Next Hydrogen Solutions Inc.

Management's Discussion and Analysis

For the years ended
December 31, 2024 and 2023

Dated April 24, 2025

CEO Letter

In this letter, I will provide my perspective on our 2024 achievements, outlook for 2025 as well as the overall macro environment.

2024 Achievements – Ensuring strong product market fit and compelling KPIs

We had set three goals for 2024 which included further strengthening our technology leadership, showcasing our improvements at scale and gaining market traction.

Technology Leadership

- We have accumulated over 40,000 hours of operational data (18,000 hours in 2023) which clearly quantify our technology advantage.

- We completed a 5,000 hour cycling test to prove out the durability of our cell performance which we view as best commercially available based on U.S. Department of Energy targets. We achieved cell voltage of <1.9 volts per cell at 1 amp/cm2 at 70 degrees C. This is important because 60-70% of the cost of hydrogen production is electricity prices and demonstrating the ability to consume less electricity to produce hydrogen is critical in driving down the cost of hydrogen production.

- Further, we demonstrated a turn down of 5% with excellent gas purity compared to typical alkaline electrolyzers of ~30%. The best-in-class operating range of our electrolyzers provides us with the ability to better capture the renewable profile using fewer modules.

- Looking ahead, we are increasingly confident that we can further improve the cell performance to 1.7 volts per cell at 1.2 amp/cm2 at 70 degrees C based on lab scale results achieved in 2024. This will position us best in class with respect to the efficiency of our electrolyzers.

- We successfully completed a pilot scale test of our third-generation product line (up to 8MW) at 10 barg and intend to test it at 30 barg in 2025.

Productization

- We successfully tested our second-generation system (up to 2.25MW) through an extended Factory Acceptance Test and delivered it to a customer site in October 2024. The GEN2 line is currently undergoing commissioning at a customer site.

Strategic Partnerships

We are well positioned with blue chip partners in key verticals for hydrogen end use. These include GE (power controls, micro grids), Casale (Ammonia), Canadian Tire (material handling for distribution centers), Pratt & Whitney (aviation fuels) and Atomic Energy of Canada (nuclear applications). The objective is to leverage these partnerships as sales channels and as execution partners to grow our sales pipeline.

- Approximately 40% of all hydrogen is consumed by the Ammonia sector. However, it is primarily derived from fossil fuels and hence there is a significant opportunity to displace it with green hydrogen using water electrolysis. We are working with Casale, which is a leading turn-key solution provider of ammonia and methanol plants. The objective is to integrate our electrolyzers within their ammonia plants and offer it as a bundled solution to the end users. As such, each of these plants could represent 100MW+ opportunities for the company. We built on our partnerships with Casale and GE and secured a project with the University of Minnesota. This is a high-visibility project which will include partners such as Shell and Nutrien and will demonstrate a truly flexible green ammonia production solution. The ability to produce ammonia intermittently results in reduced requirements for storage, which has a significant impact on lowering the cost of green ammonia production. We expect to deliver this project later in 2025.

- We also announced a partnership with Pratt & Whitney which we view as the leading aircraft engine company globally. Our project with them is partially funded by Canada's Initiative for Sustainable Aviation Technology ("INSAT") and will focus on the use of hydrogen in aircraft engines as an enabler for reducing CO2 emissions.

2025: Scaling Next Hydrogen

Our focus for 2025 is to demonstrate a viable pathway to scale our product line and operations while continuing to invest in our technology leadership. We believe success with these initiatives will attract greater investor interest and strengthen our balance sheet.

Technology Leadership

- As discussed above, we achieved cell performance of 1.7 volts per cell at 1 amp/cm2 and 70 degrees C in our lab last year. The objective is to prove out this performance at scale in 2025 which we believe will position our alkaline electrolyzers as one of the most efficient electrolyzers globally. We see further room for improvement and will continue to invest to offer best in class operating costs for lowest levelized cost of hydrogen production for our customers.

- We are aiming to pilot test our third-generation product line with full scale parts this year. The pilot scale testing at lower pressure and with small sized parts has yielded encouraging results. Along with leading cell efficiency, the economies of scale for this larger product line (up to 8MW per single stack) are expected to drive significant reductions in capital expenditures. This product line will competitively position us for large scale industrial projects such as ammonia, methanol and steel production applications. The order sizes can eventually exceed 100MW each for this product line.

Productization

- We aim to demonstrate our second-generation product line (for smaller scale applications) and our third-generation pilot scale (for industrial scale operations) at customer sites which are expected to serve as excellent references for the company.

- We have set aggressive but achievable cost performance targets for our third-generation product line. Our engineering team is well integrated with our technology development team to help deliver on these targets.

Strategic Sales Pipeline

- We are actively pursuing strategic partnerships in high growth potential markets to materially accelerate our global growth prospects which include geography specific technology licenses as well.

- We announced a partnership with a leading renewables and electrolyzer company early this year. We aim to leverage their GW scale manufacturing capacity for cost-efficient and immediate scale up of our operations. We are currently responding to some large proposals from potential customers. The ability to demonstrate that Next Hydrogen not only has a very innovative solution but can also meet large-scale orders, will go a long way in improving our chances of winning these orders.

Macro Outlook

- The macro environment continues to remain challenging due to focus on (1) energy security over energy transition since the Russia-Ukraine crisis, (2) inflation/rising cost of living being increasingly linked to energy transition and not the increase in money supply or fossil fuel prices since COVID, which I believe is unfair, (3) increasing interest rates which have a disproportionate impact on growth companies, and

(4) unrealistic expectations that green hydrogen is mass decarbonization and not a surgical tool to decarbonize those industries that can not be electrified.

- That said, we have historically seen that expectations are usually far more exaggerated compared to reality and the current downturn in the energy transition cycle will improve as attractive green hydrogen projects come online in the second half of this decade. As such, we remain very bullish on the prospects for the hydrogen economy longer-term especially due to the commitment of 3x increase in renewables by 2030 at COP 28. This will help further lower renewable electricity prices (which represent approximately 60-80% of the cost of green hydrogen) and increase the mismatch between supply and demand availability caused by renewables which can be plugged using water electrolyzers. Further, there are few alternatives to green hydrogen in certain but very large industries that can not be electrified and need to be decarbonized which represents a very large long term addressable market opportunity for companies like Next Hydrogen.

Concluding Remarks

Our unique cell design architecture brings together the benefits of alkaline electrolyzers (proven supply chain, durability, scale up and track record) with one of the key advantages of PEM electrolyzers (direct connection to renewables). Following 40,000 hours of operational data, there is no doubt in my mind that we have a very innovative and validated electrolyzer design which provides a compelling pathway to low-cost, low-risk and large-scale green hydrogen production. This year we will look to cost-efficiently scale our product line, operations and sales pipeline through our excellent partnerships which will enable us to attract greater investor interest and strengthen our balance sheet.

We are extremely grateful to the Canadian government for all their support and hope to contribute to continued job growth, innovation and revenue growth in Canada while effectively managing the challenging geo-political environment in this era of deglobalization.

Thank you to our employees and shareholders for their deep commitment and support. We continue to pursue our mission with zeal and high intentions. We look forward to deepening our contribution to decarbonizing our beautiful planet.

Yours Sincerely,

Raveel Afzaal
President & CEO

General Information

The following is Next Hydrogen Corporation's management discussion and analysis dated April 24, 2025 ("MD&A"), which provides a comparative overview of the Company's performance for the year ended December 31, 2024, with the corresponding year ended December 31, 2023, and it reviews the Company's financial position as at December 31, 2024. Throughout this MD&A, the term "Company" or "Next Hydrogen" shall mean Next Hydrogen Solutions Inc. and all of its wholly-owned subsidiaries. This discussion should be read in conjunction with the Company's audited consolidated financial statements and accompanying notes as at and for the years ended December 31, 2024 and 2023 ("consolidated financial statements").

The consolidated financial statements of the Company were prepared in accordance with IFRS Accounting Standards ("IFRS") reporting, as issued by the International Accounting Standards Board ("IASB"). The Company's presentation currency is the Canadian dollar. All financial information presented has been rounded to the nearest dollar, except per share amounts and where otherwise indicated. The Company's consolidated financial statements for the year ended December 31, 2024 were approved by its Board of Directors on April 24, 2025. Readers are cautioned that certain information included herein is forward-looking and based upon assumptions and anticipated results that are subject to uncertainties. Should one or more of these uncertainties materialize or should the underlying assumption prove incorrect, actual results may vary significantly from those expected. See "Forward Looking Statements" and "Risks and Uncertainties".

Unless otherwise indicated, the information in this report is dated as of April 24, 2025. Additional information relating to the Company is available on SEDAR at www.sedarplus.ca.

Operational Highlights

Management is proud to highlight a number of recent milestones that demonstrate significant progress over the past year:

- In April 2025, Next Hydrogen received a $5M working capital debt facility from the Export Development Canada ("EDC"), of which approximately $3M has been received in cash and the remaining $2M is expected later in the year. Next Hydrogen intends to use the funds where necessary to improve on its technology and for general corporate purposes.

- Next Hydrogen has achieved over 40,000 hours of data on its test platform, driving the significant improvement in cell performance achieved to date.

- In March 2025, Next Hydrogen partnered with a leading hydrogen production system manufacturer with an existing gigawatt scale manufacturing facility to accelerate the scale-up and commercialization of its water electrolysis technology. This partnership provides Next Hydrogen with world-leading manufacturing capacity and competitively positions it to bid on large-scale projects globally starting in 2026. Next Hydrogen will continue to maintain control over intellectual property and electrolyzer design. The Company also aims to further expand its Canadian operations to ensure flexible supply chain and production that aligns with evolving clean energy policies, driving global green hydrogen adoption.

- In March 2025, Next Hydrogen received ISO 9001-2015 and ISO 45001-2018 certifications for its 6610 Edwards Boulevard site in Mississauga, Canada. This demonstrates and certifies Next Hydrogen's standardized quality systems, health and safety management systems, supplier selection processes, and continuous improvement processes. These certifications show that the Company has an efficient operating system capable of scaling to support its expanding customer base.

- In March 2025, the Company appointed Adarsh Mehta to the Company's board of directors (the "Board"). Ms. Mehta filled the vacancy on the Board resulting from the resignation of Mr. Matthew Fairlie, who resigned from the Board effective January 15, 2025. Ms. Mehta is VP of Business Development at Jenner Renewable Consulting, with 22 years of experience in renewable energy, leading technical reviews, due diligence, and development for over 2,500MW of wind and solar projects in the Americas. She served on the Canadian Wind Energy Association's Board from 2008 to 2015 and was Chairperson in 2011. Her extensive expertise in renewable energy and project development is crucial for the Company's growth.

- As of December 2024, the Company closed a private placement offering (the "Offering") and received unsecured convertible debentures (each, a "Debenture") consisting of about $2.7M principal amount of Debentures. Next Hydrogen intends to use the proceeds of the Offering to invest in its scale-up efforts and for general corporate purposes.

- In November 2024, Next Hydrogen and Pratt & Whitney announced a collaboration to demonstrate the use of hydrogen in aircraft engines as an enabler for reducing CO2 emissions. This project is partially funded by Canada's Initiative for Sustainable Aviation Technology ("INSAT") and will accelerate the Company's efforts towards high efficiency, low-cost electrolyzers which are needed for establishing hydrogen production infrastructure for aviation fuel.

- In October 2024, the Company successfully completed a durability test of its second-generation water electrolyzer technology ("GEN2") electrolysis cells used in the efficient production of green hydrogen.

The GEN2 cells will be deployed in Next Hydrogen electrolyzers at customer sites for commercial operation. Next Hydrogen previously reported that it has achieved its energy efficiency targets cell performance of 1.90 V/cell at 1 A/cm2 and 70°C for its GEN2 water electrolyzer technology which exceeded the reported US Department of Energy ("DOE") technical targets status for energy efficiency. The GEN2 performance achievement has positioned the Company to being the industry leader in electrolysis cell performance.

- In October 2024, Next Hydrogen welcomed Premier Doug Ford, Associate Minister Sam Oosterhoff, Minister Stephen Lecce, MPP Deepak Anand and MPP Rudy Cuzzetto to their manufacturing facility. This along with the visit from our Deputy Prime Minister (see below) demonstrates the strong alignment between the Company's work and the national strategy for Canada to be a leader in green hydrogen production.

- In September 2024, the Company successfully completed an extended Factory Acceptance Test for its GEN2 electrolysis cells. The Company plans to commission the system at an external reference site for market demonstration in 2025.

- In August 2024, the Company was awarded a contract by the University of Minnesota ("UMN") for its latest generation electrolysis technology to be installed at the UMN West Central Research and Outreach Center ("WCROC"). The WCROC project is supported by the U.S. Department of Energy's Advanced Research Project Agency ("ARPA-E") as well as other partners including RTI International ("RTI") and will include technologies from Casale SA, RTI, UMN, Nutrien and Shell to demonstrate the production of ammonia from renewable energy targeting emerging energy markets and existing agricultural markets. Next Hydrogen will be supplying its latest third-generation Alkaline Water Electrolyzers featuring further advancements in energy efficiency, current density and operating pressure.

- In May 2024, the Company was granted a repayable contribution of $2M from Federal Economic Development Agency for Southern Ontario. This non-interest-bearing contribution is intended to support the Company's growth initiatives aimed at commercialization and business development advancements. The Company continues to be in advanced discussions with FedDev Ontario to help support its activities for 2025 and beyond.

- In April 2024, Next Hydrogen welcomed former Deputy Prime Minister Chrystia Freeland, MP Kamal Khera and MP Peter Fonseca to their manufacturing facility to announce new investment tax credits which further supported the Canadian clean technology sector. Minister Freeland also stated publicly "Next Hydrogen in Mississauga is changing the game in renewable energy and clean hydrogen production!"

- Following the successful completion of a pilot project, the Company received an order for a project involving a specialized nuclear application worth $7.7M. Under the agreement, Next Hydrogen will conduct design engineering (Phase 1) and subsequently provide the electrolyzer needed (Phase 2) for the project. A $5M purchase order has been received for Phase 1, with a potential follow-on order of $2.7M planned for Phase 2 with electrolyzer delivery expected in the future. To date, $3.8M of cash has been received, with the remainder $1.2M for Phase 1 to be received in 2025.

- The Company has been awarded $5.1M from Sustainable Development Technology Canada ("SDTC") towards the development and demonstration of the Company's next generation electrolysis technology. Further, Next Hydrogen is working with four blue chip industry partners who are contributing a total of

$1.2M as a combination of cash and in kind contributions towards its product development roadmap. These partners include end users, suppliers and channel partners to ensure strong product market fit and positions the Company for high quality revenue generation opportunities. With the launch of its products, Next Hydrogen will be well positioned to support the needs of its customers for both near-term demonstrations and commercial large scale green hydrogen systems. The payment for the first milestone in the amount of $1.9M was received from SDTC in 2023, and the payment of $1.9M for the second milestone was received in early 2024. Payment for the third milestone was advanced to the Company in January 2025. Once all the milestones have been completed, a 10% hold back will be released to the Company.

Business Overview

Founded in 2007, Next Hydrogen's innovative water electrolysis technology, with patented cell architecture, is designed to efficiently convert intermittent renewable electric power sources into clean hydrogen on an infrastructure scale. The Company was co founded by Dr. Jim Hinatsu (CPO) and Dr. Michael Stemp (CTO) who are experts in water electrolysis. They previously led Research & Development and Intellectual Property development for Stuart Energy (acquired by Hydrogenics in 2004) and Hydrogenics (acquired by Cummins in 2019).

While some of the world's brightest minds with strong capital resources have been focused on improving cell materials and components, improvements to the cell design architecture have garnered very little attention and as a consequence the design has not changed in decades. Next Hydrogen's team, with a combined experience of over 60 years in water electrolysis, has dedicated more than a decade to revolutionizing the design architecture of the electrolyzer to optimize it for renewable energy integration. To date, it has been awarded 40 patents across multiple jurisdictions. The break through innovation in cell design architecture enables unprecedented operational flexibility to capture the entire output of intermittent renewable energy using significantly smaller or fewer units than a traditional electrolyzer solution. Next Hydrogen believes its unique design enables high current density operations, a superior dynamic response and inherent scalability, representing a strong technological advantage to reduce the cost of green hydrogen generation and decarbonize industrial processes, the transportation industry, and energy markets at scale.

The advanced electrolyzer module design uses a new and fundamentally different approach to fluid flows in water electrolyzers. Fluid flows are maintained separately in each half cell chamber or "slice" of the electrolyzer module, whereas conventional designs collect all the fluid flows in internal manifolds of the electrolyzer module, which are separated from the gas in external gas liquid separators. Next Hydrogen's design can therefore handle much higher fluid flow rates, and much higher gas generation rates, which in turn enables our products to make more hydrogen economically, whenever low cost electricity is available. The key enabling design features are incorporation of gas liquid separators inside the electrolyzer module, and fluid flow passages that connect each gas production half cell chamber directly to the gas liquid separators.

Next Hydrogen's product is a large scale hydrogen generator, which makes hydrogen at the user's site from common plant utilities - water and electricity. The hydrogen generator system uses water electrolysis to generate high purity hydrogen on demand. The key component in the system is an innovative, patented electrolyzer module, which is combined with balance of plant equipment including power, controls, gas purification, closed loop cooling and water treatment. The process typically works by first converting AC electricity to DC electricity, which powers the electrolyzer module. Inside the electrolyzer module, water is converted by the DC electricity to hydrogen and oxygen gases. Hydrogen typically is the product gas, and it is cleaned and sent to the user's process and/or hydrogen storage. The system is automatically controlled and operates with minimal oversight. It is packaged in sea containers for ease of shipping and installation and outdoor installation frees up valuable indoor floor space.

Next Hydrogen is at the early commercialization stage and has demonstrated that the development of the final product with expected functionality is possible. The Company initially demonstrated its prototype with Atomic Energy Canada Limited ("AECL") in 2012. At the time, AECL publicly stated "the team successfully demonstrated the continuous operation of the cell with the required quality of hydrogen stream from the electrolyzer in a liquid phase catalytic exchange system." Following this, the Company sold a NH 60 test and evaluation electrolyzer system to Canadian Tire in 2014. Subsequently, Next Hydrogen entered into two additional sales agreements with Canadian Tire for an NH 300 electrolyzer system and an electrolyzer

module. These systems will produce hydrogen to power fuel cell forklifts at Canadian Tire's distribution centers.

Next Hydrogen has dedicated a significant portion of its capital raise to product development and commercialization. As such, its current product line has undergone new performance upgrades from first to second generation to factor in latest innovations. These iterations and refinements are a normal course of a product development journey and will be necessary to comprehensively prove out the five times scale up from NH 60, unique design features, lifetime performance, and to ensure a competitive and robust product offering for mass volume production. This second-generation product line is in a market demonstration currently. Looking further ahead and as part of the product development roadmap, management intends to pursue further scale up of this design from the current size range for large scale green hydrogen production.

Results of Operations

Financial Highlights

	3 months ended Dec 31 2024	3 months ended Dec 31 2023	12 months ended Dec 31 2024	12 months ended Dec 31 2023
Revenue	**$ 114,686**	$ 808,813	**$ 1,362,252**	$ 951,908
Expenses				
Cost of sales	**(654,223)**	566,447	**1,696,600**	1,240,702
Research and development	**1,770,985**	2,351,617	**8,634,623**	7,065,384
General and administrative	**1,451,122**	1,191,407	**5,145,861**	4,672,865
Marketing and sales	**174,577**	143,297	**532,295**	466,379
Loss before the following	**(2,627,775)**	(3,443,955)	**(14,647,127)**	(12,493,422)
Finance (income) costs, net	**61,735**	(100,278)	**2,780**	(479,533)
Net Income (Loss) before recovery of income taxes	**$ (2,689,510)**	$ (3,343,677)	**$ (14,649,907)**	$ (12,013,889)
Income tax (recovery)	**(53,000)**	—	**(53,000)**	—
Net loss and comprehensive loss	**$ (2,636,510)**	$ (3,343,677)	**$ (14,596,907)**	$ (12,013,889)
Loss per share - basic	**$ (0.12)**	$ (0.15)	**$ (0.64)**	$ (0.52)
Loss per share - diluted	**$ (0.12)**	$ (0.15)	**$ (0.64)**	$ (0.52)

Revenue

	12 months ended Dec 31 2024	12 months ended Dec 31 2023	$Change	% Change
Revenue	**$ 1,362,252**	$ 951,908	$ 410,344	43 %

As Next Hydrogen is in the early stage of commercialization, revenues are generated through service, consulting, and through development agreements. The Company recorded $1,362,252 (2023 - $951,908) in revenue during the year ended December 31, 2024, 68% (2023 - 76%) of which was provided by one customer.

As of December 31, 2024, the Company had $5,318,614 (2023 - $5,079,535) in deferred revenue, $2,640,472 (2023 - $2,307,894) of which is expected to be earned over the next twelve months.

Expenses

	12 months ended Dec 31 2024	12 months ended Dec 31 2023	$Change	% Change
Cost of sales	**$ 1,696,600**	$ 1,240,702	$ 455,898	37 %
Research and development	**8,634,623**	7,065,384	1,569,239	22 %
General and administrative	**5,145,861**	4,672,865	472,996	10 %
Marketing and sales	**532,295**	466,379	65,916	14 %
	$ 16,009,379	**$** 13,445,330	$ 2,564,049	19 **%**

Cost of sales increased by $455,898 or 37% for the year ended December 31, 2024, compared to 2023. The increase was due to:

- Additional costs incurred in the fulfillment of deliverables related to a contract that is onerous in nature due to the Company's decision in offering the GEN2 product line to the customer.
- Write-offs of inventory during the year.
- Partially offset by a provision reversal relating to a revenue contract which was modified and the contract is no longer determined to be onerous.

Research and development expenses are incurred on research activities such as but not limited to the proof of concept for the next GEN3 design; activities aimed at proving the GEN2 design through a market demonstration; other initiatives, including activities preparing for large-scale manufacturing. These expenses increased by $1,569,239 or 22% for the year ended December 31, 2024, compared to 2023. The increase was due to:

- A portion of the government support received in 2024 in the form of long-term, zero-interest loans, recognized in the Company's balance sheet.
- Variance in the timing of government grant payments offsetting the expenses incurred in 2024 compared to 2023. These payments have been received subsequently in 2025.
- Write-offs of equipment-under-construction and inventory during the year which relate to an older version of the electrolyzer module that will no longer be utilized.

General and administrative expenses increased by $472,996 or 10% for the year ended December 31, 2024, compared to 2023. The increase was due to

- Increased professional fees related to discussions with strategic partners to achieve sales and backlog increases in 2024.

Marketing and sales expenses increased by $65,916 or 14% for the year ended December 31, 2024, compared to 2023. The amount of related expenses are incurred as the Company is involved in increased sales activities relative to the previous year.

Summary of Quarterly Results

The following table sets out quarterly financial information for the Company's eight most recently completed quarters:

(in thousands)	Q4'24	Q3'24	Q2'24	Q1'24	Q4'23	Q3'23	Q2'23	Q1'23
Revenue	115	120	552	576	809	53	46	44
Loss from operations	(2,628)	(3,895)	(3,914)	(3,486)	(3,444)	(2,423)	(3,083)	(3,543)
Net loss and comprehensive loss	(2,637)	(3,922)	(3,895)	(3,419)	(3,344)	(2,335)	(2,940)	(3,395)
Loss per share - Basic	(0.12)	(0.17)	(0.17)	(0.15)	(0.15)	(0.10)	(0.13)	(0.15)
Loss per share - Diluted	(0.12)	(0.17)	(0.17)	(0.15)	(0.15)	(0.10)	(0.13)	(0.15)

During the year 2024, the Company's revenues predominantly consist of revenue from a development agreement. The reduction in revenues in Q3 and Q4 2024 in comparison to previous quarters in 2024 is due to a temporary pause in the development agreement. The loss from operations and net loss and comprehensive loss are predominantly consistent with the prior quarters, as is expected in the Company's pre-commercialization stage.

Given the nascent nature of the industry and the value of individual unit sales, the sale of Next Hydrogen's electrolyzers could result in significant fluctuations in revenues over the first few years of operations, until the Company builds a robust sales pipeline.

Liquidity and Capital Resources

	Dec 31, 2024	Dec 31, 2023
Cash and cash equivalents	$ 3,586,374	$ 10,909,061
Working capital[(1)]	1,298,386	11,641,150
Total assets	15,462,753	25,443,318
Debt[(2)]	3,022,093	85,389
Shareholders' equity (deficit)	(1,370,473)	12,605,913

(1) Working capital is defined as current assets minus current liabilities.

(2) Debt includes both current and long-term portions of long-term debt and convertible debt. Finance lease liability has been excluded as it pertains to the Company's head office and assembly facility lease.

Cash and cash equivalents, working capital, total assets, and shareholders' equity (deficit) decreased during the year ended December 31, 2024 in order to fund operating activities, product development and purchases.

Positive cashflows from operating activities are not expected over the next few years as the Company continues to focus on product development and commercializing new product lines while building out the necessary infrastructure to commercialize its business.

For the year ended December 31, 2024, the Company had a net loss of $14,596,907, negative cash flow from operations of $9,997,653 and cash and cash equivalents of $3,586,374 and working capital (Current assets less Current liabilities) of $1,298,386. The continuation of the Company as a going concern is dependent upon its ability to meet the relevant criteria of government grants and revenue contracts for additional funds to be received and obtain financing through equity or debt, and there can be no assurance that it will be able to obtain adequate financing in the future or on terms acceptable to the Company. These circumstances represent a material uncertainty that casts significant doubt about the Company's ability to continue as a going concern. Management is currently under discussions with third parties to secure additional financing as well as discussions with strategic and commercial partners that if successful would reduce the going concern risk.

The following table sets out the Company's contractual obligations with respect to debt:

(in thousands)	Total	1 Year	2 Years	3 Years	4 Years	5 Years	After 5 Years
Trade and other payables	$ 3,058	$ 3,058	$ —	$ —	$ —	$ —	$ —
Finance lease liability	2,519	321	362	373	384	395	684
Convertible debenture	3,270	273	2,998	—	—	—	—
Long-term debt	1,036	23	84	203	203	203	321

As of April 24, 2025, the Company had 22,918,500 common shares, 3,120,376 stock options and 105,224 deferred share units outstanding.

Selected Annual Information

	2024	2023
Revenue	$ 1,362,252	$ 951,908
Net loss and comprehensive loss	(14,596,907)	(12,013,889)
Loss per share - basic	(0.64)	(0.52)
Loss per share - diluted	(0.64)	(0.52)
Total assets	15,462,753	25,443,318
Total long-term liabilities	10,731,457	8,231,519

Forward-Looking Statements

Certain sections of this MD&A, including the CEO letter may contain "forward-looking statements" within the meaning of applicable securities legislation. All statements, other than statements of historical fact, made by the Company that address activities, events or developments that the Company expects or anticipates will or may occur in the future are forward-looking statements, including, but not limited to, statements preceded by, followed by or that include words such as "may", "will", "would", "could", "should", "believes", "estimates", "projects", "potential", "expects", "plans", "intends", "anticipates", "targeted", "continues", "forecasts", "designed", "goal", or the negative of those words or other similar or comparable words. Forward-looking statements may relate to the Company's future financial conditions, results of operations, plans, objectives, performance or business developments. Forward-looking statements are necessarily based upon a number of estimates and assumptions that, while considered reasonable by the Company as of the date of such statements, are inherently subject to significant business, economic and competitive uncertainties and contingencies. Known and unknown factors could cause actual results to differ materially from those projected in the forward-looking statements.

There can be no assurance that forward-looking statements will prove to be accurate, as actual results and future events could differ materially from those anticipated in such statements. Forward-looking statements are provided for the purpose of providing information about management's expectations and plans relating to the future. All of the forward-looking statements made in this MD&A are qualified by these cautionary statements and those made in our other filings with applicable securities regulators in Canada. The Company disclaims any intention or obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise, or to explain any material difference between subsequent actual events and such forward-looking statements, except to the extent required by applicable law.

Critical Accounting Estimates

The preparation of consolidated financial statements in accordance with IFRS requires management to make judgments that affect the application of accounting policies and the interpretation of accounting standards, and to make estimates and assumptions which affect the reported amounts of assets and liabilities, the disclosure of contingent assets and liabilities, and the reported amounts of revenues and expenses. Management makes estimates based on specific facts or circumstances as well as past experiences. Management periodically reviews its estimates and underlying assumptions and as adjustments become necessary, they are reported in profit and loss in the period in which they become known. Due to the inherent uncertainty involved with making such estimates, actual results could differ from those reported.

A detailed description of the Company's critical accounting estimates can be found in the consolidated financial statements.

Changes in Accounting Standards

Please refer to the audited consolidated financial statements

Future Accounting Pronouncements

Please refer to the audited consolidated financial statements

Risks and Uncertainties

Any investment in the securities of the Company is speculative due to the nature of its business and stage of development. There are a number of risk factors that could materially affect the Company's future operating results and could cause actual events to differ materially from those described in the forward-looking statements related to the Company. In addition to the usual risks associated with an investment in a business, investors should carefully consider the following risk factors and the risk factors set out in the Company's Filing Statement. If any of the noted risks actually occur, the business may be harmed and the financial condition and results of operations may suffer significantly. In that event, the trading price of the common shares could decline, and shareholders may lose all or part of their investment. Additional risks and uncertainties not presently known to us or that we currently consider immaterial also may impair our business and operations.

Capital Requirements

Next Hydrogen plans to focus on research and development while building out the necessary infrastructure to commercialize its business and will use its working capital to carry out such initiatives. The continuation of the Company as a going concern is dependent upon its ability to meet the relevant criteria of government grants and revenue contracts for additional funds to be received and to obtain financing through equity or debt, and there can be no assurance that it will be able to obtain adequate financing in the future or on terms acceptable to the Company. These circumstances represent a material uncertainty that casts significant doubt about the Company's ability to continue as a going concern.

Operations

Next Hydrogen is subject to risks relating to the industry in which it operates, which include risks relating to the continuing development of the industry and risks relating to regulations. With respect to the continuing development of the renewable energy industry, Next Hydrogen is subject to the risk that their technology is relatively new and as a result, assumptions and estimates regarding the performance of their technology will be made without the benefit of a meaningful operating history and any operating history that does exist may not be maintained in the future. The projects undertaken by Next Hydrogen are generally capital intensive, require significant time to develop, are technically complex and are physically large. As a result, Next Hydrogen is subject to risks relating to completion of the projects, cost overruns, the availability of financing for such projects, and the ability to complete projects in geographically challenging locations. With respect to regulation, the industries in which Next Hydrogen operates are heavily regulated. As a result, Next Hydrogen is subject to risks relating to compliance with comprehensive regulations in multiple jurisdictions, and the risk that laws and regulatory requirements can change in a manner adverse to Next Hydrogen.

Development of the Clean Power Industry

Next Hydrogen operates in a new and rapidly evolving industry and accordingly is subject to risks relating to the development of that industry generally, and the technology underlying that industry. Accordingly, the business and future prospects of Next Hydrogen may be difficult to evaluate. Next Hydrogen cannot accurately predict the extent to which demand for products and services developed by Next Hydrogen will develop and/or increase, if at all. The success of Next Hydrogen also will depend on traditional business factors such as the ability to develop or market new products and the ability to properly execute corporate strategies. In addition, the regulation of issuers using such technologies or operating in such markets may undergo substantial change and the ultimate regulatory treatment of such technologies and markets is

uncertain, which could affect the viability and expansion of such technologies and markets. In addition, because such technologies and markets may operate across many national boundaries, it is possible that they will be subject to widespread and inconsistent regulation. Any adverse developments that affect any of such technologies or markets could impact Next Hydrogen, thereby negatively impacting the value of Next Hydrogen's investments and/or the ability of Next Hydrogen to pay dividends or distributions.

Commercialization

Selling Next Hydrogen's electrolyzer products on a commercially viable basis requires technological advances to improve the durability, reliability and performance of these products, and to develop commercial volume manufacturing processes for these products. It also depends upon Next Hydrogen's ability to reduce the costs of these products, since they are currently more expensive than products based on existing technologies and/or powered by fossil fuels, such as steam methane reformation. Next Hydrogen may not be able to sufficiently reduce the cost of these products without reducing their performance, reliability and durability, which would adversely affect the willingness of consumers to buy its products. Next Hydrogen cannot guarantee that it will be able to internally develop the technology necessary to sell its electrolyzer products on a commercially viable basis or that Next Hydrogen will be able to acquire or license the required technology from third parties.

In addition, before Next Hydrogen releases any products to market, Next Hydrogen subjects its products to numerous field tests. These field tests may encounter problems and delays for a number of reasons, many of which are beyond Next Hydrogen's control. If these field tests reveal technical defects or reveal that its products do not meet performance goals, Next Hydrogen's anticipated timeline for selling its products on a commercially viable basis could be delayed, and potential purchasers may decline to purchase its products.

Market Demand

Next Hydrogen's products represent emerging markets, and Next Hydrogen does not know whether end-users will want to use them in commercial volumes. In such emerging markets, demand and market acceptance for recently introduced products and services are subject to a high level of uncertainty and risk. The development of a mass market for Next Hydrogen's electrolyzers may be affected by many factors, some of which are beyond Next Hydrogen's control, including the emergence of newer, more competitive technologies and products, the cost of fuels used by Next Hydrogen's products, regulatory requirements, consumer perceptions of the safety of its products and related fuels, and end-user reluctance to buy a new product.

If a mass market fails to develop, or develops more slowly than Next Hydrogen anticipates, Next Hydrogen may never achieve profitability. In addition, Next Hydrogen cannot guarantee that Next Hydrogen will continue to develop, manufacture or market its products if sales levels do not support the continuation of the product.

Warranty Claims and Product Performance

There is a risk that Next Hydrogen's warranty accrual estimates are not sufficient and Next Hydrogen may recognize additional expenses, including those related to litigation, as a result of warranty claims in excess of its current expectations. Such warranty claims may necessitate changes to its products or manufacturing processes up to and including a product recall, all of which could hurt the reputation of Next Hydrogen and its products, and may have an adverse impact on its financial performance and/or on future sales. While Next Hydrogen attempts to mitigate these risks through product development, quality assurance and

customer support and service processes, there can be no assurance that these processes are adequate. Even in the absence of any warranty claims, a product deficiency such as a design or manufacturing defect could be identified, necessitating a product recall or other corrective measures, which could hurt Next Hydrogen's reputation and the reputation of its products and may have an adverse impact on its financial performance and/or future sales.

New products may have different performance characteristics from previous products. In addition, Next Hydrogen has limited field experience with existing commercial products from which to make its warranty accrual estimates.

Intellectual property

Failure to protect Next Hydrogen's existing intellectual property rights may result in the loss of its exclusivity regarding, or right to use, its technologies. If Next Hydrogen does not adequately ensure its freedom to use certain technology, Next Hydrogen may have to pay others for rights to use their intellectual property, pay damages for infringement or misappropriation, or be enjoined from using such intellectual property. Next Hydrogen relies on patent, trade secret, trademark and copyright laws to protect its intellectual property. Some of its intellectual property is not covered by any patent or patent application, and the patents to which Next Hydrogen currently has rights expire between July 2028 and October 2034. Next Hydrogen's present or future-issued patents may not protect its technological leadership, and its patent portfolio may not continue to grow at the same rate as it has in the past. Moreover, Next Hydrogen's patent position is subject to complex factual and legal issues that may give rise to uncertainty as to the validity, scope and enforceability of a particular patent. Accordingly, there is no assurance that: (i) any of the patents owned by Next Hydrogen will not be invalidated, circumvented, challenged, rendered unenforceable or licensed to others; or (ii) any of its pending or future patent applications will be issued with the breadth of claim coverage sought by Next Hydrogen, if issued at all. In addition, effective patent, trade secret, trademark and copyright protection may be unavailable, limited or not applied for in certain countries.

Next Hydrogen also seeks to protect its proprietary intellectual property, including intellectual property that may not be patented or patentable, in part by confidentiality agreements and, if applicable, inventors' rights agreements with its strategic partners and employees. Next Hydrogen can provide no assurance that these agreements will not be breached, that Next Hydrogen will have adequate remedies for any breach, or that such persons or institutions will not assert rights to intellectual property arising out of these relationships.

Next Hydrogen may become subject to lawsuits in which it is alleged that Next Hydrogen has infringed the intellectual property rights of others or commence lawsuits against others who Next Hydrogen believes are infringing upon its rights. Next Hydrogen's involvement in intellectual property litigation could result in significant expense to Next Hydrogen, adversely affecting the development of sales of the challenged product or intellectual property and diverting the efforts of its technical and management personnel, whether or not such litigation is resolved in its favour.

Competitive Industry Environment

The renewable energy industry is highly competitive in all of its phases, both domestically and internationally. The Company's ability to develop hydrogen technology is based on its ability to secure talented personnel and secure supply of goods necessary to build electrolyzers, of which there is a limited supply. The Company may also encounter competition from other renewable energy companies in its efforts to hire experienced engineering and development professionals. Competition could adversely affect the Company's ability to attract necessary funding or acquire prospects for strategic partnerships in the future. Competition for services and equipment could result in delays if such services or equipment cannot be obtained in a timely manner due to inadequate availability, and could also cause scheduling difficulties and cost increases due to the need to coordinate the availability of services or equipment, any of which could materially increase project development or construction costs and result in project delays.

Product Safety Risk

Safety is the top priority as the Company. Management and all employees are strongly committed to delivering fail-safe products to our customers. The product safety risks include the risk from major accidents and/or malfunctions in our products and/or insufficient service during operations and maintenance. The product safety risk is further increased due to Next Hydrogen's new and unique product line.

Technology and Competition Risk

The green-energy sector, and hydrogen production in particular, is witnessing significant development. This not only results in increased competition, but also increased activity in research and development across the hydrogen industry. There is inherent risk that some of the technology developed by Next Hydrogen becomes obsolete. As the world seeks to transition into renewable energy sources, there is a degree of uncertainty that green hydrogen emerges as the preferred technology, which poses a direct risk to Next Hydrogen's technology and how the Company seeks to outperform competition.

Expansion Risk

The pressures faced by Next Hydrogen to expand its facilities, staff and operations may place high demands on the Company's overhead, technical, financial, and other resources. The Company is currently relatively lean and there is a degree of risk associated with the Company's ability to build a capable organization at a speed that is required to meet the demand by its customers or potential customers. Next Hydrogen's failure to manage its growth effectively or to manage its expansion strategy in a timely manner may significantly harm its ability to achieve profitability.

Third Party Dependence Risk

The Company is involved in electrolyzer and hydrogen fueling manufacturing, and therefore relies on external subcontractors and suppliers for goods and services. This operating model poses a risk to Next Hydrogen's goodwill and branding, as suppliers may fail to meet environmental, human rights, labor, and product quality standards. Next Hydrogen aims to limit risk through dual sourcing of critical components and prefers suppliers with local legislation compliance. However, if Next Hydrogen fails to maintain relationships with its suppliers or faces supply disruptions, it may experience delays in manufacturing, higher costs, order cancellations, customer claims, and loss of market share. Next Hydrogen is working on

strategies such as dual supply chains and facilitating increasing volumes from key sub-suppliers to reduce sourcing risk and make its supply chain more robust.

Project Risk

Next Hydrogen's participation in large commercial projects exposes them to risks such as delays and cost overruns due to various factors including delivery delays or shortages of key equipment, design problems, labor disputes, safety hazards, disputes with suppliers, changes in customer specifications, adverse weather conditions, and regulatory approvals or permits delays. Failure to complete a commercial project on time may result in contract delays, renegotiation, or cancellation, and can negatively impact Next Hydrogen's reputation and customer relationships. Next Hydrogen may also face contractual penalties for not completing the project on time, which could adversely affect their business, financial condition, and results of operations.

Key Personnel Risk

Next Hydrogen's development will depend on the efforts of key management and other key personnel. Loss of any of these people, particularly to competitors, could have a material adverse effect on Next Hydrogen's business. Further, with respect to future development of Next Hydrogen's projects, it may become necessary to attract both international and local personnel for such development. The marketplace for key skilled personnel is becoming more competitive, which means the cost of hiring, training and retaining such personnel may increase. Factors outside Next Hydrogen's control, including competition for human capital and the high level of technical expertise and experience required to execute this development, will affect Next Hydrogen's ability to employ the specific personnel required. Due to the relatively small size of Next Hydrogen, the failure to retain or attract a sufficient number of key skilled personnel could have a material adverse effect on Next Hydrogen's business, results of future operations and financial condition.

Customer Risk

Next Hydrogen's growth and revenue generation depend heavily on their ability to acquire new customers and maintain relationships with existing customers. However, there is no guarantee that Next Hydrogen will be successful in securing new customers or maintaining existing customer relationships in the future. Additionally, some of Next Hydrogen's existing and potential customers are also planning significant growth, and if these customers fail to succeed in their business plans or fulfill contracts with Next Hydrogen, it may adversely impact Next Hydrogen's sales and revenues.

Adverse Publicity and Product Liability Risk

Next Hydrogen's products could potentially result in product liability claims due to malfunctions, defects, improper installation or other causes, which could result in adverse publicity and significant monetary damages. The successful assertion of such claims could have a significant negative impact on Next Hydrogen's business, prospects, financial results, and operations. As of the date of this MD&A, Next Hydrogen is not aware of any current or pending product liability claims against the Company.

Market Development Risk

Next Hydrogen's revenues may be significantly harmed if significant markets for fueling products, other hydrogen energy products, or renewable energy as a major source for hydrogen production do not develop

or develop more slowly than anticipated. This could result in Next Hydrogen being unable to recover the expenditures it has incurred and expects to incur in the development of its products.

Regulatory Risk

Next Hydrogen's operations are subject to numerous environmental requirements, including laws and regulations related to air pollution emissions, wastewater discharges, waste management, and hazardous materials handling. Compliance with these requirements can be costly and may increase over time. Breaches of allowed emission limits granted by various authorities could result in temporary production halts, fines, and corrective measures, which may have a significant effect on Next Hydrogen's operations.

Next Hydrogen's fuel cell and hydrogen industry is currently not subject to industry-specific government regulations in certain jurisdictions, but the company expects to encounter such regulations in the future, which may impact its development and growth. Changes in environmental policies or government subsidies could also adversely affect Next Hydrogen's business, as it depends substantially on government subsidies in its research and development phase. Political developments or judicial review of government financial support could result in the discontinuation or reduction of subsidies, leading to lower profitability and adverse effects on Next Hydrogen's business, financial condition, and results of operations.

Climate Related Risks

Next Hydrogen recognizes that while climate change is a major trend, the anticipated role of green hydrogen in mitigating climate change could change due to geopolitical factors shaping climate policies. Next Hydrogen does not expect to be significantly impacted by potential carbon taxes or restrictions on carbon-intensive assets, as it does not consume products from conflict areas and has limited consumption of rare materials.

Reputation Risk

Next Hydrogen acknowledges the significance of maintaining a strong brand in the growing green hydrogen industry. Reputational risk for Next Hydrogen includes potential damage to brand value resulting in lost opportunities, challenges in talent recruitment and retention leading to technology development disruptions and customer experience issues, and difficulties in attracting investors due to a damaged reputation that could impact the Company's ongoing operations.

Physical Risk

Next Hydrogen's manufacturing facilities are not situated in environments that are excessively exposed to physical risks, including sustained long-term shifts in climate patterns. However, Next Hydrogen's delivered solutions depend on uninterrupted access to water and electricity, and shortages of these resources could potentially impact the performance of their products.