

HYDROGRAPH CLEAN POWER INC.
Management Discussion and Analysis
For the nine months ended June 30, 2022

DISCLAIMER FOR FORWARD-LOOKING INFORMATION

Certain statements in this report are forward-looking statements, which reflect our management's expectations regarding our future growth, results of operations, performance and business prospects and opportunities. Forward-looking statements consist of statements that are not purely historical, including any statements regarding beliefs, plans, expectations or intentions regarding the future. Such statements are subject to risks and uncertainties that may cause actual results, performance or developments to differ materially from those contained in the statements. No assurance can be given that any of the events anticipated by the forward-looking statements will occur or, if they do occur, what benefits we will obtain from them. These forward-looking statements reflect management's current views and are based on certain assumptions and speak only as of June 30, 2022. These assumptions, which include, management's current expectations, estimates and assumptions about the global economic environment may prove to be incorrect. A number of risks and uncertainties could cause our actual results to differ materially from those expressed or implied by the forward-looking statements, including: (1) a downturn in general economic conditions, (2) inability to locate and identify potential business acquisitions, (3) potential negative financial impact from regulatory investigations, claims, lawsuits and other legal proceedings and challenges, and (4) other factors beyond our control. There is a significant risk that such forward-looking statements will not prove to be accurate. Investors are cautioned not to place undue reliance on these forward-looking statements. Unless otherwise required by applicable securities laws, the Issuer disclaims any obligation to update any forward-looking statements, whether as a result of new events, circumstances and information, future events or results or otherwise. Additional information about these and other assumptions, risks and uncertainties are set out in the section entitled "Risk Factors" below.

1.1 – Date and Basis of Discussion & Analysis

This Management's Discussion and Analysis ("MD&A") of HydroGraph Clean Power Inc. (the "Company" or "HydroGraph") should be read in conjunction with the condensed consolidated interim financial statements and notes thereto for the nine months ended June 30, 2022, and the Company's annual audited consolidated financial statements for the year ended September 30, 2021. Such financial statements have been prepared in accordance with International Financial Reporting Standards ("IFRS").

All dollar amounts are expressed in US dollars unless otherwise indicated.

1.2 – Overall Performance

Nature of Business

HydroGraph was incorporated under the Laws of the Province of British Columbia on September 26, 2017 as Carbon-2D Graphene Enterprises Inc. The address of the Company's corporate office, principal place of business is 1 King Street West, Suite 4800-118, Toronto, ON, Canada, and Company's registered and records office address is 704-595 Howe Street, Vancouver, British Columbia, Canada. As of June 30, 2022, the Company's principal business activity was the research, development, marketing and commercialization of patented technology to produce graphene, hydrogen, syngas, methane and other products and business opportunities.

At June 30, 2022, the Company had not yet achieved profitable operations, had accumulated a deficit of \$3,984,352 (September 30, 2021 – \$1,905,525) and had working capital of \$1,198,532 (September 30, 2021 – deficiency of \$242,028), consisting primarily of cash less accounts payable and accrued liabilities. The Company expects to incur further development costs and operating losses in the development of its business. It is expected that these funds and the planned fundraising round in the second half of the calendar year will be sufficient to complete its business as discussed in "Financing" below. The Company's

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ability to continue as a going concern is dependent upon its ability to generate future profitable operations and to identify, evaluate and negotiate potential business acquisitions or participation agreements.

Description of Business

The Company is engaged in developing and commercializing processes of high-quality Graphene to create customized Graphene solutions for specific applications using detonation of hydrocarbon gases, the Hyperion System. The proprietary detonation method used by the Company to produce Graphene was discovered by Kansas State University (“KSU”) and patented in 2016. Acetylene and Oxygen in specific ratios are pumped into a chamber and detonated with a spark from electrodes to create consistent high quality Graphene in gram amounts. The detonated Graphene is synthetic Graphene produced via the KSU method (bottom-up approach), as opposed to conventional exfoliation of naturally occurring Graphite (top-down approach) to produce Graphene.

It was subsequently discovered that syngas could be produced from the same process. Methane and Oxygen are mixed in specific ratios in a pre-mix device and then pumped into a natural gas internal combustion engine and detonated by sparks from a sparkplug like device to produce syngas. Through a secondary process called membrane separation, pure Hydrogen is extracted. This process is still in the R&D phase and expected to reach commercial scale in a few years.

The KSU methods to produce Graphene and Hydrogen are similar, starting with different feedstocks, albeit both hydrocarbon gases, yet ending up with completely different end products. The Company has received an exclusive worldwide license from KSU to commercialize their patented detonation process to produce Hydrogen gas and Graphene (See the “License Agreement”). Using this IP the Company is executing commercial scale production through its developed production process, the Hyperion System.

Business Development

Over the past three years, the Company’s activities have focused on funding, work at Kansas State University to develop processes to manufacture Hydrogen and quality Graphene, and to create customized Graphene solutions for specific applications. In December 2021, the Company began trading on the Canadian Stock Exchange.

Year-to-date, the Company was focused on transforming the Company from an R&D focused company to a mainly commercialization focused company. The change followed Harold Davidson’s resignation as CEO and Chairman of the Board of Directors, the appointment of Stuart Jara as CEO and Chairman of the Board of Directors and the promotion of Kjirstin Breure as President and Board Director. During this period, the Company developed and is executing on the commercialization strategy, focusing on identifying target markets. The Company will be enhancing its team, consistent with the strategy, both at the management level and Board level with talent from the target markets. The company already hired key personnel to operate our new production facility in Kansas and will be hiring key business development and commercialization people over the coming months. Logan Anderson also resigned as CFO. An interim CFO was appointed in May 2022.

During the period, the company made significant progress completing the build out of its production facility in Manhattan, Kansas, and, as already mentioned, hiring key production people. This site will be the home of our first full scale production cell and the center of ongoing Hydrograph R&D.

With the facility and production team in place the Company went through a full quality audit and earned the certification of Verified Graphene Producer. This was an extensive review of our production quality management system and an in depth review of the quality and consistency of our graphene product. It is

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a rigorous process which the Company successfully passed and is the only graphene company in the Americas to do so. The Company believes that this certification further differentiates it from other graphene producers and is seeing that through increased customer inquiries.

As at June 30, 2022, the Company had expended a total of \$3,172,285 to develop its technology and \$958,206 to develop its production facility.

Financing

During the three-month period ended June 30, 2022, the Company did not raise capital. The Company issued 6,500,000 management incentive options to the new CEO and President during the period. Subsequent to June 30, 2022, the Company granted 1,300,000 management incentive options to the President. The options vest subject to certain milestones being met. Subsequent to June 30, 2022, the Company granted 80,000 management incentive options to the newly hired Director of Business Development. 32,000 options vest over 4 years and 48,000 options vest subject to certain milestones being met

1.4 – Results of Operations

Operations during the three months ended June 30, 2022, were primarily related to building out the production facility and production team, research, development, marketing and commercialization of patented technology to produce graphene, hydrogen, syngas, methane and other products and business opportunities as described above. There were no investor relations arrangements entered during the three months ended June 30, 2022. There were no legal proceedings, contingent liabilities, and defaults under debt or other contractual obligations, breach of any laws or special resolutions during the three months ended June 30, 2022.

During the nine months ended June 30, 2022, the Company had a net loss of \$2,078,928 (2021 – \$713,286), comprised of operating expenses. Operating expenses primarily consisted of consulting fees of \$600,989 (2021 – \$215,758), stock-based compensation of \$393,165 (2021 – \$39,000), professional fees of \$217,593 (2021 – \$122,163), research of \$170,104 (2021 – \$54,000), and travel and promotion \$188,602 (2021 – \$55,616).

Consulting fees were higher in 2022 due to increased activities and personnel. Stock-based compensation related to management incentive options issued to the incoming CEO and President. Professional fees were higher in 2022 related to the preparation of prospectus documents. Research was higher in 2022 primarily related to graphene application development that was done with KSU. Travel and promotion were higher in 2022 related to website development and branding exercises.

During the three-month period ended June 30, 2022, the Company had a net loss of \$651,371 (2021 – \$472,895), comprised of operating expenses. Operating expenses consisted primarily of consulting fees of \$187,085 (2021 – \$69,173), office and miscellaneous of \$84,3559 (2021 - \$7,779), professional fees of \$57,737 (2021 - \$77,051), research of \$52,378 (2021 - \$54,000), and travel and promotion \$72,694 (2021 – \$34,581).

Consulting fees were higher in 2022 due to increased activities and personnel. Professional fees were lower in 2022 due to fewer corporate actions requiring legal assistance during the period. Research remained consistent in 2022 and consists of costs primarily related to graphene development. Office expenses and travel and promotion were higher in 2022 related to website development and branding exercises. The remaining costs were generally consistent with the prior period.

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1.5 – Summary of Quarterly Results

	30-Jun-22	31-Mar-22	31-Dec-21	30-Sep-21	30-Jun-21	31-Mar-21	31-Dec-20	30-Sep-20
		\$	\$	\$	\$	\$	\$	\$
Current Assets	2,263,139	3,192,246	4,002,671	5,460,831	5,553,927	937,645	153,191	48,221
Right-of use Asset	300,895	315,693	330,491	345,289	-	-	4,856	12,140
Fixed Assets, net Technology and development costs	958,206	554,680	291,008	123,124	-	-	-	-
	3,172,285	3,172,285	2,608,493	2,344,701	2,192,670	1,592,670	1,550,170	1,167,670
Total Assets	6,694,524	7,234,904	7,232,663	8,273,945	7,746,597	2,530,315	1,708,217	1,228,031
Current Liabilities	1,064,606	948,694	363,589	5,702,859	5,384,200	186,078	181,442	152,526
CEBA Loan	21,241	20,617	20,011	19,423	18,852	18,298	17,761	17,239
Lease Liability	259,658	272,973	304,715	298,823	-	-	-	-
Shareholders' Equity	9,333,372	9,306,208	8,940,208	4,158,265	3,453,265	2,962,765	2,010,729	1,454,700
Deficit	(3,984,352)	(3,313,588)	(2,395,860)	(1,905,425)	(1,109,720)	(636,826)	(501,715)	(396,434)
Total Liabilities and Shareholders' Equity	6,694,525	7,234,904	7,232,663	8,273,945	7,746,597	2,530,315	1,708,217	1,228,031
Revenue	-	-	-	-	7,980	-	-	-
Operating Expenses	599,348	926,089	490,435	765,704	480,875	135,110	105,281	22,016
Loss and Comprehensive Loss for Period	651,371	926,089	490,435	765,704	472,895	135,110	105,281	22,016
Basic and diluted loss per share	(0)	(0.01)	(0.00)	(0.02)	(0.01)	(0.00)	(0.00)	(0.00)
Weighted average number of common shares outstanding	119,535,892	119,535,892	95,583,234	83,687,513	83,687,513	66,025,043	54,731,792	53,261,339

As described in the description of business above, the Company entered into a technology license letter of intent with Kansas State University in 2017. During the quarters ended September 30, 2021, the Company continued to invest the majority of capital raised into development of the KSU technology license. During the quarter ended December 31, 2021, the Company began development of a production facility in Kansas, that facility was completed in June 2022. The Company raised equity in the quarters ended December 31, 2020, March 31, 2021 and June 30, 2021 as detailed above, resulting in an increase in the cash balance.

During the quarter ended June 30, 2021, the Company received \$5,250,386 subscription receipts to acquire units at a price of \$0.20 per unit, as described in 1.2 Financing above.

The right-of-use asset relates to the leased production facilities and office premises. The lease began on August 1, 2021.

Current liabilities are comprised primarily of trade payables accrued liabilities. Liabilities have increased steadily as the Company continues to execute on its business plan.

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Operating expenses have increased since September 30, 2021 primarily related to preparation and filing of the prospectus and advertising costs. However, operating expenses decreased during the quarter ended June 30, 2022, as the Company recognized share-based payments of \$366,000 in the previous quarter.

1.6 – Liquidity and Capital Resources

The Company is developing its licensed technology and new business opportunities and therefore has incurred losses and negative cash flows from operations. The Company's sole source of funding has been the issuance of common shares for cash, through private placement. The Company's ability to raise cash depends on various capital market conditions. There is no assurance that the Company will be able to obtain any additional financing on terms acceptable to the Company. The quantity of funds to be raised and the terms of any equity financing that may be undertaken will be negotiated by management as opportunities to raise funds arise. Actual funding requirements may vary from those planned due to a number of factors, including developing new business opportunities.

There can be no certainty that the Company's existing cash balances or that the proceeds from the issuance of its common shares will provide sufficient funds for all of the Company's cash requirements. Should the need arise, the Company may pursue other financing options or rely on joint venture partners to supply some of funds required to develop any opportunities. There is no assurance that the Company will be successful in obtaining the funds it may require to sustain operations or that the terms of any financing obtained will be acceptable.

As at June 30, 2022, the Company had cash on hand of \$1,660,670 (September 30, 2021 – \$5,423,791).

During the nine months ended June 30, 2022, cash used in operating activities was \$1,587,810 (2021 – \$506,672), cash used in investing activities was \$1,741,750 (2021 – \$1,025,000), cash provided by financing activities was \$4,713,421 (2021 – \$6,944,155). The increase in cash used in operating activities is primarily related to the increase in operating loss and deposits, less increased accounts payable. The increase in operating loss is described in 1.4 Results of Operations above. The cash used in investing activities is primarily related to development costs and KSU success fees, as well as completing the production facility and hiring the production team in Kansas. The cash provided by financing activities is primarily related to shares issued for cash and subscriptions for private placements to fund operations and development of the licensed technology.

1.7 – Off Balance Sheet Arrangements

As at June 30, 2022, there were no off-balance sheet arrangements to which the Company was committed.

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1.8 – Transactions with Related Parties

Key management are those personnel having the authority and responsibility for planning, directing and controlling the Company and include the board of directors, the Chief Executive Officer and the Chief Financial Officer. During the nine months ended June 30, 2022 and 2021, key management compensation included the following:

	June 30, 2022	June 30, 2021
	\$	\$
Management and director compensation		
Stuart Jara, CEO and director	60,000	-
Kjirstin Breure, President and director	92,361	29,360
Mathew Lee, CFO	11,845	23,089
David Williams, Director	12,500	-
Harold Davidson, previous CEO	61,593	33,000
Logan Anderson, previous CFO	12,590	4,000
Sub-total	238,299	89,449
Share-based payments		
Stuart Jara, CEO and director	198,665	-
Kjirstin Breure, President and director	194,500	17,515
David Williams, Director	-	19,431
David Morris, Director	-	29,147
Harold Davidson, previous CEO	-	33,000
Logan Anderson, previous CFO	-	4,000
Sub-total	393,165	103,093
Total	631,464	192,542

As at June 30, 2022, \$Nil (September 30, 2021 – \$36,882) was due to related parties of the Company and has been included in accounts payable and accrued liabilities on the condensed consolidated interim statement of financial position.

1.9 – Proposed Transactions - NA

2.1 – Critical Accounting Estimates

The Company has outlined the basis of its critical accounting estimates in Note 3 of the September 30, 2021 Financial Statements.

**2.2 – Changes in Accounting Policies – International Financial Reporting Standards (“IFRS”)
Change in Accounting Policies**

There were no new accounting policies adopted during the period.

2.3 – Financial Instruments and Other Instruments

Fair values

Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly

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transaction between market participants at the measurement date. The fair value hierarchy establishes three levels to classify the inputs to valuation techniques used to measure fair value, by reference to the reliability of the inputs used to estimate the fair values:

The Company classifies its fair value measurements in accordance with the three-level fair value hierarchy as follows:

- Level 1 – Unadjusted quoted prices in active markets for identical assets or liabilities
- Level 2 – Inputs other than quoted prices that are observable for the asset or liability either directly (i.e. as prices) or indirectly (i.e. derived from prices), and
- Level 3 – Inputs that are not based on observable market data.

As at June 30, 2022, the Company's financial instruments consisted of cash, tax receivable, accounts payable and accrued liabilities, lease liabilities, and the CEBA loan. Cash is measured at fair value in accordance with Level 1. The fair value of tax receivable, accounts payable and accrued liabilities, lease liabilities, and the CEBA loan approximate their carrying values because of the short-term nature of these instruments

Financial risk management objectives and policies

The risks associated with financial instruments and the policies on how to mitigate these risks are set out below. Management manages and monitors these exposures to ensure appropriate measures are implemented on a timely and effective manner.

(i) *Currency risk*

The Company's expenses are denominated in United States Dollars. The Company's corporate office is based in Canada. At June 30, 2022, with other variables unchanged, a 1% movement in the US dollar against the Canadian dollar would not have a material impact on the net loss and comprehensive loss.

(ii) *Interest rate risk*

The Company is exposed to interest rate risk on the variable rate of interest earned on bank deposits. The fair value interest rate risk on bank deposits is insignificant as the deposits are short-term. The Company has not entered into any derivative instruments to manage interest rate fluctuations.

(iii) *Credit risk*

Financial instruments that potentially subject the Company to concentrations of credit risks consist principally of cash and GST receivable. To minimize the credit risk on cash, the Company places the instrument with a chartered financial institution.

(iv) *Liquidity risk*

In the management of liquidity risk, the Company maintains a balance between continuity of funding and development activity. Management closely monitors the liquidity position and expects to have adequate sources of funding to finance the Company's projects and operations.

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At June 30, 2022, the contractual maturities of the Company's obligations are as follows:

	Carrying Amount	Contractual Cash Flows	Less than 1 Year	1-2 Years
Accounts payable and accrued liabilities	1,012,897	1,012,897	1,012,897	–
CEBA loan	21,241	22,551	–	22,551
	1,034,138	1,035,448	1,012,897	22,551

2.4 – Other MD&A Requirements

Share Capital

The authorized share capital consists of an unlimited number of common shares without par value.

The total number of common shares issued and outstanding as at August 26, 2022, is 119,535,892. The number of options and warrants outstanding as at August 26, 2022, was 16,930,000 and 31,037,750, respectively.

RISK FACTORS AND UNCERTAINTIES

The Company is pursuing the opportunity to exploit patented technology to produce graphene, hydrogen, syngas, methane and other products and business opportunities. Due to the nature of the Company's business and the present stage of its activities, many risk factors will apply. The risks described below are not the only ones facing the Company. Additional risks not presently known to the Company may also impair the business operations.

An investment in the Company is speculative and involves a high degree of risk. Accordingly, prospective investors should carefully consider the specific risk factors set out below, in addition to the other information contained in this document, before making any decision to invest in the Company. The Directors consider the following risks and other factors to be the most significant for potential investors in the Company, but the risks listed do not necessarily comprise all those associated with an investment in the Company and are not set out in any particular order of priority. Additional risks and uncertainties not currently known to the Directors may also have an adverse effect on the Company's business.

If any of the following risks actually occur, the Company's business, financial condition, capital resources, results or future operations could be materially adversely affected. In such a case, the price of the Common Shares could decline, and investors may lose all or part of their investment.

How risk is related to return

Generally, there is a strong relationship between the amount of risk associated with a particular investment, and that investment's long-term potential to increase in value.

Investments that have a lower risk also tend to have lower returns because factors that can affect the value of the investment, the risks, are well known or are well controlled and have already been worked into the price of the investment. On the other hand, investments that could have potentially higher returns if conditions for success are favourable also risk generating equally higher losses if conditions become unfavourable. This is because the factors affecting the value of such investments are unknown or difficult to control.

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Dilution

The financial risk of the Company's future activities will be borne to a significant degree by purchasers of the Common Shares. If the Company issues Common Shares from its treasury for financing purposes, control of the Company may change, and purchasers may suffer additional dilution.

No Market for Securities

There is currently no market through which any of the Common Shares, may be sold and there is no assurance that such securities of the Company will be listed for trading on a stock exchange, or if listed, will provide a liquid market for such securities. Until the Common Shares are listed on a stock exchange, holders of the Common Shares may not be able to sell their Common Shares. Even if a listing is obtained, there can be no assurance that an active public market for the Common Shares will develop or be sustained after Listing. The offering price determined by the Company was based upon several factors and may bear no relationship to the price that will prevail in the public market. The holding of Common Shares involves a high degree of risk and should be undertaken only by investors whose financial resources are sufficient to enable them to assume such risks and who have no need for immediate liquidity in their investment. Common Shares should not be purchased by persons who cannot afford the possibility of the loss of their entire investment.

Negative Cash Flow from Operating Activities

The Company's activities have been focused on developing its technology and accordingly cash flow is negative, and the Company has been required to raise funds through equity financings.

Current Market Volatility

The securities markets in the United States and Canada have recently experienced a high level of price and volume volatility, and the market prices of securities of many companies have experienced wide fluctuations in price which have not necessarily been related to the operating performance, underlying asset values or prospects of such companies. There can be no assurance that continual fluctuations in price will not occur. It may be anticipated that any market for the Common Shares will be subject to market trends generally, notwithstanding any potential success of the Company. The value of the Common Shares distributed hereunder will be affected by such volatility.

Personnel

The Company has a small management team and the loss of any key individual could affect the Company's business. Additionally, the Company will be required to secure other personnel to facilitate its development plans. Any inability to secure and/or retain appropriate personnel may have a materially adverse impact on the business and operations of the Company.

Tax Issues

Income tax consequences in relation to the securities offered will vary according to the circumstances of each purchaser. Prospective purchasers should seek independent advice from their own tax and legal advisers prior to purchasing the securities.

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Smaller Companies

The share price of publicly traded smaller companies can be highly volatile. The value of the Common Shares may go down as well as up and, in particular, the share price may be subject to sudden and large falls in value given the restricted marketability of the Common Shares.

Competition

Both the Hydrogen and Graphene industries are characterized by larger companies with more financial resources than the Company. There is no assurance that the Company will be able to effectively compete in that environment.

Illiquidity

The Common Shares are not listed on a stock exchange. Investors should be aware that there may never be a market for the Common Shares and an investor may never realize a return on their investment. The Common Shares, therefore, may not be suitable as a short-term investment.

Going Concern and Financing Risks

The Company has limited financial resources, has no source of operating cash flow and has no assurance that additional funding will be available to it to sustain operations. Although the Company has been successful in the past in obtaining financing through the issuance of common shares, there can be no assurance that it will be able to obtain the necessary financing and raise capital sufficient to cover its operating costs.

Licensed Technology

The Company believes the licensed technology will be commercially scalable and the products can be profitably marketed. There can be no assurance that the Company will be able to develop the technology to the point that may be required to carry out its business plans, on reasonable terms, or at all. Delays, or a failure to develop such economically viable products or a failure to comply with the terms of the license could have a material adverse effect on the Company.

General Economic Conditions

The recent events in global financial markets have had a profound impact on the global economy. A continued or worsened slowdown in the financial markets or other economic conditions, including but not limited to, consumer spending, employment rates, business conditions, inflation, fuel and energy costs, consumer debt levels, lack of available credit, the state of the financial markets, interest rates, and tax rates may adversely affect the Company's growth and profitability. These factors could have a material adverse effect on the Company's financial condition and results of operations.

Coronavirus (COVID-19)

In March 2020 the World Health Organization declared coronavirus COVID-19 a global pandemic. This contagious disease outbreak, which has continued to spread, and any related adverse public health developments, has adversely affected workforces, economies, and financial markets globally, potentially leading to an economic downturn. It is not possible for the Company to predict the duration or magnitude of the adverse results of the outbreak and its effects on the Company's business or ability to raise funds.

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However, COVID-19 may directly impact the Company by disrupting the financial markets of which the Company relies on for raising funds or interfering with its supply chains.

Hydrogen Production Risk Factors

Proof of High Scale Production

The Company needs to work with many different types of engines to see which type is optimal for mass centralized Hydrogen production. Another engine type might be best for smaller decentralized production. The Company does not know how effectively and reliably the engines will work. Since the engines will be running on a very rich fuel mixture that they were not designed for, the Company does not know the long-term consequences. Risks exists that the engines may need to be modified to work with a very rich methane and pure oxygen fuel mixture which would substantially increase the cost to the Company. There are methane engines, but they run with a mixture of methane and air, so the possible need to adopt engines for our fuel mixture is a risk factor.

Integration of Novel Mixing Chamber

The Company has designed and patented a novel pre-mixing chamber, which needs to be affixed between the engine and the fuel source, like a fuel injector in a gas car engine. The pre-mix chamber will be fully digital and attached to digitally controlled valves and pumps. There is uncertainty as to how the device will function, as it will be a brand-new device mixing methane and oxygen in very specific ratios. The device will need to be tested and this may protract the time to achieve adequate production levels.

Volume Oxygen Generation

Currently the Company is purchasing canisters of oxygen to mix with methane. The Company needs to purchase an oxygen generator to bring down the feedstock costs. The O₂ generator has to be integrated into the pre-mix chamber and the engine. Until further development work is done, the Company cannot predict the success of the system.

Membrane Separation Technology

The Company produces Syngas from Methane and Oxygen as its primary product coming out of the engine. Syngas is COH₂, essentially carbon monoxide and hydrogen. Using membrane separation technology, the Company splits the CO from the H₂ (it is 80% H₂). There are uncertainties as to the performance of the membranes and the life cycle of them. They will be in constant usage and the Company does not know how quickly they will clog up, thereby shutting down production. The Company may need several membranes onsite and will need to pull out old, clogged membranes and replace with new ones, the Company does not know how long this procedure will take. This process could cause significant production delays.

Risks Related to Gases

The gases produced by the Company's process, Hydrogen and Oxygen are flammable and carbon monoxide is poisonous. There is no assurance that the Company will be able to devise methods to safely deal with these gases. Carbon monoxide is used in some chemical processes. In the event the Company is not able to find a customer for the carbon monoxide by product of its production process which is not assured it may incur considerable costs to dispense of the carbon monoxide could impact its production costs.

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Graphene Production Risk Factors:

Limited Production

The Company's production plan calls for beyond 6Kg per canister per day. In order to do so new pumps and valves have to be purchased and tested. The Company also needs to fabricate more robust electrodes. Within the canister, after detonation, it is a very hostile environment for electrodes. Carbon can get in the gap between the electrodes and foul the entire process. The Company cannot guarantee this will be successfully achieved.

Increased Frequency of Detonations

When the Company increases the frequency of detonations it is hard on the equipment. Right now, the Company detonates every 40 seconds and wants to get the frequency down to every 20 seconds. So, the new pumps, valves and electrodes have to fill the canister with acetylene and oxygen twice as fast, and vacuum pull the contents into the holding vessel. Moreover, the electrodes have to spark twice as often in a very hostile environment for electrodes. There is no assurance the Company will be able to achieve this increased frequency of detonation.

Production Line Automation

The Company has the front-end process automated, up to containing the product after multiple automated detonations in a holding vessel, it does not have the backend production line from the holding vessel done. Although it is a conventional mass manufacturing issue, the Company still need it solved and there is uncertainty about it.

Health Risks

It is possible that Nano-graphene particles from leakage will get into human bodies and cause harm. The Company will need to ensure it has adequate safety procedures at its plant to deal with such risks, which may cause delays in the production process.

Graphene Sales Risk Factors:

Limited Market

The Company does not believe the market for Graphene is limited; however, the present market for Graphene is limited partially because of the high cost of Graphene. It may take considerable time for manufacturers to adopt Graphene which could delay potential future revenue and/or profitability for the Company.

Graphene is not yet a commodity product. Therefore, it has to be an engineered solution in most cases. That is Graphene samples get tested and if there is interest, then the Graphene gets functionalized for specific applications. Moreover, the insertion of Graphene into a composite requires modification of an existing production line. If this process takes too much time, it will affect the Company's potential future revenue and profitability.

HYDROGRAPH CLEAN POWER INC.
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High Cost of Customer Acquisition

It takes time and money to get prospective customers from testing to functionalizing to integrating our graphene into their production. The Company needs to find a way to drive down customer acquisition costs through expediting the process. There is no assurance the Company will be able to do so.

General

Although management believes that the above risks fairly and comprehensibly illustrate all material risks facing the Company, the risks noted above do not necessarily comprise all those potentially faced by the Company as it is impossible to foresee all possible risks.

Although the Directors will seek to minimise the impact of the risk factors, an investment in the Company should only be made by investors able to sustain a total loss of their investment. Investors are strongly recommended to consult a person who specialises in investments of this nature before making any decision to invest.

APPROVAL

The Board of Directors of the Company has approved the disclosure contained in this MD&A on August 26, 2022.