

# **HARMONY ENERGY TECHNOLOGIES CORPORATION**

**MANAGEMENT DISCUSSION AND ANALYSIS  
FOR THREE-MONTH AND SIX-MONTH PERIODS ENDED JUNE 30, 2021**

**AS OF AUGUST 6, 2021**

# **Harmony Energy Technologies Corporation**

Management discussion and analysis for the three-month and six-month period ended June 30, 2021

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## **SCOPE OF MD&A AND NOTICE TO INVESTORS**

The following management discussion and analysis of the financial position and results of operations ("MD&A") should be read in conjunction with the unaudited interim condensed consolidated financial statements of Harmony Energy Technologies Corporation ("Harmony" or "Company") for the three-month and six-month periods ended June 30, 2021.

This MD&A is prepared as of August 6, 2021 and complements unaudited interim condensed consolidated financial statements of the Company for the three-month and six-month periods ended June 30, 2021.

All financial information has been prepared in accordance with generally accepted accounting principles in the United States of America ("US GAAP") on a going concern, which assumes that Harmony is able to raise additional fund to further develop the energy business and will realize its assets and discharge its liabilities in the ordinary course of business. All amounts are in United States dollars unless otherwise indicated. Additional information is provided in the Company's unaudited interim condensed consolidated financial statements for the three-month and six-month periods ended June 30, 2021.

The unaudited interim condensed consolidated financial statements and the MD&A have been reviewed by the audit committee and approved by the Company's Board of Directors on August 6, 2021. These documents and more information about the Company are available on SEDAR ([www.sedar.com](http://www.sedar.com)).

## **FORWARD-LOOKING STATEMENTS**

Certain statements made in this MD&A are forward-looking statements or information. The Company is hereby providing cautionary statements identifying important factors that could cause the Company's actual results to differ materially from those projected in the forward-looking statements. Any statements that express, or involve discussions as to, expectations, beliefs, plans, objectives, assumptions or future events or performance (often, but not always, through the use of words or phrases such as "may", "is expected to", "anticipates", "estimates", "intends", "plans", "projection", "could", "vision", "goals", "objective" and "outlook") are not historical facts and may be forward-looking and may involve estimates, assumptions and uncertainties which could cause actual results or outcomes to differ materially from those expressed in the forward-looking statements. In making these forward-looking statements, the Company has assumed that the current market will continue and grow and that the risks listed below will not adversely impact the business of the Company. By their nature, forward-looking statements involve numerous assumptions, inherent risks and uncertainties, both general and specific, which contribute to the possibility that the predicted outcomes may not occur or may be delayed. The risks, uncertainties and other factors, many of which are beyond the control of the Company that could influence actual results include, but are not limited to: the risks could be adapted to the energy storage industry, examples: instability in market prices of metals, foreign currency exchange rate, poorly estimated reserves, risks to the environment (more stringent regulations), battery technologies conditions, regulation and government policy changes (laws or policies), failure to obtain necessary permits and approvals from government authorities, future capital requirements; intellectual property protection and infringement risks; competition; reliance on key management personnel and the other risks factors summarized below under the heading "Risks and Uncertainties".

Further, unless otherwise noted, any forward-looking statement speaks only as of the date of this MD&A, and, except as required by applicable law, the Company does not undertake any obligation to update any forward-looking statement to reflect events or circumstances after the date on which such statement is made or to reflect the occurrence of unanticipated events. New factors emerge from time to time, and it is not possible for management to predict all such factors and to assess in advance the impact of each such factor on the business of the Company, or the extent to which any factor or combination of factors may cause actual results to differ materially from those contained in any forward-looking statement.

# **Harmony Energy Technologies Corporation**

Management discussion and analysis for the three-month and six-month period ended June 30, 2021

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## **CORPORATE OVERVIEW**

Harmony Energy Technologies Corporation (“Harmony” or “Company”) is an American startup for energy storage business developments.

On June 19, 2018, Harmony was registered under the General Corporation Law of the State of Delaware, USA. Harmony’s registered office is located at 2711 Centerville Road, Suite 400, Wilmington, Delaware, USA 19808. The Company’s common shares are not listed or quoted on any market at this moment.

On January 13, 2019, the Company completed the acquisition of the Energy Business from Golden Share Resources Corporation (“Golden Share”). On November 6, 2019, the Company signed an Acquisition Agreement to acquire the 100% ownership of Shenzhen Smarten Technology Co., Ltd. (“SmartenCo”), China. Since January 1, 2020, the Company has obtained the control over Smarten and deemed Smarten as a wholly owned subsidiary of the Company.

## **BOARD OF DIRECTORS AND MANAGEMENT**

Harmony’s Board of Directors is comprised of five members: Mr. Christian Guilbaud, Mr. Kenneth Charles (“K.C.”) Grainger, Mr. Rui Zhu, Ms. Nan (Nancy) Du and Mr. Nick Zeng as the Chairman. The management team includes Mr. Nick Zeng as President and Chief Executive Officer, Mr. Demin (Fleming) Huang as Chief Financial Officer.

## **BUSINESS DEVELOPMENTS**

Harmony has been developing two kinds of energy storage systems, one is based on lithium-ion battery technology and the second is with VRFB technology. Harmony is of the view that lithium-ion battery technology probably is more suitable for personal and residential applications, and VRFB probably would be more suitable for stationary grid applications.

### ***Smarten Power Station***

Smarten Power Station (“Smarten”) is a product based on lithium-ion technology. Smarten is in trial production and scheduled for orders delivery. Smarten has received third party certifications, such as RoHS, FCC, PSE, MSDS, etc. and the product is met the UN38.3 standard and can be transported by sea or aircraft.

### ***Vanadium Redox Flow Batteries (“VRFB”)***

VRFB is a type of rechargeable flow battery that employs vanadium ions in different oxidation states to store potential chemical potential energy. After enormous research and developments since the 1980s, the VRFB is regarded as a mature technology in flow battery technologies.

VRFB offers the following desirable characteristics:

- a) demonstrates excellent electrochemical reversibility and length life cycle.
- b) the electrolytes are aqueous and inherently safe and non-flammable.

VRFB’s main drawback is a relatively low energy density. The heavy weight of the battery due to aqueous electrolyte therefore limits applications, but still might be well-suited to stationary grid applications.

Development status:

A License Agreement (the “License Agreement”) with Battelle Memorial Institute (“Battelle”) to produce, use and sell vanadium electrolytes developed by Pacific Northwest National Laboratory (“PNNL”) of the United States Department of Energy.

# **Harmony Energy Technologies Corporation**

Management discussion and analysis for the three-month and six-month period ended June 30, 2021

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The licensed vanadium electrolytes (“VE”) developed by PNNL have advantages over previous generations, including a wider temperature-operating range and higher energy density, particularly at higher temperatures, constituting a reliability improvement of the licensed VE.

## **SELECTED FINANCIAL INFORMATION**

During the six-month period ended June 30, 2021, the Company’s selected financial information as the following. All the data is presented in United States dollars.

### **FINANCIAL POSITION ANALYSIS**

The information presented as at June 30, 2021 and December 31, 2020 represents the information of Harmony Energy Technologies Corporation.

	June 30, 2021	December 31, 2020	December 31, 2019
Assets	267,371	265,881	257,325
Liabilities	806,070	879,788	162,374
Equity	(538,699)	(613,907)	94,951

#### **ASSETS**

The total assets on June 30, 2021 were \$267,371 compared to \$265,881 on December 31, 2020, an increase of \$1,490. During the six-month period ended June 30, 2021, the Company received the loan repayment of \$43,528 from Golden Share and decreased right of use asset of \$20,035, which was offset by the increased cash on hand of \$40,558 and prepaid expense and other assets of \$25,979.

#### **LIABILITIES**

Total liabilities on June 30, 2021 were \$806,070 while \$879,788 on December 31, 2020, the decrease of \$73,718 was mainly because the Company settled loan payable of \$154,612 (CNY1,000,000) by issuing 1,546,120 share common stocks of the Company, which the decrease was offset by the increased accounts payable and accrued liability of \$70,739.

#### **EQUITY**

Total equity on June 30, 2021 was deficit of \$538,699 compared to \$613,907 on December 31, 2020, an increase of \$75,208. The Company raised \$120,000 through private placement at \$0.10 per unit and issued 1,826,120 shares and 50,000 shares for share for debt settlement and stock compensation at \$0.10 per share (please refer to note 5 of the financial statements for more details), which was offset by the increased net loss of \$229,563.

## **OPERATING RESULTS ANALYSIS**

Readers are invited to take into consideration of the operation results of Harmony for the three-month and six-month periods ended June 30, 2021 and 2020.

# Harmony Energy Technologies Corporation

Management discussion and analysis for the three-month and six-month period ended June 30, 2021

	Three-month periods ended		Six-month periods ended	
	June 30, 2021	June 30, 2020	June 30, 2021	June 30, 2020
<b>Revenue</b>	-	39,935	-	47,133
Cost of goods sold	(10)	(24,565)	(5,408)	(36,068)
<b>Gross Profit</b>	(10)	15,370	(5,408)	11,065
<b>Operating Expenses</b>				
Energy license related expenditures	-	-	-	(723)
Research and development	(8,836)	(48,506)	(17,642)	(65,234)
Administrative expenditures	(62,629)	(71,435)	(132,794)	(135,477)
Stock based compensation	(3,000)	-	(5,000)	-
Depreciation	(4,171)	(4,769)	(8,326)	(9,611)
Financial expenses	(22,409)	(4,997)	(53,801)	(8,703)
Acquisition costs	(7,105)	-	(7,105)	(580,965)
Total Operating Expenses	(108,151)	(129,706)	(224,668)	(800,713)
<b>Operating Income (Loss)</b>	<b>(108,161)</b>	<b>(114,335)</b>	<b>(230,075)</b>	<b>(789,648)</b>
Non operation item	2,761	5,780	512	16,971
<b>Loss, Net of Income Tax</b>	<b>(105,399)</b>	<b>(108,555)</b>	<b>(229,563)</b>	<b>(772,677)</b>
Other Comprehensive loss	(4,645)	(5,584)	(2,841)	(489)
<b>Net Loss and Other Comprehensive Loss</b>	<b>(110,045)</b>	<b>(114,140)</b>	<b>(232,404)</b>	<b>(773,166)</b>
Basic net income per share	(0.01)	(0.02)	(0.02)	(0.13)

The above net loss for three-month and six-month periods ended June 30, 2021 and 2020 is composed as the following:

### **Sale revenue and gross margin**

The Company's sale revenue and gross margin was generated through Smarten. While there were no sale activities in 2021 except one sample sale internally.

### **Research and development**

For the three-month and six-months periods ended June 30, 2021, the Company incurred R&D expenditures \$8,836 and \$17,642, respectively, major spent on the SmartenCo's R&D, including the salaries of researchers and materials, while the Company spent \$60,392 and \$65,234 during the three-month and six-month periods ended June 30, 2020.

### **Administrative expenses**

Compared the two comparable periods of the three-month and six-month periods ended June 30, 2021 and 2020, the Company increased administrative expenses of \$8,805, which major caused from increased auditing fee. The detail administrative expenses were presented in the following table.

# Harmony Energy Technologies Corporation

Management discussion and analysis for the three-month and six-month period ended June 30, 2021

	Three-month period ended		Six-month period ended	
	June 30, 2021	June 30, 2020	June 30, 2021	June 30, 2020
Management fees	18,000	18,000	36,000	36,000
Professional service fees	17,775	22,000	46,661	44,000
Salaries and benefits expenses	8,836	7,708	17,642	15,642
Office rent and related expenses	11,392	16,968	22,681	29,803
Transfer agent fee	3,195	2,569	5,728	5,177
Regulatory fee	3,395	4,190	3,620	4,855
Others	36	-	462	-
	<b>62,629</b>	<b>71,435</b>	<b>132,794</b>	<b>135,477</b>

### ***Financial expenses***

During the three-month and six-month periods ended June 30, 2021, the Company accrued \$22,192 and \$53,454 for the 5 unsecured loan agreements with accumulate principal of \$581,273 (CNY3,7054,791), respectively, please refer to note 10 and 12 of the financial statement for more details. The Company accrued \$7,971 (RMB 56,056) interest expense for the 3 unsecured loans with accumulate principal of \$99,438 (RMB700,000) during the six-month period ended June 30, 2020.

### ***Acquisition costs***

On November 6, 2019, the Company signed the Agreement to acquire 100% ownership of SmartenCo. According to the Agreement, the Company issued 1,800,000 common shares and paid Chinese Yuan ¥2,000,000 (US\$287,280) the consideration for the acquisition.

The Company obtained the control over SmartenCo and SmartenCo started operation as the wholly owned subsidiary of Harmony on January 1, 2020, which was determined as the acquisition date. The difference between the payment and the purchase price allocation was recorded as acquisition costs. Please refer to the note 6 of the financial statement for details.

### ***Non-operation item***

During the six-month periods ended June 30, 2020, the Company renewed the short-term unsecured loans agreement with Golden Share and totalling principal of US\$43,527, the unsecured loans bear interest at 1% monthly. The Company has received all repayment of \$44,025 in February 2021. During the six-month period ended June 30, 2021, the Company accrued interest income of \$498 (2020 - \$11,846) for loan, which the interest income was offset by the loss foreign exchange.

### ***Other comprehensive income (loss)***

The other comprehensive income (loss) records the unrealized foreign exchange gain (loss) resulted from translating SmartenCo's financial data into US dollars. During the three-month and six-month periods ended June 30, 2021, the Company recorded \$4,645 and \$2,841 foreign exchange loss due to the unfavourable shift in foreign exchange rate.

## **CASH FLOW ANALYSIS**

	June 30, 2021 (3 months)	June 30, 2020 (3 months)	June 30, 2021 (6 months)	June 30, 2020 (6 months)
Operating activities	(29,254)	(37,061)	(97,821)	(104,383)
Investing activities	-	20,261	44,025	21,764
Financing activities	87,154	6,590	94,354	78,723

# **Harmony Energy Technologies Corporation**

Management discussion and analysis for the three-month and six-month period ended June 30, 2021

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## ***Operating Activities***

During the three-month and six-month periods ended June 30, 2021, the operating activities used cash flows of \$29,254 and 97,821, respectively, compared to \$37,061 and 104,838 for the comparable periods in 2020. The cash was spent for the general operation activities.

## ***Investing Activities***

During the six-month period ended June 30, 2021, the Company received loan repayment of \$44,025, while the Company received loan repayment of \$21,232, purchase new equipment of \$971 and included \$1,503 cash from SmartenCo in comparable period in 2020.

## ***Financing Activities***

During the six-month period ended June 30, 2021, the Company received \$120,000 cash from private placement at \$0.10 per unit, which was offset by the lease payment of \$25,646, while the Company received \$99,079 loan from arm-length creditor and paid \$20,356 for the office lease during the six-month period ended June 30, 2020.

## **QUARTERLY RESULTS TREND (IN THOUSANDS OF \$)**

The following table presented the operating results for each of the last eight quarters. Management considers that the information for each of those quarters was determined in the same way as for our audited financial statements for the year ended December 31, 2020.

	2021		2020				2019	
	Q2	Q1	Q4	Q3	Q2	Q1	Q4	Q3
	\$	\$	\$	\$	\$	\$	\$	\$
Revenue	40	-	-	-	(40)	(7)	-	-
Net loss and other comprehensive loss	110	122	279	164	114	659	78	25
Basic and diluted net loss per common share	0.01	0.01	0.05	0.03	0.02	0.11	0.02	0.01

## **LIQUIDITY, CAPITAL RESOURCES AND SOURCES OF FINANCING**

The Company has operating losses currently. To date, the Company has been financed primarily through unsecured loans.

As of June 30, 2021, the Company had a cash position of \$104,548 and the Company has a deficit working capital of \$550,700. The Company believes it will not have sufficient liquidity to fund its operations and capital needs for the next 12 months and consequently intends to raise capital to generate cash in sufficient amounts to meet its planned business objectives.

The Company has to make a royalty payment of one and five tenths of one percent of electrolyte sales revenues to Battelle to fulfil its commitments related to license agreement with the Battelle, and the minimum royalty cash payment of US\$5,000 in 2022, US\$10,000 in 2023 and US\$20,000 in 2024 and each calendar year thereafter during the term of the agreement. The Company can terminate the agreement at any time upon sixty (60) days written notice in advance.

# **Harmony Energy Technologies Corporation**

Management discussion and analysis for the three-month and six-month period ended June 30, 2021

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## **INFORMATION ON OUTSTANDING SECURITIES**

The following table sets out the number of common shares and warrants outstanding as of the date hereof:

Common shares issued and outstanding	14,228,199
Potential issuance of common shares	
Warrants	2,300,000
<b>Fully diluted shares</b>	<b>16,528,199</b>

## **RELATED PARTY TRANSACTIONS**

The Company has not entered into any other related party transaction except the disclosure in Note 12 of the unaudited interim condensed consolidated financial statements for the three-month period ended June 30, 2021.

## **OFF-BALANCE SHEET ARRANGEMENTS**

The Company has no off-balance sheet arrangements.

## **ESTIMATES, JUDGMENTS AND ASSUMPTIONS**

The Company prepares its financial statements in accordance with US GAAP, which require management to make estimates and assumptions that affect the amounts of its assets and liabilities, the information provided with regard to future assets and liabilities as well as the amounts of revenues and expenses for the relevant periods. Readers are invited to refer to the Note 4 of the financial statements for the year ended December 31, 2020 for details.

## **FUTURE CHANGES IN ACCOUNTING POLICIES**

At the date of authorization of these financial statements, certain new standards, amendments and interpretations to existing standards have been published by the Financial Accounting Standards Board (FASB) but are not yet effective and have not been adopted early by the Company.

Management anticipates that all the relevant pronouncements will be adopted in the Company's accounting policies for the first period beginning after the effective date of the pronouncement. Readers are invited to refer to the financial statements for the year ended December 31, 2020 for a full description of these new standards.

## **GOING CONCERN ASSUMPTION**

The Company's financial statements were prepared according to the US GAAP and under the going concern assumption. They do not reflect adjustments that should be made to the book value of assets and liabilities, the reported amounts of income and expenses and the classification of balance sheet postings if the going concern assumption was unfounded. These adjustments could be important.

## **RISKS RELATED TO FINANCIAL INSTRUMENTS**

Capital market conditions and other unforeseeable events may impact the Company's ability to finance and develop its projects.

The Company intends to continue the evaluation and development of its energy business subject to the availability of financing on acceptable terms. The Company intends to finance these activities either through existing financial resources or through additional equity or quasi-equity financing. However, there can be no assurance that the Company will be able to raise such additional equity.

Additional information of the Company can be found on SEDAR ([www.sedar.com](http://www.sedar.com)).