

# HARMONY ENERGY TECHNOLOGIES CORPORATION

MANAGEMENT DISCUSSION AND ANALYSIS  
FOR YEAR ENDED DECEMBER 31, 2020

AS OF APRIL 30, 2021

# Harmony Energy Technologies Corporation

Management discussion and analysis for the year period ended December 31, 2020

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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 audited consolidated financial statements of Harmony Energy Technologies Corporation ("Harmony" or "Company") for the year period ended December 31, 2020.

This MD&A is prepared as of April 30, 2021 and complements audited consolidated financial statements of the Company for the year period ended December 31, 2020.

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 audited consolidated financial statements for the year ended December 31, 2020.

The audited consolidated financial statements and the MD&A have been reviewed by the audit committee and approved by the Company's Board of Directors on April 30, 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.

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## CORPORATE OVERVIEW

Harmony Energy Technologies Corporation (“Harmony” or “Company”) is an American Startup focusing on 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”), a Canadian public Company listed on the TSX Venture Exchange (“TSXV”). For more information on the spinout, please refer to Golden Share’s press releases of January 14, 2019 as well as Golden Share’s management information circular dated October 22, 2018 which both are available at [www.sedar.com](http://www.sedar.com).

On November 6, 2019, the Company signed an Acquisition Agreement to acquire the 100% ownership of Shenzhen Smarten Technology Co., Ltd. (“Smarten”). Smarten is located in Shenzhen, Guangdong, China. For more information on the acquisition, please refer to the Company’s press release of November 14, 2019.

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

### Highlights:

1. Developing a Home Intelligent Energy System (“HIES”) and a Portable Power Station (“PPS”). Both HIES and PPS are based on lithium-ion battery technology.
2. The right to access the technology for an advanced vanadium electrolyte (“VE”) for Vanadium Redox Flow Battery (“VRFB”).

### Details:

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.

#### 1) *A Home Intelligent Energy System (“HIES”)*

HIES key specifications:

6 KW continuous power; 15 KWh Capacity. (Could be modified)

Target market:

- a) The areas in the United States and Canada with much higher rates for electricity than the national average, including and especially the remote isolated areas and the other off grid areas and applications.

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b) For the customers who would like to improve the resilience and reliability of their electricity supply, where the grid is not completely so dependable or for extreme weather conditions.

Development status:

The prototype was delivered to Canada in January 2021 and in testing.

## 2) *Portable Power Station (“PPS”)*

PPPS key specifications:

0.5 KW continuous power; 0.5 KWh Capacity.

Target market:

- a) Outdoors recreations.
- b) Home emergency power backup.

Development status:

The prototype was completed in the second quarter of 2020. A sample was shipped to a client for testing in the third quarter of 2020. A trial production is under preparation and schedule for the second quarter of 2021.

## 3) *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.

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.

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## SELECTED FINANCIAL INFORMATION

During the year ended December 31, 2020, 2019 and 2018, 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 December 31, 2020, 2019 and 2018 represents the information of Harmony Energy Technologies Corporation.

	December 31, 2020	December 31, 2019	December 31, 2018
Assets	265,881	257,325	1
Liabilities	879,788	162,374	-
Equity	(613,907)	94,951	1

#### ASSETS

The total assets at December 31, 2020 were \$265,881 compared to \$257,325 at December 31, 2019, an increase of \$8,556. During the year ended December 31, 2020, the Company acquired the 100% ownership of Smarten, and Smarten operated as the wholly subsidiary of Harmony since January 1, 2020. The Company consolidated Smarten data into this financial report, the increased asset was then offset by the decreased loan receivable of \$153,578 repaid from Golden Share. Please refer to the note 6 in the consolidated financial statement for the details of the acquisition.

#### LIABILITIES

Total liabilities at December 31, 2020 was \$879,788 while \$162,374 at December 31, 2019, an increase of \$717,414, mainly due to the increased liabilities consolidated from Smarten and the agreed \$287,280 (Chinese Yuan ¥2,000,000) payment to the Smarten former shareholders.

#### EQUITY

Total equity at December 31, 2020 was deficit of \$613,907 compared to \$94,951 at December 31, 2019, a decrease of \$708,858 for the net loss and other comprehensive loss caused from the operation and the difference of foreign exchange currency translation.

### OPERATING RESULTS ANALYSIS

Readers are invited to take into consideration of the operation results of Harmony for the three-month and twelve-month periods ended December 31, 2020 and 2019.

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	December 31, 2020 (3 months)	December 31, 2019 (3 months)	December 31, 2020 (12 months)	December 31, 2019 (12 months)	December 31, 2018 (12 months)
Sale revenue	-	-	48,020	-	-
Cost of goods sold	-	-	(36,766)	-	-
Gross margin	-	-	11,254	-	-
Expense					
Product research and development	(12,259)	(312)	(118,498)	(3,746)	-
Administrative expense	(217,076)	(82,745)	(451,184)	(172,284)	-
Financial expense	(42,181)	-	(63,598)	(125)	-
Acquisition costs	(580,965)	-	(580,965)	-	-
Total expense	(852,481)	(83,057)	(1,214,245)	(176,155)	-
Non-operation item	1,092	5,400	17,939	17,106	-
Net Income before income tax	(851,389)	(77,657)	(1,185,052)	(159,049)	-
Other comprehensive Income (loss) ("OCI")	149	-	(31,806)	-	-
Net income (loss) and OCI	(851,240)	(77,657)	(1,216,858)	(159,049)	-
Net income (loss) and OCI per share	(0.144)	(0.016)	(0.210)	0.040	-

The above net loss for three-month and twelve-month periods ended December 31, 2020 and 2019 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 for Harmony in 2019.

### ***Research and development***

For the three-month and twelve-month period ended December 31, 2020, the Company incurred R&D expenditures \$12,259 and \$118,498, respectively, major spent on the Smarten's R&D, included the salaries of researchers, materials and depreciation, etc., while the Company spent \$312 and \$3,746 for the license fee during the three-month and twelve-month period ended December 31, 2019.

### ***Administrative expenses***

Compared the two comparable periods of the three-month and twelve-month periods ended December 31, 2020 and 2019, the Company increased administrative expenses of \$134,336 and \$278,900, respectively, which were offset by reduced travel expense. During the year ended December 31, 2020, the Company increased stock compensation of \$180,000, office rent of \$47,131, salary and benefit of \$32,139, professional fee of \$27,107 and depreciation and amortization fee of \$16,209 due to the acquisition of Smarten, which the increase was offset by the travel expense. The detail administrative expenses were presented in the following table.

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	December 31, 2020 (3 months)	December 31, 2019 (3 months)	December 31, 2020 (12 months)	December 31, 2019 (12 months)	December 31, 2018 (12 months)
Management fees	(18,000)	(18,000)	(72,000)	(72,000)	-
Office rent and general	(11,574)	(560)	(47,691)	(560)	-
Salaries and benefits expenses	(8,535)	-	(32,139)	-	-
Professional services	8,894	(44,597)	(81,610)	(54,503)	-
Regulatory fees	(299)	(292)	(6,602)	(4,021)	-
Transfer agent fees	(2,475)	(2,571)	(14,933)	(9,915)	-
Travel, accommodation and meals	-	(16,720)	-	(31,285)	-
Stock based compensation	(180,000)	-	(180,000)	-	-
Depreciation & Amortization	(5,087)	-	(16,209)	-	-
	<u>(217,076)</u>	<u>(82,740)</u>	<u>(451,184)</u>	<u>(172,284)</u>	<u>-</u>

## ***Financial expenses***

During the year ended December 31, 2020, the Company entered into seven unsecured loans and received total loan of \$561,291 (RMB 3,664,500) (included the loan from related parties), the Company accrued interest expense of \$49,482, and the Company recorded foreign exchange loss of \$14,116 at the same time. During the comparable period in 2019, the company incurred financial expense of \$120 and exchange gain and loss of \$5.

## ***Acquisition costs***

On November 6, 2019, the Company signed the Agreement to acquire 100% ownership of Smarten. According to the Agreement, the Company would issue 1,800,000 common shares and pay \$287,280 (Chinese Yuan ¥2,000,000) as the consideration for the acquisition. And the Company has issued the 1,800,000 common shares on November 22, 2019.

The Company obtained the control over Smarten and Smarten 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 year ended December 31, 2020, the Company renewed the short-term unsecured loans agreement with Golden Share and totalling principal of US\$197,106. The unsecured loans bear interest at 1% monthly. During the year ended December 31, 2020, the Company accrued \$19,666 interest income for loan which was offset by the loss on disposal of fixed asset. During the comparable period in 2019, the Company accrued \$17,106 interest income for \$180,000 short-term unsecured loan to Golden Share.

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

The other comprehensive income (loss) records the unrealized foreign exchange gain (loss) resulted from translating Smarten's financial data into US dollars. During the year ended December 31, 2020, the Company recorded \$31,806 foreign exchange loss due to the favourable shift in foreign exchange rate.

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## CASH FLOW ANALYSIS

	December 31, 2020 (3 months)	December 31, 2019 (3 months)	December 31, 2020 (12 months)	December 31, 2019 (12 months)	December 31, 2018 (12 months)
Operating activities	23,920	(3,860)	(199,107)	(13,781)	-
Investing activities	100,036	-	173,696	(80,001)	-
Financing activities	40,083	-	105,507	100,000	1

### THE YEAR ENDED DECEMBER 31, 2020 AND 2019

#### *Operating Activities*

During the year ended December 31, 2020, the operating activities used cash flows of \$199,107 in 2020 compared to \$13,781 for the same period in 2019. In 2020, the increased operating cash flow out caused from the operating activities due to the company acquired the Smarten with more operating activities. In 2019, the operating cash out include the \$100,000 prepaid research expenditure transfer from Golden Share as part of energy storage asset, which the \$100,000 was refunded during the year ended December 31, 2019.

#### *Investing Activities*

During the year end December 31, 2020, the Company received \$173,696 from investing activities, include loan payback of \$173,244 and the cash from Smarten due to the acquisition. At the comparable period in 2019, the Company received \$100,000 prepaid research expenditure refund. The \$100,000 was offset by the \$180,000 loan released in the same period.

#### *Financing Activities*

During the year ended December 31, 2020, the Company received \$248,851 cash from private placement of \$100,000 and loan of \$148,851 which was offset for the repayment of the loan and lease payment, while the Company received \$100,000 from private placement during comparable period in 2019.

### **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, 2019.

	2020				2019			
	Q4	Q3	Q2	Q1	Q4	Q3	Q2	Q1
	\$	\$	\$	\$	\$	\$	\$	\$
Revenue	-	-	39	9	-	-	-	-
Net loss and other comprehensive loss	851	139	124	102	78	25	26	30
Basic and diluted net loss per common share	0.144	0.024	0.021	0.017	0.016	0.006	0.007	0.008

### **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 December 31, 2020, the Company had a cash position of \$63,990 and the Company has a deficit working capital of \$634,033. 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.



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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.

## 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	11,162,079
Potential issuance of common shares	
Warrants	1,300,000
<b>Fully diluted shares</b>	<b>12,462,079</b>

## RELATED PARTY TRANSACTIONS

The Company has not entered into any other related party transaction except the disclosure in Note 12 of the audited consolidated financial statements for the year ended December 31, 2020.

## 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

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