

Risk Factors Comparison 2025-03-28 to 2024-03-29 Form: 10-K

Legend: **New Text** ~~Removed Text~~ ~~Unchanged Text~~ **Moved Text** **Section**

You should carefully consider the following risks. These risks could materially affect our business, results of operations or financial condition, cause the trading price of our common stock to decline materially or cause our actual results to differ materially from those expected or those expressed in any forward- looking statements made by us or on our behalf. These risks are not exclusive, and additional risks to which we are subject include, but are not limited to, the factors mentioned under “ Cautionary Note Regarding Forward- Looking Statements ” and the risks of our businesses described elsewhere in this Report for the year ended December 31, ~~2023-2024~~. **SUMMARY RISK FACTORS** ~~Summary of Risk Factors~~ **An investment in our company involves various risks. The following is a summary of these risks, but does not address all of the risks that we face. Additional discussion of the risks that we face can be found following this summary and should be carefully considered together with all of the other information appearing in this Report.** ~~Risks Related to Our Business and General Economic Conditions~~ · A sustainable market for our products may never develop. **Our ability to treat hazardous wastes on a commercially viable basis is unproven, which could have a detrimental effect on our ability to generate or sustain revenues.** · We have a limited operating history with no material revenues. · ~~Our ability-business and results of operations may be adversely affected if we are unable~~ to recruit and retain qualified management . **Our products may have defects, which could damage our reputation, decrease market acceptance of our products, cause us to lose customers and revenue and result in costly litigation or liability** . · Our management team may not be able to successfully implement our business strategies. · ~~Our executive officers have other business interests.~~ ~~Our products may have defects.~~ ~~Our ability to generate revenue will depend in part on government contracts~~ **which expose us to the uncertainties of governmental budgetary and funding constraints and local, national and international political conditions and events.** · **We have identified material weaknesses in our internal control over financial reporting** . · Significant disruptions of our information technology systems or breaches of our data security could adversely affect our business. · We may be unable to obtain required licenses from third parties for product development. ~~We face other risks in our expected international sales.~~ ~~If we fail to manage growth or to prepare for product scalability effectively, it could have an adverse effect on our employee efficiency, product quality, working capital levels and results of operations.~~ · We may be adversely affected by the effects of inflation. · We face competition in our industry, and we may be unable to attract customers and maintain a viable business. ~~Our ability to treat hazardous wastes on a commercially viable basis is unproven, which could have a detrimental effect on our ability to generate or sustain revenues.~~ · We are required to obtain permits in different areas of the world in order to utilize our products in such regions. Our need to apply for and receive permits could substantially limit our ability to operate and grow our business. · We **have in the past and may in the future** be involved in litigation matters or other legal proceedings that are expensive and time consuming. · Developments in, and compliance with, current and future environmental and climate change laws and regulations could impact our business, financial condition or results of operations. · If we become subject to claims relating to handling, storage, release or disposal of hazardous materials, we could incur significant cost and time to comply. · Failure to effectively treat emerging contaminants could result in material liabilities. · Wastewater operations entail significant risks that may impose significant costs. · We may incur liabilities to customers as a result of warranty claims or failure to meet performance guarantees, which could reduce our profitability. **We enter into various contracts** ~~Our operations will be subject to multiple layers of complex environmental health and safety regulation.~~ ~~Developments in~~ **the normal course of our business**, and compliance with **some or all of which may require us to indemnify the other party to the contract. In the event we have to perform under these indemnification provisions, it** ~~current and future climate change laws and regulations could impact~~ **have an adverse effect on** our business, financial condition ~~or and~~ results of **operation.** · **Natural disasters and other catastrophic events beyond our control could adversely affect our business** operations and financial performance . · **United States trade policies and other factors beyond the Company’s control, including the imposition of tariffs and retaliatory tariffs, may adversely impact our business, financial condition and results of operations.** ~~Risks Related to Our Financial Position and Capital Requirements~~ ~~Our Financial Position and Capital Requirements~~ ~~insurance may not provide adequate coverage.~~ · We **will require and may have difficulty** be unable to obtain or maintain insurance for ~~or~~ our commercial products. ~~Product and services liability suits, whether or not meritorious, could be brought against us~~ **unsuccessful in raising needed capital in the future to continue to operate as a going concern** . · Our financial results depend on successful project execution and may be adversely affected by cost overruns, failure to meet customer schedules or other execution issues. · We have inadequate capital and need for additional financing to accomplish our business and strategic plans. ~~Undetected problems in our products could impair our financial results and give rise to potential product liability claims.~~ ~~Risks Related to Our Financial Position and Capital Requirements~~ ~~Our financial results depend on successful project execution and may be adversely affected by cost overruns, failure to meet customer schedules or other execution issues.~~ ~~We have inadequate capital and need for additional financing to accomplish our business and strategic plans.~~ ~~Terms of subsequent financing, if any, may adversely impact your investment .~~ ~~Undetected problems in our products could impair our financial results and give rise to potential product liability claims.~~ · Our research and development expenses may increase in the future. ~~Risks Related to Our Intellectual Property~~ · We ~~have limited protection over our trade secrets and know-how.~~ ~~We may have difficulty in protecting our intellectual property and may incur substantial costs to defend ourselves in patent infringement litigation .~~ **We may become subject to claims of infringement or misappropriation of the intellectual property rights of others, which could prohibit us from developing our products, require us to obtain licenses from third parties or to develop non- infringing alternatives and subject us to substantial monetary damages.** · We may be subject

to claims challenging the inventorship or ownership of our patents and other intellectual property. We may need to depend on certain technologies that are licensed to us. We would not control these technologies and any loss of our rights to them could prevent us from selling our products.

Risks Related to our Reliance on Third Parties We depend on a single supplier; if our relationship with our supplier deteriorates, this could have an adverse impact on our business. Our suppliers may fail to deliver materials and parts according to schedules, prices, quality and volumes that are acceptable to us, or we may be unable to manage these materials and parts effectively. **Failure by third parties to supply or manufacture components of our products or to deploy our systems timely or properly could adversely affect our business, financial condition and results of operations.**

Risks Relating to our Common Stock and Capital Structure The market price of our common stock historically has been highly volatile and is likely to continue to be volatile, and you could lose all or part of your investment. **Our** If we cannot maintain full compliance with Nasdaq listing standards, or if we cannot cure any violations within the time afforded under the Nasdaq listing standards, then we may face penalties that could significantly impact our stock price, including delisting of our stock from Nasdaq. **The interests of our principal stockholders, officers and directors, who collectively beneficially own a significant interest in amount of our common stock, may not coincide with yours and such stockholders will have the Company ability to control decisions with which you may disagree.** Because we became a “smaller reporting company,” we may take advantage of certain scaled disclosures available to us, resulting in holders of our securities receiving less Company information than they would receive from a public company that is by means of a merger, we may not be able to attract the attention of major brokerage firms. We are an “emerging growth company” and the reduced disclosure requirements applicable to emerging growth companies may make our common stock less attractive to investors. We do not intend to pay dividends on our common stock for the foreseeable future. **If securities or industry analysts do not publish research about our business, or publish negative reports about our business, our share price and trading volume could decline. Future sales or potential sales of our common stock in the public market could cause our share price to decline. The market price of our common shares has been, and may continue to be, particularly volatile, and our shareholders may be unable to resell their shares at a profit. We incur costs as a result of operating as a public company, and our management will be required to devote substantial time to new compliance initiatives. Provisions in our Amended and Restated Certificate of Incorporation and Bylaws and of Delaware law may prevent or delay an acquisition of the Company, which could decrease the trading price of our common stock. We may not regain compliance with the continued listing requirements of The Nasdaq Capital Market.**

13A sustainable market for our products may never develop or may take longer to develop than we anticipate which would adversely affect our results of operations. Our products represent an emerging market, and we do not know whether our targeted customers will accept our technology or will purchase our products in sufficient quantities to allow our business to grow. To succeed, demand for our products must increase significantly in existing markets, and there must be strong demand for products that we introduce in the future. The technologies we use to treat sludge, biosolids and wastewater, have never been utilized on a full-scale commercial basis. Our AirSCWO™ technology and systems remain in a research and development status. All of the tests conducted to date by us with respect to the technology have been performed in a limited scale or small commercial scale environment and the same or similar results may not be obtainable at competitive costs on a large-scale commercial basis. We have never employed our technology under the conditions or in the volumes that will be required for us to be profitable and we cannot predict all of the difficulties that may arise. Accordingly, our technology may not perform successfully on a commercial basis and we may never generate any revenues or be profitable. **Even if Our revenues to date are primarily from the sale of one AirSCWO unit which we anticipate delivering in the second quarter of calendar year 2024. If we are unsuccessful, at completing the AirSCWO unit and are unable to deliver on this contract it could adversely affect us** fully commercialize our products, we may not be able to grow our business at scale. Due to the uncertainties and potential difficulties to level up our technology to be deployed on a large-scale commercial basis, there Our limited operating history makes evaluating the business and future prospects difficult and may increase the risk of your investment. We have yet to generate material revenues from our business and we have **so far deployed our AirSCWO technology** not yet produced commercially viable systems. We have only in created one working version of our system as a demonstration unit that operated on the campus-City of Orlando Duke University from 2015 and until 2022 when the unit was purchased by 374Water and relocated to Kokomo, IN-Florida. Therefore, the commercial value of our systems is uncertain. There can be no assurance that we will ever generate significant revenues or become profitable. Further, we are subject to all the risks inherent in a new business, including, but not limited to: intense competition; lack of sufficient capital; loss of protection of proprietary technology and trade secrets; difficulties in commercializing our products, managing growth and hiring and retaining key employees; adverse changes in costs and general business and economic conditions; and the need to achieve product acceptance, to enter and develop new markets and to develop and maintain successful relationships with customers, third party suppliers and contractors.

13Our 14Our business and results of operations may be adversely affected if we are unable to recruit and retain qualified management. Our success depends, in large part, on our ability to hire and retain highly qualified people and if we are unable to do so, our business and operations may be impaired or disrupted. Specifically, the Company’s Board of Directors is actively conducting a search for a permanent chief executive officer. Competition for highly qualified people is intense and there is no assurance that we will be successful in attracting or retaining replacements to fill vacant positions, successors to fill retirements or employees moving to new positions, or other highly qualified personnel. Furthermore, the search for our new chief executive officer may take longer than expected, which could negatively impact our business development. Our executive officers have other business interests which may limit the amount of time they can devote to our Company and create conflicts of interest. Our executive officers have other business interests, meaning they may not have enough time to devote to our business operations. While our officers presently possess adequate time to attend to our interests, it is possible that the demands on them from their other obligations could increase with

the result that they would no longer be able to devote sufficient time to the management of our business. Jeff Quick, our interim chief executive officer and Adrienne Anderson, our chief financial officer, presently spend approximately 80 % of their business time on business management services for our Company. This may lead to sporadic exploration activities and periodic interruptions of business operations and negatively impact our business development. Unforeseen events may cause this amount of time to become even less. Our officers may also have conflicts of interest as a result of their relationships with other companies. Our products may have defects, which could damage our reputation, decrease market acceptance of our products, cause us to lose customers and revenue and result in costly litigation or liability. Our products may contain defects for many reasons, including defective design or manufacture, defective material or software interoperability issues. Products as complex as those we offer, frequently develop or contain undetected defects or errors. ~~Despite testing defects~~ **Defects** or errors may arise in our existing or new products, which could result in loss of revenue, market share, failure to achieve market acceptance, diversion of development resources, injury to our reputation, and increased service and maintenance ~~costs~~ **costs**. ~~Such Defects~~ **defects** or errors in our products and solutions might discourage customers from purchasing future products. Often, these defects are not detected until after the products have been installed. If any of our products contain defects or perceived defects or have reliability, quality or compatibility problems or perceived problems, our reputation might be damaged significantly, we could lose or experience a delay in market acceptance of the affected product or products and might be unable to retain existing customers or attract new customers. In addition, these defects could interrupt or delay sales. In the event of an actual or perceived defect or other problem, we may need to invest significant capital, technical, managerial and other resources to investigate and correct the potential defect or problem and potentially divert these resources from other development efforts. If we are unable to provide a solution to the potential defect or problem that is acceptable to ~~its~~ **our** customers, we may be required to incur substantial product recall, repair and replacement and even litigation costs. These costs could have a material adverse effect on our business and operating results. Furthermore, **if there are defects in the design, production or testing of our products and systems, we could face substantial repair, replacement or service costs, potential liability and damage to our reputation.** **Defects** or malfunctioning of our products, if they were to occur, would likely result in significant damage and loss of life. These events could also lead to product recalls, safety or security alerts, or result in the removal of a product from the market, ~~issuance of credits,~~ warranty or liability claims or contractual damages against us. We may not be able to obtain product liability or other insurance to fully cover such risks, and our efforts to implement appropriate design, testing and manufacturing processes for our products or systems may not be sufficient to prevent such occurrences, which could have a material adverse effect on our business, results of operations and financial condition. If our management team is unable to execute on its business strategies, then our development, including the establishment of revenues and our sales and marketing activities would be materially and adversely affected. **As described in “ Item 1. Business ” above, our management team has a number of business strategies intended to grow our operations, increase our customer base and footprint across various markets, and develop a full- scale commercialization of our AirSCWO systems. However, we currently have no demonstrated operating history of such full- scale commercialization, and our ability to execute on such strategies successfully and on the timelines we expect (or at all) is subject to significant uncertainties and risks. As our management team moves forward with its business strategies, unexpected setbacks, obstacles and challenges may occur, resulting in delays, changes in strategy, abandonment of certain projects and plans, and the creation of new strategies and plans that may look very different from our current business strategies. Even if we do not change or reverse our current business strategies, there is no guarantee that we will be able to scale our business on the timelines we expect or at all, or that we will be able to successfully compete with other providers in the market to capitalize on the demand that we have identified to exist. There is also no guarantee that we will be able to effectively manage the costs of maintaining the AirSCWO systems we provide to customers in a way that would allow us to turn a profit at some point in the future. Additionally, all of our management team’s business strategies require significant financing to execute, and there is no guarantee that we will have sufficient capital at any given time to do so.** In addition, even if we manage to grow our **business in the ways we plan**, we may encounter difficulties in effectively managing the budgeting, forecasting and other process control issues presented by any future growth. **Our historical financial information may not be reflective of our future financial performance, and the costs and expenses that we have incurred in the past is likely not indicative of the volume of costs and expenses that we will incur in the future as we try to scale and fully commercialize our business.** We expect there to be a period of time, during which we need to increase our costs and expenses to invest in our future commercialization success as a company. However, we may be stuck in such a period of time indefinitely if we cannot recognize revenue quickly enough and we cannot manage our costs efficiently during the time it takes us to ramp up production and development, negotiate and win new contracts and streamline the maintenance and continued work required on our AirSCWO systems. Since our business is still in its nascent stages, there is no historical basis upon which to evaluate our ability to successfully execute on our business strategies, achieve our business goals and objectives, and recognize revenue and turn a profit over time. If we are not able to deliver the results we expect, or if our business strategies do not result in the successes we intend, our business, operations and financial condition will be materially and adversely impacted. Furthermore, we may seek to augment or replace members of our management team. ~~or~~ **For example, we have recently hired a new Chief Executive Officer and Chief Financial Officer and have made other key senior management hires. In addition,** we may lose key members of our management team, and we may not be able to attract new management talent with sufficient skill and experience. We expect to derive a significant portion of our future revenues directly or indirectly from government agencies. The funding of government programs could be reduced or eliminated due to numerous factors, including **changes in administration, governmental budget constraints, changes in funding priorities and policies, and developments in** geopolitical events and macroeconomic conditions that are beyond our control. Reduction or elimination of government spending under our contracts would imperil the sales of our products and may cause a negative effect on our

revenues, results of operations, cash flow and financial condition. ~~14A~~ **15** We have identified material weaknesses in our internal control over financial reporting, which may have a material adverse effect on our results of operations and financial condition for future periods. Effective internal controls over financial reporting are necessary for us to provide reliable financial reports and to effectively prevent fraud. Any inability to provide reliable financial reports or to prevent fraud could harm our business. The Sarbanes- Oxley Act requires management to evaluate and assess the effectiveness of our internal controls over financial reporting. In order to comply with the requirements of the Sarbanes- Oxley Act, we are required to continuously evaluate and, where appropriate, enhance our policies, procedures and internal controls. Ensuring that we have adequate internal financial and accounting controls and procedures in place so that we can produce accurate financial statements on a timely basis is a costly and time- consuming effort that needs to be re-evaluated frequently. While we continue the process of reviewing and improving our internal controls and procedures for compliance with applicable law, implementing any appropriate changes to our internal controls requires significant attention from our officers and employees, entail substantial costs to modify our existing processes and take significant time to complete. However, our efforts do not always result in maintaining effective internal controls, and any failure to maintain that adequacy, or consequent inability to produce accurate financial statements on a timely basis, could increase our operating costs and harm our business. In addition, investors' perceptions that our internal controls are inadequate or that we are unable to produce accurate and complete financial statements on a timely basis may harm the trading price of our ordinary shares and make it more difficult for us to effectively market and sell our service to new and existing customers. Give the early- stage of our Company, we have limited full- time accounting and financial reporting personnel and other resources with which to address our internal controls and related procedures. We just recently hired a full- time Chief Financial Officer. For the fiscal year ended December 31, 2024, we and our independent registered public accounting firm have identified material weaknesses in our internal controls over financial reporting related due to our ongoing personnel limitations. A material weakness is a deficiency, or a combination of deficiencies, in internal control over financial reporting, such that there is a reasonable possibility that a material misstatement of our annual or interim financial statements will not be prevented or detected on a timely basis. While we are still working to further expand our financial reporting and related personal to support our Chief Financial Officer and internal controls processes, there is no assurance that the actions we are taking or plan to take will give us the results we expect, that our remediation plan will be effective, or that our remediation plan will be completed on the timelines that we expect. See "Item 9A. Controls and Procedures" for further discussion about the material weakness and our remediation activities. If we are unable to remedy our material weaknesses in a timely manner, we may be unable to produce timely and accurate financial statements, and we may again discover additional material weaknesses and conclude that our internal control over financial reporting is not effective in future periods, which could adversely impact our investors' confidence and our stock price. If we continue to fail to maintain the adequacy of our internal controls over financial reporting, we could be subject to litigation or regulatory scrutiny. A significant invasion, interruption, destruction or breakdown of our information technology systems and / or infrastructure by persons with authorized or unauthorized access could negatively impact our business and operations. We could also experience business interruption, information theft and / or reputational damage from cyberattacks, which may compromise our systems and lead to data leakage either internally or at our third- party providers. Our systems have been, and are expected to continue to be, the target of malware and other cyberattacks. ~~Although~~ **The measures** we have **undertaken** invested in measures to reduce these risks **may not**, we cannot assure that these measures will be successful in preventing compromise and / or disruption of our information technology systems and related data. **As a technology company, our business depends on our ability to protect our propriety intellectual property. We also maintain records of sensitive and / or confidential information about our customers, including various governmental agencies. If we are not able to prevent access to our systems and a bad actor gains access to such proprietary, sensitive or confidential information, then our business, financial condition and reputation could be significantly impacted.** We may be required to obtain licenses to patents or other proprietary rights from third parties. If we do not obtain required licenses, we could encounter delays in product development or find that the development, manufacture or sale of products requiring these licenses could be prevented in the U. S. or abroad. ~~We expect to derive a portion of our revenues ultimately from international sales. Changes in international, political, economic or geographic events could cause significant reductions in our revenues, which could harm our business, financial condition and results of operations. Some of the risks of doing business internationally include imposition of tariffs and other trade barriers and restrictions, political and economic instability in the countries of our customers and suppliers, changes in diplomatic and trade relationships and increasing instances of terrorism worldwide.~~ Any significant growth in the market for our products or our entry into new markets may require an expansion of our employee base for managerial, operational, financial, and other purposes. During any period of growth, we may face problems related to our operational and financial systems and controls, including quality control and delivery and service capacities. We would also need to continue to expand, train and manage our employee base. Continued future growth will impose significant added responsibilities upon the members of management to identify, recruit, maintain, integrate, and motivate new employees. Aside from increased difficulties in the management of human resources, we may also encounter working capital issues, as we will need increased liquidity to finance the development of new products and the hiring of additional employees. For effective growth management, we will be required to continue improving our operations, management, and financial systems and controls. Our failure to manage growth effectively may lead to operational and financial inefficiencies that will have a negative effect on our profitability. ~~We cannot assure investors that we will be able to timely and effectively meet that demand and maintain the quality standards required by our existing and potential customers.~~ **Inflation** ~~16~~ **Inflation** has the potential to adversely affect our business, results of operations, financial position and liquidity by increasing our overall cost structure, particularly if we are unable to achieve commensurate increases in the prices we **expect to** charge our customers. The existence

of inflation in the economy has the potential to result in higher interest rates and capital costs, supply shortages, increased costs of labor and other similar effects. As a result of inflation, we have experienced and may continue to experience, increases in our costs associated with operating our business including labor, equipment and other inputs. ~~Although~~ **If we may are unable to** take measures to mitigate the impact of ~~this~~ inflation through pricing actions **upon commercialization of our product** and efficiency gains, ~~then if these measures are not effective~~ our business, results of operations, financial position and liquidity could be materially adversely affected. Even if such measures are effective, there could be a difference between the timing of when these beneficial actions impact our results of operations and when the cost inflation is incurred. ~~15The~~ **The** markets for our products and services are highly competitive, with companies offering a variety of competitive products and services. We expect competition in our markets to intensify in the future as new and existing competitors introduce new or enhanced products and services that are potentially more competitive than our products and services. ~~Our principal~~ **We compete with** direct competitors in the SCWO ~~field~~ **Field** are General Atomic (US) and SCFI (Ireland). **Additionally, Several several** other technologies are in competition with SCWO, depending on the market sector, including **but not limited to**: anaerobic digestion, landfilling, drying and incineration, lagoon and spray- fields, **and** lime stabilization, ~~and others~~. ~~We believe that our systems will prove much more economical with higher treatment efficiency and lower operating costs; however, there can be no assurance that we will be able to successfully compete with General Atomics, SCFI or any other competitor. Our competitors may prove more successful in offering similar systems and / or may offer alternative systems which prove to be more popular with potential customers than our system.~~ We believe many of our competitors and potential competitors have significant competitive advantages, including longer operating histories, **greater** ability to leverage their sales efforts and marketing expenditures across a broader portfolio of products and services, larger and broader customer bases, more established relationships with a larger number of suppliers, contract manufacturers, and channel partners, greater brand recognition, and greater financial, research and development, marketing, distribution, and other resources than we do and the ability to offer financing for projects. Our competitors and potential competitors may also be able to develop products or services that are equal or superior to ours, achieve greater market acceptance of their products and services, and increase sales by utilizing different distribution channels than we do. Some of our competitors may aggressively discount their products and services in order to gain market share, which could result in pricing pressures, reduced profit margins, lost market share, or a failure to grow market share for us **once we attain commercialization**. If we are not able to compete effectively against our current or potential competitors, our prospects, operating results, and financial condition could be adversely affected. Our ability to commercialize our systems and grow and achieve profitability in accordance with our business plan will depend on our ability to satisfy our customers and withstand increasing competition by providing superior waste treatment at reasonable cost. There can be no assurance that we will be able to achieve or maintain a successful competitive position. **The technologies we use to treat sludge..... contract it could adversely affect us.** Our ability to continue with our current scope of operations and expand our operations and business across the globe is subject, in certain cases, to our receiving a permit for different purposes, including the use of land. It may be difficult to receive the required permits, which may require our management team to divert its attention from other aspects of our business, or it may be more capital intensive or a more time- consuming process than expected to receive permits, either of which could increase costs and delay the launch of our products. ~~We~~ **Furthermore, if we do not comply with the requirements set forth in the permits we receive, we could lose the granted permits or not receive them at all. Should any of these events occur it could have in the past a material adverse effect on our business and reputation, results of operations and financial position.** ~~16We may~~ **in the future** become involved in litigation matters, including class action lawsuits and lawsuits relating to intellectual property and product liability. Any lawsuit to which we are a party, with or without merit, may result in an unfavorable judgment ~~We also may decide to settle lawsuits on unfavorable terms~~. Any such negative outcome could result in payments of substantial damages or fines, damage to our reputation, loss of rights, or adverse changes to our offerings or business practices. Any of these results could adversely affect our business. In addition, defending claims is costly and can impose a significant burden on our management. **17If** **Moreover, in the past companies that..... increase in our insurance rates.** If any of our current or future products and services that we make or sell (including items that we source from third parties) are defectively designed or manufactured, contain defective components, are misused, have safety or quality issues, have inadequate operating guidelines, malfunctions or if someone claims any of the foregoing, whether or not meritorious, we may become subject to substantial and costly litigation. Misuse of our products by us or other operating parties or services or failing to adhere to the operating guidelines could cause significant harm to the public and the environment. The foregoing events could lead to recalls or safety alerts, result in the removal of a product or service from the market and result in product liability or similar claims being brought against us. Any product liability claims brought against us could divert management's attention from our core business, be expensive to defend and result in sizable damage awards against us. **We** ~~While we maintain product liability insurance, we~~ may not have sufficient **product** insurance coverage for all future claims. Any product liability claims brought against us, with or without merit, could increase our product liability insurance rates or prevent us from securing continuing coverage, could harm our reputation in the industry and could reduce revenue, if any. Product and services liability claims in excess of our insurance coverage would be paid out of cash reserves, harming our financial condition and adversely affecting our results of operations. In addition, if we expand into additional geographic markets, we may then be exposed to different and changing regulations regarding, for example, environmental impact and damages, which entail risks for compensation obligation, which may mean that we would need to update our existing insurance policy or obtain additional policies for specific geographical markets. If we do not have sufficient insurance coverage or the cost of obtaining the appropriate insurance coverage is costly, this could have a material adverse effect on our business, results of operations and financial position. ~~Natural disasters~~ **Moreover, in the past companies that have experienced volatility in the market price of their securities have been subject to securities class action litigation. We may be the target of this type of litigation in the future. Litigation of this type could result in substantial costs** and target of this type of litigation in the

future. Litigation of this type could result in substantial costs and diversion of management's attention and resources, which could seriously hurt our business. Any adverse determination in litigation could also subject us to significant liabilities. **For further information on our legal proceedings, see Part II, Item 3. "Legal Proceedings."** Our business, operations, and product and service offerings are subject to and affected by many federal, state, local and foreign environmental laws and regulations, including those enacted in response to climate change concerns. Increasing public and governmental awareness and concern regarding the effects of climate change has led to significant legislative and regulatory efforts to limit greenhouse gas emissions and will likely result in further environmental and climate change laws and regulations. Compliance with existing laws and regulations currently requires, and compliance with future laws is expected to continue to require, increasing operating and capital expenditures, including with respect to the design or re-design of our products in order to conform to changing environmental standards and regulations, which could impact our business, financial condition and results of operations. Furthermore, environmental laws and regulations may authorize substantial fines and criminal sanctions as well as facility shutdowns to address violations, and may require the installation of costly pollution control equipment or operational changes to limit emissions or discharges. We also incur, and expect to continue to incur, costs to comply with current environmental laws and regulations. Developments such as the adoption of new environmental laws and regulations, stricter enforcement of existing laws and regulations, violations by us of such laws and regulations, discovery of previously unknown or more extensive contamination, litigation involving environmental impacts, our inability to recover costs associated with any such developments, or financial insolvency of other **responsible parties** ~~catastrophic events beyond our control~~ could **in the future have a material adverse effect on our financial condition and results of operations.** **18** Our business activities, including our manufacturing processes and waste recycling and treatment processes, currently involve the use, treatment, storage, transfer, handling and / or disposal of hazardous materials, chemicals and wastes. These activities create a risk of significant environmental liabilities and reputational damage. Under applicable environmental laws and regulations, we could be strictly, jointly and severally liable for releases of regulated substances by us at our current or former properties or the properties of others or by other businesses that previously owned or used our current or former properties, including if such releases result in contamination of air, water or soil, or cause harm to individuals. We could also be liable or incur reputational damage if we merely generate hazardous materials or wastes, or arrange for their transportation, disposal or treatment, or we transport such materials, and they are subsequently released or cause harm. Our business activities also create a risk of contamination or injury to our employees, customers or third parties, from the use, treatment, storage, transfer, handling and / or disposal of these materials. In the event that our business activities result in environmental liabilities, such as those described above, we could incur significant costs or reputational damage in connection with the investigation and remediation of environmental contamination, and we could be liable for any resulting damages including natural resource damages. Such liabilities could exceed our available cash or any applicable insurance coverage we may have. Additionally, we are subject to, on an ongoing basis, federal, state and local laws and regulations governing the use, storage, handling and disposal of these materials and specified waste products. The cost of compliance with these laws and regulations may become significant and could have a material adverse effect on our business, financial condition, results of operations or prospects. Further, we may incur costs to defend our position even if we are not liable for consequences arising out of a release of or exposure to a hazardous substance or waste, or other environmental damage. Our insurance policies may not be sufficient to cover the costs of such claims. A number of emerging contaminants might be found in water that we treat, including PFAS, 1,4-dioxane, dinitrotoluene, perchlorate, in addition to other pathogens and hazardous substances that have the potential to cause any number of illnesses, including cholera, typhoid fever, cancer, giardiasis, cryptosporidiosis, amoebiasis and free-living amoebic infections. There is a risk that workers ~~are~~ **may be** exposed to these contaminants and pathogens before material is treated, the unit ~~is~~ **may not be** operated ~~property properly~~ **properly** and the waste ~~is~~ not fully treated during the process, or there is a malfunction and waste is not ~~property properly~~ **properly** treated, creating a risk of third-party exposure to contaminants in byproducts that are generated. The potential impact of a failure to **adequately** treat is difficult to predict and could lead to an increased risk of exposure to property damage, natural resource damage, personal injury or even product liability claims, increased scrutiny by federal and state regulatory agencies and negative publicity. ~~Further, an outbreak of disease in any one of the municipal markets we serve could result in a widespread loss of customers across other such markets.~~ **18** Wastewater -- **Wastewater** treatment involves various unique risks. If our treatment systems fail or do not operate properly, or if there is a spill, untreated or partially treated wastewater could discharge onto property or into nearby streams and rivers, causing various damages and injuries, including environmental damage. Liabilities **resulting from such damages and injuries could materially** adversely affect our business, **financial condition, results of operations or prospects.** These risks could be increased by the potential physical impacts of climate change on our operations. The physical impacts of climate change are highly uncertain and ~~would~~ vary depending on geographical location, but could include changing temperatures, water shortages, changes in weather and rainfall patterns and changing storm patterns and intensities. Many climate change predictions, if true, present several potential challenges to water and wastewater service providers, such as increased precipitation and flooding, potential degradation of water quality and changes in demand for water services. **19** We ~~Although not currently part of our sales agreements, we~~ anticipate that our customers ~~will~~ **may** require product warranties as to the proper operation and conformance to specifications of the products we manufacture or install and performance guarantees as to any effluent produced by our equipment and services. Failure of our products to operate properly or to meet specifications of our customers or our failure to meet our performance guarantees may increase costs by requiring additional engineering resources and services, replacement of parts and equipment and frequent replacement of consumables or monetary reimbursement to a customer or could otherwise result in liability to our customers. There are significant uncertainties and judgments involved in estimating warranty and performance guarantee obligations, including changing product designs, differences in customer installation processes and failure to identify or disclaim certain variables in a customer's influent. To the extent that we incur substantial warranty or performance guarantee claims in any period, our reputation, earnings

and ability to obtain future business could be materially adversely affected. We enter into various contracts in the normal course of our business, some or all of which may require us to indemnify the other party to the contract. In the event we have to perform under **these indemnification provisions, it could have** and **an adverse effect on our business,** financial performance condition and results of operations. In the normal course of business, we may enter into agreements that contain indemnification provisions which require us to indemnify the other parties against adverse events occurring as a result of our operations. Should our obligation under an indemnification provision exceed applicable insurance coverage or if we were denied insurance coverage, our business, financial condition and results of operations could be adversely affected. Similarly, if we are relying on a third party to indemnify us and the party is denied insurance coverage, or the indemnification obligation exceeds the applicable insurance coverage and does not have other assets available to indemnify us, our business, financial condition and results of operations could be adversely affected. The occurrence of one or more natural disasters, such as fires, hurricanes, tornados, tsunamis, floods and earthquakes ; geo- political events, such as civil unrest in a country in which our suppliers are located or terrorist or military activities disrupting transportation, communication or utility systems ; or other highly disruptive events, such as nuclear accidents, pandemics, unusual weather conditions or cyber- attacks, could adversely affect our operations and financial performance. Such events could result, among other things, in operational disruptions, physical damage to or destruction or disruption of one or more of our properties or properties used by third parties in connection with the supply of products or services to us, the lack of an adequate workforce in parts or all of our operations and communications and transportation disruptions. These factors could also cause consumer confidence and spending to decrease or result in increased volatility in the United States and global financial markets and economy. Such occurrences could have a material adverse effect on us and could also have indirect consequences such as increases in the costs of insurance if they result in significant loss of property or other insurable damage. **United States trade policies and other factors beyond the Company's control, including the imposition of tariffs and retaliatory tariffs, may adversely impact our business, financial condition, and results of operations. In February 2025, President Trump issued executive orders announcing sweeping tariffs on products originating from Canada, Mexico and China. Effective February 4, 2025, all products of Chinese origin became subject to an additional 10 % tariff pursuant to these executive orders, and effective March 4, all products of Chinese origin were subject to an additional 10 % tariff, raising the tariff rate to 20 %. While most of the tariffs on Mexican- and Canadian- origin products have been delayed until April 2, 2025, certain tariffs are already effective and there is no guarantee that the tariffs will be further delayed or negated. Additionally, these tariffs are in addition to existing duties and other tariffs, including the existing and upcoming additional tariffs on steel and aluminum. Our products contain materials and parts purchased globally from hundreds of suppliers, including single- source direct suppliers, which exposes us to potential component shortages or delays. In addition to the impacts to our business stemming from the tariffs imposed by the Trump administration, we may also be materially impacted by retaliatory tariffs and other penalties that may be imposed by such countries against the United States. For example, Canada has already retaliated, imposing 25 % tariffs on \$ 30 billion worth of U. S.- origin products immediately, and there are plans to expand these tariffs with additional retaliatory tariffs, pending the current delay in the effectiveness of the tariffs against Canadian- origin products. China has also retaliated with tariffs on U. S.- origin farm products and trade and investment restrictions on certain U. S. companies. 20**There continues to be significant uncertainties regarding these recent changes in U. S. trade policies, legislation, treaties, and tariffs, and potential future developments. If maintained, the newly announced tariffs and the potential escalation of trade disputes, a trade war or other governmental action related to tariffs or international trade agreements or policies, have the potential to negatively impact our and / or our clients' costs, demand for our clients' products, and / or the U. S. economy or certain sectors thereof and, thus, adversely affect our business, financial condition, and results of operations. These tariffs and changes in trade policies may result in significant increases in our cost of doing business, including increases in costs to our R & D and increases in costs of materials in our supply chain. If we are not able to find cheaper alternative sources, or if we are unable to obtain supplies at all, we could experience material harm to our business, results of operations and financial condition. See “**Risks Related to our Reliance on Third Parties — Our suppliers may fail to deliver materials and parts according to schedules, prices, quality and volumes that are acceptable to us, or we may be unable to manage these materials and parts effectively.**” for more information about risks related to our ability to source materials and parts from our suppliers. Our business currently does not generate sufficient revenues to meet our capital requirements and we do not expect that it will do so in the near future. Presently, we do not have sufficient cash resources to meet our plans for the next twelve months from the issuance of the financial statements included herein. Our recurring losses from operations, negative cash flows and need for additional capital raise substantial doubt about our ability to continue as a going concern. We will require additional financing to fund our operations or we will have to significantly curtail or discontinue our operations to conserve our capital resources. Additional funds may not be available on acceptable terms, if at all, and such availability will depend on a number of factors, some of which are outside of our control, including general capital markets conditions and investors' view of our prospects and valuation. In addition, our ability to raise capital in the public capital markets, including through our at- the- market equity offerings, may in the future be limited by, among other things, SEC rules and regulations impacting the eligibility of smaller companies to use Form S- 3 for primary offerings of securities. In general, under the “ baby shelf ” rules if our public float is less than \$ 75 million at the time we file our annual report of Form 10- K to update our Form S- 3 and our public float remains less than \$ 75 million, we may not sell more than the equivalent of one- third of our public float during any 12 consecutive months pursuant to the baby shelf rules. Alternative public and private transaction structures may require additional time and cost, may impose operational restrictions on us, and may not be available on attractive terms. Further, investors' perception of our ability to continue as a going concern may make it more difficult for us to obtain financing, or necessitate that we obtain

financing on terms that are more favorable to investors, and could result in the loss of confidence by investors, suppliers and employees. Our continued operations are contingent on our ability to raise additional capital or deploy or otherwise monetize our technology. If we do not acquire sufficient additional funding or alternative sources of capital to meet our working capital needs, we will have to substantially curtail or discontinue our operations, resulting in delays in the development and deployment of our technology and in generating revenue. Our actual capital requirements will depend on many factors, including: · continued progress and cost of our research and development programs; · the time and costs involved in obtaining regulatory approvals and permitting, if any; · regulatory actions with respect to our technology; · costs involved in preparing, filing, prosecuting, maintaining, defending and enforcing intellectual property rights; · costs of developing sales, marketing and distribution channels and our ability to sell our products; · competing technological and market developments; · market acceptance of our products; · costs for recruiting and retaining employees and consultants; and · unexpected legal, accounting and other costs and liabilities related to our business. 21A

A significant portion of our revenue will be derived from large projects that are technically complex and may occur over multiple years. These projects are subject to a number of significant risks, including project delays, cost overruns, changes in scope, unanticipated site conditions, design and engineering issues, incorrect cost assumptions, increases in the cost of materials and labor, safety hazards, third party performance issues, weather issues and changes in laws or permitting requirements. If we are unable to manage these risks, we may incur higher costs, liquidated damages and other liabilities to our customers, which may decrease our profitability and harm our reputation. Our continued growth will depend in part on executing a higher volume of large projects, which will require us to expand and retain our project management and execution personnel and resources. We

have inadequate capital and need for additional financing to accomplish our business and strategic plans. Terms of subsequent financing, if any, may adversely impact your investment in our securities. We will need to raise substantial additional funds in order to execute our business plan. Without such additional funds, our ability to secure financing depends on a variety of different factors, including but not limited to our ability to meet major milestones in our technology R & D pursuits, our ability to attract new customers and grow our business, our ability to attract new investors who believe in our business strategy and our potential for future growth, our ability to successfully convert financing into tangible business successes, our stock price and the marketability (or perceived marketability) of our securities, among others. There is no guarantee that we will be able to secure financing on terms that are favorable to us, or at all. If the cost of securing financing is too high, or if the obligations to which we are subject pursuant to the terms of the financing we secure are too burdensome, we may not be able to realize the full benefits of the financing we receive. If we cannot secure financing at all,

we may have to cease operations or scale back our activities. Our ultimate success may depend on our ability to raise additional capital. In the absence of additional financing or significant revenues and profits, we will have to approach our business plan from a much different and much more restricted direction, attempting to secure additional funding sources to fund our growth, borrowing money from lenders or elsewhere or to take other actions to attempt to provide funding. We may have to engage in common equity, debt, or preferred stock financings in the future. Your rights and the value of your investment in the common stock could be reduced by the dilution caused by future equity issuances. Interest on debt securities could increase costs and negatively impact operating results and debt issuances may subject us to restrictive covenants which may limit our flexibility.

In the event we are permitted to issue preferred stock pursuant to the terms of our articles of incorporation, preferred stock could be issued in series from time to time with such designation, rights, preferences, and limitations as needed to raise capital. The terms of preferred stock would be more advantageous to those investors than to the holders of common stock. In addition, if we need to raise more equity capital from the sale of common stock, institutional or other investors may negotiate terms possibly less favorable to us, and thereby cause adversely impact your investment. 22

If there are defects in the design, production or testing of our products and systems, we could face substantial repair, replacement or service costs, potential liability and damage to our reputation. Defects or malfunctioning of our products, if they were to occur, would likely result in significant damage and loss of life. These events could also lead to product recalls, safety or security alerts, or result in the removal of a product from the market, issuance of credits, warranty or liability claims or contractual damages against us. We may not be able to obtain product liability or other insurance to fully cover such risks, and our efforts to implement appropriate design, testing and manufacturing processes for our products or systems may not be sufficient to prevent such occurrences, which could have a material adverse effect on our business, results of operations and financial condition.

Our research and development expenses primarily relate to our efforts to increase the output, durability and commercial viability of our technology. The results of such research and development can be unforeseen and undesirable and therefore our forecasted costs related to such research and development are associated with great uncertainty. We expect that our research and development expenses will increase in the future. Unforeseen research and development results could require us to undertake supplementary research and development at significant costs or cause us to pause or stop research and development efforts. A delay or non-existent launch of our technology or an insufficient investment (or overspend on such expenditure) could have a material adverse effect on our business, results of operations and financial position. 22At 23

Although we have entered into confidentiality and invention agreements with our key personnel, there can be no assurance that these agreements will be honored or that we will be able to protect our rights to our non-patented trade secrets and know-how effectively. There can be no assurance that competitors will not independently develop equivalent or superior proprietary information and techniques or otherwise gain access to our trade secrets and know-how. At this time, we rely primarily on a combination of patents, trade secrets, copyright and trademark laws, and confidentiality procedures to protect our proprietary technology, which is our principal asset. Our ability to compete effectively will depend to a large extent on our success in protecting our proprietary technology, both in the United States and abroad. There can be no assurance that (i) any patents that we apply for will be issued, (ii) we will ever obtain the rights to any patents covering the technology on which our current systems are based, (iii) any patents issued will not be challenged, invalidated, or circumvented, (iv) we will have the financial resources to enforce any such

patents or, (v) our confidentiality and invention agreements will be honored or that we will be able to protect our rights to our non-patented trade secrets and know-how effectively, (vi) our competitors will not independently develop equivalent or superior proprietary information and techniques or otherwise gain access to our trade secrets and know-how, and (vi) any patent rights granted will provide any competitive advantage. We could incur substantial costs in obtaining patent coverage and defending any patent infringement suits or in asserting our patent rights, including those granted by third parties, and we might not be able to afford such expenditures. We do not know whether any of our current or future patent applications, if any, will result in the issuance of any patents. Even issued patents may be challenged, invalidated or circumvented. Patents may not provide a competitive advantage or afford protection against competitors with similar technology. Competitors or potential competitors may have filed applications for, or may have received patents and may obtain additional and proprietary rights to, compounds or processes used by or competitive with ours. Both the patent application process and the process of managing patent disputes can be time-consuming and expensive. Competitors may be able to design around our patents or develop products which provide outcomes which are comparable or may even be superior to ours. In the event a competitor infringes upon our intellectual property rights, enforcing those rights may be costly, uncertain, difficult and time consuming. Even if successful, litigation to enforce our intellectual property rights or to defend our patents against challenge could be expensive and time consuming and could divert our management's attention. We may not have sufficient resources to enforce our intellectual property rights or to defend our patent rights against a challenge. The failure to obtain patents and / or protect our intellectual property rights could have a material and adverse effect on our business, results of operations and financial condition. ~~24~~**In** addition, we have taken steps to protect our intellectual property and proprietary technology, including entering into confidentiality agreements and intellectual property assignment agreements with ~~all of~~ our executive officers, employees, consultants and advisors; however, such agreements may not provide meaningful protection for our trade secrets or other proprietary information in the event of unauthorized use or disclosure or other breaches of the agreements. Furthermore, the laws of foreign countries may not protect our intellectual property rights to the same extent as do the laws of the United States. Moreover, the following can limit our ability to protect our intellectual property and technology: · intellectual property laws in certain jurisdictions may be relatively ineffective; · detecting infringements and enforcing proprietary rights may divert management's attention and company resources; · contractual measures such as non-disclosure agreements and confidentiality provisions may afford only limited protection; · any patents we may receive will expire, thus providing competitors access to the applicable technology; · competitors may independently develop products that are substantially equivalent or superior to our products or circumvent our intellectual property rights; and · competitors may register patents in technologies relevant to our business areas. ~~In~~**23**~~In~~ addition, various parties may assert infringement claims against us. The cost of defending against infringement claims could be significant, regardless of whether the claims are valid. If we are not successful in defending such claims, we may be prevented from the use or sale of certain of our products, or liable for damages and required to obtain licenses, which may not be available on reasonable terms, any of which may have a material adverse impact on our business, results of operation or financial condition. ~~We may become subject to claims of infringement or misappropriation of the intellectual property rights of others, which could prohibit us from developing our products, require us to obtain licenses from third parties or to develop non-infringing alternatives and subject us to substantial monetary damages.~~ Third parties could, in the future, assert infringement or misappropriation claims against us with respect to products we develop. Whether a product infringes a patent or misappropriates other intellectual property involves complex legal and factual issues, the determination of which is often uncertain. Therefore, we cannot be certain that we have not infringed the intellectual property rights of others. Our potential competitors may assert that some aspect of our product infringes their patents. Because patent applications may take years to issue, there also may be applications now pending of which we are unaware that may later result in issued patents upon which our products could infringe. There also may be existing patents or pending patent applications of which we are unaware upon which our products may inadvertently infringe. Any infringement or misappropriation claim could cause us to incur significant costs, place significant strain on our financial resources, divert management's attention from our business and harm our reputation. If the relevant patents in such a claim were upheld as valid and enforceable and we were found to infringe them, we could be prohibited from selling any product that is found to infringe unless we could obtain licenses to use the technology covered by the patent or are able to design around the patent. We may be unable to obtain such a license on terms acceptable to us, if at all, and we may not be able to redesign our products to avoid infringement. A court could also order us to pay compensatory damages for such infringement, plus prejudgment interest and could, in addition, treble the compensatory damages and award attorney fees. These damages could be substantial and could harm our reputation, business, financial condition and operating results. A court also could enter orders that temporarily, preliminarily or permanently enjoin us and our customers from making, using, or selling products, and could enter an order mandating that we undertake certain remedial activities. Depending on the nature of the relief ordered by the court, we could become liable for additional damages to third parties. ~~25~~**We** ~~We~~ also employ individuals who were previously employed at other companies in our industry, including our competitors or potential competitors. ~~We~~ ~~Although we try to ensure that our employees, consultants and independent contractors do not use the proprietary information or know-how of others in their work for us, we~~ may be subject to claims that we or our employees, consultants or independent contractors have inadvertently or otherwise used or disclosed intellectual property, including trade secrets or other proprietary information, of any of our employee's former employer or other third parties. Litigation may be necessary to defend against these claims. If we fail in defending any such claims, in addition to paying monetary damages, we may lose valuable intellectual property rights or personnel, which could adversely impact our business. Even if we are successful in defending against such claims, litigation could result in substantial costs and be a distraction to management and other employees. ~~Even if we are issued patents, because the patent positions of our technology are complex and uncertain, we cannot predict the scope and extent of patent protection for our products. Any patents that may be issued to us will not ensure the protection of our intellectual property for a number of reasons, including without limitation the following:~~

any issued patents may not be broad or strong enough to prevent competition from other products including identical or similar products ; -- if we are not issued patents or if issued patents expire, there would be no protections against competitors making generic equivalents ; -- there may be prior art of which we are not aware that may affect the validity or enforceability of a patent claim ; -- there may be other patents existing in the patent landscape that will affect our freedom to operate ; -- if our patents are challenged, a court or relevant tribunal could determine that they are not valid or enforceable ; -- a court could determine that a competitor's technology or product does not infringe our patents even if we believe it does ; -- our patents could irretrievably lapse due to failure to pay fees or otherwise comply with regulations, or could be subject to compulsory licensing ; and -- if we encounter delays in our development, the period of time during which we could market our products under patent protection would be reduced. We may be subject to claims challenging the inventorship or ownership of our patents and other intellectual property. We may be subject to claims that former employees, collaborators or other third parties have an interest in our patents or other intellectual property as an inventor or co- inventor. For example, we may have inventorship disputes arise from conflicting obligations of consultants or others who are involved in developing our products. Litigation may be necessary to defend against these and other claims challenging inventorship. If we fail in defending any such claims, in addition to paying monetary damages, we may lose valuable intellectual property rights, such as exclusive ownership of, or right to use, valuable intellectual property. Such an outcome could have a material adverse effect on our business. Even if we are successful in defending against such claims, litigation could result in substantial costs and be a distraction to management and other employees. **26**We We employ individuals or hire consultants who are employed by or otherwise affiliated with universities and have commitments or obligations under employment agreements, policies, and other contracts with those universities. Failure by these employees and consultants to comply with their commitments or obligations to any university may result in disputes over our intellectual property or technology. The resolution of any dispute that may arise could narrow what we believe to be the scope of our rights to the relevant intellectual property or technology, which could adversely impact our business. **24**We We may need to depend on certain technologies that are licensed to us. We would not control these technologies and any loss of our rights to them could prevent us from selling our products. We have entered into license agreements with third parties for certain licensed technologies that are not currently utilized in the systems we market but may be in the future. In addition, we may in the future elect to license third- party intellectual property to further our business objectives and / or as needed for freedom to operate our systems. We do not and will not own the patents or patent applications that are a subject of these licenses. Our rights to use these technologies and employ the inventions claimed in the licensed patents and patent applications are or will be subject to the continuation of and compliance with the terms of those licenses. In some cases, we do not or may not control the prosecution, maintenance, or filing of the patents or patent applications to which we hold licenses, or the enforcement of these patents against third parties. As a result, we cannot be certain that drafting or prosecution of the licensed patents and patent applications by the licensors have been or will be conducted in compliance with applicable laws and regulations or will result in valid and enforceable patents and other intellectual property rights. Moreover, disputes may arise regarding intellectual property subject to a licensing agreement, including: · the scope of rights granted under the license agreement and other interpretation-related issues ; · the extent to which our ~~product~~ **products candidates**, technology and processes infringe on intellectual property of the licensor that is not subject to the licensing agreement ; · our diligence obligations under the license agreement and what activities satisfy those diligence obligations ; · the inventorship and ownership of inventions and know- how resulting from the joint creation or use of intellectual property by our licensors and us and our partners ; and · the priority of invention of patented technology. **27**In In addition, the agreements under which we currently license intellectual property or technology from third parties are complex, and certain provisions in such agreements may be susceptible to multiple interpretations. The resolution of any contract interpretation disagreement that may arise could narrow what we believe to be the scope of our rights to the relevant intellectual property or technology, or increase what we believe to be our financial or other obligations under the relevant agreement, either of which could have a material adverse effect on our business, financial condition, results of operations, and prospects. Moreover, if disputes over intellectual property that we have licensed prevent or impair our ability to maintain our current licensing arrangements on commercially acceptable terms, we may be unable to successfully develop and commercialize the affected ~~product~~ **products candidates**, which could have a material adverse effect on our business, financial conditions, results of operations, and prospects. ~~We have historically been working with and depending on a single manufacturer. If our relationship with our manufacturer deteriorates, or if we are unable to adequately assume the fabrication and manufacturing services internally, this could have an adverse impact on our business, results of operations and financial results. In July 2021, we entered into the Original M & S Agreement to fabricate and manufacture the AirSCWO systems with Merrell Bros. with an initial three year term and one year renewal unless terminated by either party with sixty day written notice. Terry Merrell, one of the owners of Merrell. Bros., is on our board of directors. As of December 31, 2023, Merrell Bros. or their affiliates own less than 5 % of the outstanding common stock. On March 27, 2024, we executed a supplemental manufacturing and services agreement (the " Supplemental M & S Agreement ") with Merrell Bros. as Merrell Bros. has indicated to us their intent to not renew the Original M & S Agreement and we have indicated our desire to relocate to a larger manufacturer facility with more square footage dedicated to expanding our manufacturing operations. Simultaneous to executing the Supplement M & S Agreement, Merrell Bros. provided us with a written non- renewal notice. Accordingly, the Original M & S Agreement will terminate on its original expiration date of July 7, 2024 and will not be renewed. Terry Merrell plans to continue on the board of directors after the expiration of the Original M & S Agreement. The Supplemental M & S Agreement will become effective on July 7, 2024 and will replace the Original M & S Agreement. Under the Supplemental M & S Agreement, our relationship and the manufacturing services provided by Merrell Bros. will continue on an as needed basis based on statements of work to be agreed upon by both parties to fulfill future and current manufacturing orders. The term of the Supplemental M & S Agreement is one year from July 7, 2024 with a one year renewal upon a mutually executed written extension. Either party may terminate this Supplement M & S Agreement upon written notice of such a termination, specifying the extent to which performance of~~

work is terminated and the effective date of termination. Over the past year in preparation of moving into our own manufacturing facility, we have taken the following steps to reduce our reliance on Merrell Bros. as follows: We have taken over the subcontractor relationships and management that Merrell Bros. had historically managed for us. We hired a Chief Operating Officer (“COO”) with significant integration and manufacturing experience. We have hired and continue to hire personnel with specialized skills, such as electrical designers and master electricians. We have largely taken over the contracting, management and construction tasks previously performed by Merrell Bros. We have identified a 50,000 square foot location that would allow us to integrate our manufacturing operations with our waste treatment laboratory and provide sufficient space for growth. We anticipate being fully operational on or before July 7, 2024 at this or a similar facility. 28 We have been using Merrell Bros. as a single point of contact for integration and as a manufacturer for our frames, containers, and equipment brackets on our AirSCWO systems. Merrell Bros. has used their own personnel and other third-party vendors for specific tasks such as pipe fitting and electrical integration. We have maintained control and development of all designs, software, operating systems and choice of component parts and materials. Currently, we manage, with the assistance of Merrell Bros., our own inventory and procurement process and have recently been primarily relying on Merrell Bros. for warehousing and physical space. Due to the steps, we have taken over the past year to reduce our reliance on Merrell Bros., we are prepared to perform the integration and manufacturing services previously provided by Merrell Bros. at our own facility. By relocating to our own facility and manufacturing our AirSCWO units internally, we anticipate both operational and logistical efficiencies as well as economic savings and cost reductions. To meet anticipated market demand, we may be required to invest substantial additional funds and hire and retain the technical personnel who have the necessary fabrication and manufacturing experience to continue growing our operations. However, if we are unable to adequately assume the fabrication and manufacturing services provided by Merrell Bros. or are unsuccessful in relocating to our own facility, this could have an adverse impact on our business or delay the production of our AirSCWO systems. Our products contain materials and parts purchased globally from numerous hundreds of suppliers, including single-source direct suppliers, which exposes us to potential component shortages or delays. Unexpected changes in business conditions, materials pricing, labor issues, wars such as the current conflict in Ukraine, trade policies, natural disasters, health epidemics, trade and shipping disruptions, port congestions and other factors beyond our or our suppliers’ control could also affect these suppliers’ ability to deliver components to us or to remain solvent and operational. Additionally, if our suppliers do not accurately forecast and effectively allocate production or if they are not willing to allocate sufficient production to us, it may reduce our access to components and require us to search for new suppliers. The unavailability of any component or supplier could result in production delays, idle manufacturing facilities, product design changes and loss of access to important technology and tools for producing and supporting our products, as well as impact the capacity of our AirSCWO™ systems. Product design changes by us may also require us to procure additional components in a short amount of time. Our suppliers may not be willing or able to sustainably meet our timelines or our cost, quality and volume needs, or to do so may cost us more, which may require us to replace them with other sources. While we believe that we will be able to secure additional or alternate sources for most of our components, there **There** is no assurance that we will be able to do so **secure additional or alternate sources for our components** quickly or at all. As **25As** we scale production of our AirSCWO™ systems, we will also need to accurately forecast, purchase, warehouse and transport components at high volumes to our manufacturing facilities. If we are unable to accurately match the timing and quantities of component purchases to our actual needs or successfully implement automation, inventory management and other systems to accommodate the increased complexity in our supply chain and parts management, we may incur unexpected production disruption, storage, transportation and write-off costs, which may harm our business and operating results. 29 **Failure by third parties to supply or manufacture components of our products or to deploy our systems timely or properly could adversely affect our business, financial condition and results of operations.** We have been and expect to continue to be highly dependent on third parties to supply and manufacture components of our technology. If, for any reason, our third-party manufacturers or vendors are not willing or able to provide us with components or supplies in a timely fashion, or at all, our ability to manufacture and sell many of our products could be impaired, which, in turn, could have a material adverse effect on our business, results of operations and financial position. We do not have long-term contracts with all of our third-party suppliers and manufacturers or vendors. Therefore, if we do not develop ongoing relationships with those vendors located in different regions, we may not be successful at controlling unit costs as our manufacturing volume increases. We may not be able to negotiate new arrangements with these third parties on acceptable terms, or at all. In addition, we rely on third parties, under our oversight, for the deployment and installation of our AirSCWO **technology systems**. For example, the manufacture, assembly and installation of the hydraulic, control and automation and electrical sub-systems of our AirSCWO **technology systems** are performed by third-party suppliers. The mechanical sub-system is installed (moored) at the relevant project site by third-party engineering service providers. If these third parties do not properly manufacture, assemble, and install our AirSCWO technology and **sub**-systems, or otherwise do not perform adequately, or if we fail to recruit and retain third parties to deploy our systems in particular geographic areas, our business, financial condition and results of operations could be adversely affected. **The market price of our common stock historically has been highly volatile and is likely to continue to be volatile, and you could lose all or part of your investment.** The market price of our common stock has been volatile and could be subject to wide fluctuations in response to various factors, some of which are beyond our control. In addition to the factors discussed in this “Risk Factors” section and elsewhere in this Annual Report, these factors include: · Inability to obtain additional capital ; · Failure to meet or exceed financial or operational projections we may provide to the public ; · Failure to meet or exceed the financial or operational projections of the investment community ; · Significant acquisitions, strategic partnerships, joint ventures or capital commitments by us or our competitors ; · Additions or departures of key management personnel ; · Significant lawsuits, including shareholder litigation ; · If securities or industry analysts issue an adverse or misleading opinion regarding our common stock ; · Changes in market valuations of similar companies ; · General market or macroeconomic conditions ; · Sales of shares of our common stock by us or our shareholders in

the future ; and · Trading volume of our common stock. ~~30~~²⁶In addition, companies trading in the stock market in general, and on the Nasdaq Capital Market, have experienced extreme price and volume fluctuations, and we have in the past experienced volatility that has been unrelated or disproportionate to our operating performance. ~~From January 1, 2023 through December 31, 2023 the closing price of our common stock has ranged between \$ 1. 01 and \$ 4. 94 per share.~~ Broad market and industry factors may negatively affect the market price of our common stock, regardless of our actual operating performance. Further, on some occasions, our share price may be, or may be purported to be, subject to “ short squeeze ” activity. A “ short squeeze ” is a technical market condition that occurs when the price of a stock increases substantially, forcing market participants who had taken a position that its price would fall (i. e., who had sold the stock “ short ”), to buy it, which in turn may create a significant, short- term demand for the stock not for fundamental reasons, but rather due to the need for such market participants to acquire the stock in order to forestall the risk of even greater losses. A “ short squeeze ” condition in the market for a stock can lead to short- term conditions involving very high volatility and trading that may or may not track fundamental valuation models. In addition, in the past, class action litigation has often been instituted against companies whose securities experienced periods of volatility in market price. Securities litigation brought against us following volatility in the price of our common stock, regardless of the merit or ultimate results of such litigation, could result in substantial costs, which would hurt our financial condition and operating results and divert management’ s attention and resources from our business. ~~At~~ ~~The interests of our principal stockholders, officers and directors, who collectively beneficially own approximately 55 % of our stock, may not coincide with yours and such stockholders will have the ability to control decisions with which you may disagree.~~ As of December 31, 2023 ~~2024~~, our principal stockholders, officers and directors beneficially owned approximately 55 ~~43. 5~~ % of our common stock and will continue to own a significant percentage of our common stock even if our current ~~at the market offering is successful~~. As a result, our principal stockholders, officers and directors will have the ability to control matters requiring stockholder approval, including the election of directors and approval of significant corporate transactions. In addition, this concentration of ownership may delay or prevent a change in control of the Company and make some future transactions more difficult or impossible without the support of our controlling stockholders. The interests of such stockholders may not coincide with your interests or the interests of other stockholders. **We are a “ smaller reporting company ” as defined under Rule 12b- 2 of the Exchange Act. As a smaller reporting company, we may take advantage of certain of the scaled disclosures available to smaller reporting companies and will be able to take advantage of these scaled disclosures for so long as (i) our Common Stock held by non- affiliates is less than \$ 250 million measured on the last business day of our second fiscal quarter, or (ii) our annual revenue is less than \$ 100 million during the most recently completed fiscal year and our Common Stock held by non- affiliates is less than \$ 700 million measured on the last business day of our second fiscal quarter. Based on the closing price of our common stock on June 30, 2024, we will remain a smaller reporting company through at least the end of fiscal year 2025. To the extent we take advantage of any reduced disclosure obligations, it may make it harder for investors to analyze the Company’ s results of operations and financial prospectus in comparison with other public companies. As a smaller reporting company, we are permitted to comply with scaled- back disclosure obligations in our SEC filings compared to other issuers, including with respect to disclosure obligations regarding executive compensation in our periodic reports and proxy statements. We have elected to adopt the accommodations available to smaller reporting companies. Until we cease to be a smaller reporting company, the scaled- back disclosure in our SEC filings will result in less information about our company being available than for other public companies. If investors consider our Common Stock less attractive as a result of our election to use the scaled- back disclosure permitted for smaller reporting companies, there may be a less active trading market for our Common Stock and our share price may be more volatile.** ~~27~~We currently intend to retain our future earnings to finance the development and expansion of our business and, therefore, do not intend to pay cash dividends on our common stock for the foreseeable future. The timing, declaration, amount and payment of future dividends to stockholders will fall within the discretion of our Board of Directors. Our Board of Directors’ decisions regarding the payment of future dividends will depend on many factors, including our financial condition, earnings, capital requirements of our business and covenants associated with debt obligations, as well as legal requirements, regulatory constraints, industry practice and other factors that our Board of Directors deem relevant. ~~There about our business, can be no assurance that we will pay a dividend in the future or continue to pay any dividend if we do commence paying dividends~~ ~~publish negative reports about our business,our share price and trading volume could decline.~~ The trading market for our common stock ~~may~~, to some extent,~~may at some point~~ depend on the research and reports that securities or industry analysts publish about our business. We do not have any control over these analysts.If one or more of the analysts elect to cover us and downgrade our shares or lower their opinion of our shares,our share price would likely decline.If one or more of these analysts elect to cover us and subsequently cease coverage of the Company or fail to regularly publish reports on us,we could lose visibility in the financial markets,which could cause our share price or trading volume to decline. ~~Future~~ **Additionally,there** may be risks associated with us becoming public through a merger. Securities analysts of major brokerage firms and securities institutions may not provide coverage of us because there were no broker- dealers who sold our stock in a public offering that would be incentivized to follow or recommend the purchase of our common stock. The absence of such research coverage could limit investor interest in our common stock, resulting in decreased liquidity. No assurance can be given that established brokerage firms will, in the future, want to cover our securities or conduct any secondary offerings or other financings on our behalf. ~~31~~^{The JOBS Act} permits “ emerging growth..... cause our share price to decline. If the existing holders of our common stock, particularly our directors and officers, sell a large number of shares, they could adversely affect the market price for our common stock. We have an at- the- market equity offering ~~under pursuant to which~~, we ~~may can~~ issue up to **an aggregate of \$ 100 million of common stock**, **subject to applicable law** and **our previous** under which we commenced selling shares at ~~the - market equity offering sales~~ end of January 2023 and successfully raised approximately \$ 13. 4 million of net proceeds in 2023, and

which will remain available to us in the future. Sales of substantial amounts of our common stock in the public market, or the perception that these sales could occur, could cause the market price of our common stock to decline. **The market price of our common stock has been, and may continue to be, particularly volatile, and our shareholders may be unable to resell their shares at a profit. The market price of our common shares has significantly declined over the past twelve months, and may continue to fluctuate or decline in the future. Between January 1, 2022 and December 31, 2024, the closing price per share of our common shares has ranged from a high of \$ 4.94 (on April 3, 2023) to a low of \$ 0.67 (on December 30, 2024).** We ~~incur~~ believe that one of the reasons for the continual decline in our common stock market price is due to the significant supply that far exceeds demand, as a result of the large volume of sales of our common stock by a single significant stockholder of the Company. Sales by such significant stockholder are out of our control, and there is no assurance that such stockholder will not continue to engage in such sales. ²⁸If we cannot find ways to successfully manage our stock price, our business and financial condition may be negatively impacted. We may not be able to attract new investors and other stakeholders, and we may not be able to secure financing or otherwise acquire capital in the market (either on favorable terms or at all). If our share price is volatile, we may also become the target of securities litigation, which could result in substantial costs as a result of operating as a public company, and divert our management ~~will be required~~'s attention and resources from our business. Since our stock price has been trading below \$ 1.00 per share, we are also subject to devote substantial time to new delisting from the Nasdaq stock exchange if we cannot improve our stock price and regain full compliance initiatives with the Nasdaq listing standards. As a public reporting company, we incur significant legal, accounting and other expenses. The Sarbanes-Oxley Act and rules subsequently implemented by the SEC, have imposed various requirements on public companies, including establishment and maintenance of effective disclosure and financial controls and corporate governance practices. Our management and other personnel will need to devote a substantial amount of time to these compliance initiatives. Moreover, these rules and regulations will entail significant legal and financial compliance costs and will make some activities more time-consuming and costly. For example, we expect that these rules and regulations may make it difficult and expensive for us to obtain director and officer liability insurance, and we may be required to accept low policy limits and coverage. ³³Provisions in our Amended and Restated Certificate of Incorporation and Bylaws and of Delaware law may prevent or delay an acquisition of the Company, which could decrease the trading price of our common stock. Several provisions of our Amended and Restated Certificate of Incorporation, Bylaws and Delaware law may discourage, delay or prevent a merger or acquisition that stockholders may consider favorable. These include, **but are not limited to,** provisions that: **· Only our board of directors may fill board vacancies;** **· Permit us to issue blank check preferred stock as more fully described under "Description";** **· Prevent stockholders from calling special meetings;** **· Maintain a plurality voting standard for our board of Our Capital Stock directors;** **· Does not include an opt out of Delaware Anti-takeover law;** **Effects of Various Provisions of Delaware Law and Our Amended and Restated Articles of Incorporation and Bylaws";** **· Require stockholders to follow certain advance notice and disclosure requirements in order to propose business or nominate directors at an annual or special meeting;** and **· Limit our ability to enter into business combination transactions with certain stockholders.** These and other provisions of our Amended and Restated Certificate of Incorporation, Bylaws and Delaware law may discourage, delay or prevent certain types of transactions involving an actual or a threatened acquisition or change in control of us, including unsolicited takeover attempts, even though the transaction may offer our stockholders the opportunity to sell their shares of our common stock at a price above the prevailing market price. **See As previously reported on our Current Report on Form 8-K filed on January 15, 2025, the Company received a deficiency letter from the Nasdaq Listing Qualifications Department (the "Description Staff") of Our The Nasdaq Stock Market LLC ("Nasdaq") notifying the Company that, for the last 30 consecutive business days, the closing bid price for the Company's common stock has been below the minimum \$ 1.00 per share required for continued listing on The Nasdaq Capital Market pursuant to Nasdaq Listing Rule 5550 (a) (2) (the "Minimum Bid Price Requirement").** ²⁹In accordance with Nasdaq Listing Rule 5810 (c) (3) (A), the Company has been given 180 calendar days, or until July 14, 2025, to regain compliance with the Minimum Bid Price Requirement. If at any time before July 14, 2025, the bid price of the Company's common ~~Stock~~ stock ~~Anti~~ closes at \$ 1.00 per share or more for a minimum of 10 consecutive business days, the Staff will provide written confirmation that the Company has achieved compliance. The Company intends to monitor the closing bid price of its common stock and may, if appropriate, consider available options to regain compliance with the Minimum Bid Price Requirement, including initiating a reverse stock split. However, there can be no assurance that the Company will be able to regain compliance with the Minimum Bid Price Requirement or will otherwise be in compliance with other Nasdaq Listing Rules. Further, as previously reported on our Current Report on Form 8 - Takeover Effects-K filed on March 13, 2025, the Company notified the Staff of Various Provisions of Delaware Law and Our Amended and Restated Articles of Incorporation and Bylaws Nasdaq that the Company no longer complies with Nasdaq's independent director requirement ("Independent Director Requirement") as set forth in Nasdaq Listing Rule 5605 (b) (1), which requires a majority of the Company's Board of Directors (the "Board") to be comprised of Independent Directors as defined in Nasdaq Listing Rule 5605 (a) (2). On that same date, the Company received a letter from Nasdaq confirming the foregoing (the "Letter"). Consistent with Nasdaq Listing Rule 5605 (b) (1) (A), the Letter provides that the Company is eligible for more information a cure period in which to regain compliance with Nasdaq Listing Rule 5605 (b) (1). This cure period will expire at the earlier of the Company's next annual meeting of stockholders or March 9, 2026; or if the Company's next annual meeting is held before September 8, 2025, then the Company must evidence compliance no later than September 8, 2025. The Company intends to elect an additional Independent Director to the Board as soon as practicable and prior to the expiration of this cure period. However, there can be no assurance that the Company will successfully regain compliance with Nasdaq Listing Rule 5605 (b) (1) within the applicable cure period. The Minimum Bid Price Requirement and Independent Director Requirement deficiencies

have no immediate effect on the listing or trading of the Company's common stock, which will continue to be listed and traded on The Nasdaq Capital Market under the symbol "SCWO," subject to the Company's compliance with the other Nasdaq listing requirements.