30, 2024. Ti-Lane is a shareholder of the Company and is controlled by Baojun (Robbie) Luo, a director of the Company.

Regulatory Certification for Q2000 QUAD Microinverter

On July 22, 2022, the Company obtained regulatory certification for its new Q2000 QUAD microinverter. The Q2000 microinverter is the industry’s first highest power rating microinverter that produces electrical energy from four photovoltaic (“**PV**”) panels of 550W+ each, without any power clipping under all operating conditions. Moreover, the built-in advanced software algorithms allow the Q2000 microinverter to seamlessly operate in grid-tied, standalone or dual-mode PV applications

Quotation on OTCQX® Best Market

On August 4, 2022, the Company’s common shares commenced trading on the OTCQX® Best Market under the symbol “SPRQF”.

Development of Three-phase QUAD Microinverter

On November 14, 2022, the Company announced that it developed a unique three-phase QUAD microinverter for solar water pump applications. The new three-phase QUAD microinverter is multipurpose and compatible with existing technologies, capable of working on-grid, off-grid, and with any type of water pump. Multipurpose inverters help farmers run water pumps and irrigate their farms, while enabling farmers to earn extra revenue by selling electricity to the grid when their pumps are not in use.

Appointment of Hassan Kojori as Vice-President of Program Management

On November 23, 2022, the Company announced the appointment of Dr. Hassan Kojori as Vice President of Program Management.

Appointment of Salil Gupta as Country Manager

On December 1, 2022, the Company announced the appointment of Mr. Salil Gupta as Country Manager in India.

Year Ended December 31, 2023

Killam Prize

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.

Rolaz Distribution Agreement

On March 24, 2023, the Company entered into a sales and distribution agreement (the “**Rolaz Distribution Agreement**”) with Rolaz Green Energy PVT. Ltd (“**Rolaz**”), a company based in India. Under the Rolaz Distribution Agreement, Sparq appointed Rolaz as its non-exclusive importer, vendor and distributor within the territory of India of all models of Sparq’s microinverters and its interface SparqLinq as well as any newly developed products of Sparq. The Rolaz Distribution Agreement provides that, unless terminated earlier pursuant to its terms, the term of the agreement is one year and shall automatically renew for additional six month periods.

Since the date that the Company entered into the Jio Supply Agreement (as defined below), Rolaz is no longer distributing the Company’s products within India although it continues to service prior customers in the country.

Unsecured Loan

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 bore interest at a rate of 12% per annum and the principal and accrued interest on the November 2023 Loan were 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 entitled 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 were exercisable for a period of one year from the date of their issuance. On November 26, 2024, the Company issued 1,000,000 common shares upon the exercise of 1,000,000 Bonus Warrants at an exercise price of \$0.405 per share, resulting in cash proceeds of \$405,000.

Year Ended December 31, 2024

Jio Things Manufacturing and Supply Agreement

On February 7, 2024, the Company entered into a manufacturing and supply agreement (the “**Jio Supply Agreement**”) with Jio Things Limited, a leading technology player in India and a subsidiary of Jio Platforms Limited (“**Jio**”), India’s largest digital services player, and an indirect subsidiary of Reliance Industries Limited, India’s largest private sector company. Under the Jio Supply Agreement, the parties have agreed to develop, manufacture and distribute microinverters in India, and incorporate the Company’s microinverters into Jio’s solutions globally. The Jio Supply Agreement sets out a framework under which the Company and Jio will collaborate to innovate and develop new products. The Company and Jio are engaging a third-party contract manufacturing base in India to manufacture its microinverters. The Jio 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 Jio Supply Agreement also provides the Company with certain agreed product margins.

Unsecured Loans

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 bore interest at a rate of 12% per annum and the principal and any accrued interest on the 2024 Loans became payable on the later of: (i) May 27, 2024; and (ii) the date on which the Company completes an equity or debt financing. Upon completion of the Offering (as defined herein), the Company settled the 2024 Loans (comprised of \$675,000 in principal and \$35,256 in interest) in full by issuing an aggregate of 1,775,640 common shares at a deemed issuance price of \$0.40 per common share.

Brokered Private Placement

On May 31, 2024, the Company closed the first tranche of a brokered private placement of common shares (the “**Offering**”) by issuing 11,938,746 common shares at a price of \$0.40 per common share for aggregate gross proceeds of \$4,775,498. Pollitt & Co. Inc. (the “**Agent**”) was engaged as the sole agent and bookrunner for the Offering to offer the common shares on a best efforts agency basis. In connection with the closing of the first tranche of the Offering, the Agent received: (i) a cash commission of \$239,212; and (ii) 361,442 compensation warrants (each, a “**Compensation Warrant**”) exercisable at \$0.40 per common share for a period of two years from the closing of the first tranche of the Offering.

On June 7, 2024, the Company closed the second tranche of the Offering by issuing 18,950,975 common shares at a price of \$0.40 per common share for aggregate gross proceeds of \$7,580,390. In connection with the closing of the second tranche of the Offering, the Agent received: (i) a cash commission of \$450,823; (ii) 1,107,059 Compensation Warrants exercisable at \$0.40 per common share for a period of two years from the closing of the second tranche of the Offering; and (iii) a corporate advisory fee of \$250,000 which was satisfied through the issuance of 625,000 common shares. The net proceeds of the Offering are intended to be used for working capital and general corporate purposes.

Significant Purchase Orders

On June 26, 2024, the Company received purchase orders for supplying over 6,000 Q2000 Quad microinverters for the Indian market, and on August 27, 2024, the Company received an additional purchase order for 10,000 Q2000 Quad microinverters.

Appointment of Majid Pahlevani as Chief Technology Officer

On July 2, 2024, the Company appointed Majid Pahlevani as its Chief Technology Officer. Dr. Pahlevani was previously the VP of Technology of the Company.

Appointment of Magomet Malsagov to the Board of Directors

On October 18, 2024, Mr. Magomet Malsagov was appointed to the Board. In connection with his appointment, Mr. Malsagov was granted 200,000 stock options pursuant to the Company's omnibus equity incentive plan. Each stock option is exercisable into one common share at a price of \$0.75 per share for a period of five years from the date of grant.

January 1, 2025 to Present

Development of Integrated PV and Battery Quad microinverter with Energy Storage

On February 13, 2025, the Company announced that it developed a unique integrated PV and battery Quad microinverter with energy storage capability for residential and commercial applications. The Company believes that this product is revolutionary as it is versatile and compatible with existing technologies, capable of working on grid, off-grid, and with any types of battery technology, such as Lithium-Ion and Lead Acid, among others. Incorporating energy storage into the Quad microinverter is instrumental towards creating resilient solar energy harvesting systems, fully eliminating the dependency on the utility grid. The newly developed Quad microinverter was introduced at the 2025 India Energy Week that was held in New Delhi, India. Given the 2025 approval by the Indian government of a scheme to support the rapid rollout of affordable solar energy to 10 million Indian households, the Company is well positioned to address this market opportunity and the continued expansion of affordable solar energy in the Indian marketplace.

Quotation on Frankfurt Stock Exchange

On January 23, 2025, the Company's common shares commenced trading on the Frankfurt Stock Exchange under the symbol "M26".

TSX Venture 50 List

In February 2025, the Company was included in the TSXV 50 list in the Clean Technology and Renewable Energy sector.

Commencement of Commercial Production in India

On May 26, 2025, in connection with the Jio Supply Agreement, the Company announced the commencement of commercial production of its microinverters in India. Working with its contract manufacturer IL JIN Electronics (India) Private Limited ("IL JIN"), a subsidiary of Amber Enterprises India Ltd, the Company has successfully commissioned assembly and test lines at IL JIN's manufacturing plant in Noida, India. The units produced to date have met the relevant quality control requirements.

Significant Acquisitions or Dispositions

The Company did not complete any significant acquisitions or dispositions during the financial year ended December 31, 2024 for which disclosure is required under Part 8 of National Instrument 51-102 – *Continuous Disclosure Obligations*.

DESCRIPTION OF THE BUSINESS

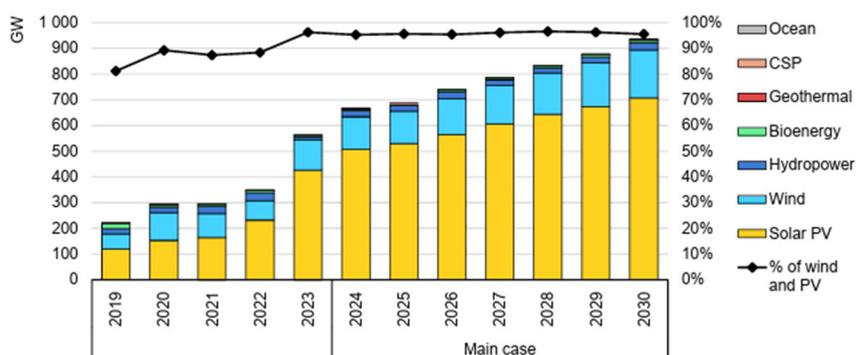
Summary

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 common shares are listed for trading on the TSXV under the symbol “SPRQ”. The common shares are also quoted for trading on the OTCQB under the symbol “SPRQF” and on the Frankfurt Stock Exchange under the symbol “M26”. For further information regarding the development of the Company, see above under “*General Development of the Business*”.

Solar PV Market

Governments throughout the globe have decisively acted to reduce greenhouse gas (“GHG”) emissions for a cleaner environment. PV solar is playing a major role in achieving this objective by generating electricity from sun energy. The following graph produced by the International Energy Agency (the “IEA”) shows the rapid growth of the PV electricity generation in recent years¹. Total PV electricity generation can be broadly classified in residential, commercial and utility market segments. The commercial and industrial solar PV module market size was valued at US\$41.1 billion in 2023 and is anticipated to grow at a 6.6% compounded annual growth rate from 2024 to 2032. Among the three market segments, the residential market has seen a strong growth over the past three years representing an approximate market size of \$94.2 billion in 2024. Also, there is a very strong market for solar water pumps, which is projected to reach \$2.05 billion by 2027.² Sparq is well-positioned to exploit these markets.

Renewable electricity capacity additions by technology, main case, 2019-2030



IEA. CC BY 4.0.

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1. 'Renewables 2024 Analysis and Forecast to 2030', IEA
 2. 'Worldwide Solar Pump Industry to 2027-Opportunity Analysis and Industry Forecast, Research and Market, October 9, 2019

Solar PV Inverters

Traditionally, there are three different types of PV architectures used for solar PV installations using different types of inverters.

1) *String Inverter Based PV Architecture*

PV installations in residential and commercial applications typically employ a single string inverter that performs power conversion from all the PV modules in the installation. A typical PV installation for a North American house is shown in Figure 1. There is a single inverter to convert direct current (“**DC**”) power from all PV panels to standard power grid voltage and frequency. A string-based architecture is simple and less expensive but has many deficiencies such as low energy output in the event of partial shading and/or foliage, potential electric shock due to high DC voltage distribution, and a shorter life of the inverter.

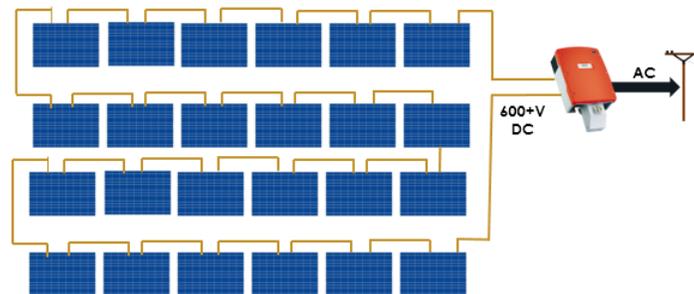


Figure 1 - Traditional String Inverter Based PV Architecture

2) *Power Optimizers String Inverter Based PV Architecture*

In this architecture, a DC/DC converter, called a power optimizer, is placed on each PV panel in addition to the string inverter. The power optimizers extract maximum power from every panel, and the string inverter converts the DC power from all optimizers to standard power grid voltage and frequency (Figure 2). This architecture has overcome the drawbacks of partial shading but is still prone to single point failure, potential electric shock due to high DC voltage distribution, and is more expensive.

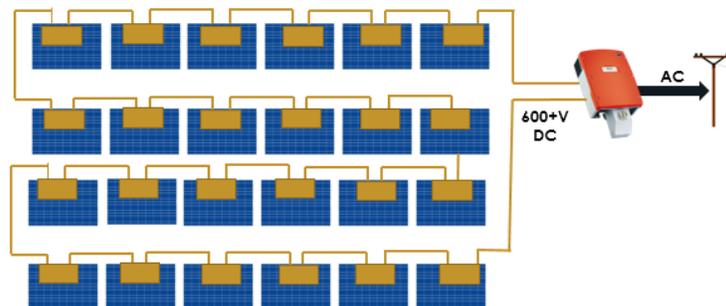


Figure 2 – Power Optimizers and String Inverter Based PV Architecture

3) Microinverters Based PV Architecture

Another architecture is based on distributed microinverters. This architecture has overcome all of the aforementioned drawbacks. At the system level, the concept is to replace the string inverter architecture with the distributed inverter architecture as shown in Figure 3. Each “microinverter” harvests the power for a single PV module, eliminating any single point of failure or degraded power extraction. Each panel produces grid-compliant alternating current (“AC”) power at its output.

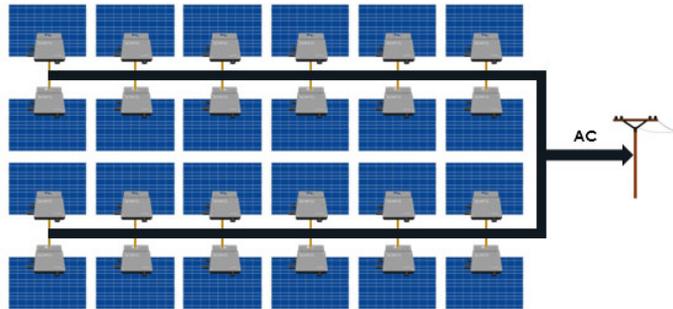


Figure 3 – Microinverters Inverter Based PV Architecture

Quad Microinverters Based PV Architecture

Sparq diverges from the three inverter types noted above through its proprietary PV solution called the Quad. The Quad inverter optimizes four PV modules with a single microinverter, simplifying the design and installation while reducing the number of required microinverters and eliminating all of the optimizers. The Quad provides increased system performance at a lower cost when compared to current market offerings. Sparq’s approach is based upon a unique resonant topology that has its roots in space technology and incorporates only long-lasting hardware components. Sparq’s technology is also driven by advanced software-based algorithms. Sparq has reduced manufacturing costs through the implementation of non-linear digital control, which has resulted in a compact, light-weight, low-cost and highly-reliable microinverter design.

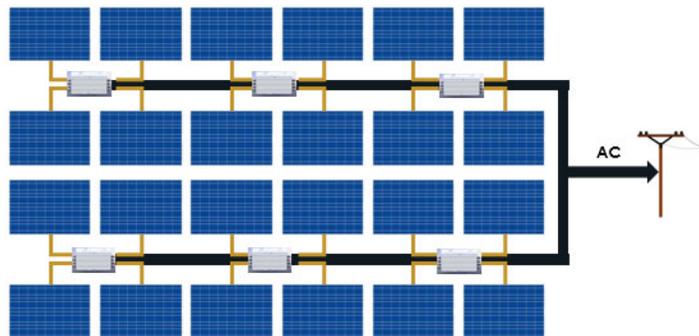


Figure 4 – Quad Microinverters Inverter Based PV Architecture

Power optimized string inverters and microinverters are both referred to as module level power electronic (“MLPE”) technologies. MLPE technologies distribute intelligence at each solar panel and have been legitimized by peer competitors like Enphase Energy, Inc. (NASDAQ: ENPH), and Solar Edge Technologies, Inc. (NASDAQ: SEDG). The Quad brings down the cost of an MLPE solution closer to the cost of a conventional string inverter system. The Quad offers higher performance at a significantly lower cost than the existing MLPE solutions currently available in the market.

Quad Microinverter

Sparq’s Quad microinverters are compact units installed on PV racks, and utilize proprietary and patented technology to convert DC electricity to AC electricity to supply energy to the electrical grid. Compared to solar PV module installations that use string inverters, the Quad delivers 5-10% greater energy harvest over the system lifetime. Independent control of each PV module also ensures that there is no reduction in system output if a module’s output is reduced by damage, shading or build-up of debris on its surface—a common occurrence with string inverters. The Quad configuration optimizes four PV modules with a single microinverter, simplifying design and installation while reducing the number of microinverters required. Additionally, emerging safety requirements, along with concerns of extreme levels of high-voltage DC, are also addressed by connecting the PV panels in parallel rather than in a string. Advanced features support integrated reactive power generation and control without an increase in product cost. The Quad is a unique product in the market that can be used in any power grid, conventional or smart, independent of jurisdiction around the globe.

Sparq’s novel approach has significantly reduced the power circuit complexity by using advanced mathematics, which is digitally implemented. Removing physical constraints with the help of mathematics has resulted in a lightweight, compact, cost-effective, and features-rich microinverter design providing high reliability typically exceeding the life of a PV panel. The technology has its roots in space and telecommunications applications where power converters have been in continuous operation for over 25 years under harsh environmental conditions. Highly Accelerated Life Tests (HALT) performed by an independent laboratory have shown that the Sparq microinverter reliably operates well beyond its normal operating range. The reliability tests have been performed under elevated range of mechanical vibrations and operating temperatures (50 g vibrations, and -90°C to +110°C operating temperatures), indicating a very robust product.

Sparq’s Dual Mode Quad Microinverter

Sparq introduced the Quad 2 microinverter (Q2000-4102-GT) for single-mode (grid-tied) applications in 2018. The dual mode version of this product (Q2000-4102-DM) has also been introduced, which can reliably operate in the grid-connected mode as well as the stand-alone mode. Figure 5 shows the block diagram of the dual-mode Quad microinverter, which can reliably provide power for local loads during power outages and grid failure. This is a distinct feature of Sparq’s microinverter where it can provide power to its maximum capacity during the stand-alone mode (other microinverter products limit the power to a fraction of their maximum capacity during the stand-alone mode). Sparq’s dual-mode Quad microinverters are also suited for the off-grid market.

¹ ‘HALT on a Solar-Microinverter’, Technical Report, File no. 670-54992, CRIQ Innovation Partner, Montreal, February 9, 2018’.

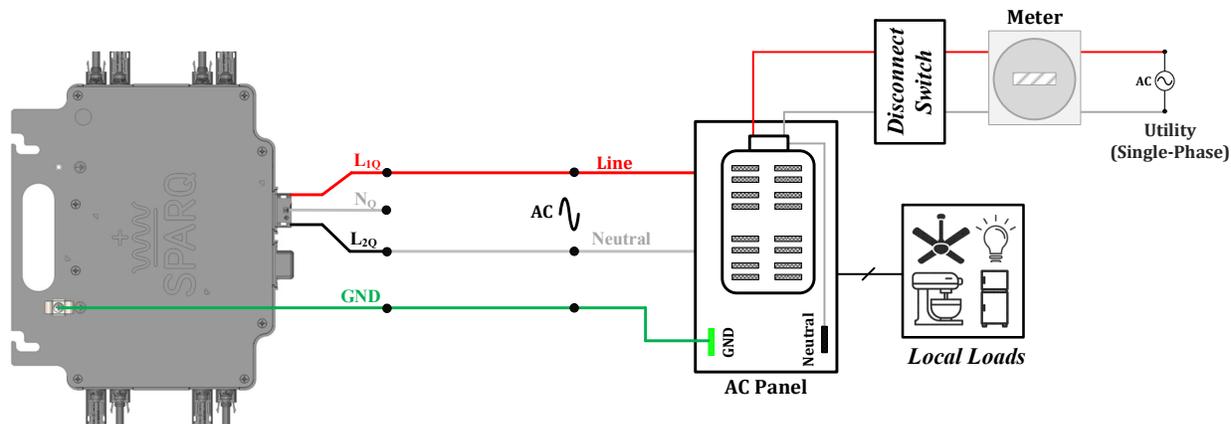


Figure 5 – Dual-Mode Quad Microinverters Inverter Architecture

Sparq’s Quad microinverters have previously been successfully deployed in Canada, India and Mexico in 1kW to 700kW PV rooftop applications (including residential, car ports, and airports). Working with the Ontario Ministry of Energy and Hydro Ottawa, in 2019 Sparq built a 196 kW PV rooftop on the community housing at Regina Lane in Ottawa, and successfully demonstrated the smart-grid features for 45% improved voltage stability and 11% improved grid efficiency. In India, Sparq’s Quad microinverter has been installed in hundreds of sites, demonstrating unmatched performance in terms of energy harvesting and conversion efficiency.

Sparq’s Native Three-Phase Quad Microinverter

Sparq introduced a native three-phase PV microinverter product (Q2000-4301) in 2024. Native three-phase microinverters are well-suited for commercial and industrial applications. Commercial and industrial is set to grow at a compounded annual growth rate of over 9.2% until 2034². They offer many advantages over using the single-phase microinverters in forming a three-phase grid, such as:

- removal of load balancing problems caused by single-phase inverters connected to three-phase AC lines;
- removal of the neutral wire at supply side (cheaper and more feasible implementation);
- more efficient due to reduction of the AC side losses; and
- ease of planning and installation when it comes to third party installers.

In particular, the solar water pump applications and solar EV charging stations are the targeted markets and would greatly benefit from native three-phase microinverters. Sparq’s Q2000-4301 microinverters can cater these markets. Figure 6 shows the systems architecture using the Q2000-4301 microinverters for solar water pump applications.

² On Grid Three Phase PV Inverter Market Size By Product (String, Micro, Central), Application (Residential, Commercial & Industrial, Utility), 2025 – 2034; Report ID: GMI12586, December 2024

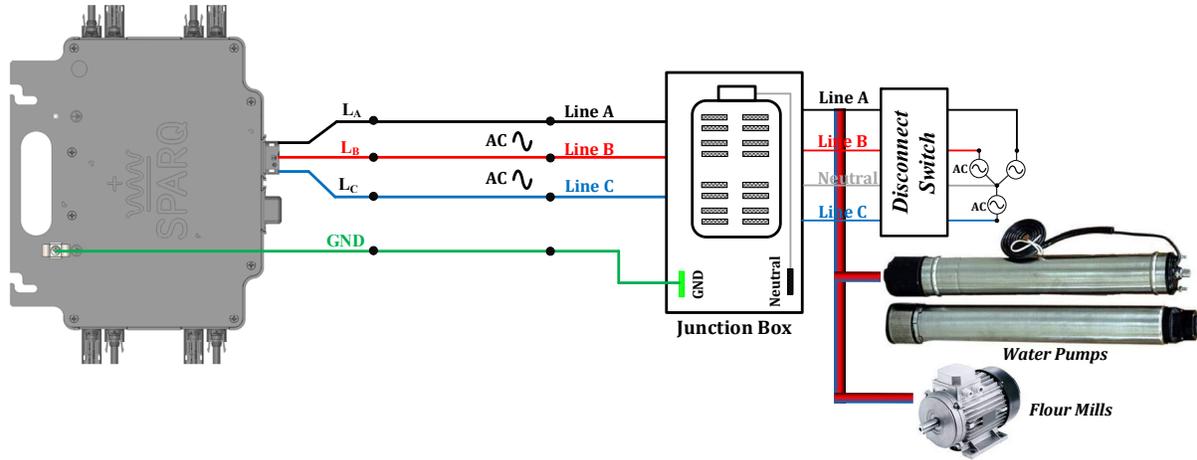


Figure 6 – Three-phase Microinverters in water pump applications

Figure 7 shows the use of three-phase microinverters in commercial and industrial applications where the inverter can operate in grid/off-grid/standalone modes.

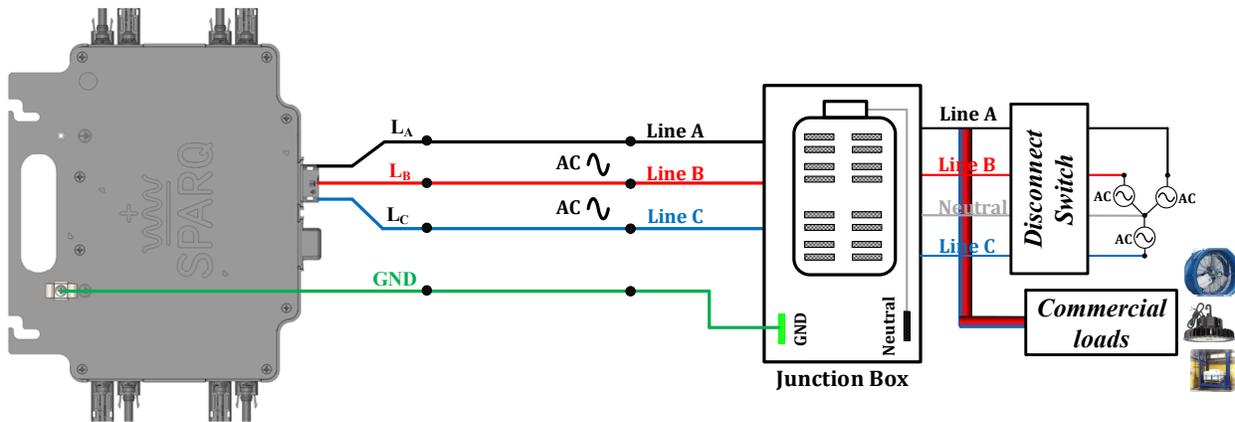


Figure 7 – Sparq's Quad 3 Microinverter for grid-tied/commercial loads

Sparq's Quad Microinverter with Integrated Energy Storage

Sparq introduced a microinverter with integrated energy storage (EQ2000-4101) in 2025.

In energy storage applications, the traditional microinverters are AC-coupled resulting in extra cost due to a need of separate battery charge/discharge inverter. This also results in suboptimal performance of the overall system in terms of power flow control and conversion efficiencies. Sparq's EQ2000-4101 microinverter couples the battery at the DC side and eliminates the need for the costly battery inverter overcoming the drawbacks of AC coupled architecture.

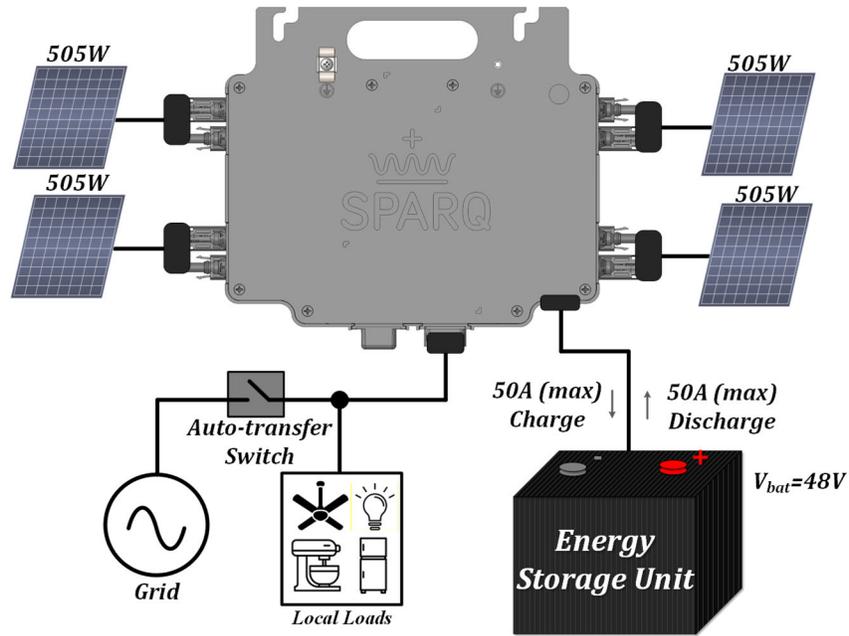


Figure 8 – Sparq’s microinverter in PV energy storage application.

Sales and Distribution Method

The PV supply chain is complex. Manufacturers of PV panels, inverters, cables and junction boxes supply their products to end users through distributors of PV components who manage supplies to thousands of small installers. Many large engineering, procurement and commissioning companies buy the products directly from the manufacturers.

Sparq’s current market focus is India where the Company has entered into the Jio Supply Agreement, pursuant to which Jio will market and distribute Sparq’s microinverters through its distribution network. This provides Sparq a tremendous opportunity to distribute its product in India.

In Canada, Sparq is working with Global Purchasing Services, Inc. to distribute products in North America pursuant to the terms of a sales agency agreement dated April 26, 2023.

See “*General Development of the Business*” for further details.

New Products Under Development

Sparq has in-house research and development activity in Kingston and Ottawa, Ontario, Canada. It employs more than 15 people with advanced degrees in power electronics who conducts the research and product designs. The company has a state-of-the-art research facility to conduct the required product development.

Production and Services

Sparq primarily conducts research, planning, and product development in-house at its Kingston and Ottawa locations. Sparq’s products are produced by a third-party manufacturer.

See “*General Development of the Business*” for further details.

Special Skill and Knowledge

The research, development, and production of Sparq's products requires a high degree of specialized skill and knowledge. Sparq is uniquely situated to attract and retain individuals with the necessary educational requirements through its relationship with Queen's University, which has a highly regarded electrical engineering program. The founder of Sparq, Praveen Jain, is a professor and Canada Research Chair in Power Electronics at Queen's University in Kingston, Canada and has considerable industrial experience in the power electronics field.

Currently, Sparq has a team of highly qualified individuals with combined experience spanning approximately 150 years. Technical staff includes six individuals with PhDs and four with masters of applied science degrees who, combined, have over 600 technical publications and more than 100 patents. Praveen Jain, has the highest national and international awards in the field of power electronics and is a Fellow of the Royal Society of Canada.

Competition

Inverters are integral to any PV energy system as they convert DC power to AC power and feed it to the grid. Due to increasing shading or other obstructions on or around rooftop solar installations, traditional string inverters are often inefficient in gathering power from the sun.

Sparq's Quad microinverter is unique and its closest competitors are existing MPLE companies. MPLEs assist solar power producers in deriving maximum efficiency from their installations by capturing the maximum amount of power possible at the individual module level in order to get maximum power from each panel. There are two common approaches to capture maximum energy in a PV system. In one power optimized string inverter approach marketed by SolarEdge Technologies, Inc. (NASDAQ: SEDG), an optimizer is used on every panel to provide independent maximum peak power tracking ("MPPT"), and a string inverter is used that collects DC power from all the optimizers and feeds AC power to the grid. In another approach marketed by Enphase Energy, Inc. (NASDAQ: ENPH), a microinverter is used on every panel that provides independent MPPT and feeds AC power to the grid. Due to the need for a large number of electronic devices in the design of a PV system, both of the aforementioned approaches are costlier than conventional string inverters, although they produce more energy.

With increasing pricing pressure and growing labour costs associated with installation of optimizers and Microinverters, Sparq has introduced a new architecture in the Quad microinverter. The Quad microinverter optimizes four PV modules with a single microinverter, simplifying design and installation while reducing the number of required microinverters and eliminating all the optimizers. Moreover, Sparq's Quad microinverters have employed sophisticated mathematical algorithms to remove physical constraints resulting in a lightweight, compact, cost-effective, and features-rich PV inverter that can provide increased reliability typically exceeding the life of a PV panel. Quad microinverters bring down the overall price of installations significantly leading to higher energy output for every investment made. In addition, unlike its competitors, Sparq's Quad microinverters are multipurpose and compatible with existing technologies, capable of working on-grid, off-grid, and with and without battery inverters.

Components

Sparq's microinverters mainly consist of electronic components, magnetic components, the enclosure and connectors. All the electronic components and connectors are standard parts which are typically readily available in the international market. Magnetic components and enclosures are custom built based on Sparq's proprietary designs.

The cost of a bill-of-material for Sparq is volume dependent. By increasing volume, a price reduction of 10-20% can be achieved. As the volume increases, the fixed cost of manufacturing can be spread out bringing down the per unit cost of the finished product.

Sparq has entered into the Jio Supply Agreement to manufacture the products for the India market and potentially abroad.

Intellectual Property

Regulatory Framework for Patents

A patent is a form of intellectual property that gives its owner the legal right to exclude others from making, using, or selling an invention for a limited period of years in exchange for publishing an enabling public disclosure of the invention. The typical patent term is 20 years from the filing date.

Once an invention has been reduced to practice (i.e. an enabling disclosure can be placed in the public domain), a patent application is filed with the patent office of the country where protection is sought. This is then searched by a patent examiner for documents pertaining to novelty and inventive step. The application is also assessed for industrial applicability and other formal requirements.

The examiner then issues a search report, and the applicant has an opportunity to respond to the comments and/or make permitted amendments to the application. Examination proceeds until a patent is granted, refused or the application is abandoned. Often, the application is narrowed in scope during examination (also known as ‘prosecution’), and one or more divisional applications can be filed, where separate inventions are sectioned off into separate applications directed to subsets of subject matter contained in the parent application.

When a patent is granted, a certificate is issued. Payment of annual renewal fees are required to keep the rights alive for the duration of the term of the patent. A patent must be actively enforced and is always open to challenge by a third party, either through opposition proceedings before a patent office, or through revocation proceedings before a court of law.

A patent is a territorial right, and sits alongside other intellectual property rights in many jurisdictions, such as data exclusivity, supplementary protection certificates, trade secrets and knowhow. The intellectual property strategy that Sparq has adopted is to pursue patent protection in key markets including in the U.S., Canada, India, Mexico and Australia.

Patents

Sparq’s business is technology and engineering driven and depends to a significant degree on protection of proprietary assets through patent registration. Sparq has a rich portfolio of intellectual property on inverter architecture, converter topologies, and control mechanisms. Sparq has 67 granted and eight pending patents that have been used historically and that will continue to be used in designing novel products for solar PV rooftops, solar water pumps for farming, energy storage, and electric vehicles (both for charging stations and on-board chargers). Sparq will continue to strategically protect its innovations and inventions with a robust intellectual property protection strategy including patent registrations.

Sparq has a strong portfolio of patents covering system architectures, inverter topologies, inverter control techniques, and integrated packaging. A generic hardware platform and software-based control algorithms makes Sparq’s technology highly flexible in designing innovative products for PV inverters, battery storage

inverters, and power electronics converters for electric vehicle applications. A list of the patents is given in Table 1.

Table 1: List of patents

	Title	Patent Number	Date of Issue	Country
Granted				
1.	Multi-Level Current-Driven DC/DC Converter	17/896,715	May 2024	USA
2.	High Voltage DC/DC Converter with Current Shaping	17/887,941	May 2024	USA
3.	Multiple Input PV Inverter Apparatus with Energy Storage Capability	11,863,011	January 2024	USA
4.	Current Sensorless MMPT for PV Micro-Inverters	2,902,428	January 2024	Canada
5.	Multi-Input PV Inverter System and Method	496168	January 2024	India
6.	A PV Inverter Apparatus with Energy Storage Capability	11,777,336	October 2023	USA
7.	Hybrid Solar/Motor Drive Inverter	11,621,666	April 2023	USA
8.	Distributed Power Generator Interface	423120	February 2023	India
9.	Power Converter for a Power Generator	380339	October 2021	India
10.	Multi-Input PV Inverter System and Method	10,951,039	March 2021	USA
11.	DC-Bus Controller for an Inverter	2,865,612	January 2021	Canada
12.	DC-AC Inverter with Soft Switching	2,809,592	May 2020	Canada
13.	Maximum Power Point Tracking for a Power Generator	328,728	December 2019	India
14.	Hybrid PLL for Grid Synchronization in Distributed Generation	10,386,396	August 2019	USA
15.	Distributed Power Generation Interface	2,774,401	January 2019	Canada
16.	Maximum Power Point Tracking for a Power Generator	328,728	December 2019	India
17.	Single Phase Power System Controller and Method Therefore	2,814,527	October 2018	Canada
18.	Dynamic Maximum Efficiency Tracker for PV Micro-Inverter	10,063,057	August 2018	USA
19.	PV Inverter with Micro/Nano-Grid integration Capability	10,050,445	August 2018	USA

20.	Digital Controller for a Power Converter	2,789,748	July 2018	Canada
21.	DC-Bus Controller for an Inverter	9,948,108	April 2018	USA
22.	High Efficiency Inverter for Distributed Generation	9,935,562	April 2018	USA
23.	DC-Eliminating Current Controller for Grid-Connected DC/AC Converters	9,887,640	February 2018	USA
24.	High Efficiency DC/DC Converter and Controller	9,882,389	January 2018	USA
25.	Multiple Input Three-Phase Inverter with Independent MPPT and High Efficiency	9,859,714	January 2018	USA
26.	Maximum Power Point Tracking for a Power Generator	10 2870310	February 2017	China
27.	Multi-Input PV Inverter with Independent MPPT and Minimum Energy Storage	9,804,627	October 2017	USA
28.	Observer-Based Control System for Grid-Connected DC/AC converters with LCL-Filter	9,729,085	August 2017	USA
29.	Single Phase Power System Controller and Method Therefor	9,705,331	July 2017	USA
30.	Digital Controller for a Power Converter	9,698,665	July 2017	USA
31.	Adaptive Control Method for Grid-Connected Inverters used with Distributed Power Generation	9,692,320	June 2017	USA
32.	Distributed Power Generation Interface	10 2598455	June 2017	China
33.	Photovoltaic Cell Inverter	2,655,007	June 2017	Canada
34.	Distributed Power Generation Interface	9,680,364	June 2017	USA
35.	DC-AC Inverter with Soft Switching	9,641,099	May 2017	USA
36.	ZVS Voltage Source Inverter with Reduced Output Current Ripple	9,590,531	March 2017	USA
37.	ZVS Voltage Source Inverter	9,571,005	February 2017	USA
38.	Method and Apparatus for Use with Grid Connected Inverters in Distributed Power Generation	9,570,970	February 2017	USA
39.	Inverter for a Distributed Power Generator	9,553,500	January 2017	USA
40.	System and Method for Active/Reactive Power Compensation	9,543,859	January 2017	USA
41.	Maximum Power Point Tracking for a Power Generator	6,067,551	January 2017	Japan

42.	DC-Bus Controller for Grid-Connected DC/AC Converters	9,537,424	January 2017	USA
43.	Maximum Power Point Tracking for a Power Generator	2011 245033	May 2016	Australia
44.	Power Converter for a Power Generator	2011 245032	June 2016	Australia
45.	High Efficiency DC/DC Converter and Controller	9,461,553	October 2016	USA
46.	Current Sensorless MMPT for PV Micro-Inverters,	9,461,551	October 2016	USA
47.	Power Converter for a Power Generator	6006717	September 2016	Japan
48.	Integrated Microinverter Housing for a PV AC Module	9,343,600	May 2016	USA
49.	Adaptive Nonlinear Current Observer for Boost AC/DC Converters	9,325,235	April 2016	USA
50.	Input Power Controller for AC/DC Battery Charging	9,257,864	February 2016	USA
51.	Distributed Power Generation Interface	5810470	October 2015	Japan
52.	Maximum Power Point Tracking for a Power Generator	2,796,987	December 2015	Canada
53.	Power Converter for a Power Generator	2,796,985	December 2015	Canada
54.	A Controller and a Method of Controlling a Resonant Power Converter	2,789,381	October 2015	Canada
55.	Digital EMI Filter	9,172,299	October 2015	USA
56.	Zero Voltage Switching Interleaved Boost AC/DC Converter	8,723,487	May 2014	USA
57.	Distributed Power Generation Interface	8,688,287	April 2014	USA
58.	Distributed Power Generation Interface	319,373	April 2014	Mexico
59.	Inverter for a Distributed Power Generator	8,670,249	March 2014	USA
60.	Load Adaptive Variable Frequency Phase-Shift Full-Bridge DC/DC Converter	8,644,035	February 2014	USA
61.	Power Converter for a Power Generator	317,804	February 2014	Mexico
62.	Controller for a Resonant Power Converter	8,638,571	January 2014	USA
63.	Maximum Power Point Tracking for a Power Generator	8,612,058	December 2013	USA

64.	Maximum Power Point Tracking for a Power Generator	313,192	September 2013	Mexico
65.	Power Converter for a Power Generator	8,467,200	June 2013	USA
66.	Inverters with Integrated Energy Storage Subsystems	18/065,783	May 2024	USA
67.	Integrating Energy Storage Units in converters for use in PV-Based inverters	17/993,940	December 2024	USA
Pending				
68.	DC/DC Converter Using a Differential Geometric Controller	17/887,980	Pending	USA
69.	High Voltage DC/DC Converter with Current Shaping	202314053382	Pending	India
70.	DC/DC Converter Using a Differential Geometric Controller	202314053379	Pending	India
71.	Multi-Level Current-Driven DC/DC Converter	3,210,175	Pending	Canada
72.	Multi-Level Current-Driven DC/DC Converter	202314053380	Pending	India
73.	Integrating Energy Storage Units in converters for use in PV-Based inverters	202314079662	Pending	India
74.	Inverters with Integrated Energy Storage Subsystems	202314085362	Pending	India
75.	Hybrid Solar/Motor Drive Inverter	Application No. 202011057376	Pending	India

Trademarks

Sparq currently has no registered trademarks.

Cycles

Sparq’s addressable segment market of residential PV rooftop is not cyclical.

Economic Dependence

Sparq is economically dependent on the Jio Supply Agreement. See “*General Development of the Business – Jio Things Manufacturing and Supply Agreement*” for further details.

Environmental Protection

Changes in environmental protection requirements nationally and globally can impact the financial prospects for Sparq. Sparq’s products enable the generation of electricity from renewable energy sources and can also be used in electric vehicles for a cleaner environment. The current worldwide annual deployment of PV electricity generating systems is 500 GW.³ Out of a total PV deployment throughout the

³ See footnote 1.

globe, the rooftop segment is about 118 GW⁴ – a market that is directly addressable by Sparq’s products. This has the potential to reduce up to 150 million metric tons of greenhouse gas per year. Moreover, the exponential growth of electric vehicles worldwide, where Sparq’s product has a potential role to play, will further help in the reduction of greenhouse gas emissions for a cleaner environment.

Policy changes in the jurisdictions in which Sparq operates that are in favour of renewable energy would generally have a positive impact on Sparq’s business. However, the cancellation or reduction in rebates from these policies could have a negative impact. However, the continued reduction in prices for PV panels has allowed PV electricity generation to reach parity with the grid price and is continuously dropping.

Employees

Sparq currently has 21 full and part-time employees.

Social or Environmental Policies

To date, Sparq has not implemented social or environmental policies. However, Sparq is aware it may need to adopt additional social, environmental and human rights policies in the future.

Foreign Operations

The Company is substantially dependent on its foreign operations given the majority of its products are currently produced and distributed in India.

DIVIDEND RECORD AND POLICY

The Company has never declared nor paid dividends on the common shares. Currently, Sparq intends to retain its future earnings, if any, to fund the development and growth of its business, and the Company does not anticipate declaring or paying any dividends on the common shares in the near future, although it reserves the right to pay dividends if and when it is determined to be advisable by the Board. As a result, shareholders will have to rely on capital appreciation, if any, to earn a return on investment in the common shares in the foreseeable future.

DESCRIPTION OF CAPITAL STRUCTURE

Share Capital

The Company is authorized to issue an unlimited number of common shares of which 116,935,108 common shares are issued and outstanding as of the date hereof. The holders of common shares are entitled to dividends as and when declared by the Board, to receive notice of and one vote per common share at meetings of the shareholders of the Company and, upon liquidation, to share equally in such assets of the Company as are distributable to the holders of common shares. There are no pre-emptive, redemption, retraction, purchase or conversion rights attaching to the common shares.

⁴ <https://www.solarpowereurope.org/press-releases/new-report-solar-for-the-masses-as-global-solar-rooftops-skyrocket-by-50-2>

MARKET FOR SECURITIES

Trading Price and Volume

The common shares are listed for trading on the TSXV under the symbol “SPRQ”. The common shares are also quoted for trading on the OTCQB under the symbol “SPRQF” and on the Frankfurt Stock Exchange under the symbol “M26”. The following table sets forth, for the periods indicated, the reported high and low prices and the trading volume of the common shares on the TSXV:

Calendar Period	High	Low	Trading Volume
January 2024	\$0.145	\$0.105	6,000
February 2024	\$0.50	\$0.105	1,150,307
March 2024	\$0.49	\$0.40	211,463
April 2024	\$0.46	\$0.35	121,396
May 2024	\$0.41	\$0.40	82,562
June 2024	\$0.465	\$0.40	210,300
July 2024	\$0.89	\$0.41	613,336
August 2024	\$0.74	\$0.57	246,298
September 2024	\$0.76	\$0.63	101,000
October 2024	\$0.70	\$0.60	272,707
November 2024	\$0.75	\$0.64	2,869,330
December 2024	\$1.41	\$0.70	15,798,594

Prior Sales

The following table sets forth the securities of the Company that were issued during the most recently completed financial year but not listed or quoted on a market place:

Issue/Grant Date	Type of Security	Number of Securities	Exercise Price	Expiry Date
May 31, 2024	Compensation Warrants ⁽¹⁾	361,442	\$0.40	May 31, 2026
June 7, 2024	Compensation Warrants ⁽¹⁾	1,107,059	\$0.40	June 7, 2026
June 28, 2024	Stock Options ⁽²⁾	4,624,702	\$0.41	June 28, 2029
October 18, 2024	Stock options ⁽³⁾	200,000	\$0.75	October 18, 2029

Notes:

- (1) Issued to the Agent in connection with the Offering. See “*General Development of the Business – Year Ended December 31, 2024 – Brokered Private Placement*”.
- (2) Granted to directors, officers and employees of the Company. The stock options vested immediately on the date of grant.
- (3) Granted to a director in connection with his appointment to the Board.

ESCROWED SECURITIES AND SECURITIES SUBJECT TO RESTRICTION ON TRANSFER

As of December 31, 2024, the following securities of the Company were held in escrow or were subject to contractual restriction on transfer:

Designation of Class	Number of securities held in escrow or that are subject to a contractual restriction on transfer	Percentage of class
Common shares	6,609,094 ⁽¹⁾	5.7%

Note:

- (1) In connection with the Company’s Qualifying Transaction, the above-noted common shares were subject to escrow pursuant to an escrow agreement dated December 31, 2021 between the Company, TSX Trust Company in its capacity as escrow agent, and certain shareholders of the Company. All common shares were released from escrow on January 5, 2025. See “*Corporate Structure*”.

DIRECTORS AND EXECUTIVE OFFICERS

The table presented below provides the names of Sparq’s current directors and executive officers, the offices held by them and the date of their first appointment, as of the date hereof:

Name and Place of Residence	Position(s) Held	Principal Occupation During Previous Five Years	Director Since ⁽¹⁾
Praveen Jain Kingston, Ontario	Director and Chief Executive Officer	Dr. Jain is the Founder and the CEO of SPARQ. He is also a Professor and Canada Research Chair in Power Electronics at Queen’s University in Kingston, Canada. He has considerable industrial experience in power electronics, working and consulting at Canadian Astronautics, Nortel Network, Astec, Intel, Freescale and GE. He founded CHiL Semiconductor, a digital power control chips company, which was acquired by International Rectifier (later merged with Infineon). Dr. Jain is a Fellow of the Royal Society of Canada, the Institute of Electrical and Electronic Engineers (IEEE), the Engineering Institute of Canada and the Canadian Academy of Engineering. He is the recipient of the 2023 Killam Prize in Engineering, the 2021 IEEE Medal in Power Engineering, the 2017 IEEE Canada Electric Power Medal, the 2011 IEEE William E. Newell Power Electronics Award, and 2004 Engineering Medal from the Ontario Professional Engineers. He	December 31, 2021

Name and Place of Residence	Position(s) Held	Principal Occupation During Previous Five Years	Director Since ⁽¹⁾
		holds over 100 patents. Dr. Jain obtained his PhD degree from the University of Toronto.	
Kyle Appleby Toronto, Ontario	Chief Financial Officer	Mr. Appleby has been providing Chief Financial Officer services to public and private companies since 2007. He focuses on assisting companies with financial reporting and internal controls, governance, operations, regulatory compliance and taxation. He is a member in good standing of the Chartered Professional Accountants of Canada and the Chartered Professional Accountants of Ontario.	N/A
Ravi Sood ⁽²⁾⁽³⁾⁽⁴⁾ Toronto, Ontario	Chairman	Mr. Sood is managing director of Signal 8 Limited based in Toronto, Canada. Mr. Sood has been a founder of and the principal investor in several businesses in emerging markets and currently serves as Chief Executive Officer of Golconda Gold Ltd. (TSXV) and Executive Chairman of Abraxas Power Corp.. He was the founder and Chief Executive Officer of Navina Asset Management Inc., a global asset management firm headquartered in Toronto, Canada. Mr. Sood led the investment activities of Navina and its predecessor company, Lawrence Asset Management Inc., from its founding in 2001 until he sold the firm in 2010. Mr. Sood was educated at the University of Waterloo (B. Mathematics) where he was a Descartes Fellow and the recipient of numerous national awards.	December 31, 2021
Nishith Goel ⁽²⁾⁽³⁾⁽⁴⁾ Kingston, Ontario	Director	Dr. Goel is the CEO of Cistel Technology, an Information Technology company he founded in 1995 which has operations in Canada and the USA. A veteran technology executive and entrepreneur, he is also co-founder of CHiL Semiconductor and Sparq Systems. Dr. Goel has served on the Board of Directors of Enablence Technologies Inc. (TSXV). He has also served on the Board of Directors of the Community Foundation of Ottawa, the Queensway Carleton Hospital Foundation, the Indo-Canada Ottawa Business Chamber, and as well as the Chair of the Queensway-Carleton Hospital Foundation. Dr. Goel obtained his PhD degree from the University of Waterloo.	December 31, 2021

Name and Place of Residence	Position(s) Held	Principal Occupation During Previous Five Years	Director Since ⁽¹⁾
Arul Shanmugasundaram Karnataka, India	Director	Dr. Arul Shanmugasundaram is currently the Executive Director of Ayana Renewable Power Private Limited, India, where he is responsible for business development, technology and asset management functions. Previously, he was the Chief Operating Officer of Tata Power Solar Systems and lead the EPC for utility scale, rooftops and pumps projects. In the nearly one decade at Tata group, he was part of the leadership team that transformed Tata Power Solar from revenues of US\$100 million to US\$450 million. Dr. Shanmugasundaram started his career at Applied Materials in Silicon Valley for 15 years where he was involved in the development and launch of several new products and process controls. Dr. Shanmugasundaram has a Bachelor degree from Indian Institute of Technology Madras, and Master and Doctorate degrees from Cornell University. He has more than 40 US patents and several international publications.	February 24, 2022
Baojun (Robbie) Luo (2)(3)(4) Shenzhen, China	Director	Robbie Luo is the President of Ti-Lane Precision Electronic Company Limited and Ti-Lane Group, Shenzhen, China. Ti-Lane is the global leader in providing connector and cable assembly products for communications, computer, medical, automotive and clean energy applications. He is a firm believer of renewable energy deployment and is a Deputy Director General of Shenzhen Solar Energy Society. He earned his MBA from Ursuline College at Tsinghua University, China.	December 31, 2021
Magomet Malsagov Schwyz, Switzerland	Director	Mr. Malsagov is a seasoned entrepreneur and executive with over 20 years of experience in the food and beverage and IT sectors. He founded PureCircle Ltd, a global leader in high-purity stevia ingredients, where his leadership drove exponential growth, generating over \$1 Billion in sales during its first decade and achieving sustainable profitability. PureCircle Ltd was acquired by Ingredion Inc, a Fortune 500 company. He also founded AVATAi Sdn Bhd, an innovative 3D reconstruction AI company. Mr. Malsagov holds numerous patents and has extensive expertise in business	October 18, 2024

Name and Place of Residence	Position(s) Held	Principal Occupation During Previous Five Years	Director Since ⁽¹⁾
		development, strategic planning, and operational excellence. A Harvard Business School alumnus, he is recognized as an honorary citizen of Ganzhou City, China, for his contributions to the local economy. He has been actively involved in various professional organizations and philanthropic initiatives, and is currently residing in Switzerland.	

Notes:

- (1) All of the Company’s directors serve until the next annual meeting of shareholders or until such director’s successor is duly elected or appointed.
- (2) Member of the Audit Committee.
- (3) Member of the Corporate Governance and Nominating Committee and Compensation Committee.
- (4) Member of the Compensation Committee.

Shareholdings

As of the date hereof, Sparq’s directors and executive officers as a group beneficially owned, or controlled or directed, directly or indirectly 27,711,328 common shares, representing approximately 23.7% of the issued and outstanding common shares.

CEASE TRADE ORDERS, BANKRUPTCIES, PENALTIES OR SANCTIONS

Other than as set forth below, no director or executive officer of the Company is, as at the date of this AIF, or has been within the last ten years, a director, chief executive officer or chief financial officer of any company (including the Company) that:

- (a) was subject to a cease trade order, an order similar to a cease trade order, or an order that denied the relevant company access to any exemption under securities legislation, and which in all cases was in effect for a period of more than 30 consecutive days (an “**Order**”), which Order was issued while the director or executive officer was acting in the capacity as director, chief executive officer or chief financial officer of such company; or
- (b) was subject to an Order that was issued after the director or executive officer ceased to be a director, chief executive officer or chief financial officer and which resulted from an event that occurred while that person was acting in the capacity as director, chief executive officer or chief financial officer of such company.

On May 5, 2016, the Ontario Securities Commission issued a cease trade order against Nuinsco Resources Limited (“**Nuinsco**”) for failure to file its audited financial statements (and related management’s discussion and analysis and certifications) for the period ended December 31, 2015. Kyle Appleby was the Chief Financial Officer of Nuinsco at the relevant time. The cease trade order against Nuinsco was revoked on August 4, 2016.

On August 6, 2019, the Ontario Securities Commission issued a cease trade order against Captor Capital Corp. (“**Captor**”) for failure to file its audited financial statements (and related management’s discussion and analysis and certifications) for the period ended March 31, 2019. Kyle Appleby was a director of Captor at the relevant time. The cease trade order against Captor was revoked on November 5, 2019.

On August 19, 2020, the Ontario Securities Commission issued a cease trade order against for Tantalex Resources Corp. (“**Tantalex**”) for failure to file its audited financial statements (and related management’s discussion and analysis and certifications) for the period ended February 29, 2020. Kyle Appleby was the Chief Financial Officer of Tantalex at the relevant time. The cease trade order against Tantalex was revoked on November 13, 2020.

On October 5, 2021, the Ontario Securities Commission issued a cease trade order against Cadillac Ventures Inc. (“**Cadillac**”) for failure to file its audited financial statements (and related management’s discussion and analysis and certifications) for the period ended May 31, 2021. Kyle Appleby was the Chief Financial Officer of Cadillac at the relevant time.

On October 28, 2019, trading in the ordinary shares of PureCircle Limited (LSE: PURE) (“**PureCircle**”) was suspended on the London Stock Exchange for failure to file its audited financial statements for the period ended June 30, 2019. Magomet Malsagov was the Chief Executive Officer and a director of PureCircle at the relevant time. He subsequently resigned from such positions on December 17, 2019. After the audited financial statements for the period ended June 30, 2019 were published, trading in the ordinary shares of PureCircle resumed on April 15, 2020.

Ravi Sood is a director of Golconda Gold Ltd. (formerly, Galane Gold Ltd.) (“**Golconda**”), which was delisted from the Botswana Stock Exchange (the “**BSE**”) effective August 14, 2017 for failure to pay certain fees required by the BSE’s listing requirements. The delisting of Golconda from the BSE followed a temporary suspension of the corporation’s listing on the BSE that was imposed on July 13, 2017.

On April 8, 2024, the Ontario Securities Commission issued a cease trade order against Biomind Labs Inc. (“**Biomind**”) in connection with Biomind’s failure to file its audited financial statements (and related management’s discussion and analysis and certifications) for the period ended December 31, 2023. The cease trade order was revoked on June 3, 2024. On April 4, 2025, the Ontario Securities Commission issued a further cease trade order against Biomind in connection with Biomind’s failure to file its audited financial statements (and related management’s discussion and analysis and certifications) for the period ended December 31, 2024. The cease trade order remains in effect as of the date of this Circular. Mr. Sood is the Chairman of Biomind.

Other than as set forth below, no director or executive officer of the Company or any shareholder holding a sufficient number of common shares to affect materially the control of the Company:

- (a) is, as at the date of this AIF, or has been within the last ten years, a director or executive officer of any company (including the Company) that, while that person was acting in that capacity, or within a year of that person ceasing to act in that capacity, became bankrupt, made a proposal under any legislation relating to bankruptcy or insolvency or was subject to or instituted any proceedings, arrangement or compromise with creditors or had a receiver, receiver manager or trustee appointed to hold its assets;
- (b) has, within the last ten years, become bankrupt, made a proposal under any legislation relating to bankruptcy or insolvency or become subject to or instituted any proceedings, arrangement or compromise with creditors or had a receiver, receiver manager or trustee appointed to hold his assets;
- (c) has been subject to any penalties or sanctions imposed by a court relating to securities legislation or by a securities regulatory authority or has entered into a settlement agreement with a securities regulatory authority; or

- (d) has been subject to any penalties or sanctions imposed by a court or regulatory body that would likely be considered important to a reasonable investor in making an investment decision regarding the Company.

On January 18, 2024, Upsnap, Inc. (“**Upsnap**”) voluntarily filed an “Assignment in Bankruptcy” under the *Bankruptcy and Insolvency Act* (Canada). Upsnap was longer able to meet its financial obligations and appointed B. Riley Farber Inc. to act as its bankruptcy trustee to, among other things, seek settlement with its creditors. Kyle Appleby was Chief Financial Officer of Upsnap at the relevant time and resigned on the date of the filing.

The foregoing information, not being within the knowledge of the Company, has been furnished by the respective directors and executive officers.

CONFLICTS OF INTEREST

To the best of the Company’s knowledge, other than as disclosed herein, there are no known existing or potential material conflicts of interest between the Company and any directors or officers of the Company, except that certain of the directors and officers serve as directors, officers, promoters and members of management of other public companies and therefore it is possible that a conflict may arise between their duties as a director or officer of the Company and their duties as a director, officer, promoter or member of management of such other companies.

The directors and officers of the Company are aware of the existence of laws governing accountability of directors and officers for corporate opportunity and requiring disclosures by directors of conflicts of interest and the Company will rely upon such laws in respect of any directors and officers conflicts of interest or in respect of any breaches of duty by any of its directors or officers. All such conflicts will be disclosed by such directors or officers in accordance with the OBCA and they will govern themselves in respect thereof to the best of their ability in accordance with the obligations imposed upon them by law.

LEGAL PROCEEDINGS AND REGULATORY ACTIONS

Except as disclosed below, to the knowledge of the directors and officers of the Company, there are no legal proceedings material to Sparq to which Sparq or its subsidiaries, are or were a party to, or of which any of their respective property is or was the subject matter of, during the financial year ended December 31, 2024, nor are any such proceedings known to be contemplated.

The Company has received a payment demand from one of its suppliers with respect to a prior purchase order. The total amount of the demand is approximately \$1.38 million although management of the Company is of the belief that the supplier is in default of the purchase order and therefore the Company does not have an obligation to make such payment.

To the knowledge of the directors and officers of Sparq, no penalties or sanctions have been imposed against Sparq or its subsidiaries by a court or by a regulatory authority during the financial year ended December 31, 2024, no penalties or sanctions have been imposed against Sparq by a court or regulatory body that would likely be considered important to a reasonable investor in making an investment decision in respect of Sparq, and no settlement agreements have been entered into by Sparq before a court relating to securities legislation or with a securities regulatory authority during Sparq’s financial year.

INTEREST OF MANAGEMENT AND OTHERS IN MATERIAL TRANSACTIONS

Other than as disclosed herein, none of the directors or executive officers of the Company, or persons or companies that beneficially own, or control or direct, directly or indirectly, more than 10% of the outstanding common shares, or any associate or affiliate of any of the foregoing, has any material interest, direct or indirect, in any transaction since January 1, 2022, or during the current financial year, which has materially affected or is reasonably expected to materially affect the Company.

TRANSFER AGENT AND REGISTRAR

The transfer agent and registrar for the Common Shares is TSX Trust Company at its principal offices in the city of Toronto, Ontario.

MATERIAL CONTRACTS

The following are the contracts that are material to the Company that were entered into either (i) during the year ended December 31, 2024; or (ii) prior to December 31, 2024, that is still in effect, other than contracts entered into in the ordinary course of business:

- (a) the agency agreement dated May 31, 2024 between the Agent and the Company in connection with the Offering; and
- (b) the Jio Supply Agreement between Jio and the Company.

Particulars of certain of the above-listed contracts are disclosed under the heading “*General Development of the Business*” above. Copies of the above-listed contracts are filed on SEDAR+ and may be viewed under the Company’s profile at www.sedarplus.ca.

INTERESTS OF EXPERTS

The auditor of the Company is MNP LLP, who have prepared an independent auditor’s report dated April 25, 2025 in respect of the Company’s consolidated financial statements for the fiscal year ended December 31, 2024. MNP LLP is independent of the Company in accordance with the Rules of Professional Conduct of the Institute of Chartered Professional Accountants of Ontario.

AUDIT COMMITTEE

Audit Committee’s Charter

The charter (the “**Audit Committee Charter**”) of the Company’s Audit Committee is reproduced as Schedule “A”.

Composition of Audit Committee

The Audit Committee is composed of Ravi Sood (Chair), Nishith Goel and Baojun (Robbie) Luo, each of whom is a director of the Company. In accordance with TSXV Policy 3.1, the majority of the Audit Committee are not employees, Control Persons (as defined by the rules and policies of the TSXV) or officers of the Company.

Ravi Sood, Nishith Goel and Baojun (Robbie) Luo are considered “independent” as such term is defined in NI 52-110. The Company is of the opinion that all three members of the Audit Committee are “financially literate” as such term is defined in National Instrument 52-110 – *Audit Committees* (“NI 52-110”).

Relevant Education and Experience

All the members of the Audit Committee have the education and/or practical experience required to understand and evaluate financial statements that present a breadth and level of complexity of accounting issues that are generally comparable to the breadth and complexity of issues that can reasonably be expected to be raised by the Company’s financial statements.

Ravi Sood - Mr. Sood is managing director of Signal 8 Limited based in Toronto, Canada. Mr. Sood has been a founder of and the principal investor in several businesses in emerging markets and currently serves as Chief Executive Officer of Golconda Gold Ltd. (TSXV) and Executive Chairman of Abraxas Power Corp. He was the founder and Chief Executive Officer of Navina Asset Management Inc., a global asset management firm headquartered in Toronto, Canada. Mr. Sood led the investment activities of Navina and its predecessor company, Lawrence Asset Management Inc., from its founding in 2001 until he sold the firm in 2010. Mr. Sood was educated at the University of Waterloo (B. Mathematics) where he was a Descartes Fellow and the recipient of numerous national awards.

Nishith Goel - Dr. Goel is the CEO of Cistel Technology, an Information Technology company he founded in 1995 which has operations in Canada and the USA. A veteran technology executive and entrepreneur, he is also co-founder of CHiL Semiconductor and SPARQ Systems. Dr. Goel has served on the Board of Directors of Enablece Technologies Inc. (TSXV). He has also served on the Board of Directors of the Community Foundation of Ottawa, the Queensway Carleton Hospital Foundation, the Indo-Canada Ottawa Business Chamber, and as well as the Chair of the Queensway-Carleton Hospital Foundation. Dr. Goel obtained his PhD degree from the University of Waterloo.

Baojun (Robbie) Luo - Robbie Luo is the President of Ti-Lane Precision Electronic Company Limited and Ti-Lane Group, both of which are based in Shenzhen, China. Ti-Lane is the global leader in providing connector and cable assembly products for communications, computer, medical, automotive and clean energy applications. Mr. Luo is a firm believer of renewable energy deployment and is a Deputy Director General of Shenzhen Solar Energy Society. He earned his MBA from Ursuline College at Tsinghua University, China.

Audit Committee Oversight

At no time since the commencement of Sparq’s most recently completed financial year have any recommendations by the Audit Committee respecting the nomination and/or compensation of Sparq’s external auditors not been adopted by the Board.

Reliance on Certain Exemptions

At no time since the commencement of the Company’s most recently completed financial year has the Company relied on exemptions in relation to “*De Minimis Non-audit Services*” or any exemption provided by Part 8 of NI 52-110.

Pre-Approval Policies and Procedures

Pursuant to the terms of the Audit Committee Charter, the Audit Committee shall pre-approve all non-audit services to be provided to the Company or its subsidiary entities by the Company’s external auditor.

External Auditor Service Fees (By Category)

Audit Fees – The Company’s external auditor invoiced approximately \$81,500 for the financial year ended December 31, 2024, and \$84,000 for the financial year ended December 31, 2023.

Audit-Related Fees – The Company’s external auditor invoiced approximately \$nil for the financial year ended December 31, 2024, and \$nil for the financial year ended December 31, 2023.

Tax Fees – The Company’s external auditor invoiced \$4,000 for the financial year ended December 31, 2024, and \$nil for the financial year ended December 31, 2023.

All Other Fees – During the financial year ended December 31, 2024, the Company did not pay any other fees for services other than those reported above. During the financial year ended December 31, 2023, the Company paid \$nil in fees for services other than those reported above.

Venture Issuer Exemption

The Company is relying upon the exemption in section 6.1 of NI 52-110.

RISK FACTORS

There are a number of risk factors that could cause future results to differ materially from those described herein. The risks and uncertainties described herein are not the only ones the Company faces. Additional risks and uncertainties, including those that the Company does not know about now or that it currently deems immaterial, may also adversely affect the Company’s business.

Risks Related to our Business, Operations and Our Industry

Key Contract Risk.

We are heavily dependent upon the Jio Supply Agreement. Under the Jio 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 Jio Supply Agreement sets out a framework under which we will collaborate with Jio to innovate and develop new products. The Jio 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 Jio 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 microinverters 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 currently depend upon one contract manufacturer, and business and operations could be disrupted if we encounter problems with this contract manufacturer.

We currently rely heavily upon one contract manufacturer to manufacture our products. Any change in our relationship or contractual terms with our contract manufacturer(s), or changes in the ability of our contract manufacturer(s) to comply with their contractual obligations could adversely affect our financial condition and results of operations. Our current reliance on one contract manufacturer 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 manufacturer(s) generates 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 manufacturer(s) is 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 manufacturer(s) 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 manufacturer(s) depends 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 manufacturer(s) 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 manufacturer(s) 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 manufacturer(s) 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 the facilities of our contract manufacturer(s) 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, Hoymiles 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 India, 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.

All of our revenues and a portion of our 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 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 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.

Imposition of Tariffs

Recent executive orders have been issued by the President of the United States, directing the U.S. to impose new or increased tariffs on certain of its trading partners, including Canada. Such executive orders, if implemented, contemplate the imposition of broad-based tariffs on imports from Canada, excluding certain energy resources, including oil and natural gas, which would be subject to a reduced tariff. In response, the Government of Canada announced retaliatory counter-tariffs. Such tariffs, if implemented, could have a material adverse effect on the Canadian economy and the Company. In addition to the tariffs on imports from Canada, the United States also announced additional tariffs on imports into the United States from Mexico and China, respectively. There is a risk that tariffs imposed by the United States will trigger broader global trade disruptions which could have a significant adverse impact on the Canadian, United States and global economies.

The timing and implementation of new tariffs are uncertain. To the extent implemented, any such tariffs may have an adverse effect on the Company's overall revenue, cash flow and profitability. Changes in governmental regulation between Canada and the United States, including tariffs, taxes and other trade barriers, may adversely affect the Company's business, results of operations and financial condition.

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 AIF, 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, 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 manufacturer(s) may purchase excess components and build excess inventory. If our contract manufacturer(s), at our request, purchases 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 adversely 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(s), 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 AIF, 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 that 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.

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.

ADDITIONAL INFORMATION

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

Additional information relating to the Company, including directors' and officers' remuneration and indebtedness, principal holders of the Company's securities and securities authorized for issuance under equity compensation plans, if applicable, is contained in the Company's management information circular for the most recent annual meeting of shareholders.

Additional financial information is provided in Sparq's audited consolidated financial statements and management's discussion & analysis for the year ended December 31, 2024.

SCHEDULE A
AUDIT COMMITTEE CHARTER

SPARQ SYSTEMS INC.
(the “Corporation”)

(Implemented pursuant to National Instrument 52-110 – *Audit Committees*)

National Instrument 52-110 – *Audit Committees* (the “**Instrument**”) relating to the composition and function of audit committees was implemented for reporting issuers and, accordingly, applies to every TSX Venture Exchange (“**TSXV**”) listed company, including the Corporation. The Instrument requires all affected issuers to have a written audit committee charter which must be disclosed, as stipulated by Form 52-110F2, in the management information circular of the Corporation wherein management solicits proxies from the security holders of the Corporation for the purpose of electing directors to the board of directors. The Corporation, as a TSXV listed company is, however, exempt from certain requirements of the Instrument.

This Charter has been adopted by the board of directors in order to comply with the Instrument and to more properly define the role of the Committee in the oversight of the financial reporting process of the Corporation. Nothing in this Charter is intended to restrict the ability of the board of directors or Committee to alter or vary procedures in order to comply more fully with the Instrument or any other such requirement of the TSXV, as amended from time to time.

PART 1

Purpose:

The purpose of the Committee is to:

- (a) improve the quality of the Corporation’s financial reporting;
- (b) assist the board of directors to properly and fully discharge its responsibilities;
- (c) provide an avenue of enhanced communication between the directors and external auditors;
- (d) enhance the external auditor’s independence;
- (e) ensure the credibility and objectivity of financial reports; and
- (f) strengthen the role of the directors by facilitating in depth discussions between directors, management and external auditors.

1.1 Definitions

“**accounting principles**” has the meaning ascribed to it in National Instrument 52-107 *Acceptable Accounting Principles and Auditing Standards*;

“**audit services**” means the professional services rendered by the Corporation’s external auditor for the audit and review of the Corporation’s financial statements or services that are normally provided by the external auditor in connection with statutory and regulatory filings or engagements;

“**Charter**” means this audit committee charter;

“**Committee**” means the committee established by and among certain members of the board of directors for the purpose of overseeing the accounting and financial reporting processes of the Corporation and audits of the financial statements of the Corporation;

“**Control Person**” means any individual or company that holds or is one of a combination of individuals or companies that holds a sufficient number of any of the securities of the Corporation so as to affect materially the control of the Corporation, or that holds more than 20% of the outstanding voting shares of the Corporation except where there is evidence showing that the holder of those securities does not materially affect the control of the Corporation;

“**financially literate**” has the meaning set forth in Section 0;

“**immediate family member**” means an individual’s spouse, parent, child, sibling, mother or father-in-law, son or daughter-in-law, brother or sister-in-law, and anyone (other than an employee of either the individual or the individual’s immediate family member) who shares the individual’s home;

“**independent**” means independent only as determined by both the Instrument and the TSX Venture Exchange Corporate Finance Manual;

“**Instrument**” means National Instrument 52-110 – *Audit Committees*;

“**MD&A**” has the meaning ascribed to it in National Instrument 51-102;

“**Member**” means a member of the Committee;

“**National Instrument 51-102**” means National Instrument 51-102 - *Continuous Disclosure Obligations*; and

“**non-audit services**” means services other than audit services.

Meaning of Financially Literate

For the purposes of this Charter, an individual is financially literate if he or she has the ability to read and understand a set of financial statements that present a breadth and level of complexity of accounting issues that are generally comparable to the breadth and complexity of the issues that can reasonably be expected to be raised by the Corporation’s financial statements.

PART 2

2.1 Audit Committee

The board of directors has hereby established the Committee for, among other purposes, compliance with the Instrument.

2.2 Relationship with External Auditors

The Corporation will require its external auditor to report directly to the Committee and the Members shall ensure that such is the case.

Each Member shall be entitled, to the fullest extent permitted by law, to rely on the integrity of those persons and organizations within and outside the Corporation from whom he or she receives information, and the accuracy of the information provided to the Corporation by such other persons or organizations.

2.3 Committee Responsibilities

1. The Committee shall be responsible for making the following recommendations to the board of directors:
 - (a) the external auditor to be nominated for the purpose of preparing or issuing an auditor's report or performing other audit, review or attest services for the Corporation; and
 - (b) the compensation of the external auditor.
2. The Committee shall be directly responsible for overseeing the work of the external auditor engaged for the purpose of preparing or issuing an auditor's report or performing other audit, review or attest services for the Corporation, including the resolution of disagreements between management and the external auditor regarding financial reporting. This responsibility shall include:
 - (a) reviewing the audit plan with management and the external auditor;
 - (b) reviewing with management and the external auditor any proposed changes in major accounting policies, the presentation and impact of significant risks and uncertainties, and key estimates and judgements of management that may be material to financial reporting;
 - (c) questioning management and the external auditor regarding significant financial reporting issues discussed during the fiscal period and the method of resolution;
 - (d) reviewing any problems experienced by the external auditor in performing the audit, including any restrictions imposed by management or significant accounting issues on which there was a disagreement with management;
 - (e) reviewing audited annual financial statements, in conjunction with the report of the external auditor, and obtaining an explanation from management of all significant variances between comparative reporting periods;
 - (f) reviewing the post-audit or management letter, containing the recommendations of the external auditor, and management's response and subsequent follow up to any identified weakness;
 - (g) reviewing interim unaudited financial statements before release to the public;
 - (h) reviewing all public disclosure documents containing audited or unaudited financial information before release, including any prospectus, the annual report and management's discussion and analysis;
 - (i) reviewing the evaluation of internal controls by the external auditor, together with management's response;
 - (j) reviewing the terms of reference of the internal auditor, if any;

- (k) reviewing the reports issued by the internal auditor, if any, and management's response and subsequent follow up to any identified weaknesses;
 - (l) reviewing the appointments of the chief financial officer and any key financial executives involved in the financial reporting process, as applicable;
 - (m) reviewing annually the Charter and annually obtain approval from the board of directors; and
 - (n) if an internal auditor is appointed, reviewing and annually approving the internal audit charter and the risk based internal audit plan.
3. The Committee shall pre-approve all non-audit services to be provided to the Corporation or its subsidiary entities by the issuer's external auditor.
 4. The Committee shall review the Corporation's financial statements, MD&A, and annual and interim earnings press releases before the Corporation publicly discloses this information.
 5. The Committee shall review and discuss the quality of the Corporation's accounting principles, internal controls, and financial statements.
 6. The Committee shall review and assess the adequacy of risk management policies, procedures, and processes and review updates on risks.
 7. The Committee shall ensure that adequate procedures are in place for the review of the Corporation's public disclosure of financial information extracted or derived from the Corporation's financial statements, and shall periodically assess the adequacy of those procedures.
 8. When there is to be a change of auditor, the Committee shall review all issues related to the change, including the information to be included in the notice of change of auditor called for under National Instrument 51-102, and the planned steps for an orderly transition.
 9. The Committee shall review all reportable events, including disagreements, unresolved issues and consultations, as defined in National Instrument 51-102, on a routine basis, whether or not there is to be a change of auditor.
 10. The Committee shall, as applicable, establish procedures for:
 - (a) the receipt, retention and treatment of complaints received by the issuer regarding accounting, internal accounting controls, or auditing matters; and
 - (b) the confidential, anonymous submission by employees of the issuer of concerns regarding questionable accounting or auditing matters.
 11. As applicable, the Committee shall establish, periodically review and approve the Corporation's hiring policies regarding partners, employees and former partners and employees of the present and former external auditor of the issuer.
 12. The responsibilities outlined in this Charter are not intended to be exhaustive. Members should consider any additional areas which may require oversight when discharging their responsibilities.

13. While the Committee has the responsibilities and powers set forth in this Charter, it is not the duty of the Committee to plan or conduct audits or to determine that the Corporation's financial statements and disclosures are complete and accurate and in accordance with generally accepted accounting principles and applicable rules and regulations, each of which is the responsibility of management and the Corporation's external auditors.

2.4 De Minimis Non-Audit Services

The Committee shall satisfy the pre-approval requirement in subsection 2.3 if:

- (a) the aggregate amount of all the non-audit services that were not pre-approved is reasonably expected to constitute no more than five per cent of the total amount of fees paid by the issuer and its subsidiary entities to the issuer's external auditor during the financial year in which the services are provided;
- (b) the Corporation or the subsidiary of the Corporation, as the case may be, did not recognize the services as non-audit services at the time of the engagement; and
- (c) the services are promptly brought to the attention of the Committee and approved by the Committee or by one or more of its Members to whom authority to grant such approvals has been delegated by the Committee, prior to the completion of the audit.

2.5 Delegation of Pre-Approval Function

1. The Committee may delegate to one or more independent Members the authority to pre-approve non-audit services in satisfaction of the requirement in subsection 2.3.
2. The pre-approval of non-audit services by any Member to whom authority has been delegated pursuant to subsection 2.5(1) must be presented to the Committee at its first scheduled meeting following such pre-approval.

PART 3

3.1 Composition

1. The Committee shall be composed of a minimum of three Members.
2. Every Member shall be a director of the issuer.
3. A majority of the Members must not be executive officers, employees or control persons of the Corporation.
4. Every Member shall be financially literate.
5. The board of directors of the Corporation shall appoint or re-appoint the Members after each annual meeting of shareholders of the Corporation.

PART 4

4.1 Authority

Until the replacement of this Charter, the Committee shall have the authority to:

- (a) engage independent counsel and other advisors as it determines necessary to carry out its duties;
- (b) set and pay the compensation for any advisors employed by the Committee;
- (c) communicate directly with the internal and external auditors; and
- (d) recommend the amendment or approval of audited and interim financial statements to the board of directors.

PART 5

5.1 Required Disclosure

The Corporation must include in its Annual Information Form the disclosure required by Form 52-110F2.

5.2 Disclosure in Information Circular

If management of the Corporation solicits proxies from the security holders of the Corporation for the purpose of electing directors to the board of directors, the Corporation shall include in its management information circular a cross-reference to the sections in the Corporation's Annual Information Form that contain the information required by section 5.1.

PART 6

6.1 Meetings

1. Meetings of the Committee shall be scheduled to take place at regular intervals and, in any event, not less frequently than quarterly.
2. Opportunities shall be afforded periodically to the external auditor, the internal auditor and to members of senior management to meet separately with the Members.
3. Minutes shall be kept of all meetings of the Committee.
4. The quorum for meetings shall be a majority of the Members, present in person or by telephone or other telecommunication device that permits all persons participating in the meeting to speak to and to hear each other. No business may be transacted by the Committee except at a meeting of its members at which a quorum of the Committee is present.