



Management's Discussion and Analysis

For the period ended September 30, 2023

NORTHSTAR CLEAN TECHNOLOGIES INC.
Management’s Discussion and Analysis
September 30, 2023

DESCRIPTION OF BUSINESS AND OVERVIEW OF OPERATIONS AND FINANCIAL CONDITION

The following is management’s interim discussion and analysis (“MD&A”), prepared as of November 28, 2023. This MD&A should be read in conjunction with the audited Annual Consolidated Financial Statements for the year ended December 31, 2022 and the accompanying notes, all as prepared in accordance with International Financial Reporting Standards (“IFRS”). All amounts are stated in Canadian dollars unless otherwise indicated.

Forward Looking Statements

This report includes certain statements that may be deemed “forward-looking statements” within the meaning of applicable securities legislation. All statements, other than statements of historical facts that address such matters as future events or developments that the Company expects, are forward-looking statements and, as such, are subject to risks, uncertainties, assumptions and other factors of which are beyond the reasonable control of the Company. You can identify these statements by forward-looking words such as “expects”, “does not expect”, “plans”, “anticipates”, “does not anticipate”, “believes”, “intends”, “estimated”, “projects”, “potential”, “scheduled”, “forecast”, “budget”, and similar expressions, or that events or conditions “will”, “would”, “may”, “could”, “should” or “might” occur and similar words. Such statements give the Company’s current expectations or forecasts of future events and are not guarantees of future performance and actual results or developments may differ materially from those expressed in, or implied by, this forward-looking information. With respect to forward-looking statements and information contained herein, we have made numerous assumptions including among other things anticipated costs and expenditures and the Company’s ability to achieve its goals. Although management believes that the assumptions made and the expectations represented by such statements or information are reasonable, there can be no assurance that a forward-looking statement or information herein will prove to be accurate. Forward-looking statements and information by their nature are based on assumptions and involve known and unknown risks, uncertainties and other factors which may cause our actual results, performance or achievements, or industry results, to be materially different from any future results, performance or achievements expressed or implied by such forward-looking statements or information. Factors that could cause actual results to differ materially from those in forward-looking statements include, for example, such matters as continued availability of capital and financing and general economic, market or business conditions. Although we have attempted to identify factors that would cause actual actions, events or results to differ materially from those disclosed in the forward-looking statements or information, there may be other factors that cause actual results, performances, achievements or events not to be anticipated, estimated or intended. Accordingly, readers should not place undue reliance on forward-looking statements or information. Any forward-looking statements are expressly qualified in their entirety by this cautionary statement. The information contained herein is stated as of the current date and subject to change after that date and the Company does not undertake any obligation to update publicly or to revise any of the forward-looking statements, whether as a result of new information, future events or otherwise, except as may be required by applicable securities laws.

Description of Business

Northstar Clean Technologies Inc. (“Northstar” or the “Company”) is a Canadian-based clean technology company focused on the sustainable recovery and reprocessing of asphalt shingles. Northstar has developed a proprietary design process for taking discarded asphalt shingles, otherwise destined for already over-crowded landfills, and extracting the liquid asphalt for use in new hot mix asphalt, shingle manufacturing and asphalt flat roof systems, and aggregate and fiber for use in construction products and other industrial applications. Focused on the circular economy, Northstar plans to reprocess used or defective asphalt shingle waste back into its three primary components for reuse/resale at its first commercial scale up facility in Calgary, Alberta (the “Empower Calgary Facility”). As an emerging innovator in sustainable processing, Northstar’s mission is to be the leader in the recovery and reprocessing of asphalt shingles in North America, extracting the recovered components from asphalt shingles that would otherwise be sent to landfill.

Northstar has developed a proprietary design process known as the Bitumen Extraction & Separation Technology (“BEST”) technology, to break down the components of single-use asphalt shingles that would otherwise be sent to a landfill, into market quality products. The component parts of an asphalt shingle are approximately 50% aggregate, 25% fibre and 25% liquid asphalt (the “Products”). Once reprocessed, the Products can be used in a variety of applications, including road asphalt, new asphalt shingle manufacturing, construction products, and other industrial applications. The Company hopes to be able to sell these components to paving companies, cement companies, roofing companies, shingle manufacturers and other industrial and construction product manufacturers, who may benefit from a supply of low carbon, reprocessed products. The Company’s proprietary process was developed over the last decade with technical and scientific assistance from the United Kingdom and

NORTHSTAR CLEAN TECHNOLOGIES INC.

Management's Discussion and Analysis

September 30, 2023

Alberta. The Company plans to reprocess used and defective asphalt shingles into their component parts for reuse/resale and thereby seeks to eliminate their disposal in landfills.

On November 8, 2022, the Company announced that it has been issued a patent for the Company's front-end technology for reprocessing asphalt shingles by the United States Patent and Trademark Office ("USPTO"). This patent is expected to remain in force until 2042. Further, Northstar has filed follow-on continuation patent applications with the USPTO as well as an application for patent approval in Canada and Patent Cooperation Treaty international application.

The Company filed a preliminary prospectus dated April 15, 2021, an amended and restated preliminary prospectus dated May 7, 2021, and a final prospectus dated June 18, 2021. The Company raised \$12,241,312.30 on the issue of 34,975,178 Units at a price of \$0.35 per Unit. Each Unit is comprised of one common share in the capital of the Company (each, a "Share") and one-half of one transferable common share purchase warrant (each whole warrant, a "Warrant"). Each Warrant entitled the holder thereof to acquire one Share (each, a "Warrant Share") at a price of \$0.50 per Warrant Share for a period of two years. The Warrants formerly traded on the TSX Venture Exchange (the "TSX-V") under the symbol 'ROOF.WT'. The Warrant Shares expired as of June 23, 2023.

The Company listed its common shares on the TSX-V and began publicly trading on the TSX-V under the symbol 'ROOF' on July 13, 2021. On January 11, 2022, the Company's common shares commenced trading on the OTCQB Venture Market (the "OTCQB") under the ticker symbol 'ROOOF'. In addition, on January 11, 2022, the Company's common shares became eligible for book-entry and depository services at the Depository Trust Company ("DTC"), which facilitates electronic clearing and settlement of transfers in the United States.

The head office and principal address of the Company is located at 1110-396 11th Ave SW, Calgary, Alberta, T2R 0C5 and its current facility is located at 7046 Brown Street, Delta, British Columbia, Canada, V4G 1G8 (the "Empower Pilot Facility"). The Company's registered and records office is also located at 7046 Brown Street, Delta, British Columbia, Canada, V4G 1G8.

On January 18, 2022, the Company incorporated Empower Environmental Solutions Calgary Ltd. under the laws of the Alberta Business Corporations Act, and on January 20, 2022, the Company incorporated Empower Environmental Solutions Toronto West Ltd. under the laws of the Ontario Business Corporations Act to facilitate possible expansion into those markets.

Outlook and growth strategy

As an emerging innovator in sustainable processing, Northstar's mission is to be the leader in the recovery and reprocessing of asphalt shingles in North America, extracting the recovered components from asphalt shingles that would otherwise be sent to landfill. The Company has the Empower Pilot Facility in Delta, BC and is in the development stages for advancing its Empower Calgary Facility in Calgary, AB.

Empower Pilot Facility – Delta, BC

The Empower Pilot Facility is located at 7046 Brown Street in Delta, British Columbia. The Empower Pilot Facility is located on a 4.23 acre property with a 20,000 square foot building. The site of the Empower Pilot Facility has a large yard for storage and collection of asphalt shingles, and is conveniently located for roofing companies, roofing contractors, and waste haulers throughout the Metro Vancouver area. The Company has leased the Empower Pilot Facility and surrounding lands pursuant to the Empower Lease for a period of five years from January 1, 2021 with an option to extend for an additional five years.

In 2022, the production from the Empower Pilot Facility delivered significant results in several key areas:

1. The production proved the Company's proprietary BEST technology with shingle feedstock processed into aggregate, fiber and asphalt.
2. The process enabled the supply of Products to potential customers for detailed testing, research & development. This testing helped secure the long-term offtake agreement for the Empower Calgary Facility and allowed subsequent successful testing with a number of shingle and flat roof manufacturers. Importantly, the testing results supported the Company's view that the asphalt produced by the BEST technology may be suitable for all three target market sectors of road paving, asphalt shingle manufacturing and flat roof manufacturing.
3. The production of Products generated valuable feedback for the design of the Empower Calgary Facility from customers, vendors and from the production process itself. The feedback is being incorporated into the detailed design process, which

NORTHSTAR CLEAN TECHNOLOGIES INC.

Management’s Discussion and Analysis

September 30, 2023

commenced in Q4 2023, for the Empower Calgary Facility by the Company’s vendors and as part of the integrated facility design led by the Company’s engineering contractor, BBA Engineering Ltd. (“BBA”). In the Company’s view, the feedback, derived from operations at the Empower Pilot Facility, helps de-risk the Empower Calgary Facility design.

Given the success of the detailed testing, research & development activities described above, the Company through 2024 will now focus resources, including manpower, capital and G&A costs, on the Empower Calgary Facility. In order to conserve limited resources, the Company will not pursue additional investment in the Empower Pilot Facility and plan to operate it as an “on demand” facility that is focused on providing partners and potential customers with product for R&D, manufacturing and product testing. The Company expects to operate the Empower Pilot Facility to supply shingle and flat roofing manufacturers, such as McAsphalt Industries and TAMKO Building Products (defined below), with the Products necessary to complete manufacturing and testing and on an ad-hoc, on demand, basis.

Empower Calgary Facility – Calgary, AB

On March 17, 2022, the Company announced that the Board of Directors of the Company approved the selection of the City of Calgary, Alberta, Canada as the planned site location for the Company’s Empower Calgary Facility, the Company’s first commercial scale up facility for reprocessing asphalt shingles. On February 24, 2023, Northstar announced that its wholly owned subsidiary Empower Environmental Solutions Calgary Ltd. signed a long-term 15-year lease agreement with Mook Group of Companies (the Landlord”) for an industrial-zoned property of 3.98 acres located in Rocky View County, a municipal district adjacent to the City of Calgary, Alberta, as the site for the Company’s Empower Calgary Facility. The lease is for an initial term of 15 years, with two extension options of five years each. The Landlord has been issued a development permit from Rocky View County. Based on management’s knowledge at this point in time, the Company believes this is the only permit or approval required to collect asphalt shingles and commence construction and operation of the Empower Calgary Facility.

On September 1, 2023, the Company formally took occupancy and gained access to the site for the Empower Calgary Facility in Rocky View County, AB. On September 12, 2023, the Company and the Landlord completed site development work (commenced in May 2023), which included the installation of lighting, fencing and foundations for the weigh scale; installation of required electrical work, paving of the parking lot; and landscaping at the front of the site. On September 27, 2023, the Company hosted its official site opening event, which was attended by government representatives, members of industry and included representatives from the Company, Emissions Reduction Alberta, Business Development Bank of Canada and the TMX Group.

Based on the independent front-end engineering design (“FEED”) study announced on March 31, 2022, the Calgary Empower Facility is expected to be the Company’s first modular scale up facility and is expected to be designed and engineered with an estimated capacity of 150–200 tpd. The Company commenced detailed engineering design and commenced long-lead item equipment orders for the Empower Calgary Facility in Q4 2023. The scale up facility’s build and design are part of the Company’s planned national roll out and expansion strategy to operate asphalt shingle reprocessing facilities across Canada and the United States.

Expected Sequence of Events at the Empower Calgary Facility

- Complete detailed engineering design
- Complete operational personnel and contractor hiring
- Commence pre-construction
- Commence construction
- Commence commissioning and ramp up
- Commence commercial operations
- Commercial production

On October 6, 2022, Northstar announced the execution of a term sheet with McAsphalt Industries (“McAsphalt”) for a 5-year (with automatic 3-year renewal options) take-or-pay offtake agreement with McAsphalt, whereby McAsphalt will purchase, on an exclusive basis, 100% of the liquid asphalt production from the Calgary Empower Facility. Subsequently, on March 2, 2023, Northstar announced the execution of the McAsphalt Offtake Agreement with McAsphalt. The key commercial terms of the contract remain unchanged from the original McAsphalt Offtake Term Sheet, as previously disclosed by the Company on October 6, 2022.

NORTHSTAR CLEAN TECHNOLOGIES INC.
Management's Discussion and Analysis
September 30, 2023

RECENT KEY DEVELOPMENTS IN LAST 12 MONTHS

Q4 2022

- On October 4, 2022, Northstar announced a strategic partnership through the execution of a binding term sheet with Renewable U to fully fund Northstar's Phase 1 Expansion Program through financing of over \$43.5 million. The transaction was terminated in April 2023.
- On October 6, 2022, Northstar announced the execution of a binding term sheet for a 5-year (with automatic 3-year renewal options) offtake agreement with McAsphalt, a wholly owned subsidiary of the Colas Group ("Colas") (XPAR:RE), whereby McAsphalt will purchase, on an exclusive basis, 100% of the liquid asphalt production from the Calgary Empower Facility.
 - **About McAsphalt:** For over 50 years, McAsphalt has been the industry's top asphalt expert, offering asphalt products and services from over 27 strategically located terminals across Canada, coast to coast to coast. A world leader in the construction, recycling, and maintenance of transportation infrastructure.
 - **About Colas:** Colas Canada is a Canadian leader in transportation infrastructure – materials, construction, rehabilitation, preservation and maintenance of roads, highways, airport runways, port, industrial and logistics infrastructure, subdivisions, urban infrastructure, parking lots and more. Colas companies in Canada are part of the Colas Group, a world leader in the construction, recycling, and maintenance of transportation infrastructure.
 - **Pricing:** The agreed terms of the sale price of the liquid asphalt are confidential due to commercial sensitivity reasons, but the pricing is market based and includes the market index, a quality and locational differential, and a sustainability premium.
 - **Risk Management:** Risk management pricing is also incorporated into the pricing mechanism.
 - **Third Party Sales:** Northstar and McAsphalt will have the ability to enter into third party sales agreements for the liquid asphalt product produced from the Empower Calgary Facility. The detailed terms of any third-party sales are confidential.
 - **Planning, Regulatory and Government Agency Support:** McAsphalt will support Northstar in planning, regulatory and government agency engagement with respect to the Empower Calgary Facility.
 - **Carbon Credits:** Northstar and McAsphalt will work together on the development of a protocol to create carbon credits. Should carbon credits be created, the sustainability premium will be calculated based on the joint contribution to the protocol development.
- On November 8, 2022, Northstar announced that it has been issued a patent for the Company's front-end technology for reprocessing asphalt shingles by the United States Patent and Trademark Office ("USPTO"). This patent is expected to remain in force until 2042. Further, Northstar has filed follow-on continuation patent applications with the USPTO, as well as an application for patent approval in Canada and a Patent Cooperation Treaty international application.
- On November 17, 2022, Northstar announced the first collection of previously landfill bound asphalt shingles at the Company's Empower Pilot Facility.
- On November 18, 2022, Northstar announced a corporate and intellectual property update.
- On December 15, 2022, Northstar announced that it closed \$1,440,000 non-brokered private placement of non-transferable unsecured convertible debentures. The convertible debentures bear an interest of 10% per year, paid semi-annually in arrears, and mature 36 months from the date of issue.

Q1 2023

- On January 30, 2023, Northstar announced that on January 20, 2023, the Landlord for the land for Northstar's Empower Calgary Facility received a conditional development permit from Rocky View County. The Conditional Development Permit was issued to the Landlord and includes standard conditions that need to be completed prior to issuance of a development permit. As of the date of the MD&A, all conditions have been met.

NORTHSTAR CLEAN TECHNOLOGIES INC.

Management's Discussion and Analysis

September 30, 2023

- On February 13, 2023, the Company announced that Northstar's Empower Calgary Facility was approved for a non-repayable government grant of up to approximately \$7.1 million by Emissions Reduction Alberta ("ERA"), an Alberta-based government entity funded by the Government of Alberta. The lead applicant organization was Empower Calgary, a wholly owned subsidiary of Northstar, and the net proceeds received by the Company from the government grant will be used to further design, construct and commission the Empower Calgary Facility. On July 31, 2023, the Company entered into a contribution agreement with ERA for the government grant award.
- On February 14, 2023, Northstar announced that it received notice from the Canadian Patent Office ("CPO") that its patent application has been approved for fast track due to Northstar's green technology.
- On February 24, 2023, Northstar announced that its wholly owned subsidiary Empower Environmental Solutions Calgary Ltd. signed a long-term 15-year lease agreement with Mook Group of Companies for an industrial-zoned property of 3.98 acres located in Rocky View County, as the site for the Company's planned scale-up facility in Calgary. The lease is for an initial term of 15 years, with two extension options of five years each. All municipal permits have been received to proceed with construction, collection of asphalt shingles and production. On September 1, 2023, the Company formally took occupancy of the site.
- On February 28, 2023, Northstar closed \$625,000 in a non-brokered private placement of non-transferable unsecured convertible debentures. The convertible debentures bear an interest of 10% per year, paid semi-annually in arrears, and mature 36 months from the date of issue.
- On March 2, 2023, Northstar announced the execution of a definitive take-or-pay offtake agreement with McAsphalt for 100% of liquid asphalt production from its Empower Calgary Facility. The key commercial terms of the Offtake Agreement are unchanged from the binding term sheet announced by the Company on October 6, 2022.
- On March 8, 2023, Northstar announced that numerous major domestic and international asphalt shingle and flat roofing manufacturers (the "Manufacturers") successfully completed their detailed research and development testing of Northstar's liquid asphalt for use in asphalt shingles and flat roofing systems.
- On March 14, 2023, Northstar announced that it received an environmental awareness award from Waste Management Association of British Columbia.

Q2 2023

- On April 19, 2023, Northstar announced that it closed a non-brokered private placement of 18,195,367 units of the Company at a purchase price of \$0.15 per unit for aggregate gross proceeds of \$2,729,305. Each unit consists of one common share of the Company and one common share purchase warrant of the Company, with each warrant entitling the holder thereof to acquire one additional common share at an exercise price of \$0.20 per warrant share for a period of 36 months following the closing date of the private placement. As part of the transaction, 511,819 broker warrants were issued at a price of \$0.20 with an expiry of 3 years.
- On April 20, 2023, Northstar announced updated preliminary economics, an updated internal capital estimate (following the initial independent capital estimate completed by BBA as part of the FEED announced in March 2022), and provided a corporate update on funding progression for the Empower Calgary Facility.
- On May 11, 2023, Northstar provided an update on site development work at the Empower Calgary Facility, stating that the Landlord was progressing well with preparing the land for construction, and also released an updated investor presentation.
- On May 30, 2023, Northstar announced the completion of milestones required to commence detailed engineering.
- On June 15, 2023, Northstar announced the execution of a non-binding term sheet for \$8.75 million in senior secured project-level non-revolving debt with Business Development Bank of Canada ("BDC"). The loan term is 15 years, with a potential for a 2-year interest only payment period, and a fixed 5-year rate payable monthly, with the possibility

NORTHSTAR CLEAN TECHNOLOGIES INC.
Management’s Discussion and Analysis
September 30, 2023

of rate reduction after 1 year of successful plant operation. The financing is subject to a one-time fee of \$43,750 (which has been already paid by the Company) and an annual fee of \$1,000.

Q3 2023

- On July 7, 2023, Northstar announced that it executed a binding credit agreement (the “Credit Agreement”) with BDC for \$8.75 million in non-revolving project level debt (the “BDC Financing”), following the non-binding term sheet that was announced on June 15, 2023. The Company intends to use the proceeds for the development and construction of its Empower Calgary Facility. The following is a summary of the material terms of the Credit Agreement:
 - BDC will provide a senior secured loan of up to \$8.75 million;
 - 15-year repayment period, with a 2-year interest only payment period;
 - Fixed 5-year interest rate of 8.35% payable monthly;
 - Covenants: maintain Fixed Charge Coverage Ratio equal to or greater than 1.10:1.00

The BDC Financing is subject to a one-time fee of \$43,750, which has already been paid by Northstar, and an annual fee of \$1,000. In connection with the BDC Financing, the Company paid a finder’s fee to Independent Traders Group Inc. (“ITG”) of \$87,500 in cash and issued up to \$87,500 in common share purchase warrants exercisable at \$0.35 per common share of the Company for a period of 24 months or up to 36 months subject to TSXV approval.

- On July 31, 2023, Northstar announced that its wholly owned subsidiary, Empower Environmental Solutions Ltd., and ERA signed a contribution agreement whereby ERA will fund up to \$7,088,856 in government grants for the development and construction of the Empower Calgary Facility.
- On July 31, 2023, Northstar completed an arm’s length significant strategic investment with Allmine Paving LLC (“Allmine”), a party and subsidiary of TAMKO Building Products LLC (“TAMKO”), one of America’s largest independent manufacturers of residential roofing shingles, commercial roofing products and waterproofing solutions. The Company closed a C\$8,480,979.24 (US\$6,424,984.27) non-brokered private placement (the “TAMKO Private Placement”) of preferred shares (each, a “Preferred Share”) in the capital of the Company, as Phase 1 of TAMKO’s strategic investment (the “Strategic Investment”). In connection with the Strategic Investment, the Company entered into an investor rights agreement which granted certain rights to TAMKO, including the right to appoint a director to the Company’s Board.

The Strategic Investment is intended to include two phases:

- i. Phase 1: C\$8,480,979.24 (US\$6,424,984.27) of Preferred Shares (closed); and
- ii. Phase 2: Approximately C\$4,720,000 (US\$3,580,000) of unsecured three-year convertible debentures to be purchased in two tranches and conditional on the attainment of certain milestones as agreed upon by the parties:
 - Tranche 1: Approximately C\$2,360,000 (US\$1,790,000)
 - Tranche 2: Approximately C\$2,360,000 (US\$1,790,000)

The Company issued 29,244,756 Preferred Shares in the private placement at a price of C\$0.29 per Preferred Share, for aggregate cash consideration of C\$8,480,979.24 (US\$6,424,984.27). The Company’s Preferred Shares are not listed on the TSX Venture Exchange. Each Preferred Share is convertible, at the sole option of its holder, at any time and from time to time, into one common share (each, a “Common Share”) of the Company on a one-for-one basis and provides the holder with voting rights and dividend rights together and pari passu with the Common Shares on an “as-converted” basis. Upon closing of the Private Placement, TAMKO, through its wholly owned subsidiary, holds approximately 18.75% of the Company’s issued and outstanding Common Shares, assuming the full conversion of the Preferred Shares into Common Shares. As part of the transaction, the Company signed a Memorandum of Understanding with TAMKO which granted them exclusivity rights and licensing for 3 future US facilities.

- On August 11, 2023, Northstar announced that the Board agreed to increase the size of the Board from six (6) to seven (7) directors and appointed a new director, Mr. Jeffrey D. Beyer to the Board. Mr. Beyer is a nominee from TAMKO, as part of the investor rights agreement.

NORTHSTAR CLEAN TECHNOLOGIES INC.

Management's Discussion and Analysis

September 30, 2023

- On September 12, 2023, Northstar announced that the landlord had completed the site work at the Empower Calgary Facility, which included the installation of lighting, fencing and foundations for the weigh scale; installation of required electrical work, paving of the parking lot; and landscaping at the front of the site.
- On September 27, 2023, Northstar held site opening event at the Empower Calgary Facility.

PERFORMANCE SUMMARY

The following is a summary of the significant events and transactions that occurred during the period ended September 30, 2023 and for the previous period to the report date hereof:

- (a) During the three months ended September 30, 2023
- the Company spent \$211,076 on acquisitions of plant equipment.
 - the Company spent \$173,971 in research and development expenses.
 - Empower repaid \$30,275 in loan repayments.
 - A non-brokered private placement of 29,244,746 preferred shares for gross proceeds of \$8,480,979.
- (b) During the three months ended June 30, 2023
- the Company spent \$29,407 on acquisitions of plant equipment.
 - the Company spent \$244,313 in research and development expenses.
 - Empower repaid \$30,350 in loan repayments.
 - The Company closed a non-brokered private placement of 18,195,367 units for aggregate proceeds of \$2,729,305. Each unit consisted of one common share of the Company and one common share purchase warrant of the Company with each warrant entitling the holder thereof to acquire one additional common share at an exercise price of \$0.20 per warrant for a period of 36 months following the closing date of the private placement. As part of the transaction, 511,819 broker warrants were issued at a price of \$0.20 with an expiry of three years and a value of \$56,305, and finders fees of \$76,773 were paid.
 - Issued 514,111 common shares for equity settled PSUs and RSUs that vested on June 23, 2023.

Selected Annual Information

	Year Ended December 31, 2022	Year Ended December 31, 2021	Year Ended December 31, 2020
Loss and comprehensive loss	\$ 8,200,936	\$ 7,207,912	\$ 6,596,793
Basic and diluted loss per share	0.08	0.08	0.16
Total assets	6,829,057	12,374,613	4,859,762
Total liabilities	4,044,550	3,102,023	2,503,071

SUMMARY OF QUARTERLY RESULTS

	September 30, 2023	June 30, 2023	March 31, 2023	December 31, 2022
Total assets	\$ 17,013,792	\$ 6,703,697	\$ 6,019,542	\$ 6,829,057
Property, plant and equipment	3,135,979	3,103,004	3,210,572	3,286,540
Working capital (deficit)	6,632,707	(305,037)	(1,428,964)	(419,585)
Shareholders' equity (deficit)	9,534,558	2,373,552	1,323,233	2,784,507
General and administrative expenses	1,492,793	1,509,714	1,462,207	1,906,416
Loss and comprehensive loss	(1,399,574)	(1,696,078)	(1,688,569)	(2,267,507)
Basic and diluted loss per share	(0.01)	(0.01)	(0.02)	(0.03)

NORTHSTAR CLEAN TECHNOLOGIES INC.
Management’s Discussion and Analysis
September 30, 2023

	September 30, 2022	June 30, 2022	March 31, 2022	December 30, 2021
Total assets	\$ 7,123,935	\$ 8,532,713	\$ 10,180,750	\$ 12,374,613
Property, plant and equipment	3,318,021	3,329,674	3,235,492	3,205,404
Working capital (deficit)	397,412	1,739,915	3,661,725	5,492,200
Shareholders’ equity	6,756,306	5,697,220	7,510,032	9,272,590
General and administrative expenses	1,430,191	1,664,057	1,769,094	1,715,220
Loss and comprehensive loss	(1,960,482)	(1,940,007)	(2,032,940)	(2,320,211)
Basic and diluted loss per share	(0.02)	(0.02)	(0.02)	(0.02)

Results of Operations

The following discussion addresses the operating results and financial condition of the Company for the three months ended September 30, 2023, compared with the three months ended September 30, 2022.

For the three-month period ended September 30, 2023:

Loss and comprehensive loss for the period

The Company had a loss and comprehensive loss for the three-month period ended September 30, 2023, of \$1,399,574 (September 30, 2022 - \$1,960,483). The net decrease of \$560,909 in the loss and comprehensive loss for the three-month period ended September 30, 2023 compared to the three-month period ended September 30, 2022 was mainly due to an increase of \$63,634 in Revenue, an increase of \$60,787 \$62,602 in General and Administrative expenses, a decrease in Research and Development expenses of \$272,900, an increase in Other items of \$328,780 mainly consisting of foreign exchange gains and interest income and a write off of property, plant and equipment in the prior year. The changes in Revenue, General and Administrative, Research and Development expenses, and Other income are noted below.

Revenue

During the three-month period ended September 30, 2023, the Company reported revenue of \$63,634 (September 30, 2022 – NIL). This is due to the Company starting to collect shingles in 2023 and receiving tipping fees in exchange, as well as receiving income from recycling the metal and wood waste received in the shingle bins.

Other income

During the three-month period ended September 30, 2023, the Company reported interest income of \$2,366 (September 30, 2022 - \$3,935), other income of \$415 (September 30, 2022 – \$2,835), a loss on tax receivable of \$NIL (September 30, 2022 - \$130,522), and a foreign exchange gain of \$200,775 (September 30, 2022 – loss of \$1,472), compared to the three-month period ended September 30, 2022. The interest income is due from a net investment in sublease and reported separately from the interest expense of \$2,662 on the lease liability, the other income is from a Hydro rebate at the Delta Pilot Facility, and the exchange loss is on US currency purchases.

Research and development expenses (“R&D”)

During the three-month period ended September 30, 2023, the Company reported R&D of \$173,971 compared to \$446,871 for the three-month period ended September 30, 2022. The items that caused the \$272,900 decrease is noted in the following:

In comparison to the three-month period ended September 30, 2022:

- Contract consulting fees of \$58,430 (September 30, 2022 - \$111,002) decreased by \$52,572 due to the Company using less consultants than in the prior year.
- Repairs and maintenance of \$304 (September 30, 2022 - \$4,255) decreased by \$3,951 due to less repairs done on certain pieces of equipment.

NORTHSTAR CLEAN TECHNOLOGIES INC.
Management's Discussion and Analysis
September 30, 2023

- Site materials of \$115,237 (September 30, 2022 - \$331,614) decreased by \$216,377 mainly due to equipment rentals that were sent back to the vendor that were no longer needed, and decrease in chemicals and supplies due to production ceasing.

General and administrative expenses

General and administrative expenses of \$1,492,978 (September 30, 2022 - \$1,430,191) are primarily comprised of advertising and promotion, bank charges & interest, consulting fees, depreciation, insurance, IT & communications, office expenses, professional fees, rent and utilities, share-based compensation, transfer agent and regulatory fees, travel, and wages & benefits. The net increase was \$62,787 compared to the three-month period ended September 30, 2022. Items that caused the net decrease are noted in the following:

In comparison to the three-month period ended September 30, 2022:

- Advertising and promotion of \$70,345 (September 30, 2022 - \$91,927) decreased by \$21,582 as the Company focused on decreasing its monthly burn rate.
- Bank charges and interest of \$167,025 (September 30, 2022 - \$53,055) increased by \$113,970. Accretion interest on new leases on the premises and acquisition of the Northstar lease account for an increase of \$19,969, interest expense on convertible debentures accounts for \$51,625 increase, accretion interest on the convertible debenture accounts for an increase of \$44,717, an increase in bank charge of \$670 due to credit card fees on shingle collection tipping fees, and a decrease of other interest of \$3,011 which relates the interest and interest accretion on the equipment loan.
- Consulting of \$48,786 (September 30, 2022 - \$62,865) decreased by \$14,079 due to the Company reducing and ending consulting contracts existing in the prior period to cut costs, offset by extra consulting fees in the current year related to Northstar's efforts to fund the Empower Calgary Facility.
- Depreciation of \$279,892 (September 30, 2021 - \$284,667) decreased by \$4,775 mainly due to a lower undepreciated equipment value.
- Insurance of \$29,301 (September 30, 2022 - \$28,382) increased by \$919 due to the renewal rates for Directors & Officers ("D&O") and property and plant liability insurance.
- IT and Communications of \$17,898 (September 30, 2022 - \$18,321) decreased by \$423 which is consistent with the prior year.
- Office and miscellaneous of \$4,142 (September 30, 2022 - \$12,583) decreased by \$8,441 due to a decrease in subscription dues & licences of \$5,005, a decrease in postage of \$608, a decrease in general office supplies of \$1,769 and a decrease in employee health & safety training of \$1,059.
- Operating costs of \$27,686 (September 30, 2022 - \$NIL) increased by \$27,686 as these costs relate to the disposal of garbage received in the shingle bins. The Company only started receiving shingles at the Empower Pilot Facility in February 2023, therefore did not incur any costs in the previous year.
- Professional fees of \$116,380 (September 30, 2022 - \$69,725) increased by \$46,655. Legal fees increased by \$12,617 as the Company had legal expenses relating to financing, accounting fees increased by \$30,538 due to the Company having their quarterly statements reviewed and certain yearend audit procedure performed during the quarter, and professional fees increased by \$3,500 due to having a revised LCA conducted.
- Rent and utilities of \$67,158 (September 30, 2022 - \$102,616) decreased by \$35,458 due to an increase in the Empower Pilot Facility lease payments which accounted for an increase of \$2,096, an increase in Empower Calgary Facility lease payments of \$3,992, a decrease in rent payments due to the Calgary head office being terminated at the end of March 2023 which accounted for \$12,200, utilities decreased by \$20,602, and ground maintenance decreased by \$8,744.
- Share-based compensation of \$168,853 (September 30, 2022 - \$133,794) increased by \$35,059 due to the vesting of the stock options restricted stock units, and performance stock units on historical issuances.
- Transfer agent and regulatory fees of \$36,929 (September 30, 2022 - \$32,312) increased by \$4,617 mainly due to the TSXV fees related to the TAMKO Private Placement.
- Travel of \$40,274 (September 30, 2022 - \$60,788) decreased by \$20,514 as the Company stopped all unessential travel to decrease its burn rate.
- Wages and benefits of \$418,124 (September 30, 2022 - \$479,156) decreased by \$61,032 mainly due to the capitalization of wages into the project for the Empower Calgary Facility.

NORTHSTAR CLEAN TECHNOLOGIES INC.
Management's Discussion and Analysis
September 30, 2023

For the nine-month period ended September 30, 2023:

Loss and comprehensive loss for the period

The Company had a loss and comprehensive loss for the nine-month period ended September 30, 2023, of \$4,784,129 (September 30, 2022 - \$5,933,244). The net decrease of \$1,148,930 in the loss and comprehensive loss for the nine-month period ended September 30, 2023 compared to the nine-month period ended September 30, 2022 was mainly due to an increase of \$141,839 in Revenue, a decrease of \$398,256 in General and Administrative expenses, a decrease in Research and Development expenses of \$262,336, an increase in Other items of \$334,917 mainly consisting of foreign exchange gains, loss on tax receivable and interest income, and an change in income tax recovery of \$53,384. The changes in Revenue, General and Administrative, Research and Development expenses, and Other income are noted below.

Revenue

During the nine-month period ended September 30, 2023, the Company reported revenue of \$141,839 (September 30, 2022 – NIL). This is due to the Company starting to collect shingles in 2023 and getting tipping fees in exchange as well as receiving income from recycling the metal and wood waste received in the shingle bins.

Other income

During the nine-month period ended September 30, 2023, the Company reported interest income of \$8,444 (September 30, 2022 - \$15,181), other income of \$25,317 (September 30, 2022 – \$12,136), a loss on tax receivable of \$NIL (September 30, 2023 - \$130,522), and a foreign exchange gain of \$199,048 (September 30, 2022 –\$1,097), compared to the nine-month period ended September 30, 2022. The interest income is due from a net investment in sublease and reported separately from the interest expense of \$8,296 on the lease liability, the other income is from a Hydro rebate on at the Delta Pilot Facility, and the exchange loss is on US currency purchases.

Research and development expenses (“R&D”)

During the nine-month period ended September 30, 2023, the Company reported R&D of \$747,445 compared to \$1,009,781 for the nine-month period ended September 30, 2022. The items that caused the \$262,336 decrease is noted in the following:

In comparison to the nine-month period ended September 30, 2022:

- Contract consulting fees of \$300,166 (September 30, 2022 - \$373,461) decreased by \$73,295 due to the Company using less consultants than in the prior year.
- Repairs and maintenance of \$84,845 (September 30, 2022 - \$9,093) increased by \$75,752 due to some major repairs done on the rotochopper equipment and other large equipment, and some electrical work.
- Site materials of \$362,434 (September 30, 2022 - \$627,227) decreased by \$264,793 mainly due to the return of certain equipment rentals and less supplies needed as production is minimized.

General and administrative expenses

General and administrative expenses of \$4,464,901 (September 30, 2022 - \$4,863,157) are primarily comprised of advertising and promotion, bank charges & interest, consulting fees, depreciation, insurance, IT & communications, office expenses, professional fees, rent and utilities, share-based compensation, transfer agent and regulatory fees, travel, and wages & benefits. The net decrease was \$398,256 compared to the nine-month period ended September 30, 2022. Items that caused the net decrease are noted in the following:

In comparison to the nine-month period ended September 30, 2022:

- Advertising and promotion of \$208,361 (September 30, 2022 - \$507,598) decreased by \$299,237 as the Company focused on decreasing its monthly burn rate.
- Bank charges and interest of \$424,273 (September 30, 2022 - \$169,346) increased by \$254,927. Accretion interest on new leases on the premises and acquisition of the Northstar lease account for a decrease of \$2,963, interest expense on convertible debentures accounts for \$144,458 increase, accretion interest on the convertible debenture accounts for an

NORTHSTAR CLEAN TECHNOLOGIES INC.

Management's Discussion and Analysis

September 30, 2023

increase of \$119,684, and a decrease of bank charge and other interest of \$6,252.

- Consulting of \$183,948 (September 30, 2022 - \$237,215) decreased by \$53,267 due to the Company reducing consulting fees or ending consulting contracts to minimize monthly spend.
- Depreciation of \$783,114 (September 30, 2021 - \$786,394) decreased by \$3,280 based on the depreciation calculations of its processing equipment at the Empower Pilot Facility.
- Insurance of \$82,782 (September 30, 2022 - \$99,658) decreased by \$16,876 due to the renewal rates for D&O and property and plant liability insurance.
- IT and Communications of \$68,224 (September 30, 2022 - \$123,884) decreased by \$55,660 due to the Company incurring ERP consulting fees in the previous year.
- Office and miscellaneous of \$25,965 (September 30, 2022 - \$43,851) decreased by \$17,886 due to a decrease in donations of \$2,000, an increase in subscription dues & licences of \$2,793, a decrease in postage of \$3,339, a decrease in general office supplies of \$8,182 and a decrease in employee health & safety training of \$7,158.
- Operating costs of \$54,219 (September 30, 2022 - \$NIL) increased by \$54,219 as these costs relate to the disposal of garbage received in the single bins. The Company only started receiving shingles in February 2023, therefore did not incur any costs in the previous year.
- Professional fees of \$386,210 (September 30, 2022 - \$413,213) decreased by \$27,003. Legal fees decreased by \$3,887, accounting fees decreased by \$31,151 due to the Company having a Director of Finance in the prior year, and professional fees increased by \$8,035 due to increased costs in the preparation of the SR&ED claims.
- Rent and utilities of \$240,538 (September 30, 2022 - \$264,495) decreased by \$23,957 due to an increase in the Empower Pilot Facility payments which accounted for an increase of \$10,973, an increase of \$3,992 for the new Empower Calgary Facility lease, a decrease in rent payments due to the Calgary head office being terminated at the end of March 2023 which accounted for \$24,750, utilities increased by \$7,446, and ground maintenance increased by \$6,726.
- Share-based compensation of \$380,305 (September 30, 2022 - \$533,313) decreased by \$153,008 due to the vesting of the stock options restricted stock units, and performance stock units on historical issuances.
- Transfer agent and regulatory fees of \$84,046 (September 30, 2022 - \$73,133) increased by \$10,913 mainly due to additional TSXV fees, offset by the timing of the renewal of the OTC Markets application fee which occurred in Q1 of the prior year but was renewed again in December 2022 rather than January 2023.
- Travel of \$101,064 (September 30, 2022 - \$187,182) decreased by \$86,118 as the Company stopped all unessential travel to decrease its burn rate.
- Wages and benefits of \$1,441,668 (September 30, 2022 - \$1,423,875) increased by \$17,793 as the Company hired an additional executive staff member during Q1 2022, and certain staff members received a pay increase and bonus, offset by the capitalization of wages into the Empower Calgary Facility.

LIQUIDITY AND CAPITAL RESOURCES

The Company's development of asphalt processing activities has been funded to date primarily through the issuance of common shares loan financings, and grant financings, and the Company expects that it will continue to be able to utilize this source of financing until it develops cash flow from its reprocessing operations. Other than as discussed herein, the Company is not aware of any trends, demands, commitments, events or uncertainties that may result in its liquidity either materially increasing or decreasing at present or in the foreseeable future. Material increases or decreases in the Company's liquidity will be substantially determined by the success or failure of its commercialization of a proprietary process technology for the reprocessing of asphalt shingles and the extraction and recovery of asphalt, fiber and aggregate to be sold and used in asphalt pavement, shingle manufacturing, construction products, and other industrial applications, as well as its continued ability to raise capital.

The Company anticipates spending approximately \$17,000,000 in capital resources on its processing equipment and R&D in the next twelve months.

Currently, the Company's overhead expenses are averaging approximately \$350,000 per month on a consolidated basis (excluding share-based payments on issuance of stock options) during the development and setting up of the Empower Calgary Facility. The Company assesses its financing requirements and its ability to access equity or debt markets on an ongoing basis. The assessment considers: the stage and success of the Company's evaluation activities to date; the continued participation of the Company's partners in evaluation activities; and financial market conditions. It is possible that future economic events and global conditions may result in further volatility in the financial markets which could negatively impact the Company's ability to access equity or debt markets in the future.

NORTHSTAR CLEAN TECHNOLOGIES INC.
Management's Discussion and Analysis
September 30, 2023

In August 2022, the Company issued 1,250,000 shares to Renewable U in a non-brokered private placement for a subscription price of \$0.40 per share.

On October 3, 2022, the Company issued 625,000 shares to Renewable in a non-brokered private placement at a price of \$0.40 per Common Share for gross proceeds of \$250,000.

On December 15, 2022, the Company issued \$1,440,000 of unsecured Convertible Debentures in a non-brokered private placement.

On February 28, 2023, the Company issued \$625,000 of unsecured Convertible Debentures in a non-brokered private placement.

On April 19, 2023, the Company issued 18,195,367 units in a non-brokered private placement.

On July 31, 2023 the Company closed a non-brokered private placement to TAMKO of 29,244,756 Preferred Shares at a price of \$0.29 per Preferred Share for aggregate proceeds of \$8,480,979.24 (US\$6,424,984.27).

On November 21, 2023, the Company announced a convertible debenture private placement of up to \$3.5 million.

Net cash used in operating activities for the period ended September 30, 2023 was \$3,212,361 compared to \$4,044,349 for the period ended September 30, 2022, consisting primarily of the operating loss for the period and the change in non-cash items.

Net cash used in investing activities for the period ended September 30, 2023, was \$335,828 compared to \$686,919 used in investing activities during the period ended September 30, 2022. The change consisted of cash used for the acquisition of property, plant and equipment of \$212,017 (September 30, 2022 - \$771,876), the acquisition of intangible assets of \$12,110 (September 30, 2022 \$NIL), and refundable deposits paid \$111,701 (September 30, 2022 - \$15,043).

Net cash increase in financing activities for the period ended September 30, 2023 was 10,979,066 compared to \$19,312 during the period ended September 30, 2022 which consisted of \$618,900 (September 30, 2022 \$NIL) from convertible debentures, \$2,652,532 (September 30, 2022 - \$NIL) from proceeds from issuance of common shares, \$8,409,523 (September 30, 2022 - \$NIL) from proceeds from issuance on preferred shares, \$131,250 (September 30, 2022 - \$NIL) in deferred costs, \$91,050 (September 30, 2022 - \$61,863) in loan repayments, and \$479,589 (September 30, 2022 - \$418,825) in net lease payments made on IFRS-16 leased premises.

OFF-BALANCE SHEET ARRANGEMENTS

The Company has not entered into any off-balance sheet transactions.

RELATED PARTY TRANSACTIONS

- (a) As at September 30, 2023, accounts payable and accrued liabilities include \$714,571 (December 31, 2022 - \$754,656) owing to companies with certain directors in common and companies controlled by certain directors and officers or former directors. The amounts are unsecured, non-interest bearing and due on demand.
- (b) Key management personnel include those persons having authority and responsibility for planning, directing and controlling the activities of the Company as a whole. During the years presented the Company paid or accrued the following key management personnel compensation to directors, officers, and/or companies controlled by directors and officers and/or companies with certain directors in common:

NORTHSTAR CLEAN TECHNOLOGIES INC.
Management’s Discussion and Analysis
September 30, 2023

	Three Months Ended September 30, 2023	Three Months Ended September 30, 2022	Nine Months Ended September 30, 2023	Nine Months Ended September 30, 2022
Advertising, marketing and promotion	\$ 15,000	\$ -	\$ 48,750	\$ 53,800
Consulting fees	-	18,000	-	54,000
Professional fees	-	-	-	80,000
Wages, bonuses and benefits	262,328	203,750	986,602	591,635
Share-based payment	157,546	81,755	288,154	353,191
	\$ 434,874	\$ 303,505	\$ 1,323,506	\$ 1,132,626

(c) During the year ended December 31, 2021, the Company acquired equipment in the amount of \$270,000 plus GST and PST from a company controlled by a former director of a wholly owned subsidiary of the Company. See Note 6 for additional disclosure.

(d) On February 28, 2023 \$50,000 (December 15, 2022, \$360,000) was received in convertible debenture proceeds by officers or directors of the Company.

(e) As at September 30, 2023, prepaids includes \$NIL (December 31, 2022 - \$45,000) to a company controlled by a director.

COMMITMENTS

Lease Commitments

The Company renegotiated a new lease for the Empower Pilot Facility in Delta, BC effective January 1, 2021 for an initial term of 5 years with an option to extend for an additional 5 year. The basic annual rents are as follows:

- from January 1, 2021 to December 31, 2022 - \$558,435 per annum
- from January 1, 2023 to December 31, 2024 - \$583,563 per annum, and
- from January 1, 2025 to December 31, 2025 - \$609,837 per annum

Estimated additional rents are approximately \$126,000 per annum.

Northstar’s wholly owned subsidiary, Empower Environmental Solutions Calgary Ltd., negotiated a new lease for the planned scale up facility in Rocky View County, near Calgary, Alberta effective August 18, 2023 for an initial term of 15-years with an option to extend for two additional 5 year terms. The Company formally took occupancy of the site in Calgary on September 1, 2023. The basic annual rents are as follows:

- from August 18, 2023 to August 17, 2028 - \$346,516 per annum
- from August 18, 2028 to August 17, 2033 - \$381,168 per annum, and
- from August 18, 2033 to August 17, 2038 - \$419,284 per annum

Estimated additional rents are approximately \$120,000 per annum.

The Company negotiated a definitive take-or-pay binding offtake agreement with Colas Canada’s subsidiary McAsphalt Industries for 100% of liquid asphalt production from its Empower Calgary Facility. The key commercial terms of the Offtake Agreement are:

- **Term:** an initial five-year term with automatic three-year renewal options, unless either party provides 180 days written notice of its intention not to renew.
- **Pricing:** The agreed terms of the sale price of liquid asphalt is confidential due to commercial sensitivity reasons, but pricing is market based and includes the market index, a quality and locational differential, and a sustainability premium.
- **Risk Management:** Risk management pricing is incorporated into the pricing mechanism and other sharing

NORTHSTAR CLEAN TECHNOLOGIES INC.

Management's Discussion and Analysis

September 30, 2023

- mechanisms to allow best risk allocation for the benefit of both parties and ultimately the project.
- **Third Party sales:** Northstar and McAsphalt will have the ability to enter into third party sales agreements for the liquid asphalt product produced from the Empower Calgary Facility. The detailed terms of any third-party agreement are confidential.
- **Life-Cycle Analysis:** Northstar and McAsphalt will work together to develop a life-cycle analysis for Northstar's proprietary clean technology.
- **Environmental Credits:** Northstar and McAsphalt will work together on the development of a protocol to create environmental credits. Should environmental credits be created, the sustainability premium will be calculated based on the joint contribution to the protocol development.

Loans Payable

	Equipment Loan
Loans payable:	
Balance – December 31, 2021	\$ 239,015
Accrued interest	2,363
Repayment of loan and interest	(92,363)
Interest accretion on low interest loan	18,946
Balance – December 31, 2022	167,961
Less current portion	(121,250)
Long term portion	\$ 46,711
Balance – December 31, 2022	167,961
Accrued interest	1,050
Repayment of loan	(91,050)
Interest accretion on low interest loan	8,793
Balance – September 30, 2023	86,754
Less current portion	(86,754)
Long term portion	\$ -

Equipment loan:

The Company acquired \$270,000 of equipment from a company controlled by a former officer and current employee of the Company during the year ended December 31, 2021. The loan carries an annual interest rate of 1% per annum, secured by the equipment and repayable in monthly instalments of \$5,000 plus interest for the first 6 months and \$10,000 per month plus interest until fully paid. Interest payments began in July 2022. The equipment loan was recognized as the present value using a 10% market rate of interest. The difference was recognized as a shareholder contribution in reserves on low interest loan. The amount outstanding as at September 30, 2023 was \$86,754 (December 31, 2022 - \$167,961).

Contract Commitments

The Company has entered into contracts with the following vendors relating to the purchase of equipment for the new Calgary facility:

HAZEMAG CANADA INC.	\$1,027,600 USD
LCI Corporation	\$ 994,515 USD
Stellar Power & Control Systems	\$ 609,151 CAD

NORTHSTAR CLEAN TECHNOLOGIES INC.
Management's Discussion and Analysis
September 30, 2023

CAPITAL MANAGEMENT

The Company's capital comprises its shareholders equity under management. The Company's objectives when managing capital are to safeguard the Company's ability to continue as a going concern in order to pursue the development of its processing technology and to maintain a flexible capital structure which optimizes the costs of capital at an acceptable risk.

The Company manages the capital structure and makes adjustments to it in light of changes in economic conditions and the risk characteristics of the underlying assets. To maintain or adjust the capital structure, the Company may attempt to issue new shares, issue new debt or convertible debt, enter into strategic partnerships, and/or acquire or dispose of assets.

In order to facilitate the management of its capital requirements, the Company prepares expenditure budgets that are updated as necessary depending on various factors, including successful capital deployment and general industry conditions. The Board of Directors does not establish quantitative return on capital criteria for management, but rather relies on the expertise of the Company's management to sustain future development of the business.

In order to maximize ongoing development efforts, the Company does not pay dividends. The Company's investment policy is to invest its short-term excess cash in highly liquid short-term interest-bearing investments with maturities of 365 days or less from the original date of acquisition, selected with regards to the expected timing of expenditures from continuing operations.

To fund future operations, the Company will need to raise funds through future share issuances, issue new debt, secure government grants, dispose of assets, or enter into strategic partnerships.

There have been no changes to the Company's approach to capital management during the period ended September 30, 2023. The Company is not subject to externally imposed capital requirements.

FAIR VALUE OF FINANCIAL INSTRUMENTS AND RISK MANAGEMENT

Financial Risk Management Objectives

The Company examines the various financial instrument risks to which it is exposed and assesses the impact and likelihood of those risks. These risks may include credit risk, liquidity risk, currency risk and interest rate risk. Where material, these risks are reviewed and monitored.

Liquidity and Capital Management

The Company manages its capital to ensure that it will be able to continue as going-concern while maximizing the return to shareholders through the optimization of debt and equity balances.

The capital of the Company consists of items included in Shareholders' Equity of \$6,756,306.

The Company manages its capital structure and makes adjustments in light of changes in economic conditions. To maintain or adjust the capital structure, the Company may issue equity or return capital to shareholders. There were no changes to the Company's approach to capital management during the period ended September 30, 2023. The Company is not subject to externally imposed capital requirements.

Credit risk

Credit risk is the risk that a counterparty to a financial instrument will fail to discharge an obligation or commitment that it has entered into with the Company. The carrying amounts of financial assets best represent the maximum credit risk exposure at the reporting date.

Cash is held with reputable banks in Canada. The long-term credit rating of these banks, as determined by Standard and Poor's, was A+.

NORTHSTAR CLEAN TECHNOLOGIES INC.

Management's Discussion and Analysis

September 30, 2023

Liquidity risk

Liquidity risk is the risk that the Company will not meet its financial obligations as they become due.

Accounts payables and accrued liabilities are paid in the normal course of business generally according to their terms. In the normal course of business, the Company enters into contracts that give rise to commitments for future minimum payments. As at September 30, 2023, the Company had \$8,545,043 in cash to settle current liabilities of \$2,176,968 and as such, management believes it has exposure to liquidity risk.

Interest Rate Risk

Interest rate risk is the risk that the fair value or future cash flows of financial instruments will fluctuate because of changes in market interest rates. The Company is not subject to interest rate risk.

Foreign currency risk

The Company is exposed to foreign currency risk to the extent that monetary financial instruments are denominated in United States dollars. The Company has not entered any foreign currency contracts to mitigate this risk. The Company's sensitivity analysis suggests that a 10% change in the rate of exchange between the Canadian and United States dollar would have an insignificant impact on its results of operations as it held nominal financial assets and liabilities denominated in United States dollars.

Force Majeure Events

The Company's operations may be adversely impacted by factors that are beyond the Company's control including pandemics, natural disasters, terrorism, labour disruptions, outbreaks of war, and other forms of economic, health or political disruptions. Such factors may not be foreseeable and may significantly adversely affect global economic conditions, including inflation, supply chain, global shipping, and currency volatility. While many of the restrictions imposed during the COVID-19 pandemic are now being eased globally, the Company's business may still be impacted through lingering or renewed effects of the pandemic, including through supply chain, financial constraints of its customers and suppliers, increasing costs, and difficulty attracting skilled labor, with a result that it may not be able to build, own and operate its Empower Pilot Facility and/or the Empower Calgary Facility within the anticipated timeframe or on budget. In some cases, such delays may result in liquidated damages, and may adversely affect the Company's operations.

The Russia-Ukraine war has drastically reduced capacity for Ukraine to supply goods and raw materials, such as steel. The sanctions imposed on Russia have also led to the reduced availability of Russian-produced steel and other products.

Climate change has increased the incidence of natural disasters caused by weather and climate extremes including heatwaves, droughts, forest fires, atmospheric rivers, torrential downpours and flooding.

Future incidents could significantly adversely affect the Company's operations either directly, or by affecting the businesses of its suppliers or customers. Other events and factors that are beyond the Company's control but that may have a significant adverse effect on the Company's operations include but are not limited to strikes and labour disruptions affecting the Company's suppliers or customers, and global political instabilities such as the outbreak of war, discussed below under "Macroeconomic and Geopolitical Risks and Uncertainties".

While the Company works to mitigate the effects of these uncontrollable events, there is no assurance that they will be effective in doing so in future, particularly when multiple events coincide, and they may negatively impact the Company's operations and profitability.

Unexpected Disruptions Affecting Projects and Operations

The Company's current and future operations can sometimes be subject to delays for a variety of reasons, including labour slowdowns, construction delays unrelated to the Company's products, technological malfunctions, defective materials, or workplace safety. Such delays may delay the recognition of revenue, discourage customers from doing business with the

NORTHSTAR CLEAN TECHNOLOGIES INC.

Management's Discussion and Analysis

September 30, 2023

Company, and may hurt the Company's reputation, affecting future sales prospects. The Company may lose sales and may not be able to replace those sales at an acceptable margin or at all. There can be no assurance that such delays will be overcome in a timely manner and to the satisfaction of the customer.

Furthermore, the Company enters into agreements which, consistent with industry standards, may include liquidated damages or termination provisions which may allow customers to claim amounts or terminate and not proceed with proposed projects.

Macroeconomic and Geopolitical Risks and Uncertainties

Macroeconomic and geopolitical risks and uncertainties may have a material adverse impact on the Company's operations. The Company procures a portion of its supplies and equipment from global suppliers. Economic, legal and political conditions globally could adversely affect the Company's ability to conclude sales and procure and timely deliver products. These factors may significantly adversely affect the availability and costs of raw materials and equipment, contribute to inflation and cause currency fluctuations, and cause market volatility, all of which could significantly impact the Company's revenues and profitability and its ability to raise capital as needed.

The Russia-Ukraine war and its related economic and political sanctions on global fuel sources has exacerbated an already challenged global shipping environment and supply chain challenges, for example. These conditions are beyond the Company's control and there can be no assurances that any mitigating actions by the Company or the Company's suppliers will be effective.

Sourcing Equipment

The continuation of global transportation and logistics challenges may have a negative impact on the Company's ability to timely source products and capital equipment. To the Company's knowledge, none of the Company's suppliers or customers have entered into bankruptcy due to the COVID-19 pandemic, natural disaster or other adverse supply chain effects. The Company's purchasing plan identifies alternative sources of supply for equipment suppliers and product fabricators that are essential to the Company's business operations. In 2022, the global supply chain, which was already disrupted by the COVID-19 pandemic, was further impacted by the Russia-Ukraine war. The prices for goods and services continued to increase due to worldwide inflation. The Company is subject to a continued risk resulting from the COVID-19 pandemic, the war in Ukraine and other risks affecting the global supply chain.

Fair Value Measurements Recognized in the Statement of Financial Position

The following table summarizes the carrying values of the Company's financial instruments.

	September 30, 2023	December 31, 2022
Financial assets at FVTPL (i)	\$ 8,545,043	\$ 1,114,166
Financial assets at amortized cost (ii)	\$ 29,003	\$ -
Financial liabilities at amortized cost (iii)	\$ 3,031,310	\$ 2,385,089

(i) Cash and investments

(ii) Trade receivables

(iii) Accounts payable and accrued liabilities and equity-based compensation payable and loans payable, and convertible debentures

The Company categorizes its financial assets and liabilities measured at the fair value into one of three different levels depending on the observability of the inputs used in the measurement.

The three levels are defined as follows:

- Level 1 – inputs to the valuation methodology are quoted prices (unadjusted) for identical assets or liabilities in active markets.
- Level 2 – inputs to valuation methodology include quoted prices for similar assets and liabilities in active markets, and inputs that are observable for the asset or liability, either directly or indirectly, for substantially the full term of the financial instrument.

NORTHSTAR CLEAN TECHNOLOGIES INC.
Management’s Discussion and Analysis
September 30, 2023

- Level 3 – inputs to the valuation methodology are unobservable and significant to the fair value measurement.

Cash is measured at fair value using Level 1 inputs. There has been no change to the fair value hierarchy levels during the period.

The fair values of other financial liabilities approximate their carrying value, due to their short-term nature or market rate of interest.

OUTSTANDING SHARE DATA AS AT SEPTEMBER 30, 2023:

- a) Authorized Share Capital:
 Unlimited number of common shares without par value
- b) Issued Share Capital:
 126,710,381 common shares with a stated value of \$28,137,041
 29,244,756 preferred shares with a stated value of \$8,480,979

- c) Outstanding stock options:

	Expiry Date	Exercise Price	Number of Options
	December 15, 2024	\$ 0.35	475,000
	February 16, 2026	\$ 0.35	2,500,000
	June 12, 2026	\$ 0.35	300,000
	July 12, 2026	\$ 0.35	2,100,000
	December 15, 2026	\$ 0.35	400,000
	February 7, 2027	\$ 0.35	200,000
	April 19, 2027	\$ 0.35	260,854
	August 30, 2027	\$ 0.35	20,000
	March 2, 2028	\$ 0.21	11,000
	August 10, 2028	\$ 0.21	1,145,472
Outstanding			7,412,326
Exercisable			6,565,951

- d) Outstanding share purchase warrants:

	Expiry Date	Exercise Price	Number of Warrants
	July 13, 2026	\$ 0.279	4,596,268
Finders warrants	July 13, 2026	\$ 0.279	406,249
	July 13, 2026	\$ 0.465	490,615
Finders warrants	July 13, 2026	\$ 0.465	204,457
Broker warrants	December 15, 2025	\$ 0.350	157,200
Broker warrants	February 28, 2026	\$ 0.350	24,000
	April 19, 2026	\$ 0.200	18,195,367
Broker warrants	April 19, 2026	\$ 0.200	511,819
Outstanding and exercisable			24,585,975

NORTHSTAR CLEAN TECHNOLOGIES INC.
Management’s Discussion and Analysis
September 30, 2023

e) Issued Restricted Stock Units and Performance Stock Units:

	Vesting Date	Issued	Cash Settled	Stock settled
2022 Restricted Stock Units	June 23, 2023	11,785	11,785	-
2022 Restricted Stock Units	March 31, 2024	130,424	11,785	118,639
2022 Restricted Stock Units	March 31, 2025	130,424	11,785	118,639
2023 Restricted Stock Units	September 7, 2024	296,605	29,464	267,141
2023 Restricted Stock Units	March 31, 2025	296,606	29,464	267,142
2022 Actual Performance Stock Units	June 23, 2023	256,663	256,663	-
2022 Actual Performance Stock Units	July 13, 2024	652,142	256,663	395,476
2022 Actual Performance Stock Units	July 13, 2025	652,142	256,663	395,476
2023 Maximum Performance Stock Units	September 7, 2024	4,449,103	2,445,533	2,003,570
2023 Maximum Performance Stock Units	March 31, 2025	4,449,104	2,445,533	2,003,570
Total Restricted Stock Units and Performance Stock Units		11,324,998	5,755,344	5,569,653

f) Shares held in escrow or pooling agreements: As of the date of this MD&A, there are currently 5,112,277 common shares, and 22,500 warrants held in escrow. In connection with the listing of the Common Shares for trading on the TSXV in July 2021, an aggregate of 17,040,927 Common Shares, and 75,000 Warrants were deposited in escrow with Computershare on June 18, 2021, of which 10% of such Common Shares were released from escrow on the date the Common Shares were listed on the TSXV, and 15% are to be release from escrow every six months thereafter, subject to the provisions provided for in NP 46-201.

SUBSEQUENT EVENTS

- a) On October 4, 2023, the Company issued 25,000 stock options to an employee of the Company.
- b) On October 16, 2023, the Company commenced detailed engineering design for the Empower Calgary Facility. Detailed engineering design will include the following key deliverables: final piping & instrumentation diagrams (“P&IDs”), plant layout plan, issued for construction drawings, tender packages for equipment procurement, assembly plans and commissioning procedures.
- c) On November 1, 2023, the Company placed orders for three major long-lead equipment items for the Empower Calgary Facility. The items will be manufactured off-site and will be delivered to Calgary as skid-mounted pieces of equipment. The total value of the orders placed is approximately \$3.3 million and represents a significant portion of the major equipment spend for the Empower Calgary Facility.
- d) On November 21, 2023, the Company announced a private placement offering of unsecured convertible debenture units of the Company at a price of \$5,000 per Convertible Debenture Unit for aggregate proceeds of up to \$3,500,000 on both a brokered and non-brokered basis.