ZINC8 ENERGY SOLUTIONS INC.

Unit 1 – 8765 Ash Street
Vancouver, BC V6P 6T3

MANAGEMENT DISCUSSION AND ANALYSIS
FOR THE THREE AND NINE MONTHS ENDED SEPTEMBER 30, 2021

The following Management's Discussion and Analysis ("MD&A"), prepared as of November 29, 2021, should be read in conjunction with the unaudited condensed interim financial statements of Zinc8 Energy Solutions Inc. ("Zinc8" or the "Company") for the three and nine months ended September 30, 2021, together with the audited financial statements of the Company for the year ended December 31, 2020 and the accompanying MD&A for that fiscal year. The referenced financial statements have been prepared in accordance with International Financial Reporting Standards ("IFRS"), as issued by the International Accounting Standards Board applicable to the preparation of interim financial statements, including IAS 34 Interim Financial Reporting. All financial amounts are stated in Canadian dollars unless stated otherwise.

Additional information relating to the Company and its operations is available under the Company's profile on SEDAR at www.sedar.com

FORWARD-LOOKING STATEMENTS

The Company's condensed interim financial statements for the nine months ended September 30, 2021, and this accompanying MD&A contain statements that constitute "forward-looking statements" within the meaning of National Instrument 51-102 - *Continuous Disclosure Obligations* of the Canadian Securities Administrators.

It is important to note that, unless otherwise indicated, forward-looking statements in this MD&A describe the Company's expectations as of November 29, 2021.

Certain statements contained in this MD&A may constitute "forward-looking statements". Such term is defined in applicable securities laws. The forward-looking statements include, without limitation, statements with respect to the success of research and development activities; the Company's new and existing technology; the Company's ability to obtain necessary financing; the completion of the Transaction (as defined herein) and the listing of the Company's shares on the Canadian Securities Exchange; the Company's ability to meet its obligations as they become due; and other similar statements concerning anticipated future events, conditions or results that are not historical facts. These statements reflect management's current estimates, beliefs, intentions and expectations; they are not guarantees of future performance. The Company cautions that all forward-looking information is inherently uncertain and that actual performance may be affected by a number of material factors, many of which are beyond the Company's control. Such factors include, among others, risks relating to research and development; the Company's intellectual property applications being approved; the Company's ability to protect its proprietary rights from unauthorized use or disclosure; the ability of the Company to obtain additional financing; the Company's limited operating history; the need to comply with environmental and governmental regulations; fluctuations in currency exchange rates; operating hazards and risks; competition; and other risks and uncertainties. Although the Company has attempted to identify important factors that could cause actual actions, events or results to differ materially from those described in forward-looking information, there may be other factors that cause actions, events or results not to be as anticipated, estimated or intended. Accordingly, actual future events, conditions and results may differ materially from the estimates, beliefs, intentions and expectations expressed or implied in the forward-looking information. All statements are made as of the report date and, except as required by law, the Company is under no obligation to update or alter any forward-looking information.

DESCRIPTION OF BUSINESS

The Company was incorporated on December 8, 2011 pursuant to the BC Business Corporations Act and the Company's head office is located at #1 – 8765 Ash Street Vancouver, BC V6P 6T3.The Company is executing the development and commercialization of a dependable, low-cost zinc-air battery. The Company believes that this mass storage system will offer both environmental and economic benefits.

The Company's Zinc-Air Energy Storage System (the "Zinc-Air System") technology has been developed around the utilization of zinc as the anode fuel, which is expected to offer numerous advantages over other forms of metals due to its unique attributes, which include high energy density, abundant availability, low cost, and ease of storage and handling. The regenerative system does not require fuel replacement and offers scalable energy capacity through the simple introduction of additional fuel tanks.

On December 19, 2017, there was a change of control event whereby MGX Minerals Inc. ("MGX") acquired all of the outstanding common shares of the Company in exchange for common shares of MGX and cash considerations. On April 3, 2018, MGX announced it would pursue a reorganization, pursuant to which it would spin-out its interests in the Company, resulting in the Company becoming listed as a separate company on the Canadian Securities Exchange ("CSE") (the "Transaction"). On July 15, 2019, the Company filed a Listing Statement outlining the full details of the Transaction. Additional information is also contained in news releases of Zinc8 dated July 9, 2019, and July 22, 2019 available on Sedar.com

HIGHLIGHTS

During the nine months ended September 30, 2021, the Company entered into an agreement for testing and production of a 10kw-80kwh battery system. As at September 30, 2021, the Company had completed certain milestones and recorded $93,750 in revenue. Upon completion of additional milestones, the Company can earn an additional US $125,000.

On July 12, 2021, the Company announced that it was selected as the Energy Tech Innovator at the WE3 Summit. The WE3 Summit is focused on connecting global though leaders embracing changing and spearheading a water-energy future.

On April 23, 2021, the Company announced it had signed a US$200,000 contract with a cloud data center provider to demonstrate its 10kW/80kWh Zinc-Air System for resilient backup application. The unit will undergo assessment tests to address unique use cases in data centers and represents an expansion in to broader new markets for the Company's Zinc-Air System. Zinc8 will provide a demonstration of its Zinc-Air System combined with uninterruptible power supply ("UPS") to be compared with the performance of a traditional generator set. The demonstration will consist the Zinc-Air System connected to a UPS and operated in standby and black started into discharge. The successful completion of the pilot demonstration will validate a low-cost, long duration (8 to 100 hour) and sustainable energy storage technology which can provide megawatt-scale standby power solutions.

On April 8, 2021, the Company announced the planned deployment of the Zinc-Air System at the University of Buffalo, in collaboration with the New York Power Authority ("NYPA"). The site will allow for the demonstration of a 100kW/1MWh Zinc-Air System to facilitate the wider use of renewable resources.

On February 24, 2021, the Company closed a private placement offering of 28,750,000 common shares at a price of $0.54 per share for gross proceeds of $15,525,000. The Company incurred cash issue costs of $1,014,230 and issue 1,725,000 compensation warrants with each compensation warrant exercisable at a price of $0.54 per warrant until February 24, 2023.

OVERALL PERFORMANCE

The Company's operations are not currently revenue generating and the Company will need to continue to rely on its ability to obtain the necessary financing through grants and other financings to complete the development of zinc-air flow batteries.

Zinc-Air Technology

The Company's zinc-air technology consists of three major components: the fuel tank where zinc particles and a potassium hydroxide (KOH) electrolyte are stored; the cell stack where the fuel is converted to electrical power; and the regenerator unit where the electrical power is converted back to fuel. In operation, electrical energy from a source is used to convert zinc oxide to zinc metal in the regenerator unit. The zinc "fuel" thus created is stored in the fuel tank until required. When stored energy is to be released, the zinc fuel is pumped into the cell stack where it reacts with atmospheric oxygen to produce electricity.

The modular system is currently designed to deliver power in the range of 20kW to 1MW and energy in the range of 160kWh to 8MWh. The system can be configured to support a wide range of discharge power, recharge power and duty cycle requirements.

The Company has commenced development of a scaled-up 20 kW/160-kilowatt hour ("kWh") system for use in utility-scale battery storage. The 20kW/160kWh modules represent a four-times increase in both energy and power as compared to its current 5kW systems. The 20kW system is expected to retain all attributes of the Company's existing 5kW systems, while providing additional benefits, including lower costs and higher energy density along with adaptability for new applications beyond mass energy storage. The containerized system may be easily scaled to megawatt storage and output capacities. To date, Zinc8 has been awarded 20 patents covering its mass storage technology.

COOPERATION AGREEMENT

The Company entered into a Cooperation agreement (the "Agreement") dated December 24, 2019 with The Power Authority of the State of New York for the installation of a 100kW/1MWh Zinc-Air Battery Energy Storage System in New York State.

Under the Agreement with the NYPA, the NYPA agreed to collaborate with the Company and contribute to a research and development project through its participation in aspects of design and fabrication of a zinc air energy storage system, the demonstration of the system and the Company agreed to collaborate with the NYPA to pursue the research and development project.

The NYPA agreed to contribute the following monetary contributions to the Company for the research and development of the Product:

- First Contribution - $835,000 USD (CAD$ 1,109,632 received in 2020), to be paid within 30 days following the Effective Date of this Agreement.

- Second Contribution - $0 USD, to be paid after 6 months following the Effective Date of this Agreement, after receipt and approval of the first interim fiscal report for the first 6-month period, but not before actual qualified expenses and the Company's project expenses have equaled or exceeded the minimum required expenditures.

  Minimum Required Qualified Expenses: $355,000 USD
  Minimum Required Company's Project Expenses: $0

- Third Contribution - $0 USD, to be paid after 12 months following the Effective Date of this Agreement, after receipt and approval of the second interim fiscal report for the second 6-month period, but not before actual qualified expenses and the Company's project expenses have equaled or exceeded the minimum required expenditures.

  Minimum Required Qualified Expenses: $835,000 USD
  Minimum Required Company's Project Expenses: 80% of $2,950,000 USD

- Fourth Contribution - $160,000 USD, to be paid after 18 months following the Effective Date of this Agreement, after receipt and approval of the third interim fiscal report for the third 6-month period, but not before actual qualified expenses and the Company's project expenses have equaled or exceeded the minimum required expenditures.

  Minimum Required Qualified Expenses: $995,000 USD
  Minimum Required the Company's Project Expenses: 80% of $4,100,000 USD

- Fifth Contribution - $380,000 USD, to be paid after 24 months following the Effective Date of this Agreement, after receipt and approval of the fourth interim fiscal report for the fourth 6-month period, but not before actual qualified expenses and the Company's project expenses have been equaled or exceeded the minimum required expenditures, whichever is later.

Minimum Required Qualified Expenses: $1,375,000 USD Minimum
Required the Company's Project Expenses: 80% of $5,400,000 USD

- Sixth Contribution - $20,000 USD, to be paid after 30-months following the Effective Date of this Agreement, after receipt and approval of the fifth interim fiscal report for the fifth 6-month period, or after actual qualified expenses and the Company's project expenditures have been equaled or exceeded the required expenditure, whichever is later.

Minimum Required Qualified Expenses: $1,395,000 USD
Minimum Required the Company's Project Expenses: 80% of $6,450,000 USD

- Final Contribution – After receipt and approval of the final fiscal report, a final contribution of $155,000 will be paid for actual qualified expenses and the Company's project expenditures have equaled or exceeded the required expenditures.

Minimum Required Qualified Expenses: $1,550,000 USD
Minimum Required the Company's Project Expenses: 80% of $6,450,000 USD

The term of this Agreement (the "Term") shall begin on the Effective Date and shall be valid for an initial period of 10 years as of the Effective Date, with automatic renewals of one (1) year periods each unless either Party provides written notification to the other. The NYPA, within its sole discretion and for any reason, may terminate this Agreement at any time upon 30 days' notice to the Company. Upon such termination, the Parties will conduct a final payment schedule, which will include any and all final payments due to each side.

DISCUSSION OF OPERATIONS

Three months ended September 30, 2021

The Company recorded net loss of $1,651,389 ($0.01 per share) for the three months ended September 30, 2021 as compared to net loss of $610,852 ($0.01 per share) for the three months ended September 30, 2020. During the three months ended September 30, 2021, the Company recorded revenue of $93,750 (2020 - $nil).

The change is due to the following:

- Amortization expense increased to $200,154 (2020 - $20,851) pursuant to increased right-of-use asset amortization.
- During the period ended September 30, 2021, the Company re-calculated certain lease liabilities and recorded a credit to interest expense of $101,373.
- The Company incurred share-based compensation expense of $2,660 (2020 - $6,076) related to the grant of stock options.
- The Company incurred management fees of $169,743 (2020 - $104,560) related to compensation to the CEO, CFO and Directors of the Company.
- Research and development increased to $1,162,323 (2020 - $65,275) as the Company has increased its efforts to develop the Zinc-Air System with a focus on commercialization in 2023.
- During the three months ended September 30, 2021, the Company recorded a gain on debt settlement of $29,703 (2020 - $nil) related to the settlement of disputed accounts payable.

Nine months ended September 30, 2021

The Company recorded net loss of $8,616,555 ($0.06 per share) for the nine months ended September 30, 2021 as compared to a net loss of $269,939 ($0.00 per share) for the nine months ended September 30, 2020.

The change is due to the following:

- The Company incurred $104,336 (2020 - $90,964) of filing and listing fees associated with being listed on the Exchange.
- The Company incurred share-based compensation expense of $3,730,302 (2020 - $969,623) related to the grant of stock options.
- Research and development increased to $3,531,198 (2020 - $1,862,328) as the Company was able to raise funds to further advance development of zinc-air battery technology.
- During the three months ended September 30, 2021, the Company recorded a gain on debt settlement of $199,004 (2020 - $3,736,152) related to the settlement of disputed accounts payable, the gain on debt settlement during the period ended September 30, 2020, relates to the settlement of the MGX note payable.
- During the nine months ended September 30, 2020, the Company recorded a severance expense of $420,881 related to the settlement with Jared Lazerson.

RESEARCH AND DEVELOPMENT

In order to execute the Company's business strategy, Zinc8 focusses heavily on research and development. During the nine months ended September 30, 2021, the Company incurred $3,531,198 (2020 - $1,862,328) of research and development expense. A breakdown of research and development expenditures during the nine months ended September 30, 2021, and 2020 is as follows:

	September 30, 2021 $	September 30, 2020 $
Materials	954,198	351,308
Operations	199,194	66,918
Personnel	2,362,778	1,441,290
Testing	15,028	2,812
	3,531,198	**1,862,328**

SUMMARY OF QUARTERLY RESULTS

The following table sets out financial information for the past eight quarters:

	Three Months Ended ($)			
	September 30, 2021	**June 30, 2021**	**March 31, 2021**	**December 31, 2020**
Net and comprehensive income (loss)	(1,651,389)	(5,113,523)	(1,851,643)	(1,773,883)
Basic and diluted loss per share*	(0.01)	(0.04)	(0.01)	(0.02)
Total assets	20,424,952	21,212,639	22,340,197	7,181,613
Working capital (deficit)	11,552,367	13,491,845	15,524,331	328,464

	Three Months Ended ($)			
	September 30, 2020	**June 30, 2020**	**March 31, 2020**	**December 31, 2019**
Net and comprehensive income	(610,852)	(2,316,114)	2,657,027	(1,051,158)
Basic and diluted loss per share*	(0.01)	(0.03)	0.04	(0.02)
Total assets	6,628,246	6,425,973	8,092,779	5,594,352
Working capital	126,557	(1,083,498)	699,915	(6,018,775)

* No exercise or conversion is assumed during the periods in which a loss is incurred, as the effect is anti-dilutive.

The increase in loss for the quarter ended June 30, 2021, was primarily related to $3,719,100 in share-based compensation expense related to the grant of 7,250,000 options.

The income during the quarter ended March 31, 2020 is due to a gain on debt settlement of $3,736,152. The loss for the quarter ended September 30, 2020 includes a $420,881 severance expense related to the settlement with Jared Lazerson.

OUTSTANDING SHARE DATA

The Company has authorized unlimited common shares without par value.

All share information is reported as of November 29, 2021, in the following table:

Type of Security	Number
Issued and outstanding common shares	152,184,609
Stock options with a weighted average exercise price of $0.45	12,826,450
Warrants with a weighted average exercise price of $0.35	10,903,520
Total	175,914,579

TRANSACTIONS WITH RELATED PARTIES

Compensation paid to key management during the nine months ended September 30, 2021 and 2020 was as follows:

	Three months ended September 30,		Nine months ended September 30,	
	2021	2020	2021	2020
	$	$	$	$
Management fees[1]	143,500	96,000	440,500	121,000
Payroll expense[2]	55,500	33,000	166,500	99,000
Share-based compensation	-	-	2,268,099	493,292
	199,000	**129,000**	**2,875,099**	**713,293**

[1]Includes fees paid to CEO Ron MacDonald and Directors: Charn Deol, Sean Charland and Dave Hodge
[2]Includes fees paid to VP of Engineering Tristan Sloan, the CFO Sorin Spinu and CTO Simon Fan

Key management includes the CFO, CEO, VP of Engineering and the Board of Directors. All related party transactions are in the normal course of operations and have been measured at the agreed to amounts, which is the amount of consideration established and agreed to by the related parties. As at September 30, 2021, the Company had pre-payment of $nil (2020 - $22,600) and had $nil included in accounts payable and accrued liabilities (2020 - $100,000) owing to a company controlled by the CEO of the Company.

A company related by common directors charged marketing fees of $50,000 (2020 - $136,450) and rent of $9,000 (2020 - $7,000) during the nine months ended September 30, 2021. The Company had a deposit of $nil (2020 - $50,000) and owed $nil included in accounts payable and accrued liabilities (2020 - $52,500) to the same company as at September 30, 2021.

As at September 30, 2021, the Company had $nil (2020 - $26,000) owing to other related parties included in accounts payable and accrued liabilities.

All related party transactions are in the normal course of operations and have been measured at the agreed to amounts, which is the amount of consideration established and agreed to by the related parties.

LIQUIDITY AND CAPITAL RESOURCES

As at September 30, 2021 the Company had working capital of $11,602,367 (December 31, 2020 – $328,464), has not generated any revenue from operations and has an accumulated deficit of $24,440,079 (December 31, 2020 - $17,823,527).

To date the Company has been funded through government grants and shareholder funding for research and development. As at September 30, 2021, the Company had sufficient funds to cover working capital expenditures for the next 12 months. However, the Company will need additional funding to continue the development of its zinc-air technology. In order to execute the Company's business strategy the Company will need to continue capital development through research and development. The Company expects to fund its future capital requirements through additional government grants and shareholder funding. The circumstances that could affect such sources of financing include those set out under “*Risk Factors*” in the accompanying Circular. See also the "*Financial Instrument*s" section of this MD&A.

FINANCING ACTIVITIES AND CAPITAL EXPENDITURES

On February 24, 2021, the Company closed a private placement offering of 28,750,000 common shares at a price of $0.54 per share for gross proceeds of $15,525,000. The Company incurred cash issue costs of $1,014,230 and issue 1,725,000 compensation warrants with each compensation warrant exercisable at a price of $0.54 per warrant until February 24, 2023. The Company fair valued the warrants at $889,594 using the Black-Scholes option pricing model based on the following assumptions: risk free rate – 0.23%; expected dividend - nil; expected life – 2 years; expected volatility – 138%.

During the nine months ended September 30, 2021, the Company issued 17,667,564 common shares pursuant to warrant exercises for gross proceeds of $2,789,417 and 428,199 common shares pursuant to stock option exercises for gross proceeds of $93,614.

During the nine months ended September 30, 2021, the Company incurred $1,192,845 (2020 - $253,977) in capital expenditures related to equipment purchases and leasehold improvements.

OFF-BALANCE SHEET ARRANGEMENTS

The Company does not utilize off-balance sheet transactions.

PROPOSED TRANSACTIONS

The Company has no proposed transactions that will materially affect the performance of the Company.

ACCOUNTING POLICIES

The Company uses the same accounting policies and methods of computation as in the annual financial statements for the year ended December 31, 2020.

FINANCIAL INSTRUMENTS

Fair Values

The Company has classified fair value measurements of its financial instruments using a fair value hierarchy that reflects the significance of inputs used in making the measurements as follows:

- Level 1: Valuation based on quoted prices (unadjusted) in active markets for identical assets or liabilities;
- Level 2: Valuation based on directly or indirectly observable inputs in active markets for similar assets or liabilities, other than Level 1 prices, such as quoted interest or currency exchange rates; and
- Level 3: Valuation based on significant inputs that are not derived from observable market data, such as discounted cash flow methodologies based on internal cash flow forecasts.

As at September 30, 2021, the fair values of financial instruments measured on a recurring basis include cash, determined based on Level 1 inputs and consisting of quoted prices in active markets for identical assets. The fair values of other financial instruments, which include accounts payable and accrued liabilities, loans payable, approximate their carrying values due to the relatively short-term maturity of these instruments.

Liquidity Risk

Liquidity risk is the risk that the Company will not be able to meet its financial obligations as they fall due. The Company currently settles its financial obligations out of cash. The ability to do this relies on the Company raising equity financing in a timely manner and by maintaining sufficient cash in excess of anticipated needs. As at September 30, 2021, the Company had working capital of $11,552,367 (December 31, 2020 – $328,464).

Credit Risk

Credit risk is the risk of financial loss to the Company if a customer or counterparty to a financial instrument fails to meet its contractual obligations. The Company's cash is largely held in large Canadian financial institutions. The Company does not have any asset-backed commercial paper. The Company's receivables consist of GST receivable due from the Federal Government of Canada. The Company has not experienced any significant credit losses and believes it is not exposed to any significant credit risk.

Interest Rate Risk

Interest rate risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in market interest rates. Financial assets and liabilities with variable interest rates expose the Company to cash flow interest rate risk. The Company does not hold any financial liabilities with variable interest rates. The Company does maintain bank accounts which earn interest at variable rates but it does not believe it is currently subject to any significant interest rate risk.

Foreign Currency Exchange Rate Risk

The Company's functional and reporting currency is the Canadian dollar and major purchases are transacted in Canadian dollars. As a result, the Company's exposure to foreign currency risk is minimal.

RISKS AND UNCERTAINTIES

Risk is inherent in all business activities and cannot be entirely eliminated. The Company's goal is to mitigate the risks arising from business activities, the markets and political environments in order to sustain and develop the Company's operations. The risks and uncertainties described in the accompanying Circular under "*Risk Factors*" are considered by management to be the most important in the context of the Company's business. Such risks and uncertainties are not inclusive of all risks and uncertainties the Company may be subject to and other risks may apply.

FINANCIAL AND DISCLOSURE CONTROLS AND PROCEDURES

In connection with National Instrument 52-109 (Certification of Disclosure in Issuer's Annual and Interim Filings) ("NI 52-109"), the Chief Executive Officer and Chief Financial Officer of the Company have filed a Venture Issuer Basic Certificate with respect to the financial information contained in the condensed interim financial statements for the three and nine months ended September 30, 2021, and this accompanying MD&A (together the "Interim Filings").

In contrast to the full certificate under NI 52-109, the Venture Issuer Basic Certificate does not include representations relating to the establishment and maintenance of disclosure controls and procedures and internal control over financial reporting, as defined in NI 52-109. For further information the reader should refer to the Venture Issuer Basic Certificates filed by the Company with the Interim Filings on SEDAR at www.sedar.com.