Risk Factors Comparison 2024-02-15 to 2023-02-21 Form: 10-K

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

Investing in our securities involves a high degree of risk. You should carefully consider the material risks and uncertainties described below that make an investment in us speculative or risky, as well as the other information in this Annual Report on Form 10- K, including our consolidated financial statements and the related notes and " Management' s Discussion and Analysis of Financial Condition and Results of Operations " before you decide to purchase our securities. A manifestation of any of the following risks could, in circumstances we may or may not be able to accurately predict, render us unable to conduct our business as currently planned and materially and adversely affect our reputation, business, prospects, growth, financial condition, cash flows, liquidity **,** and operating results. In addition, the occurrence of one or more of these risks may cause the market price of our ~~Class A~~ common stock to decline, and you could lose all or part of your investment. It is not possible to predict or identify all such risks and uncertainties, as our operations could also be affected by factors, events **,** or uncertainties that are not presently known to us or that we currently do not consider ~~to present~~ **presenting** significant risks to our operations. Therefore, you should not consider the following risks to be a complete statement of all the potential risks or uncertainties that we face. Risk Factor Summary The following summarizes the more complete risk factors that follow. It should be read in conjunction with the complete Risk Factors section and should not be relied upon as an exhaustive summary of all the material risks facing our business. Risks Related to Our Business, Industry **,** and Sales • The distributed generation industry is an emerging market and distributed generation may not receive widespread market acceptance or demand may be lower than we expect ~~, which may make evaluating our business and future prospects difficult~~ . • Our products involve a lengthy sales and installation cycle, ~~and if~~ **which may lengthen further as** we **seek larger transactions** ~~fail to close sales on a regular and timely basis, our business could be harmed~~ . • Our **products** ~~Energy Servers~~ have significant upfront costs, and we ~~will~~ need to attract investors to help customers finance purchases. • The economic benefits of our Energy Servers to our customers depend on both the price of gas **available from the local gas utilities** and the cost of electricity available from alternative sources, including local electric utility companies ~~, and such cost structure is subject to change~~ . ~~Index to Financial Statements~~ • If we are not able to ~~continue to~~ reduce our ~~cost~~ **costs** ~~structure in the future~~ or ~~to~~ meet service performance expectations **with respect** ~~, our ability~~ to ~~become~~ **our products, our** ~~profitable~~ **profitability** may be impaired. • Deployment of our Energy Servers relies on interconnection requirements, export tariff arrangements and utility tariff requirements that are ~~each~~ subject to change. • Deployment of our Energy Servers relies on fuel supply and fuel specification requirements, ~~both of~~ which **may** ~~are subject to~~ change. • We ~~currently face and will continue to~~ face significant competition. • We derive a substantial portion of our revenue and backlog from a limited number of customers ~~, and the loss of or a significant reduction in orders from a large customer could have a material adverse effect on our operating results and other key metrics~~ . • Our future growth will depend ~~in part~~ on expanding and diversifying our ~~new product~~ **products** and market opportunities ~~, and if we do not successfully execute on our new product and market opportunities, or if our new product and market opportunities are more limited than we expect, our operating results and future growth prospects could be adversely affected~~ . • Our ability to develop new products and enter into new markets could be negatively impacted if we are unable to identify and successfully engage with partners to assist in such development or expansion ~~, where necessary or useful~~ . • Our products may not be successful if we are unable to maintain alignment with ~~evolving~~ industry standards and requirements. Risks Related to Our Products and Manufacturing • Our future success depends in part on our ability to increase ~~our~~ production capacity for our ~~Energy Servers and new features and~~ products ~~, and we may not be able to do so in the time frame required, due to availability of parts and equipment among other factors, or not be able to do so in a cost- effective manner~~ . • If our products contain manufacturing defects, our business and financial results could be harmed. • The performance of our products may be affected by factors outside of our control ~~, which could result in harm to our business and financial results~~ . • If our estimates of the useful life for our **products** ~~Energy Servers~~ are inaccurate or we do not meet our performance warranties and ~~performance~~ guaranties ~~, or if we fail to accrue adequate warranty and guaranty reserves~~ , our business and financial results could be harmed. • Our business is subject to risks associated with construction, utility interconnection, fuel supply, cost overruns and delays, including those related to obtaining government permits and other contingencies ~~that may arise in the course of completing installations~~ . • The failure of our suppliers to continue to deliver necessary raw materials or other components of our products in a timely manner and to specification could prevent us from delivering our products ~~within required time frames and could cause installation delays, cancellations, penalty payments and damage to our brand and reputation~~ . • We have ~~, in some instances, entered into~~ long- term supply agreements that could result in excess or, if one or more suppliers do not produce for any reason, insufficient inventory, above market pricing or higher costs, and negatively affect our results of operations. • We face supply chain competition ~~, including competition from businesses in other industries,~~ which could result in insufficient inventory and ~~negatively~~ affect our results of operations. • We, and some of our suppliers, obtain capital equipment used in our manufacturing process from sole suppliers and, if this equipment is damaged or otherwise unavailable, our ability to deliver our products on time will suffer ~~. • Our business has been and continues to be adversely affected by the COVID- 19 pandemic~~ . • Possible new trade tariffs could have a material adverse effect on our business. **Index to Financial Statements** • A failure to properly comply with foreign trade zone laws and regulations could increase the cost of ~~our~~ duties and tariffs. • ~~Any significant~~ **Significant** disruption ~~in~~ **to** the operations at our headquarters or manufacturing facilities could delay ~~the~~ **product** production ~~of our products, which would harm our business and results of operations~~ . • Our limited history **of** manufacturing new products, such as our Electrolyzers, makes it difficult to evaluate our future prospects and challenges we may encounter. Risks Related to Government Incentive

Programs • Our business currently benefits from the availability of rebates, tax credits and other financial programs and incentives, and **changes to** ~~the reduction, modification, or elimination of~~ such benefits could cause our revenue to decline and harm our financial results. • **We** ~~In the United States, we~~ rely on tax equity financing arrangements to realize the benefits provided by **U. S.** federal tax ~~credits~~ **benefits** and accelerated **tax** depreciation and **we** ~~in the event these programs are terminated, our financial results could be harmed. We~~ also rely on incentives in the Korean, European and other international markets. Risks Related to Legal Matters and Regulations • We are subject to ~~various national, state and local~~ laws and regulations **, including** ~~that could impose substantial costs upon us and cause delays in the delivery and installation of our products. • The installation and operation of our products are subject to~~ environmental laws and regulations ~~in various jurisdictions~~ , ~~and~~ **regarding** ~~there~~ -- **the delivery** ~~have been in the past~~ and **installation** ~~could continue to be uncertainty with respect to both how these laws and regulations may change over time and the interpretation~~ of ~~these environmental laws and regulations to~~ our products ~~, especially as they evolve~~ . • As we expand into international markets, we may be subject to local content requirements or pressures which could increase ~~cost~~ **costs** or reduce demand for our products. • With respect to our products that run, in part, on ~~natural gas~~ **fossil fuel** , we may be subject to a heightened risk of regulation ~~,~~ **to** a potential for the loss of certain incentives, and **to** ~~/ or~~ changes in our customers' energy procurement policies. • Existing regulations and changes to such regulations ~~impacting the electric power industry~~ may create technical, regulatory, and economic barriers, which could significantly reduce demand for our **products** ~~Energy Servers~~ or affect the financial performance of current sites. • We may become subject to product liability claims ~~, which could harm our financial condition and liquidity if we are not able to successfully defend or insure against such claims~~ . • ~~Current or future litigation~~ **Litigation** or administrative proceedings could have a material adverse effect on our business ~~, our financial condition and our results of operations~~ . Risks Related to Our Intellectual Property • Our failure to effectively protect and enforce our intellectual property rights may undermine our competitive position, and litigation to protect our intellectual property rights may be costly. • Our patent applications may not result in issued patents, and our issued patents may **be successfully challenged in litigation** ~~not provide adequate protection, either of which may have a material adverse effect on our~~ - **or post- grant proceedings** ~~ability to prevent others from commercially exploiting products similar to ours~~ . • We may need to defend ourselves against claims that we infringed, misappropriated, or otherwise violated the intellectual property rights of others, which may be time- consuming and would cause us to incur substantial costs. Risks Related to Our Financial Condition and Operating Results • We have incurred significant losses in the past and we may not be profitable **in** ~~for the foreseeable~~ future **periods** . • Our financial condition and results of operations and other key metrics are likely to fluctuate ~~on a quarterly basis in future periods, which could cause our results for a particular period to fall below expectations, resulting in a severe decline in the price of our Class A common stock~~ . • If we fail to manage our growth effectively, our business and operating results may suffer. • If we fail to maintain effective internal control over financial reporting in the future, the accuracy and timing of our financial reporting may be adversely affected. • Our ability to use ~~our~~ deferred tax assets to offset future taxable income may be subject to limitations ~~that could subject our business to higher tax liability~~ . Risks Related to Our Liquidity • We must maintain the confidence of our customers in our liquidity, including ~~in~~ our ability to timely service our debt obligations and ~~in our ability to support and~~ grow our business over the long ~~-~~ term. • Our indebtedness, and restrictions imposed by the agreements governing our ~~and our PPA Entities'~~ outstanding indebtedness, may limit our financial and operating activities and may adversely affect our ability to incur additional debt to fund future needs. • We may not be able to generate sufficient cash to meet our debt service obligations or ~~our~~ growth plans ~~. • Under some circumstances, we may be required to or elect to make additional payments to our PPA Entities or the Equity Investors~~ . Risks Related to Our Operations • Expanding operations internationally could expose us to additional risks. • Data security breaches and cyberattacks could compromise our intellectual property or other confidential information and cause significant damage to our business, ~~the~~ **product** performance ~~of our fleet of Energy Servers~~ , ~~our~~ brand and ~~our~~ reputation. • If we are unable to attract and retain key employees and hire qualified management, technical, engineering, finance and sales personnel, our ability to compete and successfully grow our business could be harmed. • Competition for manufacturing employees is intense, and we may not be able to attract and retain ~~the qualified and~~ skilled employees ~~needed to support our business~~ . Risks Related to Ownership of Our Common Stock • The stock price of our ~~Class A~~ common stock has been and may continue to be volatile. • We may issue additional shares of our ~~Class A~~ common stock in connection with ~~any~~ future ~~conversion~~ **conversions** of the Green Notes ~~(as defined herein) or in connection with our transaction with SK ecoplant~~ , which may dilute our existing stockholders and potentially adversely affect the market price of our ~~Class A common stock. • The dual class structure of our common stock and the voting agreements among certain stockholders have the effect of concentrating voting control of our Company with KR Sridhar, our Chairman and Chief Executive Officer, and also with those stockholders who held our capital stock prior to the completion of our initial public offering, which limits or precludes your ability to influence corporate matters and may adversely affect the trading price of our Class A~~ common stock. • We do not intend to pay dividends for the foreseeable future. • Provisions in our charter documents and under Delaware law could make an acquisition of us more difficult, limit ~~shareholders~~ **stockholders** ' rights, and limit the market price of our ~~Class A~~ common stock. • Increased scrutiny regarding ESG ~~practices and disclosures~~ could result in additional costs and adversely impact our business **. Risks Related to Our Business** , **Industry** ~~brand~~ -- **and Sales The distributed generation industry is** ~~and~~ - **an** ~~reputation~~ **emerging market and distributed generation may not receive widespread market acceptance or demand may be lower than we expect, which may make evaluating our business and future prospects difficult** . The distributed generation industry is still an emerging market in **the** ~~an otherwise mature and~~ heavily regulated energy utility industry **. It is uncertain whether** ~~, and we cannot be sure that~~ potential customers will ~~accept~~ **embrace** distributed generation ~~broadly~~ **in general** , or our Energy Servers ~~specifically~~ **in particular** . Enterprises may be unwilling to adopt our Energy Server solution over traditional or competing power sources ~~like~~ **such as** distributed solar or electricity from the grid **. This could be due to** ~~, for any number of reasons, including~~ the perception that our technology or our company is unproven, lack of confidence in our business model, ~~the~~ unavailability of third- party service providers to operate and maintain the Energy Servers, ~~and~~ lack of awareness of our product **,** or their perception of regulatory or political ~~headwinds~~ **challenges, including challenges pertaining to technologies that use natural gas fuels or have carbon emissions** . The viability and demand for our Energy Servers in the distributed generation market may be impacted by many factors outside of our control, including: • market acceptance of our products **(including, for example, anti- natural gas sentiment or misalignment with renewable and zero carbon procurement goals)** ; • cost competitiveness, reliability, and performance of our products compared to traditional or competing power sources; • availability and amount of government subsidies and incentives; • the emergence, continuance, or success of, or increased government support for, other alternative energy generation technologies and products; • prices of traditional or competing power sources; • geopolitical and macroeconomic instability, including wars, terrorism, political unrest ~~(including, for example, the conflict between Russia and Ukraine and tensions between China and Taiwan)~~ , actual or threatened public health emergencies and outbreak of disease ~~(including for example, the COVID- 19 pandemic)~~ , inflation, the recessionary environment, boycotts, adoption or expansion of government trade restrictions, and other business restrictions which may negatively impact the demand for our products **,** or which may cause our customers to push out, cancel, or refrain from placing orders; and • an increase in interest rates or tightening of the supply of capital in the global financial markets (including a reduction in total tax equity availability) which could make it difficult to finance our products. If the market for our products and services does not continue to develop as we anticipate, our business will be harmed. As a result, predicting our future revenue and appropriately budgeting for our expenses is difficult, and we have limited insight into trends that may emerge and affect our business. If actual results differ from our estimates or if we adjust our estimates in future periods, our operating results and financial position could be materially and adversely affected. Our **products involve a lengthy sales and installation cycle, and if we fail to close sales on a regular and timely basis, our business could be harmed. Our** sales cycle is typically 12 to 18 months but can vary considerably. **To** ~~In order to~~ make a sale, we must typically provide a significant level of education to prospective customers regarding the use and benefits of our ~~product~~ **products** and ~~our~~ technology. The period between initial discussions with a potential customer and the eventual sale ~~of even a single product~~ usually depends on a number of factors, including the potential customer' s budget, selection of financing type, and term of the contract **. In addition, we have started to focus on larger projects, which tend to have longer sales cycles** . Prospective customers often undertake a significant evaluation process that may further extend the sales cycle, and which evaluation may be negatively impacted by general market and economic conditions such as inflation, rising interest rates, availability of capital, a recessionary environment, geopolitical instability, energy availability and costs, and the availability and effects of government initiatives. Once a customer **decides** ~~makes a formal decision~~ to purchase our product, ~~the~~ **it takes a significant amount of time for us to** ~~fulfillment~~ ---- **fulfill** ~~of~~ the sales order ~~by us requires a substantial amount of time~~ . Generally, ~~the time~~ **it takes** between **nine to twelve months or more from** the entry into a sales contract **until** ~~with a customer and~~ the installation of our **products** ~~Energy Servers can range from nine to twelve months or more~~ . ~~This~~ **The** lengthy sales and installation ~~cycle~~ **cycles** ~~is~~ **are** subject to a number of significant risks ~~over~~ **, some of** which ~~we have little~~ **are outside of** ~~or~~ **our** ~~no~~ control. **Due to** ~~Because of both~~ the long sales and ~~long~~ installation cycles, we may expend significant resources without ~~having~~ **being** ~~certainty~~ -- **certain** of generating a sale. **The transfer of control of our product to our customer based on its delivery and installation has a significant impact on the timing of the recognition of our product and installation revenue. Many factors can cause a lag between the time that a customer signs a contract and our recognition of product revenue.** These ~~lengthy sales~~ **factors include the number of the Energy Servers installed per site, local permitting** and ~~installation cycles increase~~ **utility requirements, environmental, health and safety requirements, weather, customer facility construction schedules, customers' operational considerations, and the timing of financing. Many of** ~~the~~ **these** ~~risk that~~ **factors are unpredictable and their resolution is often outside of our or our customers' control. Customers may also ask us to delay** an installation ~~may be delayed and / or may not be completed. In some instances, a customer can cancel an order~~ for **reasons unrelated** ~~a particular site prior~~ to **the foregoing, such as, for sales contracts, delays in their financing arrangements. Further, due to unexpected delays, deployments may require unanticipated expenses to expedite delivery of materials or labor to ensure the** installation **meets the timing objectives** ~~, and we may be unable to recover some or all of our costs in connection with design, permitting, installation and site preparations incurred prior to cancellation~~ . ~~Cancellation rates~~ **These unexpected delays and expenses** can be **exacerbated** ~~as high as 5 % to 10 %~~ in ~~any given~~ **periods in which we deliver and install a larger number of smaller projects. In addition, if even relatively short delays occur, there may be a significant shortfall between the revenue we expect to generate in a particular** period ~~due to factors outside of our control, including an~~ **and** ~~inability to install an Energy Server at the customer' s chosen location because of permitting or other~~ -- **the revenue that** ~~regulatory issues, delays or unanticipated costs in securing interconnection approvals or necessary utility infrastructure, unanticipated changes in the cost, or other reasons unique to each customer. Our operating expenses are based on anticipated sales levels, and many of our expenses are fixed. If~~ we are **able to** ~~unsuccessful in closing sales after expending significant resources or if we experience delays or cancellations, our business could be materially and adversely affected. Since, in general, we do not~~ recognize **. Our** ~~revenue on the sales of our~~ products ~~until delivery or complete installation, a small fluctuation in the timing of the completion of our sales transactions could cause our operating results to vary materially from period to period. Our Energy Servers~~ have significant upfront costs ~~. In order to expand our offerings to~~ **, which may be a barrier for some** customers who ~~lack~~ **may not have** the financial capability to purchase our **products** ~~Energy Servers~~ directly ~~and /~~ **. To address this, we have developed various financing options that allow customers to use** ~~or~~ **our** ~~who prefer to lease the product~~ **products** ~~or contract for our services~~ on a pay- as- you- go **basis or** ~~model, we subsequently developed various financing options that enabled customers use of the Energy Servers without a direct purchase~~ through third- party ~~ownership~~ financing arrangements. **These options enable our customers to access our products without making a direct purchase.** For ~~an overview of~~ **more information on** ~~these~~ -- **the** different financing arrangements **available** , please see Part II, Item 7, Management' s Discussion and Analysis of Financial Condition and Results of Operations ~~—~~ **—** Purchase and Financing Options. If in any given quarter we **or our customers** are not able to secure funding ~~in a timely fashion~~ , ~~or~~ **our** ~~our customers are unable to secure their own financing in a timely fashion, our results of operations and~~ financial condition ~~will~~ **and results of operations would** be **harmed** ~~negatively impacted~~ . **To** ~~We continue to innovate our customer contracts to attempt to~~ attract new customers ~~and these~~ **, we continually innovate our customer contracts which** may have different terms and financing conditions from prior transactions. We rely on and need to grow committed financing capacity with existing partners or attract additional partners to support our growth, finance new projects **,** and **expand our** ~~new types of~~ product offerings. **Additionally** ~~In addition, at any point in time~~ , our ability to deploy our backlog is ~~contingent on securing available~~ **directly tied to our ability to secure** financing **, which is often an unpredictable process** . **Attracting** ~~Our ability to attract~~ third- party financing ~~depends on many~~ **is a complex process that is influenced by** factors **beyond** ~~that are outside of~~ our control, including **the fluctuations of interest** ~~an~~ **and** ~~investors' ability to utilize~~ **currency exchange rates, the availability of** tax credits and ~~other~~ government incentives ~~, interest rate and / or~~ **for investors** ~~currency exchange fluctuations~~ , our perceived creditworthiness and the **prevailing** condition of credit markets ~~generally~~ . ~~Our~~ **We** ~~financing~~ **finance** ~~of~~ **our** ~~customer~~ **customers '** purchases of our **products based on certain** ~~Energy Servers is subject to~~ conditions **,** such as ~~the~~ **their** ~~customer' s~~ credit quality and the expected minimum internal rate of return on the customer engagement **. If** ~~, and if~~ these conditions are not ~~satisfied~~ **met** , we may **not** be ~~unable~~ -- **able** to finance **their** purchases of our **products** ~~Energy Servers~~ , which would have ~~an adverse effect~~ **a negative impact** on our revenue in a particular period. If we are unable to help ~~our~~ customers arrange financing for our **products** ~~Energy Servers generally~~ , our business ~~will~~ **could** be harmed. Additionally, the Managed Services Financing option, as with all leases, is also limited by the customer' s willingness to commit to making fixed payments **,** regardless of the **products'** performance ~~of the Energy Servers~~ or our performance of our obligations under the customer agreement. **If** ~~To the extent~~ we are unable to arrange future ~~financings~~ - **financing** for any of our current projects, **it could negatively impact** our business ~~would~~ **. In the U. S., our capacity to offer our Energy Servers through financed arrangements depends in large part on the ability of financing parties to optimize the tax benefits associated with the Energy Servers, such as the ITC or accelerated depreciation. Interest rate fluctuations, and internationally, currency exchange rate fluctuations, may also impact the attractiveness of any financing offerings for our customers. Our ability to finance a PPA or a lease is also related to, and may** be **limited by** ~~negatively impacted. Further~~ , **the creditworthiness of the customer. In** our sales process for ~~those~~ transactions ~~,~~ that require financing, ~~require that~~ we make certain assumptions regarding the cost of financing capital. Actual financing costs may ~~vary~~ **differ** from our estimates and financing may be more difficult or costly to secure, or may not be available, due to factors **beyond** ~~outside of~~ our control, ~~including~~ **such as** changes in customer creditworthiness, macroeconomic factors, **like** ~~such as~~ inflation, interest rates, a recessionary environment, geopolitical instability, and **capital market** volatility **. The** ~~in capital markets, the~~ returns offered by other investment opportunities available to our financing partners ~~,~~ and other factors **may further affect financing availability** . If the cost of financing ultimately exceeds our estimates, or we or our customers are unable to secure financing, we may **not** be ~~unable~~ -- **able** to proceed with some or all of the impacted projects **,** or our revenue from such projects may be less than our estimates. The economic benefits of our Energy Servers to our customers depend on both the price of gas available from the local gas utilities and the cost of electricity available from alternative sources, including local electric utility companies, and such cost structure is subject to change. We believe that a customer' s decision to purchase our Energy Servers is significantly influenced by its price, the price predictability of electricity generated by our Energy Servers in comparison to the retail price, and the future price outlook of electricity from the local utility grid and other energy sources. These prices are subject to change and may affect the relative benefits of our Energy Servers. Factors that could influence these prices and are beyond our control include the impact of energy conservation initiatives that reduce electricity consumption; construction of additional power generation plants (including nuclear, coal or natural gas); technological developments by others in the electric power industry; the imposition of **interconnection,** " departing load, " " standby, " power factor charges, greenhouse gas emissions charges, or other charges by local electric utility or regulatory authorities; and changes in the rates offered by local electric utilities and / or in the applicability or amounts of charges and other fees imposed or incentives granted by such utilities on customers. In addition, even with available subsidies for our products, **in those areas where** the current ~~low~~ cost of grid electricity **is low, including** in some states in the ~~United States~~ **U. S.** and some foreign countries ~~does~~ **, our Energy Servers may** not **be** ~~render our product~~ economically attractive. Furthermore, ~~an~~ **actual or perceived potential** ~~increase~~ **increases** in the price of natural gas or other fuels or curtailment of availability (e. g., as a consequence of physical limitations or adverse regulatory conditions for the delivery ~~of~~ **or** production of natural gas or other fuels) or the inability to obtain natural gas or other fuel service could make our Energy Servers less economically attractive to potential customers and reduce demand. While our Energy Servers can operate using hydrogen or biofuels, the availability and current high cost of those natural gas alternatives in a particular location may make them less attractive to potential customers, reducing the ~~differentiation of~~ **demand for** our products. ~~If we are not able to continue to reduce our cost structure in the future or to meet service performance expectations with respect to our Energy Servers, our ability to become profitable may be impaired.~~ We **need** ~~must continue~~ to reduce the manufacturing costs for our **products** ~~Energy Servers~~ to expand our markets. Additionally, certain of our existing service contracts **rely** ~~were entered into based~~ on projections regarding service ~~costs~~ - **cost** reductions that ~~assume continued advances in our manufacturing and services processes that we~~ may **not** be ~~unable to realize~~ **realized** . ~~Future increases~~ **Increases** ~~to the~~ **in component and raw material costs could offset our** cost **- cutting** ~~of components and raw materials would offset our~~ efforts ~~to reduce~~ **, slowing** our ~~manufacturing~~ **growth** and ~~services costs~~ **causing our financial results and operational metrics to suffer** . For example, during the second half of 2021, we experienced price increases in raw materials, which are used in our components and subassemblies for our Energy Servers. ~~Any~~ **Our expenses have increased and may** ~~increases~~ - **increase** in the **future due to factors such** ~~costs of components, raw materials and / or labor, whether~~ as ~~a result of supply chain constraints or pressures, inflation or rising interest rates, could slow our growth and cause our financial results and operational metrics to suffer. In~~

~~addition, we may face increases in our other expenses including~~ increases in wages or other labor costs ~~as well as installation~~ , marketing ~~,~~ **and** sales ~~or related~~ **. We need to reduce** costs ~~. In order~~ to expand into new markets (in which the price of electricity from the grid is lower) while ~~still~~ maintaining our current margins ~~, we will need to continue to reduce our costs~~ . **Any** ~~Increases in any of these costs or our~~ failure to achieve ~~projected~~ cost reductions could adversely affect our results of operations and financial condition and harm our business and prospects. **Our inability** ~~If we are unable~~ to reduce **product** ~~our Energy Server cost~~ **costs** ~~structure in the future, we~~ may **impact our** ~~not be able to achieve~~ profitability, which could have a material adverse effect on our business and ~~our~~ prospects **. Deployment of our Energy Servers relies on interconnection requirements, export tariff arrangements and utility tariff requirements that are each subject to change** . Because our Energy Servers are designed to operate at a constant output 24x7, while our customers' demand for electricity typically fluctuates over the course of the day or week, there are often periods when our Energy Servers are producing more electricity than a customer may require, and such excess electricity ~~must~~ **is** generally ~~be~~ exported to the local electric utility. Export of customer- generated power from our Energy Servers is generally provided for in the markets in which we offer our fuel cells pursuant to applicable laws, regulations and tariffs, but not under all circumstances, and may be restricted **or made costlier** due to interconnection, relevant tariff or other issues. Many, but not all, local electric utilities provide compensation to our customers for such electricity under " fuel cell net metering " (which often differs from solar net metering) or other customer generation programs. Utility tariffs and fees, interconnection agreements and fuel cell net metering requirements are subject to changes in availability and terms, and some jurisdictions do not allow interconnections or export at all. At times in the past, such changes have had the effect of significantly reducing or eliminating the benefits of such programs. Changes in the availability of, or benefits offered by, utility tariffs, the applicable net metering requirements or interconnection agreements ~~in the jurisdictions in which we operate or in which we anticipate expanding into in the future~~ could adversely affect the demand for our Energy Servers. For example, in California, the fuel cell net metering tariff expressly addressing fuel cells **and providing certain incentives and export capability** (referred to as the " Fuel Cell Net Energy Metering " (" FC NEM ")) ~~currently expires~~ **expired** at the end of 2023 ~~, although~~ **and is no longer available to new customers. Existing customers can remain on** ~~other~~ -- **the tariff if they comply with adopted greenhouse gas emission standards, which in some cases may result in increased cost. There are also some** more generally applicable tariffs ~~are~~ available for customers deploying **new** fuel cells **, however, they have limitations and the loss of FC NEM may impact our ability to sell our Energy Servers for use in California** . We cannot predict the outcome of **the many** regulatory proceedings addressing tariffs that would include customers utilizing fuel cells. If ~~there~~ an economical tariff for customers utilizing fuel cells is not available in a given jurisdiction, it may limit or end our ability to sell and install our Energy Servers in that jurisdiction. Further, ~~permitting~~ **permits** and other requirements applicable to electric and gas interconnections are subject to change. For example, some jurisdictions are limiting new gas interconnections, although others are allowing new gas interconnections for non- combustion resources like our Energy Servers. Deployment of our Energy Servers relies on fuel supply and fuel specification requirements, **which** ~~and fuel supply and fuel specifications~~ are subject to change. **Our** ~~Because our~~ Energy Servers are designed to operate at a constant output 24x7 **. Therefore** , **they need** ~~our Energy Servers require~~ a constant source of fuel such as natural gas, biogas, or hydrogen **to keep them running** . Fuel for our Energy Servers is typically provided by local gas utilities. ~~We~~ **Our customers** rely on **such** ~~local gas~~ utilities to provide **a** constant **supply of** fuel ~~supply within~~ **that meets** our ~~fuel~~ specifications. ~~Additionally~~ **However** , **if** new regulations ~~may~~ require a switch to a different fuel for which there may be limited availability, such as biogas **, it can create challenges for our products and their sales** . Adverse fuel supply constraints or fuel outside of our fuel specifications may **delay** ~~create challenges for~~ - **or prevent the deployment of** our Energy Servers ~~to be deployed consistent with our project timelines or our customers' expectations~~ . We compete for customers, financing partners and incentive dollars ~~with~~ **from** other electric power providers. Our Bloom Energy Servers compete with a broad range of companies and technologies, including traditional energy suppliers, such as public utilities, and other energy providers utilizing traditional co- generation systems, nuclear, hydro, coal or geothermal power, companies utilizing intermittent solar or wind power paired with storage, and other commercially available fuel cell companies ~~utilizing PEM, MCFC or PAFC~~ . We also compete with traditional backup energy equipment such as diesel generators. Our Electrolyzers compete with low temperature electrolyzer companies using Alkaline, Proton, PEM or AEM electrolysis. See our discussion of competition in Item 1 ~~—~~ **—** Business ~~—~~ **— Energy Server** Competition. Many of our competitors, such as traditional utilities and other companies offering distributed generation products, have longer operating histories, customer incumbency advantages, access to and influence with local and state governments, and access to more capital resources than us. Significant developments in alternative technologies, such as energy storage, wind, solar or hydro power generation, or improvements in the efficiency or cost of traditional energy sources, including coal, oil, natural gas used in combustion, or nuclear power, may materially and adversely affect our business and prospects in ways we cannot anticipate. We may also face new competitors ~~who are not currently in the market, including companies~~ with ~~newer or~~ better technologies ~~or~~ **,** products, ~~larger providers or traditional utilities or other existing competitors that may enter our~~ - **or resources** ~~market segments~~ . If we fail to adapt to changing market conditions and to compete successfully with grid electricity or new competitors, our growth will be limited, which would adversely affect our business results. **We derive a substantial portion of our revenue and backlog from a limited number of customers, and the loss of or a significant reduction in orders from a large customer could have a material adverse effect on our operating results and other key metrics.** In any particular period, a substantial amount of our total revenue has and could continue to come from a relatively small number of customers. As an example, in the year ended December 31, ~~2022~~ **2023** , two customers accounted for approximately ~~38~~ **37** % and ~~37~~ **26** % of our total revenue. The loss of any large customer order or any delays in installations of new products with any large customer would materially and adversely affect our business results. Our future growth will depend on expanding and diversifying our ~~new product~~ **products** and ~~new~~ market opportunities, and if we ~~do~~ **are** not ~~successfully~~ -- **successful** ~~execute on our new product and new market opportunities, or if our new product and new market opportunities are more limited than we expect~~ , our operating results and future growth prospects could be adversely affected. We **plan** ~~are attempting~~ to enhance our future growth opportunities by expanding the features of and uses for our Energy Servers, including providing **options for** carbon capture and heat **output** ~~capture features~~ , ~~enabling use in marine transportation and~~ by ~~developing~~ **expanding our production** and ~~launching~~ **sales of** our Electrolyzer ~~. Additionally~~ , ~~we are~~ **and by** expanding the markets in which we sell our ~~Energy Servers. These are new features,~~ products ~~, and markets for us~~ . As a result, these opportunities will require our attention, which ~~may include~~ **includes** personnel, financial resources and management attention. If we do not appropriately allocate our resources ~~in line with~~ **to, or execute on,** ~~the~~ **these** ~~market and the developing~~ opportunities, our business and results of operations could be adversely affected. Our investments ~~also~~ may not result in the growth we expect, or the timing of when we expect it, for a variety of reasons, including ~~but not limited to,~~ changes in growth trends, evolving and changing markets and increasing competition, market opportunities, ~~and~~ technology and product innovation **, and changes in policy support, taxation and subsidies, and regulation** . We may introduce new technologies or products that do not work, are not delivered on a timely basis, are not developed according to product ~~and /~~ or cost specifications, ~~or~~ are not well received by customers **, or do not receive the policy, taxation and subsidies, or other regulatory support that was anticipated** . Moreover, there may be fewer opportunities than we expect due to a decline in business or economic conditions or a decreased demand in these markets or for our new products from our expectations, our inability to successfully execute our sales and marketing plans, or for other reasons. In addition to our current growth opportunities, our ~~future~~ growth may be reliant on our ability to identify and develop ~~potential~~ new ~~growth~~ opportunities. This process is inherently risky and may result in investments in time and resources for which we do not achieve any return or value. These risks are enhanced by attempting to introduce multiple breakthrough technologies and products simultaneously. Our growth opportunities ~~and those opportunities we may pursue~~ are subject to constant and rapidly changing and evolving technologies and evolving industry standards and may be replaced by new technology concepts or platforms. If we do not develop innovative and reliable product offerings and enhancements in a cost- effective and timely manner that are attractive to customers in these markets, if we are otherwise unsuccessful entering and competing in these new product categories, if the new product categories in which we invest our limited resources do not emerge as ~~the~~ opportunities or do not produce the growth or profitability we expect, or when we expect it, or if we do not correctly anticipate changes and evolutions in technology and platforms, our business and results of operations could be adversely affected. ~~We~~ **As we** continue to develop new features and products **and expand** ~~as well as enter~~ into new markets ~~. As we sell new features and products, such as our Energy Servers for marine transport and our Electrolyzers, and move into new markets~~ , including international markets, we may need to identify business partners and suppliers ~~in order~~ to facilitate such development and expansion. Identifying such partners and suppliers is a lengthy process and is subject to significant risks and uncertainties, such as an inability to negotiate mutually acceptable terms or such partner' s inability to execute as negotiated. In addition, there could be delays in the design, manufacture and installation of new products and we may not be timely in the development of new products or entry into new markets, limiting our ability to expand our business and harming our financial condition and results of operations. **Our products may not be successful if we are unable to maintain alignment with evolving industry standards and requirements.** As we ~~continue to~~ invest in research and development to sustain or enhance our existing products, **it is possible that** ~~such as our Energy Server,~~ the introduction of new technologies and the emergence of new industry standards or requirements could ~~render them~~ **make our products less desirable or** obsolete. Further, in developing our products, we ~~have made, and will continue to~~ make ~~,~~ assumptions with respect to which standards ~~or~~ **,** requirements **, or policies** will be ~~required~~ **demanded** by our customers, standards- setting organizations and applicable law. If market acceptance of our products is reduced or delayed or the standards- setting organizations or legislative or regulatory authorities fail to develop timely **,** commercially **-** viable standards **that support our products,** our business would be harmed. Our future success depends in part on our ability to increase ~~our~~ production capacity for our ~~Energy Servers and new features and~~ products, and we may not be able to do so in ~~the~~ **a** ~~time~~ **timely** ~~frame required, due to availability of parts an equipment among other factors,~~ or ~~not be able to do so in a~~ cost- effective manner. To the extent we are successful in growing our business, we may need to increase ~~our~~ **the** production capacity of our **products** ~~Energy Servers~~ . Our ability to plan, construct and equip additional manufacturing facilities is subject to significant risks and uncertainties, including ~~the following: • The risks inherent in the development and construction of new facilities, including risks of~~ delays ~~and~~ **,** cost overruns ~~as a result of factors outside our control, which may include delays in government approvals, burdensome permitting conditions~~ , geopolitical instability, **and** ~~inflation,~~ labor shortages **.** **Expanding** ~~and delays in the delivery of~~ manufacturing ~~equipment~~ **capacity internationally may also expose us to new laws** and ~~subsystems~~ **regulations and carries risks. There is also a possibility** that we ~~manufacture~~ **may not be able to achieve** ~~or~~ **our** ~~obtain from suppliers (~~ **production targets for a variety of reasons,** including **reliance** ~~due to the COVID- 19 pandemic). • Adding manufacturing capacity in any international location will subject us to new laws and regulations including those pertaining to labor and employment, environmental and export / import. In addition, it brings with it the risk of managing larger scale foreign operations. • We may be unable to achieve the production throughput necessary to achieve our target annualized production run rate at our current and future manufacturing facilities. • Manufacturing equipment may take longer and cost more to engineer and build than expected, and may not operate as required to meet our production plans. • We may depend~~ on third ~~- party relationships in the development and operation of additional production capacity, which may subject us to the risk that such third~~ parties **who** do not fulfill their obligations to us ~~under our arrangements with them. • We may be unable to attract or retain qualified personnel. For example, currently the market for manufacturing labor has been constrained, which could pose a risk to our ability to increase production~~ . If we are unable to expand our manufacturing facilities or develop our existing facilities in a timely manner ~~to meet increased demand~~ , we may be unable to further scale our business, which would negatively affect our results of operations and financial condition. Conversely, if the demand for our products or our production output ~~decreases or~~ does not rise as expected, we may not be able to spread a significant amount of our fixed costs over the production volume, resulting in a greater than expected per unit fixed cost, which would have a negative impact on our financial condition and ~~our~~ results of operations. Our products are complex **,** and they may contain undetected or latent errors or defects. In the past, we have experienced latent defects ~~only~~ **that were** discovered once the Energy Server was deployed in the field. Changes in our supply chain or the failure of our suppliers to otherwise provide us with components or materials that meet our specifications could introduce defects ~~into~~ **in** our products. As we grow our manufacturing volume, the chance of manufacturing defects could increase. In addition, new feature launches, product introductions or design changes ~~made for the purpose of cost reduction, performance improvement, fulfilling new customer requirements or new market demand or improved reliability~~ could introduce new design defects that may impact product performance and life. Any design or manufacturing defects or other failures of our products ~~to perform as expected~~ **, including catastrophic product failures,** could cause us to incur significant ~~service and re-engineering~~ costs **, a large field recall** , divert the attention of our engineering personnel from product development efforts, and significantly and adversely affect customer satisfaction, market acceptance, and our business reputation. If any of our products are defective or fail because of their design, or if changes in applicable laws or regulations, or in the enforcement thereof, require us to redesign or recall our products, we also may incur additional costs and expenses. The process of identifying and recalling a product may be lengthy and require significant resources, and we may incur significant replacement costs, contract damage claims from our customers, product liability, property damage, personal injury or other claims and liabilities, and brand and reputational harm. Significant costs or payments made in connection with warranty and product liability claims and product recalls could harm our financial condition and results of operations. Furthermore, we may be unable to correct manufacturing defects or other failures of our products in a manner satisfactory to our customers, which could adversely affect customer satisfaction, market acceptance, and our business reputation. **The performance of our products may be affected by factors outside of our control, which could result in harm to our business and financial results.** Field conditions, such as the quality of the ~~natural gas or alternative~~ fuel supply and ~~utility processes, which vary by region and may be subject to seasonal fluctuations or~~ environmental factors **can impact** ~~such as smoke from wild fires, have affected~~ the performance of our **products in unpredictable** ~~Energy Servers and are not always~~ -- **ways** ~~possible to predict until the Energy Server is in operation~~ . As we move into new geographies and deploy new features, products and service configurations, we ~~may~~ encounter new ~~and unanticipated~~ field conditions **from time to time** (including as a result of climate change). Adverse impacts on performance may require us to incur significant service and re- engineering costs or divert the attention of our engineering personnel from product development efforts. Furthermore, we may be unable to adequately address the impacts of factors outside of our control in a manner satisfactory to our customers. Any of these circumstances could significantly and adversely affect customer satisfaction, market acceptance, and our business reputation. We offer ~~certain~~ customers the opportunity to renew their O & M Agreements ~~(defined herein)~~ on an annual basis, for up to 20 years, at **predetermined** prices ~~predetermined at the time of purchase of the Energy Server~~ . We also provide performance warranties and ~~performance~~ guaranties covering the efficiency and output performance of our **products** ~~Energy Servers~~ . Our pricing of these contracts and our reserves for warranty and replacement are based upon our estimates of the useful life of our **products** ~~Energy Servers~~ and those components that are replaced as a part of standard maintenance, including assumptions regarding improvements in power module life that may fail to materialize. We do not have a long history ~~with~~ **at** a large **scale** ~~number of field deployments~~ , and our estimates may prove to be incorrect. Failure to meet these warranty and performance **requirements** ~~guaranty levels~~ may require us to replace the **products** ~~Energy Servers at our~~ - **or** ~~expense or refund their cost to the customer, or require us~~ to make cash payments to ~~the customer based on actual performance, as compared to expected performance, capped at a percentage of the relevant equipment purchase prices. We accrue for product warranty costs and recognize losses on service or performance warranties when required by U. S. GAAP based on our estimates of costs that may be incurred and based on historical experience. However, as we expect our~~ customers ~~to renew their O & M Agreements each year, the total liability over time may be more than the accrual~~ . Actual warranty expenses ~~have in the past been and~~ may **exceed** ~~in the future be greater than we have assumed in our~~ estimates ~~, the accuracy of which may be hindered due to our limited history operating at our current scale~~ . **If** ~~Therefore, if~~ our estimates ~~of the useful life for our products~~ are inaccurate or we ~~do not meet our performance warranties and performance guaranties, or if we~~ fail to accrue adequate ~~warranty and guaranty~~ reserves **to make cash payments as required** , our business and financial results could be harmed. ~~Because we often do not recognize revenue on~~ **Our business is subject to risks associated with construction, utility interconnection, fuel supply, cost overruns and delays, including** ~~the~~ **those** ~~sales~~ **related to obtaining government permits and other contingencies that may arise in the course** of **completing** ~~our products until installation~~ **installations** ~~, our~~ **. Our** financial results depend ~~to some degree~~ on the **timely** ~~timeliness of the~~ installation of our products ~~. Furthermore~~ , **which** ~~in some cases, the installation of our products~~ may be on a fixed price basis, ~~which subjects~~ **subjecting** us to the risk of cost overruns or other unforeseen expenses in the installation process. **Our** ~~The construction, installation, and operation of our~~ products **are** ~~at a particular site is also generally~~ subject to **regulation and** oversight ~~and regulation~~ in ~~accordance~~ **compliance** with ~~national, state, and local~~ laws and ordinances relating to building codes, safety, environmental protection, and related matters **in the jurisdictions where we operate** , and typically require various local and other governmental approvals and permits, including environmental approvals and permits ~~, that vary by jurisdiction~~ . **Delays in obtaining** ~~In some cases,~~ these approvals and permits ~~require periodic renewal~~ **could stall the installation process of our products and adversely affect our revenue** . For more information regarding these restrictions, please see the risk factors in the section ~~entitled~~ -- **titled** " Risks Related to Legal Matters and Regulations. " ~~As a result, unforeseen delays in the review and permitting process could delay the timing of the construction and installation of our products and could therefore adversely affect the timing of the recognition of revenue related to the installation, which could harm our operating results in a particular period.~~ In addition, the completion of many of our installations depends on the availability of and timely connection to the natural gas grid and the local electric grid. In some jurisdictions, local utility companies or the municipality have denied our request for connection or have required us to reduce the size of certain projects. In addition, some municipalities have recently adopted restrictions that prohibit ~~any~~ **the installation of natural gas service to** new construction ~~that allows for the use of~~

~~natural gas~~ . For more information regarding these restrictions, please see the risk factor ~~entitled~~ -- **titled** " ~~As a technology~~ **With respect to our products** that ~~runs~~ - **run** , in part, on fossil fuel, we may be subject to a heightened risk of regulation ~~,~~ to a potential for the loss of certain incentives, and to changes in our customers' energy procurement policies. " Any delays in our ability to connect with utilities, delays in the performance of installation- related services, or poor performance of installation- related services by our general contractors or sub- contractors ~~will~~ **could** have a material adverse effect on our results and could cause operating results to vary materially from period to period. **As our business grows and we increase the number of distributors to sell our products, delays in project development, interconnection and permitting may affect our distributors' ability to sell their inventories of our products and they may decide to decrease future orders of our products or we may choose to support deployment of their inventory with our end customers, either of which could adversely affect revenue and cash flows.** Furthermore, we rely on the ability of our third- party ~~general~~ contractors to install products at our customers' sites and to meet our installation requirements. We currently work with a limited number of ~~general~~ contractors, which has impacted and may continue to impact our ability to make installations as planned. Our work with contractors ~~or their sub- contractors~~ may have the effect of our being required to comply with additional rules ~~(including rules~~ unique to our customers ~~), working conditions~~ , site remediation, and other requirements, which can add costs and complexity to an installation project. The timeliness, thoroughness, and quality of the installation- related services performed by some of our ~~general contractors and their sub-~~ contractors in the past have not always met our expectations or standards and may not meet our expectations and standards in the future. **Lengthy sales and installation cycles can increase the risk of customer disputes or delayed or incomplete installations. For example, see Part II, Item 7, Certain Factors Affecting Our Performance, Energy Market Conditions. Sometimes, a customer may cancel an order prior to installation, meaning we may be unable to recover some, or all of our costs incurred in connection with design, permitting, installation and site preparations. Cancellation rates can be as high as 5 % to 10 % in any given period due to factors outside of our control, such as permitting or regulatory issues, delays or unexpected costs in securing interconnection approvals, utility infrastructure, cost changes, or other reasons unique to each customer. Our operating expenses are based on anticipated sales levels, and many of our expenses are fixed. If we are unsuccessful in closing sales after expending significant resources or if we experience customer disputes, delays or cancellations, our reputation, business, financial condition, results of operations or cash flows could be materially and adversely affected. Additionally, under our revenue recognition policy, we do not recognize revenue on product sales until delivery or complete installation. Therefore, a small fluctuation in the timing of the sales transaction' s completion could cause our operating results to vary materially from period to period. The failure of our suppliers to continue to deliver necessary raw materials or other components of our products in a timely manner and to specification could prevent us from delivering our products within required time frames and could cause installation delays, cancellations, penalty payments and damage to our brand and reputation.** We rely on a limited number of third- party suppliers, and in some cases sole suppliers, for some of the raw materials and components used to manufacture our products, including certain rare earth materials and other materials that **are in** ~~may be of~~ limited supply. If our suppliers provide insufficient inventory to meet customer demand **,** or such inventory is not at the level of quality required to meet our standards **,** or if our suppliers are unable or unwilling to provide us with the contracted quantities (as we have limited or in some case no alternatives for supply), our results of operations could be materially and negatively impacted. If we fail to develop or maintain our relationships with ~~our~~ suppliers, or if there is otherwise a shortage or lack of availability of any required raw materials or components, we may be unable to manufacture our products **,** or our products may be available only at a higher cost or after a long delay. Due to increased demand across a range of industries, the global supply chain for certain raw materials and components, including semiconductor components and specialty metals, has experienced significant strain. The ~~COVID- 19 pandemic, the~~ macroeconomic environment ~~,~~ and geopolitical instability have also contributed to and exacerbated this strain. There can be no assurance that the impact of these issues on the supply chain will not continue, or worsen, in the future. Significant delays and shortages could prevent us from delivering our products to ~~our~~ customers within required time frames and cause order cancellations, **and could increase our costs,** which would adversely impact our cash flows and **the** results of operations. In some cases, we have had to create our own supply chain for some of the components and materials utilized in our fuel cells. We have made significant expenditures to expand and bolster our supply chain. In many cases, we entered into contractual relationships with suppliers to jointly develop the components we needed. These activities are time and capital intensive. In addition, some of our suppliers use proprietary processes to manufacture components. We may be unable to obtain comparable components from alternative suppliers without considerable delay, expense, or at all, as replacing these suppliers could require us either to make significant investments to bring the capability in- house or to invest in a new supply chain partner. Some of our suppliers are smaller, private companies, **which are** heavily dependent on us as a customer. If our suppliers face difficulties obtaining the credit or capital necessary to expand their operations when needed, they could be unable to supply necessary raw materials and components ~~needed~~ to ~~support~~ **meet** our **requirements** ~~planned sales and services operations~~ , which would negatively impact our sales volumes and cash flows. The failure by us to obtain raw materials or components in a timely manner or to obtain raw materials or components that meet our ~~quantity and cost~~ requirements could impair our ability to manufacture our products, increase the costs of our products **,** or increase the costs of servicing our existing portfolio of **products** ~~Energy Servers~~ . If we cannot obtain substitute materials or components on a timely basis or on acceptable terms, we could be prevented from delivering our products to our customers ~~within required time frames~~ or service our existing fleet of **products** ~~Energy Servers in accordance with their respective O & M Agreements~~ , which could result in sales and installation delays, cancellations, penalty payments, warranty breaches, or damage to our brand and reputation, any of which could have a material adverse effect on our business and results of operations. In addition, we rely on our suppliers to meet quality standards, and the failure of our suppliers to meet those quality standards could cause delays in the delivery of our products, unanticipated servicing costs, and damage to our brand and reputation. We have **, in some instances,** entered into **long- term supply**

agreements that could result in excess or, if one or more suppliers do not produce for any reason, insufficient inventory, above market pricing or higher costs, and negatively affect our results of operations. We have long- term supply agreements with certain suppliers. Some of these supply agreements provide for fixed or inflation- adjusted pricing, substantial prepayment obligations and in a few cases, supplier purchase commitments. These arrangements could mean that we end up paying for inventory that we do not need or that is at a higher price than the market. Further, we face significant specific counterparty risk under long- term supply agreements when dealing with suppliers without a long, stable production and financial history. Given the uniqueness of our product, many of our suppliers do not have a long operating history and are private companies that may not have substantial capital resources. In the event any such supplier experiences financial difficulties, it may be difficult or impossible, or may require substantial time and expense, for us to recover any or all of our prepayments. We do not know whether we will be able to maintain long- term supply relationships with our critical suppliers or whether we may secure new long- term supply agreements. Additionally, many of our parts and materials are procured from foreign suppliers, which exposes us to risks including unforeseen increases in costs or interruptions in supply arising from changes in applicable international trade regulations such as taxes, tariffs, or quotas. Any of the foregoing could materially harm our financial condition and **results of operations. We face supply chain competition, including competition from businesses in other industries, which could result in insufficient inventory and negatively affect** our results of operations. Certain of our suppliers also supply parts and materials to other businesses, including businesses engaged in the production of consumer electronics and other industries unrelated to fuel cells. As a relatively low- volume purchaser of certain of these parts and materials, we may be unable to procure a sufficient supply of the items in the event that our suppliers fail to produce sufficient quantities to satisfy the demands of all of their customers, which could materially harm our financial condition and ~~our~~ results of operations **. We, and some of our suppliers, obtain capital equipment used in our manufacturing process from sole suppliers, and if this equipment is damaged or otherwise unavailable, our ability to deliver our products on time will suffer** . Some of the capital equipment used to manufacture our products and some of the capital equipment used by our suppliers have been developed and made specifically for us, are not readily available from multiple vendors, and would be difficult to repair or replace if they did not function properly. If any of these suppliers were to experience financial difficulties or go out of business or if there were any damage to **,** or a breakdown of **,** our manufacturing equipment and we could not obtain replacement equipment in a timely manner, our business would suffer. In addition, a supplier' s failure to supply this equipment in a timely manner with adequate quality and on terms acceptable to us could disrupt our production schedule or increase our costs of production and service. ~~We continue to monitor and adjust as appropriate our operations in response to the COVID- 19 pandemic. While we maintain protocols to minimize the risk of COVID- 19 transmission within our facilities, there is no guarantee that these measures will prevent an outbreak. If a significant number of employees are exposed and sent home, particularly in our manufacturing facilities, our production could be significantly impacted. Furthermore, since our manufacturing process involves tasks performed at both our California and Delaware facilities, an outbreak at either facility would have a substantial impact on our overall production, and in such case, our cash flow and results of operations including revenue will be adversely affected. We have experienced and continue to experience delays from certain vendors and suppliers, which, in turn, could cause delays in the manufacturing and installation of our products and adversely impact our cash flows and results of operations including revenue. Alternative or replacement suppliers may not be available and ongoing delays could affect our business and growth. In addition, new and potentially more contagious variants of the COVID- 19 virus may develop, which can lead to future disruptions in the availability or price of these or other parts, and we cannot guarantee that we will succeed in finding alternate suppliers that are able to meet our needs. In addition, international air and sea logistics systems have been and continue to be heavily impacted by the COVID- 19 pandemic. Actions by government agencies may further restrict the operations of freight carriers and the operation of ports, which would negatively impact our ability to receive the parts and supplies we need to manufacture our products or to deliver them to our customers. Our installation operations have also been impacted by the COVID- 19 pandemic. For example, our installation projects have experienced delays relating to, among other things, shortages in available labor for design, installation and other work; the inability or delay in our ability to access customer facilities due to shutdowns or other restrictions; the decreased productivity of our general contractors, their sub- contractors, medium- voltage electrical gear suppliers, and the wide range of engineering and construction related specialist suppliers on whom we rely for successful and timely installations; the stoppage of work by gas and electric utilities on which we are critically dependent for hook- ups; and the unavailability of necessary civil and utility inspections as well as the review of our permit submissions and issuance of permits by multiple authorities that have jurisdiction over our activities. We are not the only business impacted by these shortages and delays, which means that we are subject to risk of increased competition for scarce resources, which may result in delays or increases in the cost of obtaining such services, including increased labor costs and / or fees. An inability to install our products would negatively impact our acceptances, and thereby impact our cash flows and results of operations, including revenue. As to maintenance operations, if we are delayed in or unable to perform scheduled or unscheduled maintenance, our previously- installed products will likely experience adverse performance impacts including reduced output and / or efficiency, which could result in warranty and / or guaranty claims by our customers and increase our service costs. Further, due to the nature of our products, if we are unable to replace worn parts in accordance with our standard maintenance schedule, we may be subject to increased costs in the future. We continue to remain in close communication with our manufacturing facilities, employees, customers, suppliers, and partners, but there is no guarantee we will be able to mitigate the impact of this ongoing situation. As the COVID- 19 pandemic reaches endemic stages, the future impact on our business operations, supply chain, and demand for our products remains highly dependent on future developments.~~ Our business is dependent on the availability of raw materials and components for our products ~~, particularly electrical components common in the semiconductor industry, specialty steel products / processing and raw materials~~ . ~~For example, prior~~ **Prior** tariffs imposed on steel and aluminum imports increased the cost of raw materials for our Energy Servers and decreased the available supply.

Additional new trade tariffs or other trade protection measures ~~that are proposed or threatened and the potential escalation of a trade war and retaliation measures~~ could have a material adverse effect on our business, results of operations and financial condition. **A failure to properly comply with foreign trade zone laws and regulations** ~~Consequently, the imposition of tariffs on items imported by us from China or other countries~~ could increase ~~our~~ **the** ~~costs~~ - **cost** ~~and could have a material adverse effect on our business and our results~~ of ~~operations~~ **our duties and tariffs** . We have established ~~two~~ foreign trade zones ~~, one~~ in California and ~~one in~~ Delaware, through qualification with U. S. Customs and Border Protection, **which allow** ~~and are approved~~ for " zone to zone " transfers between our ~~California and Delaware~~ facilities **located in those states** . Materials received in a foreign trade zone are not subject to certain U. S. duties or tariffs until the material enters U. S. commerce. We benefit from the adoption of foreign trade zones by reduced duties, deferral of certain duties and tariffs, and reduced processing fees, which help us realize a reduction in duty and tariff costs. However, the operation of our foreign trade zones requires compliance with applicable regulations and continued support of U. S. Customs and Border Protection with respect to the foreign trade zone program. If we are unable to maintain the qualification of our foreign trade zones, or if foreign trade zones are limited or unavailable to us in the future, our duty and tariff costs would increase, which could have an adverse effect on our business and results of operations. **Any significant disruption to the operations at our headquarters or manufacturing facilities could delay the production of our products, which would harm our business and results of operations.** We ~~monitor our fleet of Energy Servers from our headquarters and an offshore location and~~ manufacture our products in a limited number of ~~manufacturing~~ facilities, any of which could become unavailable either temporarily or permanently for any number of reasons, including equipment failure, material supply, public health emergencies, cyber- attacks or catastrophic weather, including extreme weather events or flooding resulting from the effects of climate change, or geologic events. Our headquarters and ~~several of~~ our **Fremont** manufacturing ~~facilities~~ **facility** are located in the San Francisco Bay Area, an area that is susceptible to earthquakes, floods and other natural disasters. The occurrence of a natural disaster such as an earthquake, drought, extreme heat, flood, fire, localized extended outages of critical utilities (such as California' s public safety power shut- offs) or transportation systems, or any critical resource shortages could cause a significant interruption in our business, damage or destroy our facilities, our manufacturing equipment, or our inventory, and cause us to incur significant costs, any of which could harm our business, ~~our~~ financial condition and ~~our~~ results of operations. Our disaster recovery plans **,** and ~~readiness~~ **insurance** may not be sufficient to restore our ~~headquarters, manufacturing facilities or~~ operations ~~. The insurance we maintain against fires, earthquakes~~ and ~~other natural disasters may not be adequate~~ to cover our losses **, respectively** ~~in any particular case~~ . Our limited history **of** manufacturing new products, such as our Electrolyzers, makes it difficult to evaluate our future prospects and the challenges we may encounter. ~~With respect to the manufacture and sale of Electrolyzers, while~~ **While** we have a history of manufacturing and selling our Energy Servers **, we have a limited history with regard to our Electrolyzers** , which are based in part on the same technology **. As a result** , there is little historical basis to make judgments on the capabilities associated with our enterprise, management, and ~~our~~ ability to produce ~~an Electrolyzer~~ **Electrolyzers** ~~specifically~~ . Our ability to generate the profits we expect to achieve from the sale of Electrolyzers will depend, in part, on our ability to **effectively manufacture Electrolyzers,** respond to market demand **,** and add new manufacturing capacity in ~~a~~ **an efficient,** cost- effective manner. ~~In addition, we must continue to increase the efficiency of our manufacturing process to compete successfully.~~ We utilize governmental rebates, tax credits, and other financial incentives to lower the effective price of our products to ~~our~~ customers in the ~~United States~~ **U. S.** and Japan, India ~~and~~ **,** the Republic of Korea **and Taiwan** (collectively, our " Asia Pacific region "). The U. S. federal government and some state and local governments provide incentives to current and future end users and purchasers of our Energy Servers in the form of rebates, tax credits and other financial incentives, such as system performance payments and payments for renewable energy credits associated with renewable energy generation. Our Energy Servers have qualified for tax exemptions, incentives, or other customer incentives in many states ~~including the states of California, Connecticut, Massachusetts, New Jersey and New York~~ . Some states have utility procurement programs, ~~Renewable~~ **Renewables** Portfolio Standards (" **RPSs** ~~RP Standards~~ ") ~~and /~~ or Clean Energy Standards (" **CESs** ~~CE Standards~~ ") for which our technologies are eligible ~~. Our~~ **; our** Energy Servers ~~are currently installed in eleven U. S. states, each of which~~ may ~~have its own enabling policy framework~~ **not be eligible for other RPSs and CESs, particularly when fueled in whole or in part with natural gas** . Financiers and Equity Investors **(as defined below)** may also take advantage of these financial incentives, lowering the cost of capital and energy to our customers. For example, many of our installations in California interconnect with investor- owned utilities on Fuel Cell Net Energy Metering (" FC NEM ") tariffs. FC NEM tariffs **were** ~~will be~~ available for new California installations until December 31, 2023. **To** ~~However, to~~ remain eligible for those FC NEM tariffs, ~~at least some~~ installations currently on those tariffs are ~~likely to be~~ required to meet greenhouse gas emissions standards **. Bloom has filed an Application for Rehearing and a Stay in the FC NEM proceeding that challenges the legality of implementing said greenhouse gas emissions standards, which require our systems to be significantly cleaner than the grid resources they are displacing. If that challenge is unsuccessful, however, compliance with the greenhouse gas emissions standards may be required for any customer that remains on the FC NEM tariffs in 2024 and could require acquiring in- state biogas that is scarce and where available comes at a significant cost** . Other generally applicable tariffs are available for customers deploying fuel cells, and ~~we~~ **do not impose the greenhouse gas standards currently limited to FC NEM. We** are working through the appropriate **channels to determine whether to migrate certain customers to these generally applicable tariffs. We are also working through appropriate** regulatory channels to establish alternative tariffs ~~as well~~ **for our customers** . If **the cost** ~~our customers are unable~~ to ~~interconnect under~~ **remain on the** FC NEM tariffs **is significant** or suitable alternatives **are not available** , **it** ~~interconnection and tariff costs may increase, and such an increase~~ may negatively impact **our existing customer base and future** demand for our products. Additionally, the uncertainty regarding requirements for service under any of these tariffs could negatively impact the perceived value of or risks associated with our products, which could also negatively impact demand. The U. S. federal government offers certain federal tax benefits, including the Production Tax Credit under

Section 45 of the Internal Revenue Code (the " PTC ") and the **Investment Tax Credit under Section 48 of the Internal Revenue Code (the "** ITC **"), both of which are currently set to be succeeded by " technology- neutral " versions set forth in Sections 45Y and 48E, respectively, for projects that commence construction beginning in 2025** . The ~~recent passing of the~~ IRA offers a number of ~~new~~ federal tax benefits, many of which we may utilize in ~~the future in~~ connection with the sale of our Energy Servers and Electrolyzers. Our customers, ~~Financiers~~ **financiers** , and Equity Investors may expect us to be able to facilitate their optimization of the tax benefits available pursuant to the IRA. Each of these federal tax benefits have certain legal and operational requirements. For example, any taxpayer taking the benefit of the ITC must meet certain requirements regarding ownership and use for a period of five years. If the energy property is disposed **of** or otherwise ceases to be qualified investment credit property before expiration of such **a** five- year **period** , it could result in a partial reduction in incentives. There may be uncertainty as to how the new regulations promulgated under the IRA are interpreted **. If IRS guidance regarding implementation of the IRA is delayed or viewed by investors as unclear, tax credit financing may be delayed or downsized, harming our ability to finance sales** . Our failure to either (i) interpret the new requirements under the IRA regarding among other things, prevailing wage, apprenticeship, domestic content, siting in an " energy community, " accurately or (ii) adequately update our supply- chain, manufacturing, installation, and record- keeping processes to meet such requirements, may result a partial or full reduction in the related federal tax benefit and our customers, ~~Financiers~~ **financiers** ~~,~~ and Equity Investors may require us to indemnify them for certain of such reductions. ~~Change~~ **Changes** in federal tax benefits over time also may affect our future performance. For example, currently commercial purchasers of fuel cells are eligible to claim the federal bonus depreciation benefit. **However** ~~Unless legislation extends the bonus depreciation deadlines~~ , under current rules it will be phased down ~~beginning~~ **, which began** in 2023 and will ~~expire~~ **continue until expiring** at the end of 2026 **in the absence of legislation** . Similarly, commercial fuel cell purchasers can claim the ITC. Under current law, fuel cell projects must begin construction on or before December 31, 2024 **,** in order to claim up to 50 % ITC, after which part of this benefit will expire unless extended. Some countries outside the ~~United States~~ **U. S.** also provide incentives to current and future end users and purchasers of our Energy Servers and Electrolyzers. For example, in the Republic of Korea, **RPSs** ~~RP Standards~~ and **CESs** ~~CE Standards~~ are in place to promote the adoption of renewable, low- or zero- carbon power generation. The Korean **RPSs were** ~~RP Standards are scheduled to be~~ replaced in 2023 with the Clean Hydrogen Portfolio Standard (" CHPS "). This may impact the demand for our Energy Servers in the Republic of Korea. Initially, we do not expect the CHPS to require 100 % hydrogen as a feedstock for fuel cell projects. ~~The Ministry of Trade, Industry, and Economy is expected to announce details of the CHPS incentive mechanism in 2023. For the years ended December 31, 2022 and 2021, our revenue in the Republic of Korea accounted for 44 % and 38 % of our total revenue, respectively. Therefore, if sales of our Energy Servers to this market decline in the future, this may have a material adverse effect on our financial condition and results of operations.~~ Changes in the availability of rebates, tax credits, and other financial programs and incentives could reduce demand for our ~~Energy Servers or future~~ products, impair sales financing, and adversely impact our business results. Additionally, these incentives and procurement programs or obligations may expire on a particular date, end when the allocated funding is exhausted, or be reduced or terminated as a matter of regulatory or legislative policy. The continuation of these programs and incentives depends upon **continued** political support ~~which to date has been bipartisan and durable~~ . In the ~~United States~~ **U. S.** , we rely on tax equity financing arrangements to realize the benefits provided by federal tax benefits and accelerated tax depreciation and in the event these programs are terminated, our financial results could be harmed. We also rely on incentives in the Korean, European and other international markets. U. S. Equity Investors typically derive a significant portion of their economic returns through tax benefits when they finance an Energy Server. Equity Investors are generally entitled to substantially all of the project' s tax benefits, such as those provided by the ITC and Modified Accelerated Cost Recovery System (" MACRS ") or bonus depreciation. We expect that future Equity Investors will also be interested in taking the benefit of the PTC in connection with financing our Electrolyzers. The number of and available capital from potential Equity Investors is limited, we compete with other energy companies eligible for these tax benefits to access such investors, and the availability of capital from Equity Investors is subject to fluctuations based on factors outside of our control such as macroeconomic trends and changes in applicable taxation regimes. Concerns regarding our limited operating history **at a large scale** , lack of profitability and that we are the only party who can perform operations and maintenance on our Energy Servers have made it difficult to attract investors in the past. Our ability to obtain additional financing ~~in the future~~ depends on the continued confidence of banks and other financing sources in our business model, the market for our Energy Servers and Electrolyzers, and the continued availability of tax benefits applicable to our Energy Servers and Electrolyzers, regardless of whether we arrange the financing, or our customers finance the products themselves. In addition, conditions in the general economy and financial and credit markets may result in the contraction of available tax equity financing. Similarly, in international markets such as Korea and Europe, economic benefits applicable to fuel cells may include subsidies for deployment as well as exemptions or reductions from taxes and fees. If as a result of changes to these benefits we, or in some cases our customers, ~~as the case may be,~~ are unable to enter into tax equity or other financing agreements with attractive pricing terms, or at all, neither we nor our customers, may be able to obtain the capital needed to finance the purchase of our **products** ~~Energy Servers or Electrolyzers~~ . Such circumstances could also require us to reduce the price at which we are able to sell our products in the applicable markets and therefore harm our business, ~~our~~ financial condition, and ~~our~~ results of operations **. We are subject to laws and regulations that could impose substantial costs upon us and cause delays in the delivery and installation of our products** . The construction, installation, and operation of our products ~~at a particular site~~ are generally subject to oversight and regulation in accordance with ~~national, state, and local~~ laws and ordinances relating to building codes, safety, environmental and climate protection, domestic content requirements and related matters, as well as ~~national, regional and / or local~~ energy market rules, regulations and tariffs, and typically require ~~various local and other~~ governmental approvals and permits, including environmental approvals and permits, that vary by jurisdiction. In some cases, these approvals and permits change or require periodic renewal. These laws and regulations can affect the markets for our products and the costs and time required for their installation ~~,~~ and may give rise to liability for administrative oversight costs, compliance costs, clean- up costs, property damage, bodily injury, fines, and penalties. Capital and operating expenses needed to comply with ~~the~~ **these** ~~various~~ laws and regulations can be significant, and violations may result in substantial fines and penalties or third- party damages. It is difficult and costly to track the requirements of every individual authority having jurisdiction over our installations, to design our products to comply with these varying standards, and to obtain all applicable approvals and permits. We cannot predict whether or when all approvals or permits required for a given project will be granted or whether the conditions associated with the approvals or permits will be achievable. The denial of a permit or utility connection essential to a project or the imposition of impractical conditions or excessive costs, such as costs for upgrading utility interconnection equipment, would impair our ability to develop the project. In addition, we cannot predict whether the approval or permitting process will be lengthened due to complexities and appeals. **A** ~~Delay~~ **delay** in the review and approval **of permits** ~~or permitting process~~ for a project can impair or delay our and our customers' abilities to develop that project or may increase the cost so substantially that the project is no longer attractive to us or our customers. Furthermore, unforeseen delays in the review and permitting process could delay the timing of the installation of our products and could therefore adversely affect the timing of the recognition of revenue related to the installation, which could harm our operating results in a particular period. In many cases we contractually commit to performing all necessary installation work on a fixed- price basis, and unanticipated costs associated with approval, permitting ~~and /~~ or compliance expenses may cause the cost of performing such work to exceed our revenue **. In addition, emerging federal and state emissions disclosure requirements may pose a burden to existing or potential customers** . The costs of complying with all the various laws, regulations and customer requirements, and any claims concerning non- compliance, could have a material adverse effect on our financial condition or ~~our~~ operating results. In addition, the rules and regulations regarding the production, transportation ~~and~~ **,** storage **, and use** of hydrogen, including with respect to safety, environmental and market regulations and policies, are in flux and may limit the market for our **Electrolyzers and** Energy Servers that operate using hydrogen. The installation and operation of our products are subject to environmental laws and regulations in various jurisdictions, and there has been in the past and could continue to be uncertainty with respect to both how these laws and regulations may change over time and the interpretation of these environmental laws and regulations to our products ~~, especially as they evolve~~ . We are committed to compliance with applicable environmental laws and regulations including health and safety standards, and we continuously review the operation of our products for health, safety, and environmental compliance. Our ~~Energy Servers, like other fuel cell technology- based~~ products ~~of which we are aware,~~ produce small amounts of hazardous wastes and air pollutants, and we seek to address these in accordance with applicable regulatory standards. In addition, environmental laws and regulations in the ~~United States~~ **U. S.** , such as the Comprehensive Environmental Response and Compensation and Liability Act, impose liability on several grounds including for the investigation and clean- up of contaminated soil and ground water, impacts to human health and damages to natural resources. If contamination is discovered ~~in the future~~ at properties **currently or** formerly ~~owned or operated by us or currently~~ owned or operated by us, or properties to which hazardous substances were sent by us, it could result in our liability under environmental laws and regulations. Many of our customers who purchase our products have high sustainability standards, and any environmental non- compliance by us could harm our brand and reputation and impact ~~a current or potential customer~~ **customers** ' ~~s~~ buying ~~decision~~ **decisions** . Maintaining environmental compliance can be challenging given the changing patchwork of environmental laws and regulations that prevail at the **U. S.** federal, state, regional, and local level **and internationally** . Most existing environmental laws and regulations preceded the introduction of our innovative fuel cell technology and were adopted to apply to technologies existing at the time (i. e., large coal, oil, or gas- fired power plants). Guidance from these agencies on how certain environmental laws and regulations may or may not be applied to our technology can be inconsistent. ~~For example~~ **In most jurisdictions where air permits and various land use permits are required for installation of larger Energy Server installations** , **the length of time to obtain these permits has increased. Moreover, the level of certainty around the issuance of such permits has decreased and where issued, the cost of compliance has been and can be prohibitive. We have experienced a reluctance in certain areas to issue permits for** natural gas ~~, which is the primary fuel used in our~~ Energy Servers **and** , ~~contains benzene, which~~ **even when that reluctance** is **overcome** ~~classified as a hazardous waste if it exceeds 0. 5 milligrams per liter. A small amount of benzene found in the public natural gas supply (equivalent to what is present in one gallon of gasoline in an automobile fuel tank~~ , ~~which are exempt from federal regulation) is collected by the gas cleaning units contained in our Energy Servers; these gas cleaning units are typically replaced at customers' sites once every 15 to 36 months. From 2010 to late 2016 and in the regular course of maintenance of the Energy Servers, we periodically replaced the units in our servers relying upon a federal environmental exemption that permitted the handling of such units without manifesting the contents as containing a hazardous waste. Although over the years and with the approval of two states, we believed that we operated appropriately under the exemption, the U. S. Environmental Protection Agency (" EPA ") issued guidance for the first time in late 2016 that differed from our belief and conflicted with the state approvals we had obtained. We have complied with the new guidance and, given the comparatively small quantities of benzene produced, we do not anticipate significant additional costs or risks from our compliance with the revised 2016 guidance. In order to put this matter behind us and with no admission of law or fact, we agreed to a consent agreement that was ratified and incorporated by reference into a final order that was entered by an Environmental Appeals Judge for EPA' s Environmental Appeals Board in May of 2020. Consistent with the consent agreement and final order, a final payment of approximately $ 1. 2 million was made in the fourth quarter of 2020 and EPA has confirmed the matter is formally resolved. Additionally, a nominal penalty was paid to a state agency under that state' s environmental laws relating to the same issue. Some states in which we operate, including New York, New Jersey and North Carolina, have specific permitting or environmental exemptions for fuel cells. Other states in which we currently operate, including California, have emissions- based requirements, most of which require permits or other notifications for quantities of emissions that are higher than those observed from our Energy Servers.~~

~~For example, the Bay Area Air Quality Management District in California has an air permit and risk assessment exemption for emissions of chromium in the hexavalent form (" CR 6 ") that are less than 0. 00051 lbs / year. Emissions above this level may trigger the need for a permit. Also, California' s Proposition 65 requires notification of the presence of CR 6 unless public exposure is below 0. 001 µg / day, the level determined to represent no significant health risk. Since the California standards are more stringent than those in any other state or foreign location in which~~ we have **seen conditions imposed** ~~installed Energy Servers to date~~ , **including a requirement to blend costly renewable fuels or** ~~we are focused on California' s standards. If stricter standards are adopted in~~ other **similar measures** ~~states or jurisdictions or our servers can' t meet applicable standards, it could impact our ability to obtain regulatory approval and / or could result in us not being able to operate in a particular local jurisdiction. These examples illustrate~~ that **might advance climate goals. The timing associated with these processes and the cost associated with related conditions have impacted** our **selling activities. Our** technology is moving faster than the regulatory process in many instances and ~~that~~ there are inconsistencies between how we are regulated in different jurisdictions. It is possible that regulators could delay or prevent us from conducting our business in some way pending agreement on, and compliance with, shifting regulatory requirements. Such actions could delay the installation of our products, could result in penalties, could require modification or replacement or could trigger claims of performance warranties and defaults under customer contracts that could require us to repurchase equipment, any of which could adversely affect our business, ~~our~~ financial performance, and ~~our~~ brand and reputation. In addition, new energy or environmental laws or regulations or new interpretations of existing laws or regulations could present marketing, political or regulatory challenges and could require us to upgrade or retrofit existing equipment, which could result in materially increased capital and operating expenses. ~~Certain countries~~ **Foreign jurisdictions** where we conduct or wish to conduct **our** business may impose domestic content requirements (requiring goods, materials, components, services or labor to be supplied from or made in country). Domestic or local content requirements favor domestic industry over foreign competitors and there has been a significant increase in the use of these programs in recent years. For example, in the Republic of Korea, customers and prospective customers may be pressured to select domestic competitors over Bloom. ~~With respect to our products that run, in part, on fossil fuel, we may be subject to a heightened risk of regulation, to a potential for the loss of certain incentives, and to changes in our customers' energy procurement policies.~~ The current generation of our Energy Servers that run on natural gas **generally** ~~produces~~ - **produce** ~~nearly 23 %~~ fewer carbon emissions than the average U. S. marginal power generation sources that our projects displace. However, the operation of our current Energy Servers does produce some carbon dioxide (" CO2 "), which contributes to global climate change. As such, we may be negatively impacted by CO2- related changes in applicable laws, regulations, ordinances, rules, or the requirements of the incentive programs on which we and our customers currently rely **, as well as potential scrutiny around voluntary or regulatory carbon emissions reporting by our existing or potential customers** . Changes ~~(or a lack of change to sufficiently recognize both the risks of climate change and the benefit of our technology as one means to maintain reliable and resilient electric service with a lower greenhouse gas emission profile)~~ in any of the laws, regulations, ordinances, or rules that apply to our installations and new technology could make it more difficult or ~~more~~ costly ~~for us or our customers~~ to install and operate our Energy Servers ~~on particular sites~~ , thereby negatively affecting our ability to deliver cost savings to **our** customers. Certain municipalities in ~~the United States~~ **which we operate** have banned or are considering banning new interconnections with gas utilities, while others have adopted bans that allow new interconnections for non- combustion resources, such as our Energy Servers. Some local municipalities have also banned or are considering banning the use of distributed generation products that utilize fossil fuel. ~~We may face similar challenges in international markets in the future.~~ Additionally, our customers' and potential customers' energy procurement policies may prohibit or limit their willingness to procure our natural gas- fueled Energy Servers. Our business prospects may be negatively impacted if we are prevented from completing new installations or our installations become more costly as a result of laws, regulations, ordinances, or rules applicable to our Energy Servers, or by our customers' and potential customers' energy procurement policies. The ~~market~~ **markets** for **our** ~~electricity generation~~ products ~~is~~ **are** heavily influenced by ~~U. S. federal, state, local, and foreign government~~ laws, regulations and policies **, including customers' voluntary procurement standards,** as well as by tariffs, internal policies and practices of electric utility providers. These regulations, tariffs **, standards,** and policies often relate to electricity pricing and technical interconnection of customer- owned electricity generation. These regulations, tariffs **, standards,** and policies are often modified and could continue to change, which could result in a significant reduction in demand for our **products** ~~Energy Servers~~ . For example, utility companies commonly charge fees to industrial customers for disconnecting from the electric grid. These fees could change, thereby increasing the cost to our customers of using our **products** ~~Energy Servers~~ and making them less economically attractive. **At** ~~For example, our project with Delmarva Power & Light Company (~~ the ~~" Delaware Project ") is subject to laws and regulations relating to electricity generation, transmission, and sale in Delaware and at the regional and~~ federal level ~~. A law governing the sale of electricity from the Delaware Project was necessary to implement part of several incentives that Delaware offered to us to build our major manufacturing facility (" Manufacturing Center ")~~ in ~~Delaware. Those incentives have proven controversial in Delaware, in part because our Manufacturing Center, while a significant source of continuing manufacturing employment, has not expanded as quickly as projected. The opposition to~~ the **U** ~~Delaware Project is an example of potentially material risks associated with electric power regulation~~ . **S.** ~~At the federal level in the United States~~ , FERC has authority to regulate under various federal energy regulatory laws, wholesale sales of electric energy, capacity, and ancillary services, and the delivery of natural gas in interstate commerce. Also, several of the tax equity partnerships ~~in which~~ we ~~have an interest~~ **are involved with** are subject to regulation under FERC with respect to market- based sales of electricity, which requires us to file notices and make other periodic filings with FERC, which increases our costs and subjects us to additional regulatory oversight. Although we generally are not regulated as a utility, ~~U. S. federal, state and local government statutes and regulations concerning electricity and natural gas, as well as organized market rules such as the PJM tariffs affecting the Delaware Project, heavily influence the market for our product and services in the United States. These~~ statutes, regulations, tariffs and market rules often relate to electricity and natural gas pricing, fuel cell net metering, incentives, taxation, and the rules surrounding the interconnection of customer- owned electricity generation for specific technologies. In the ~~United States~~ **U. S.** , governments and market operators frequently modify these statutes, regulations, tariffs and market rules. Governments, often acting through state utility or public service commissions, as well as market operators, change, adopt or approve different utility requirements and rates for commercial and industrial customers on a regular basis. Changes, or in some cases a lack of change, in any of the laws, regulations, tariffs ordinances, or other rules that apply to our installations and new technology could make it more costly for us or our customers to install and operate our products ~~on particular sites~~ and ~~, in turn,~~ could negatively affect our ability to deliver cost savings to customers. We may ~~in the future~~ **become subject to product liability claims, which could harm our financial condition and liquidity if we are not able to successfully defend or insure against such claims. We may** become subject to product liability claims. Our Energy Servers are considered high energy systems because they consume or produce flammable fuels and may operate up to 480 volts. High- voltage electricity poses potential shock hazards, while natural gas and hydrogen, associated with both our Energy Servers and our Electrolyzers, are flammable gases and therefore a potentially dangerous fuel capable of causing fires and other ~~harms~~ - **harm** . ~~Although~~ **There can be no assurance that** our ~~Energy Servers are~~ **products will continue to be** certified to meet **certain** ~~ANSI, IEEE, ASME, IEC and NFPA~~ design and safety standards, **and** if our equipment is not properly handled ~~in accordance with our servicing and handling standards and protocols~~ or if there are ~~unforeseen or~~ undiscovered issues with our equipment, there could be a system failure and resulting damage, injury ~~and /~~ or liability. ~~In either case, these~~ **These** claims could require us to incur significant costs to defend. Furthermore, any successful product liability claim could require us to pay a substantial monetary award. Moreover, a product liability claim could generate substantial negative publicity about us and could materially impede widespread market acceptance and demand for our products, which could harm our brand, ~~our~~ business prospects, and ~~our~~ operating results. Our product liability insurance may not be sufficient to cover all potential product liability claims. Any lawsuit seeking significant monetary damages either in excess of ~~our coverage~~ or outside of our coverage may have a material adverse effect on our business and ~~our~~ financial condition **. Litigation or administrative proceedings could have a material adverse effect on our business, financial condition and results of operations** . We have been and continue to be involved in legal proceedings, administrative proceedings, claims, and other litigation that arise in the ordinary course of business ~~. Purchases of our products have also been the subject of litigation~~ . For information regarding pending legal proceedings, please see Part I, Item 3, Legal Proceedings and **Part II, Item 8, Financial Statements and Supplementary Data,** Note 13 ~~-~~ **—** Commitments and Contingencies ~~in Part II, Item 8, Financial Statements and Supplementary Data~~ . In addition, since our Energy Server and Electrolyzers are new types of products in nascent markets, we have in the past needed and may in the future need to seek ~~the~~ administrative guidance, **the** amendment of existing regulations, or ~~in some cases~~ the development of new regulations, ~~in order~~ to operate our business in some jurisdictions. Such regulatory processes may require public hearings concerning our business, which could **lead** ~~expose us~~ to subsequent litigation. Unfavorable outcomes or developments relating to proceedings to which we are a party or transactions involving our products such as judgments for monetary damages, injunctions, or denial or revocation of permits, could have a material adverse effect on our business, ~~our~~ financial condition, and ~~our~~ results of operations. In addition, settlement of claims could adversely affect our financial condition and ~~our~~ results of operations. Policing unauthorized use of proprietary technology can be difficult and expensive, and the ~~protective~~ measures we have taken to protect our intellectual property rights, including our trade secrets, may not be sufficient to prevent such use. For example, many of our engineers reside in California where it is not legally permissible to prevent them from **leaving employment with us and** working for a competitor. Also, litigation may be necessary to enforce our intellectual property rights, including to protect our trade secrets, or to determine the validity and scope of the proprietary rights of others. Such litigation may result in our intellectual property rights being challenged, limited in scope, or declared invalid or unenforceable. We cannot be certain that the outcome of any litigation will be in our favor, and an adverse determination in any such litigation could impair our intellectual property rights, ~~our~~ business, ~~our~~ prospects, ~~and our~~ brand **,** and reputation. We rely primarily on ~~patent~~ **patents** , trade ~~secret~~ **secrets** , and ~~trademark~~ **trademarks** ~~laws~~ , and non- disclosure, confidentiality, and other types of contractual restrictions to establish, maintain, and enforce our intellectual property and proprietary rights. However, our rights under these **intellectual property** laws and agreements afford us only limited protection and the actions we take to establish, maintain, and enforce our intellectual property rights may not be adequate. For example, our trade secrets and other confidential information could be discovered by or disclosed in an unauthorized manner to third parties. Additionally, our owned or licensed intellectual property rights could be challenged, invalidated, or declared unenforceable in judicial or administrative proceedings, or circumvented, designed around by our competitors, infringed, or misappropriated. Competitors could copy or reverse engineer our products ~~,~~ or develop and market products that are substantially equivalent to or superior to our own. Any of these issues, including the unauthorized use of our intellectual property by others, could reduce our competitive advantage and have a material adverse effect on our business, financial condition, or operating results. In addition, the laws of some countries do not protect intellectual property rights as fully as do the laws of the ~~United States~~ **U. S** . Many U. S.- based companies have encountered substantial intellectual property infringement in foreign countries, including countries where we sell products. Even if foreign patents are granted, effective enforcement in foreign countries may not be available. We may not be able to effectively protect our intellectual property rights in these markets or elsewhere. If an impermissible use of our intellectual property or trade secrets were to occur, our ability to sell our products at competitive prices may be adversely affected and our business, financial condition, operating results, and cash flows could be adversely affected. In connection with our expansion into new markets, we may need to develop relationships with new partners, including project developers and / or financiers who may require access to certain of our intellectual property in order to mitigate perceived risks regarding our ability to service their projects over the contracted project duration. If we are unable to come to agreement regarding the terms of such access or find alternative means to address this perceived risk, such failure may negatively impact our ability to expand into new markets. Alternatively, we may be required to develop new strategies for the protection of our intellectual property, which may be less protective than our current strategies and could therefore erode our competitive position. **Our patent applications may not result in issued patents, and our issued patents may be successfully challenged in litigation or post- grant proceedings, either of which may have a material adverse effect on our ability to prevent others from commercially exploiting products similar to ours.** We cannot be certain that our pending patent applications will result in issued patents or that any of our issued patents will afford protection against a competitor. The status of patents involves complex legal and factual questions, and the breadth of claims allowed is ~~uncertain~~ **subject to disagreement** . As a result, we cannot be certain that the patent applications that we file will result in patents being issued or that our patents and any patents that may be issued to us in the future will afford protection against competitors with similar technology. In addition, patent applications filed in foreign countries are subject to laws, rules, and procedures that differ from those of the ~~United States~~ **U. S.** , and thus we cannot be certain that foreign patent applications related to issued U. S. patents will be issued in other regions. Furthermore, even if these patent applications are accepted and the associated patents issued, some foreign countries provide significantly less effective patent enforcement than the ~~United States~~ **U. S** . In addition, patents issued to us may be infringed upon or designed around by others and others may obtain patents that we need to license or design around, either of which would increase costs and may adversely affect our business, ~~our~~ prospects, and ~~our~~ operating results. Companies, organizations, or individuals, including our competitors, may hold or obtain patents, trademarks, or other proprietary rights that they ~~may in the future~~ believe are infringed by our products or services. These companies holding patents or other intellectual property rights ~~allegedly relating to our technologies~~ could ~~, in the future,~~ make claims or bring suits alleging infringement, misappropriation, or other violations of such rights, or otherwise assert their rights by seeking royalties or injunctions. Several of the proprietary components used in our **products** ~~Energy Servers~~ have been subjected to infringement challenges in the past. We generally indemnify our customers against claims that the products we supply ~~don~~ - **do not** ~~' t~~ infringe, misappropriate, or otherwise violate third **-** party intellectual property rights, and we therefore may be required to defend our customers against such claims. If a claim is successfully brought in the future and we or our products are determined to have infringed, misappropriated, or otherwise violated a third **-** party' s intellectual property rights, we may be required to do one or more of the following: • cease selling or using our products that incorporate the challenged intellectual property; • pay substantial damages (including treble damages and attorneys' fees if our infringement is determined to be willful); • obtain a license from the holder of the intellectual property right, which may not be available on reasonable terms or at all; ~~or~~ • redesign our products or means of production, which may not be possible or cost- effective **; or • in some instances, re- purchase products from our customers** . Any of the foregoing could adversely affect our business, prospects, operating results, and financial condition. In addition, any litigation or claims, whether or not valid, could harm our brand and reputation, result in substantial costs and divert resources and management attention. We also license technology from third parties and incorporate components supplied by third parties into our products. We may face claims that our use of such technology or components infringes or otherwise violates the rights of others, which would subject us to the risks described above. We may seek indemnification from our licensors or suppliers under our contracts with them, but our ~~rights~~ - **right** to indemnification or our suppliers' resources may be unavailable or insufficient to cover our costs and losses. Since our inception in 2001, we have incurred significant net losses and have used significant cash in our business. As of December 31, ~~2022~~ **2023** , we had an accumulated deficit of $ 3. ~~6~~ **9** billion. We expect to continue to expand our operations domestically and internationally, including by investing in manufacturing, sales and marketing, research and development, staffing, and infrastructure to support our growth. We may continue to incur net losses **in** ~~for the foreseeable~~ future **periods** . Our ability to achieve profitability ~~in the future~~ will depend on a number of factors, including our ability to: • grow our sales volume ~~; • increase sales to existing customers and attract new customers~~ ; • expand into new geographical markets and industry market sectors; • attract and retain financing partners ~~who are willing to provide financing for sales on a timely basis, with attractive terms~~ ; • continue to improve the useful life of our ~~fuel cell~~ technology and reduce our warranty servicing costs; • reduce the cost of producing our products; • improve the efficiency and predictability of our installation process; • introduce new products, including products for the hydrogen market; • improve the effectiveness of our sales and marketing activities; and • attract and retain key talent in a competitive labor marketplace. Even if we do achieve profitability, we may be unable to sustain or increase our profitability in the future. Our financial condition and results of operations and other key metrics **are likely to fluctuate, which could cause our results for a particular period to fall below expectations, resulting in a severe decline in the price of our common stock. Our financial condition and results of operations and other key metrics** have fluctuated significantly in the past and may continue to fluctuate in the future due to a variety of factors, many of which are beyond our control. For example, the amount of product revenue we recognize in a given period is materially dependent on the volume of installations of our products in that period and the type of financing used by the customer. In addition to the other risks described herein, the following factors ~~could also cause~~ **subject us to quarterly fluctuations in** our financial condition and results of operations ~~to fluctuate on a quarterly basis~~ : • the timing of installations, which may depend on many factors such as availability of inventory, product quality or performance issues, local permitting requirements, utility requirements, environmental, health, and safety requirements, weather, availability of labor, ~~the COVID- 19 pandemic or such other~~ health ~~emergency~~ **emergencies** , and customer facility construction schedules; • size of particular installations and number of sites involved in any particular quarter; • the mix in ~~the type or availability of~~ purchase or financing options used by customers ~~in a period~~ , the geographical mix of customer sales, and the rates of return required by financing parties ~~in such period~~ ; • disruptions in our supply chain; • whether we are able to structure our sales agreements in a manner that would allow for the product and installation revenue to be recognized upfront; • delays or cancellations of product installations; • fluctuations in our service costs, particularly due to unexpected costs and rising labor costs; • fluctuations in our research and development expense, including periodic increases associated with the pre- production qualification of additional tools as we expand our production capacity; • the length of the sales and installation cycle for a particular customer; • the timing and level of additional purchases by new and existing customers, which may be impacted by macroeconomic factors including inflation, interest rates, the recessionary environment, and availability of capital; • the timing of the development of the market for our new features and products, including our Electrolyzer; • unanticipated expenses or installation delays associated with changes in governmental regulations, permitting requirements ~~by local authorities at particular sites~~, utility requirements and environmental, health and safety requirements; • disruptions in our sales, production, service or other business activities resulting from disagreements with our labor force or our inability to attract and retain qualified personnel; and • unanticipated changes in ~~federal, state, local, or foreign~~ government incentive programs available for us, our customers, and tax equity financing parties. Fluctuations in our operating results and cash flow could, among other things, give rise to short- term liquidity issues. In addition, our revenue, key operating metrics, and other operating results in future quarters may fall short of our projections or the expectations of investors and financial analysts, which could have an adverse effect on the price of our ~~Class A~~ common stock. ~~Our current~~ **In order to** ~~growth~~ -- **grow effectively, we must** ~~and future growth plans may make it difficult for us to~~ efficiently operate our business, ~~challenging us to effectively~~ manage our capital expenditures and control our costs ~~while we expand our operations to increase our revenue~~. If we experience a significant growth in orders without improvements in automation and efficiency, we may not be able to meet ~~the~~ **product** ~~demands~~ - **demand** ~~of our growth~~ in a timely manner. We may need additional manufacturing capacity and we and some of our suppliers may need additional capital- intensive equipment. Any growth in manufacturing must include ~~a~~ scaling ~~of~~ quality control as the increase in production increases the possible impact of manufacturing defects. In addition, any growth in the volume of sales of our products may outpace our ability to engage sufficient and experienced personnel to manage the higher number of installations and to engage contractors to complete installations on a timely basis and in accordance with our expectations and standards. Any failure to manage our growth effectively could materially and adversely affect our business, ~~our~~ prospects, ~~our~~ operating results, and ~~our~~ financial condition. Our future operating results depend to a large extent on our ability to manage this ~~expansion and~~ growth successfully. We are required to comply with Section 404 of the Sarbanes- Oxley Act of 2002 ~~(" Sarbanes- Oxley Act ")~~. The provisions of the act require, among other things, that we maintain effective internal control over financial reporting and disclosure controls and procedures. Preparing our financial statements involves a number of complex processes, many of which are done manually and are dependent upon individual data input or review. These processes include ~~, but are not limited to,~~ calculating revenue, deferred revenue and inventory costs. While we continue to automate our processes and enhance our review and put in place controls to reduce the likelihood for errors, we expect that for the foreseeable future many of our processes will remain manually intensive and thus subject to human error ~~if we are unable to implement key operation controls around pricing, spending and other financial processes. For example, prior to our adoption of Section 404B of the Sarbanes- Oxley Act, we identified a material weakness in our internal control over financial reporting at December 31, 2019 related to the accounting for and disclosure of complex or non- routine transactions, which has been remediated~~. If we are unable to successfully maintain effective internal control over financial reporting, we may fail to prevent or detect material misstatements in our financial statements, in which case investors may lose confidence in the accuracy and completeness of our financial reports. Any failure to maintain effective disclosure controls and procedures or internal control over financial reporting could have a material adverse effect on our business and operating results and cause a decline in the price of our ~~Class A~~ common stock. ~~We~~ **Our ability to use deferred tax assets to offset future taxable income** may be ~~limited in the portion of~~ **subject to limitations that could subject our business to higher tax liability. Our ability to use** net operating loss carryforwards (" NOLs ") ~~that we can use in the future to offset taxable income for U. S. federal and state income tax purposes. Our NOLs will expire, if unused, beginning in 2022 through 2028. A lack of future taxable income would adversely affect our ability to utilize these NOLs. In addition, under Section 382 of the Internal Revenue Code of 1986, as amended (the " Code "), a corporation that undergoes an " ownership change " is subject to limitations on its ability to utilize its NOLs~~ to offset future taxable income ~~.~~ **may be limited due to expiration, lack of taxable income in the future,** ~~Changes~~ **changes** in our stock ownership **, and** ~~as well as~~ other ~~changes~~ **factors** that may be outside of our control ~~could result in ownership changes under Section 382 of the Code, which could cause our NOLs to be subject to certain limitations. Our NOLs may also be impaired under similar provisions of state law~~. Our deferred tax assets ~~, which are currently fully reserved with a valuation allowance,~~ may **also** expire ~~unutilized~~ or **be** underutilized, which could prevent us from offsetting future taxable income ~~. We must maintain the confidence of our customers in our liquidity, including in our ability to timely service our debt obligations and in our ability support and to grow our business over the long- term~~. Currently, we are the only provider able to fully support and maintain our products. If potential customers believe we do not have sufficient capital or liquidity to operate our business over the long- term or that we will be unable to maintain ~~the~~ **or support our** products ~~acquired from us and provide satisfactory support~~, customers may be less likely to purchase or lease our products, particularly in light of the significant financial commitment required. In addition, financing sources may be unwilling to provide financing on reasonable terms. Similarly, suppliers, financing partners, and other third parties may be less likely to invest time and resources in developing business relationships with us if they have concerns about the success of our business. Accordingly, in order to grow our business, we must maintain confidence in our liquidity and long- term business prospects among customers, suppliers, financing partners and other parties. This may be particularly complicated by factors such as: • our limited operating history at a large scale; • the size of our debt obligations; • ~~our lack of~~ profitability **concerns**; • unfamiliarity with or uncertainty about our products and the overall perception of the distributed generation market; • prices for electricity or natural gas ~~in particular markets~~; • competition from alternate sources of energy; • warranty or unanticipated service issues we may experience; • the ~~environmental consciousness and~~ perceived value of environmental programs to our customers; • the size of our expansion plans in comparison to our existing capital base and the scope and history of operations; • the availability and amount of tax incentives, credits, subsidies or other incentive programs; and • the other factors set forth in this " Risk Factors " section. Several of these factors are largely outside our control, and any negative perceptions about our liquidity or long- term business prospects ~~, even if unfounded,~~ would likely harm our business ~~. As of December 31, 2022, we and our subsidiaries had approximately $ 411. 6 million of total consolidated indebtedness, of which an~~

~~aggregate of $ 285. 8 million represented indebtedness that is recourse to us, $ 12. 7 million of which is classified as current and $ 273. 1 million of which is classified as non- current. Of this $ 285. 8 million in debt, $ 61. 0 million represented debt under our 10. 25 % Senior Secured Notes due March 2027, and $ 224. 8 million represented debt under the $ 230. 0 million aggregate principal amount of our 2. 50 % Green Convertible Senior Notes due August 2025 (the " Green Notes "). In addition, our PPA Entities' (defined herein) outstanding indebtedness of $ 125. 8 million represented indebtedness that is non- recourse to us. For a description and definition of PPA Entities, please see Part II, Item 7, Management' s Discussion and Analysis – Purchase and Financing Options – Portfolio Financings. As of December 31, 2022, we had $ 26. 0 million in short- term debt and $ 385. 6 million in long- term debt~~ . Given our substantial level of indebtedness, it may be difficult for us to secure additional debt financing at an attractive cost, which may in turn impact our ability to expand **or maintain** our operations ~~and~~ **, develop** our ~~product~~ **products ,** ~~development activities~~ and ~~to~~ remain competitive in the market. Our liquidity needs could vary significantly and may be affected by general economic conditions, industry trends, performance, and many other factors not within our control. The agreements governing our ~~and our PPA Entities'~~ outstanding indebtedness contain, and other future debt agreements may contain, covenants imposing operating and financial restrictions on our business that limit our flexibility including, among other things: • borrow money; • pay dividends or make other distributions; • incur liens; • make asset dispositions; • make loans or investments; • issue or sell share capital of our subsidiaries; • issue guaranties; • enter into transactions with affiliates; • merge, consolidate or sell, lease or transfer all or substantially all of our assets; • require us to dedicate a substantial portion of cash flow from operations to the payment of principal and interest on indebtedness, thereby reducing the funds available for other purposes such as working capital and capital expenditures; • make it more difficult for us to satisfy and comply with our obligations with respect to our indebtedness; • subject us to increased sensitivity to interest rate increases; • make us more vulnerable to economic downturns, adverse industry conditions, or catastrophic external events; • limit our ability to withstand competitive pressures; • ~~limit our ability to invest in new business subsidiaries that are not PPA Entity- related; •~~ reduce our flexibility in planning for or responding to changing business, industry and economic conditions; and / or • place us at a competitive disadvantage to competitors that have relatively less debt than we have ~~. Our PPA Entities' debt agreements require the maintenance of financial ratios or the satisfaction of financial tests such as debt service coverage ratios and consolidated leverage ratios. Our PPA Entities' ability to meet these financial ratios and tests may be affected by events beyond our control and, as a result, we cannot assure you that we will be able to meet these ratios and tests~~ . Upon the occurrence of certain events to us, including a change in control, a significant asset sale or merger or similar transaction, our liquidation or dissolution or the cessation of our stock exchange listing, each of which may constitute a fundamental change under the outstanding notes, holders of certain of the notes have the right to cause us to repurchase for cash any or all of such outstanding notes. We cannot provide assurance that we would have sufficient liquidity to repurchase such notes. Furthermore, our financing and debt agreements contain events of default. If an event of default were to occur, the trustee or the lenders could, among other things, terminate their commitments and declare outstanding amounts due and payable and our cash may become restricted. We cannot provide assurance that we would have sufficient liquidity to repay or refinance our indebtedness if such amounts were accelerated upon an event of default. Borrowings under other debt instruments that contain cross- acceleration or cross- default provisions may, as a result, be accelerated and become due and payable as a consequence. We may be unable to pay these debts in such circumstances. We cannot provide assurance that the operating and financial restrictions and covenants in these agreements will not adversely affect our ability to finance our future operations or capital needs, or our ability to engage in other business activities that may be in our interest or our ability to react to adverse market developments. ~~Our ability~~ **We may not be able** to generate sufficient cash to ~~make scheduled payments on~~ **meet our debt service obligations or our growth plans. Our ability to generate sufficient cash to meet** our debt obligations will depend on our future financial performance ~~and on our future cash flow performance~~ , which will be affected by a range of economic, competitive, and business factors ~~, many of which are outside of our control~~ . If we do not generate sufficient cash to satisfy our debt obligations, ~~including interest payments, or if we are unable to satisfy the requirement for the payment of principal at maturity or other payments that may be required from time to time under the terms of our debt instruments,~~ we may have to undertake alternative financing plans such as refinancing or restructuring our debt, selling assets, reducing or delaying capital investments, or seeking to raise additional capital. We cannot provide assurance that any ~~refinancing or restructuring would be possible, that any assets could be sold, or, if sold,~~ of ~~the timing of the sales and the amount of proceeds realized from those~~ **these alternatives** sales, that ~~additional financing could be obtained on acceptable terms, if at all, or that additional financing~~ would be available or permitted under the terms of our ~~various~~ debt instruments then in effect. Furthermore, the ability to refinance indebtedness would depend upon the condition of the finance and credit markets at the time ~~which have in the past been, and may in the future be, volatile~~ . Our inability to generate sufficient cash to satisfy our debt obligations or to refinance our obligations on commercially reasonable terms or on a timely basis would have an adverse effect on our business, ~~our~~ results of operations and ~~our financial condition. Our one remaining PPA Entity (PPA V) is structured in a manner such that, other than the amount of any equity investment we have made, we do not have any further primary liability for the debts or other obligations of the PPA Entities. PPA V, which operates Energy Servers for end customers, has significant restrictions on its ability to incur increased operating costs, or could face events of default under debt or other investment agreements if end customers are not able to meet their payment obligations under PPA V or if Energy Servers are not deployed in accordance with the project' s schedule. If PPA V experiences unexpected, increased costs such as insurance costs, interest expense or taxes or as a result of the acceleration of repayment of outstanding indebtedness, or if end customers are unable or unwilling to continue to purchase power under this PPA, there could be insufficient cash generated from the project to meet the debt service obligations or to meet any targeted rates of return of Equity Investors. If PPA V fails to make required debt service payments, this could constitute an event of default and entitle the lender to foreclose on the collateral securing the debt or could trigger other payment obligations of the PPA. To avoid this, we could choose to contribute additional capital to PPA V to enable such PPA Entity to make payments to~~

~~avoid an event of default, which could adversely affect our business or our~~ financial condition. Although we currently **operate** primarily ~~operate~~ in the ~~United States~~ **U. S.** , we continue to expand our business internationally. We currently have operations in the Asia Pacific region and **Europe** ~~in Ireland~~ . Any expansion internationally could subject our business to risks associated with international operations, including: • increased complexity and costs of managing international operations; • conformity with applicable business customs, including translation into foreign languages and associated expenses; • lack of availability of government incentives and subsidies; • **financing** challenges ~~in arranging, and availability of, financing~~ for our customers; • potential changes to our established business model, including installation and / or service challenges that we may have not encountered before; • cost of alternative power sources, which could be meaningfully lower outside the ~~United States~~ **U. S.** ; • availability and cost of natural gas; • variability in gas specifications from jurisdiction to jurisdiction; • effects of adverse changes in currency exchange rates and rising interest rates; • difficulties in staffing and managing foreign operations in an environment of diverse culture, laws and regulations, and customers, and the increased travel, infrastructure, and legal and compliance costs associated with international operations; • our ability to develop and maintain relationships with suppliers and other local businesses; • compliance with product safety requirements and standards; • our ability to obtain business licenses that may be needed in international locations to support expanded operations; • compliance with local laws and regulations and unanticipated changes in local laws and regulations, including tax laws and regulations; • challenges in managing taxation in cross- border transactions; • greater difficulties in securing or enforcing our intellectual property rights in certain jurisdictions; • difficulties in enforcing contracts in certain jurisdictions; • risk of nationalization or other expropriation of private enterprises; • trade barriers such as export requirements, tariffs, taxes, local content requirements, anti- dumping regulations and requirements, and other restrictions and expenses, which could increase the effective price of our products and make us less competitive in some countries or increase the costs to perform under our existing contracts; • difficulties in collecting payments in foreign currencies and associated foreign currency exposure; • restrictions on repatriation of earnings; • natural disasters (including as a result of climate change), acts of war or terrorism, regional ~~conflict~~ **conflicts** ~~(including the ongoing war in Ukraine and tensions between China and Taiwan)~~ , and public health emergencies ~~, including the COVID- 19 pandemic~~ ; and • adverse social, political and economic conditions, including inflation, a recessionary environment, and disruptions in capital markets. We utilize a sourcing strategy that emphasizes global procurement of materials that has direct or indirect dependencies upon a number of vendors with operations in the Asia Pacific region. Physical, regulatory, technological, market, reputational, and legal risks related to climate change in these regions and globally are increasing in impact and diversity and the magnitude of any short- term or long- term adverse impact on our business or results of operations remains unknown. The physical impacts of climate change, including as a result of certain types of natural disasters occurring more frequently or with more intensity or changing weather patterns, could disrupt our supply chain, result in damage to or closures of our facilities, and could otherwise have an adverse impact on our business, operating results and financial condition. In addition, the war in Ukraine resulted in increased sanctions that affected the price of raw materials used in our products, which **had and** could **continue to** have an adverse impact on our operating results. Our cross- border transactions and international operations are subject to complex foreign and U. S. laws and regulations, including anti- bribery and corruption laws, antitrust or competition laws, data privacy laws, such as the GDPR, and environmental regulations, among others. In particular, recent years have seen a substantial increase in anti- bribery law enforcement activity by U. S. regulators, and we currently operate and seek to operate in many parts of the world that are recognized as having greater potential for corruption. Violations of any of these laws and regulations could result in fines and penalties, criminal sanctions against us or our employees, prohibitions on the conduct of our business and on our ability to offer our products and services in certain geographies, and significant harm to our business reputation. Our policies and procedures to promote compliance with these laws and regulations and to mitigate these risks may not protect us from all acts committed by our employees or third- party vendors, including contractors, agents and services partners. Additionally, the costs of complying with these laws (including the costs of investigations, auditing and monitoring) could adversely affect our current or future business. The success of our international sales and operations will depend, in large part, on our ability to anticipate and manage these risks effectively. Our failure to manage any of these risks could harm our international operations, reduce our international sales, and could give rise to liabilities, costs or other business difficulties that could adversely affect our operations and financial results. **Data security breaches and cyberattacks could compromise our intellectual property or other confidential information and cause significant damage to our business, product performance, brand, and reputation.** We maintain information that is confidential, proprietary or otherwise sensitive in nature on our information technology systems, and on the systems of our third- party providers. This information includes intellectual property, financial information and other confidential information related to us and our employees, prospects, customers, suppliers and other business partners. Additionally, our information technology provides us **with** the ability to remotely control some variables of our **products** ~~Energy Servers~~ ; they are connected to ~~and~~ **,** controlled and monitored by our centralized remote monitoring service. We rely on our internal software applications for many of the functions we use to operate our business generally. Cyberattacks are increasing in frequency and evolving in nature. We and our third- party providers are at risk of attack through **the** use of increasingly sophisticated methods, including malware, phishing and the deployment of artificial intelligence to find and exploit vulnerabilities. Our information technology systems, and those maintained by our third- party providers, have been in the past, and may be in the future, subjected to attempts to gain unauthorized access, disable, destroy, maliciously control or cause other system disruptions. In some cases, it is difficult to anticipate or to detect immediately such incidents and the damage they caused. While these types of incidents have not had a material effect on our business to date, future incidents involving access to our network or improper use of our systems, or those of our third ~~-~~ parties, could compromise confidential, proprietary or otherwise sensitive information, as well as the operation of our **products** ~~Energy Servers~~ . ~~While we maintain reasonable and appropriate administrative, technical, and physical safeguards and take preventive and proactive measures to combat known and unknown cybersecurity risks, there~~ **There** is no assurance that ~~such actions~~ **any measures we may take to combat known and**

unknown cybersecurity risks will be sufficient to prevent future security breaches and cyberattacks. The security of our infrastructure, including the network that connects our **products** ~~Energy Servers~~ to our remote monitoring service, may be vulnerable to breaches, unauthorized access, misuse, computer viruses, or other malicious code and cyberattacks that could have a material adverse impact on our business and our **products** ~~Energy Servers~~ in the field, and the protective measures we have taken may be insufficient to prevent such events. A breach or failure of our networks or computer or data management systems due to intentional actions such as cyberattacks, including ~~but not limited to~~ ransomware attacks, phishing or denial- of- service attacks, negligence, or other reasons, whether as a result of actions by third- parties or our employees, could seriously disrupt our operations or could affect our ability to control or to assess the performance in the field of our **products** ~~Energy Servers~~ and could result in disruption to our business and ~~potentially~~ legal liability. In addition, security breaches and cyberattacks could negatively impact our brand and reputation and our competitive position and could result in litigation with third parties, regulatory action and increased remediation costs, any of which could adversely impact our business, our financial condition, and our operating results. Although we maintain insurance coverage that may cover certain liabilities in connection with some security breaches and cyberattacks, we cannot be certain it will be adequate for liabilities actually incurred or that any insurer will not deny coverage of future claims. We believe that our success and our ability to reach our strategic objectives are highly dependent on the contributions of our key management, technical, engineering, finance and sales personnel. The loss of the services of any of our key employees could disrupt our operations, delay the development and introduction of our products and services and negatively impact our business, prospects and operating results. In particular, we are highly dependent on the services of Dr. Sridhar, our Founder, President, Chief Executive Officer and Director, and other certain key employees. None of our key employees are bound by employment agreements for any specific term and we cannot assure you that we will be able to successfully attract and retain **the** senior leadership necessary to grow our business. ~~In addition, many of the accounting rules related to our financing transactions are complex and require experienced and highly skilled personnel to review and interpret the proper accounting treatment with respect these transactions, and if we are unable to recruit and retain personnel with the required level of expertise to evaluate and accurately classify our revenue- producing transactions, our ability to accurately report our financial results may be harmed.~~ There is ~~increasing~~ **intense** competition for talented individuals in our industry, **particularly** ~~and competition for qualified personnel is especially intense~~ in the San Francisco Bay Area where our principal offices are located. Our failure to attract and retain our executive officers and other key management, technical, engineering **, finance** and sales personnel, could adversely impact our business, our financial condition and our operating results **. Competition for manufacturing employees is intense, and we may not be able to attract and retain the qualified and skilled employees needed to support our business** . We believe part of our success depends on the efforts and talent of our manufacturing employees and our ability to attract, develop, motivate and retain such employees. Competition for manufacturing employees is extremely intense. We may not be able to hire and retain these personnel at compensation levels consistent with our existing compensation and salary structure. Some of the companies with which we compete for experienced employees have greater resources than we have and may be able to offer more attractive terms of employment. The market price of our ~~Class A~~ common stock has been and may continue to be volatile. In addition to factors discussed in this Risk Factors section, the market price of our ~~Class A~~ common stock may fluctuate significantly in response to numerous variables, many of which are beyond our control, including: • overall performance of the equity markets; • actual or anticipated fluctuations in our revenue and other operating results; • changes in the financial projections we may provide to the public or our failure to meet these projections; • changing market and economic conditions, including a recessionary environment, rising interest rates and inflationary pressures ~~, such as those pressures the market is currently experiencing, which could make our products more expensive or could increase our costs for materials, supplies, and labor~~ ; • failure of securities analysts to initiate or maintain coverage of us, changes in financial estimates by any securities analysts who follow us or our failure to meet these estimates or the expectations of investors; • the issuance of negative reports from short sellers; • recruitment or departure of key personnel; • new laws, regulations, subsidies or credits, or new interpretations of them, applicable to our business; • negative publicity related to problems in our manufacturing or the real or perceived quality of our products; • rumors and market speculation involving us or other companies in our industry; • the failure or distress of competitors in our industry; • announcements by us or our competitors of significant technical innovations, acquisitions, strategic partnerships or capital commitments; • lawsuits threatened or filed against us; and • other events or factors including those resulting from war, natural disasters (including as result of climate change), incidents of terrorism or responses to these events. In addition, the stock markets have experienced extreme price and volume fluctuations that have affected and continue to affect the market prices of equity securities of many companies. Stock prices of many companies have fluctuated in a manner unrelated or disproportionate to the operating performance of those companies. In the past, stockholders have instituted securities class action litigation following periods of market volatility. We are currently involved in securities litigation, which may subject us to substantial costs, divert resources and the attention of management from our business, and adversely affect our business. ~~We may issue additional shares of our Class A common stock in connection with any future conversion of the Green Notes or in connection with our transaction with SK ecoplant, which may dilute our existing stockholders and potentially adversely affect the market price of our Class A common stock.~~ In the event that some or all of the Green Notes are converted **,** and we elect to deliver shares of common stock, the ownership interests of existing stockholders will be diluted, and any sales in the public market of any shares of our ~~Class A~~ common stock issuable upon such conversion could adversely affect the prevailing market price of our ~~Class A common stock. If we were not able to pay cash upon conversion of the Green Notes, the issuance of shares of Class A common stock upon conversion of the Green Notes could depress the market price of our Class A common stock. In addition, we entered into a Securities Purchase Agreement (the " SPA ") with SK ecoplant in October 2021 that allows SK ecoplant to purchase additional shares of Class A common stock. For additional details on this transaction, see Note 18- SK ecoplant Strategic Investment. The exercise of this option to purchase additional shares may dilute our existing stockholders and potentially adversely affect the~~

~~market price of our Class A common stock. Our Class B common stock has ten votes per share, and our Class A common stock has one vote per share. As of December 31, 2022, and after giving effect to the voting agreements between KR Sridhar, our Chairman and Chief Executive Officer, and certain holders of Class B common stock, our directors, executive officers, significant stockholders of our common stock, and their respective affiliates collectively held approximately 45 % of the voting power of our capital stock. Because of the ten- to- one voting ratio between our Class B and Class A common stock, the holders of our Class B common stock collectively will continue to have the ability to significantly influence the vote on all matters submitted to our stockholders for approval until the earliest to occur of (i) immediately prior to the close of business on July 27, 2023, (ii) immediately prior to the close of business on the date on which the outstanding shares of Class B common stock represent less than five percent (5 %) of the aggregate number of shares of Class A common stock and Class B common stock then outstanding, (iii) the date and time or the occurrence of an event specified in a written conversion election delivered by KR Sridhar to our Secretary or Chairman of the Board to so convert all shares of Class B common stock, or (iv) immediately following the date of the death of KR Sridhar. This concentrated control limits or precludes Class A stockholders' ability to influence corporate matters while the dual class structure remains in effect, including the election of directors, amendments of our organizational documents, and any merger, consolidation, sale of all or substantially all of our assets, or other major corporate transaction requiring stockholder approval. In addition, this may prevent or discourage unsolicited acquisition proposals or offers for our capital stock that Class A stockholders may feel are in their best interest as one of our stockholders. Future transfers by holders of Class B common stock will generally result in those shares converting to Class A common stock, subject to limited exceptions such as certain transfers effected for estate planning purposes. The conversion of Class B common stock to Class A common stock will have the effect, over time, of increasing the relative voting power of those remaining holders of Class B common stock who retain their shares in the long- term. The S & P Dow Jones and FTSE Russell have implemented changes to their eligibility criteria for inclusion of shares of public companies on certain indices, including the S & P 500, namely, to exclude companies with multiple classes of shares of common stock from being added to such indices. In addition, several shareholder advisory firms have announced their opposition to the use of multiple class structures. As a result, the dual class structure of our common stock may prevent the inclusion of our Class A common stock in such indices and has caused shareholder advisory firms to publish negative commentary about our corporate governance practices or otherwise seek to cause us to change our capital structure. Any such exclusion from indices could result in a less active trading market for our Class A common stock. Any actions or publications by shareholder advisory firms critical of our corporate governance practices or capital structure could also adversely affect the value of our Class A~~ common stock. We have never declared or paid any cash dividends on our capital stock and do not intend to pay ~~any~~ cash dividends in the foreseeable future. We anticipate that we will retain all of our future earnings for use in the development of our business and for general corporate purposes. Any determination to pay dividends in the future will be at the discretion of our board of directors. Accordingly, investors must rely on sales of their ~~Class A~~ common stock after price appreciation, which may never occur, as the only way to realize any future gains on their investments ~~. Provisions in our charter documents and under Delaware law could make an acquisition of us more difficult, may limit attempts by our stockholders to replace or remove our current management, may limit our stockholders' ability to obtain a favorable judicial forum for disputes with us or our directors, officers, or employees, and may limit the market price of our Class A common stock~~ . Provisions in our restated certificate of incorporation and amended and restated bylaws may have the effect of delaying or preventing a change of control or changes in our management. Our restated certificate of incorporation and amended and restated bylaws include provisions that: • require that our board of directors is classified into three classes of directors with staggered three year terms; • permit the board of directors to establish the number of directors and fill any vacancies and newly created directorships; • require super- majority voting to amend some provisions in our restated certificate of incorporation and amended and restated bylaws; • authorize the issuance of " blank check " preferred stock that our board of directors could use to implement a ~~shareholder~~ **stockholder** rights plan; • authorize only the chairman of our board of directors, our chief executive officer, or a majority of our board of directors to call a special meeting of stockholders; • prohibit stockholder action by written consent ~~, which thereby requires all stockholder actions be taken at a meeting of our stockholders; • establish a dual class common stock structure in which holders of our Class B common stock may have the ability to control the outcome of matters requiring stockholder approval even if they own significantly less than a majority of the outstanding shares of our common stock, including the election of directors and significant corporate transactions such as a merger or other sale of our Company or substantially all of our assets~~ ; • expressly authorize the board of directors to make, alter, or repeal our bylaws; and • establish advance notice requirements for nominations for election to our board of directors or for proposing matters that can be acted upon by stockholders at annual stockholder meetings. In addition, our restated certificate of incorporation and our amended and restated bylaws provide that the Court of Chancery of the State of Delaware will be the exclusive forum for: any derivative action or proceeding brought on our behalf; any action asserting a breach of fiduciary duty; any action asserting a claim against us arising pursuant to the Delaware General Corporation Law, our restated certificate of incorporation or our amended and restated bylaws; or any action asserting a claim against us that is governed by the internal affairs doctrine. Our restated certificate of incorporation and our amended and restated bylaws provide that unless we consent in writing to the selection of an alternative forum, the federal district courts of the ~~United States~~ **U. S.** shall be the exclusive forum for the resolution of any complaint asserting a cause of action arising under the Securities Act. These choice of forum provisions may limit a stockholder' s ability to bring a claim in a judicial forum that it finds favorable for disputes with us or any of our directors, officers, or other employees, which thereby may discourage lawsuits with respect to such claims. Alternatively, if a court were to find the choice of forum provision contained in our restated certificate of incorporation and our amended and restated bylaws to be inapplicable or unenforceable in an action, we may incur additional costs associated with resolving such action in other jurisdictions, which could harm our business, our operating results, and our financial condition. Moreover, Section 203 of the Delaware General Corporation Law may discourage, delay, or prevent a change in control of our Company.

Section 203 imposes certain restrictions on mergers, business combinations, and other transactions between us and holders of 15 % or more of our common stock. **Increased scrutiny regarding ESG practices and disclosures could result in additional costs and adversely impact our business, brand and reputation. Like many** ~~Companies~~ **companies , we face increased** ~~across all industries are facing increasing~~ scrutiny relating to ~~their~~ **our** Environmental, Social and Governance (" ESG ") practices and disclosures **.** ~~and institutional and individual investors~~ **Investors** are increasingly using ESG screening criteria in making investment decisions. Our disclosures on these matters or a failure to satisfy evolving stakeholder expectations for ESG practices and reporting may ~~potentially~~ harm our brand and reputation and impact employee retention and **our** access to capital. In addition, our failure, or perceived failure, to pursue or fulfill our goals, targets, and objectives or to satisfy various reporting standards ~~within the timelines we announce, or at all~~, could expose us to government enforcement actions and private litigation. Our ability to achieve any **ESG** goal **, target,** or objective ~~, including with respect to environmental and diversity initiatives and compliance with ESG reporting standards~~ , is subject to numerous risks, many of which are outside of our control. Examples of such risks include the availability and cost of technologies and products, evolving regulatory requirements affecting ESG standards or disclosures, our ability to recruit, develop, and retain diverse talent in our labor markets, and our ability to develop and maintain reporting processes and controls that comply with evolving standards for identifying, measuring and reporting ESG metrics. As ESG stakeholder expectations, reporting standards, and disclosure requirements continue to develop, we may incur increasing costs related to ESG monitoring and reporting. ~~49~~