Risk Factors Comparison 2024-02-09 to 2023-02-13 Form: 10-K

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We have identified the following risks and uncertainties that may have a material adverse effect on our business, financial condition or results of operations. The risks described below are not the only ones we face. Additional risks not presently known to us or that we currently believe are not material may also significantly impair our business operations. Our business could be harmed by any of these risks. The trading price of our common stock could decline due to any of these risks, and you may lose all or part of your investment. In assessing these risks, you should also refer to the other information contained in this Annual Report on Form 10- K, including our consolidated financial statements and related notes. See also " Forward- Looking Statements " in the forepart of this Annual Report on Form 10- K. Risks Related to our Business, Operations and Our Industry Unfavorable macroeconomic and market conditions may adversely affect our industry, business and financial results. Our business depends on the overall demand for our solar energy products and on the economic health and willingness of our customers and potential customers to make capital commitments to purchase our products and services. ~~As a result of macroeconomic~~ **Macroeconomic** or market uncertainty, including increased interest rates and ~~higher~~ -- **high** inflation, **or expectations of future interest rate cuts by the U. S. Federal Reserve, may cause, and has caused,** customers ~~may decide~~ to delay purchasing our products and services or not purchase at all. In addition, a number of the risks associated with our business, which are disclosed in these risk factors, may increase in likelihood, magnitude or duration, and we may face new risks that we have not yet identified. ~~In the past, unfavorable~~ **Unfavorable** macroeconomic and market conditions **can result and** have **previously** resulted in sustained periods of decreased demand. Macroeconomic and market conditions could be adversely affected by a variety of political, economic or other factors in the United States and international markets, which could, in turn, adversely affect spending levels of installers and end users and could create volatility or deteriorating conditions in the markets in which we operate. Macroeconomic uncertainty or weakness could result in: • reduced demand for our products as a result of constraints on capital spending for residential solar energy systems by our customers; • increased price competition for our products that may adversely affect revenue, gross margin and profitability; • decreased ability to forecast operating results and make decisions about budgeting, planning and future investments; • business and financial difficulties faced by our suppliers **, distributors** or other partners, including impacts to material costs, sales, liquidity levels, ability to continue investing in their businesses, ability to import or export goods, ability to meet development commitments and manufacturing capability; and • increased overhead and production costs as a percentage of revenue. Reductions in customer spending in response to unfavorable or uncertain macroeconomic and market conditions, globally or in a particular region where we operate, would adversely affect our business, results of operations and financial condition. If demand for solar energy solutions does not grow or grows at a slower rate than we anticipate, our business will suffer. Our IQ Microinverters, ACM products and IQ Battery storage systems are utilized in solar PV installations, which provide on- site distributed power generation. As a result, our future success depends on continued demand for solar energy solutions and the ability of solar equipment vendors to meet this demand. The solar industry is an evolving industry that has experienced substantial changes in recent years, and we cannot be certain that consumers and businesses will adopt solar PV systems as an alternative energy source at levels sufficient to continue to grow our business. Traditional electricity distribution is based on the regulated industry model under which businesses and consumers obtain their electricity from a government regulated utility. For alternative methods of distributed power to succeed, businesses and consumers must adopt new purchasing practices. The viability and ~~Enphase Energy, Inc. | 2022 Form 10- K | 17continued~~ -- **continued** growth in demand for solar energy solutions and, in turn, our products, may be impacted by many factors outside of our control, including: • market acceptance of solar PV systems based on our product platform; **Enphase Energy, Inc. | 2023 Form 10- K | 17** • cost competitiveness, reliability and performance of solar PV systems compared to conventional and non- solar renewable energy sources and products; • availability and amount of government subsidies and incentives to support the development and deployment of solar energy solutions; • the extent to which the electric power industry and broader energy industries are deregulated to permit broader adoption of solar electricity generation; • the cost and availability of key raw materials and components used in the production of solar PV systems; • prices of traditional utility- provided energy sources; • levels of investment by end- users of solar energy products, which tend to decrease when economic growth slows; and • the emergence, continuance or success of, or increased government support for, other alternative energy generation technologies and products. If demand for solar energy solutions does not grow, demand for our customers' products **from residential homeowners and commercial businesses** ~~as well as demand for our products~~ will decrease, which would have an adverse impact on our ability to increase our revenue and grow our business. Further, our success depends on continued demand for solar energy solutions and the ability of solar equipment vendors to meet this demand. Supply chain disruptions, increased interest rates and higher inflation, have caused and may continue to cause various negative effects, including an inability to meet the needs of our existing or potential end customers. If demand for solar energy solutions decreases or does not grow, demand for our customers' products as well as demand for our products will decrease, which would have an adverse impact on our ability to increase our revenue and grow our business. The reduction, elimination or expiration of government subsidies and economic incentives for on- grid solar electricity applications could reduce demand for solar PV systems and harm our business. The market for on- grid applications, where solar power **, on a standalone basis or paired with energy storage systems,** is used to supplement a customer' s electricity purchased from the utility network or sold to a utility under tariff, depends in large part on the availability and size of government and economic incentives that vary by geographic market. Because our customers' sales **of solar power** are typically into the on- grid market, the reduction, elimination or expiration of government subsidies and economic incentives for on- grid solar electricity may negatively affect the competitiveness of solar electricity relative to conventional and non- solar renewable sources of electricity and could harm or halt the growth of the solar electricity industry and our business. ~~In general, the cost of solar power currently exceeds retail electricity rates, and we believe this tendency will continue in the near term. As a result, national~~ **National** , state and local government bodies in many countries, including the United States, have provided incentives in the form of feed- in tariffs (" FiTs "), rebates, tax credits and other incentives to system owners, distributors, system integrators and manufacturers of solar PV systems **and battery energy storage systems** to ~~promote~~ **bolster** the ~~use~~ **cost competitiveness** of solar electricity in on- grid applications **relative to the cost of utility power,** and to reduce dependency on other forms of energy. Many of these government incentives expire, phase out over time, terminate upon the exhaustion of the allocated funding, require renewal by the applicable authority or are being changed by governments due to changing market circumstances or changes to national, state or local energy policy. Electric utility companies or generators of electricity from other non- solar renewable sources of electricity may successfully lobby for changes in the relevant legislation in their markets that are harmful to the solar industry. Reductions in, or eliminations or expirations of, governmental incentives in regions where we focus our sales efforts could result in decreased demand for and lower revenue from solar PV systems there, which would adversely affect sales of our products. In addition, our ability to successfully penetrate new geographic markets may depend on new countries adopting and maintaining incentives to promote solar electricity, to the extent such incentives are not currently in place. Furthermore, electric utility companies may establish pricing structures or interconnection ~~Enphase Energy, Inc. | 2022 Form 10- K | 18~~ requirements that could adversely affect our sales and be harmful to the solar and distributed rooftop solar generation industry. Among other government- established incentives, net **energy** metering and related policies have supported the growth of on- grid solar products, and changes to such policies may reduce demand for electricity from our solar service offerings. Net **energy** metering is a utility rate program that requires a consumer' s electric company to **Enphase Energy, Inc. | 2023 Form 10- K | 18** purchase the excess solar energy that the consumer' s solar panels produce and pay the retail rate for electricity exported to the grid, less certain non- bypassable fees ~~to~~ **paid by** the consumer. For example, in 2016, the CPUC issued an order retaining retail **rate** - based net **energy** metering credits for residential customers of California' s major utilities ~~net meterings~~ as part of ~~Net Energy Metering 2. 0 ("~~ NEM 2. 0 ~~")~~ . Customers under NEM 2. 0 ~~are~~ **were made** subject to interconnection ~~charges~~ **application fees** and **must take service under** time - of- use rates with different electricity prices during peak and off- peak hours. Existing customers who receive service under the prior net **energy** metering program, as well as new customers under the NEM 2. 0 program, remain eligible for the NEM 2. 0 program for a period of 20 years. **However** ~~On September 3~~ , ~~2020, the CPUC opened a new proceeding to review its current net metering policies and to develop NEM 3. 0, also referred to by the CPUC as the NEM 2. 0 tariff and issued its final decision~~ on December 15, 2022 ~~.~~ **, the CPUC adopted a "** NEM 3. 0 ~~fundamentally changes NEM 2. 0 by basing~~ **" policy, also known as the Net Billing Tariff, that unbundles** export compensation **from** ~~not on~~ retail rates ~~, but~~ **and instead bases it** on a tool called the Avoided Cost Calculator (" ACC ") ~~designed to measure~~ **, which estimates the hourly** utility ~~distribution~~ costs **that are** avoided by ~~installing~~ **exports from** distributed generation ~~, and which provides values that vary by hour, month and service territory~~ . The CPUC ~~is also imposing~~ **did seek to ease the transition for the solar market by adopting export** " adders " to ~~these~~ -- **the** hourly ACC values for the first several years of the tariff ~~to ease the transition for the solar market~~ . **Nevertheless** ~~On average~~ , these ACC **- based export compensation** values are significantly lower than retail rates **for most hours of the year** and may therefore increase payback periods, and thereby reduce demand, for solar- only systems. ~~While~~ **Similarly, in November 2023,** the ~~final~~ **CPUC adopted changes to its Virtual** NEM ~~3~~ **and NEM Aggregation programs that prohibit the netting of import energy charges at multi- meter commercial or agricultural properties with solar energy generated at or adjacent to those properties, except for residential account holders in a multi- family residential property** . ~~0 decision was~~ **These types of modifications to net energy metering incentives have impacted and could further harm our business, both in California, where we have derived** a significant **portion** ~~improvement over CPUC' s previously issued proposed decision, it could still reduce export compensation and demand for solar- only systems and harm our business. We depend on limited- source suppliers for key components and products. If we are unable to source these components and products on a timely basis, we will not be able to deliver our products to our customers. We depend on sole- source and limited- source suppliers for key components~~ of **historical** our products, such as our ASICs...... integrated circuits, could adversely impact our revenues ~~, gross margins and results of operations. Due to increased demand across a range of industries, the global supply market for certain raw materials and components, including,~~ in ~~particular~~ **the United States** , ~~semiconductors, integrated circuits~~ and **in** other **jurisdictions** ~~electronic components used in some of our products~~ , **if pursued** has experienced significant constraint and disruption in...... to and exacerbated this strain, and there ~~can be no assurance that the impacts of the pandemic and conflict in Ukraine on our supply chain will not continue, or worsen, in the future. The current supply Enphase Energy, Inc. | 2022 Form 10- K | 19 chain challenges could also result in increased use of cash, engineering design changes and delays in new product introductions, each of which could adversely impact our business and financial results. In the event these supply chain challenges persist for the foreseeable future, these conditions could adversely impact our results of operations~~ . The solar industry is highly competitive, and we expect to face increased competition as new and existing competitors introduce products or develop alternative technologies, which could negatively impact our business, financial condition and results of operations. We compete primarily against central and string inverter manufacturers, as well as against new solutions and emerging technologies that directly compete with our business. A number of companies have developed or are developing microinverters and other products that will compete directly with our solutions in the module- level power electronics market. We also compete against manufacturers of energy storage systems and EV chargers for our solutions in these markets. Competitors in the inverter market include, among others, SolarEdge ~~Technologies, Inc., Fronius International GmbH, SMA Solar Technology AG, AP Systems, Generac Holdings Inc.~~ , Tesla, ~~Inc.,~~ Huawei ~~Technologies~~ **, Sungrow Power Supply** Co. **,** Ltd., ~~Delta~~ **Growatt New Energy Co.** , **Ltd** ~~Ginglong, Sungrow, Solax, Hoymiles~~ and other companies offering string inverters with and without solar optimizers. ~~Other existing or emerging companies may also begin offering alternative microinverter solutions.~~ Competitors in the storage market include Tesla, SolarEdge, **Huawei,** LG Chem, ~~Sonnen, Generac, Panasonic,~~ BYD ~~, E3 / DC, Senec, Schneider, Briggs & Stratton~~ and other producers of battery cells and integrated storage systems market. Competitors in the EV charger market include Wallbox, ChargePoint, Tesla, JuiceBox and EVBox, among others. Several of our existing and potential competitors are significantly larger than we are and may have greater financial, marketing, distribution and customer support resources and may have significantly broader brand recognition, especially in certain markets. In addition, some of our competitors have more resources and experience in developing or acquiring new products and technologies and creating market awareness for these offerings. Further, certain competitors may be able to develop new products more quickly than we can and may be able to develop products that are more reliable or that provide more functionality than ours. In addition, some of our competitors have the financial resources to offer competitive products at aggressive or below- market pricing levels, which could cause us to lose sales or market share or require us to lower prices of our products in order to compete effectively. Suppliers of solar products, particularly solar modules, have experienced eroding prices over the last several years and as a result many have faced margin compression and declining revenues. If we have to reduce our prices, or if we are unable to offset any future reductions in our average selling prices **(" ASPs ")** by increasing our sales volume, reducing our costs and expenses or introducing new products, our ~~revenues~~ - **revenue** and gross profit would suffer. Significant developments in alternative technologies, such as advances in other forms of distributed solar PV power generation, storage solutions such as batteries, the widespread use or adoption of fuel cells for residential or commercial properties or improvements in other forms of centralized power production may have a material adverse effect on our business and prospects. Any failure by us to adopt new or enhanced technologies or processes, or to react to changes in existing technologies, could result in product obsolescence, the loss of competitiveness of our products, decreased revenue and a loss of market share to competitors. We also may face competition from some of our customers or potential customers who evaluate our capabilities against the merits of manufacturing products internally. Other solar module manufacturers could also develop or acquire competing inverter technology or attempt to develop components that directly perform DC- to- AC **Enphase Energy, Inc. | 2023 Form 10- K | 19** conversion in the module itself. Due to the fact that such customers may not seek to make a profit directly from the manufacture of these products, they may have the ability to manufacture competitive products at a lower cost than we would charge such customers. As a result, these customers or potential customers may purchase fewer of our systems or sell products that compete with our systems, which would negatively impact our revenue and gross profit. Our recent and planned expansion into existing and new markets could subject us to additional business, financial and competitive risks. We currently offer solar energy systems targeting the residential and commercial markets throughout the world, and we intend to expand into other international markets. Our success in new geographic and product markets will depend on a number of factors, such as: • acceptance of microinverters **and batteries** in markets in which they have not traditionally been used; • our ability to compete in new product markets to which we are not accustomed; ~~Enphase Energy, Inc. | 2022 Form 10- K | 20~~ **• accurate forecasting and effective management of inventory levels in line with anticipated product demand;** • our ability to manage manufacturing capacity and production; • willingness of our potential customers to incur a higher upfront capital investment than may be required for competing solutions; • timely qualification and certification of new products; • our ability to reduce production costs in order to price our products competitively; • availability of government subsidies and economic incentives for solar energy solutions; • ~~accurate forecasting and effective management of inventory levels in line with anticipated product demand; •~~ our customer service capabilities and responsiveness; and • timely hiring of skilled employees and the efficient execution of our project plan. Failure to address these new markets successfully, to generate sufficient revenue from these markets to offset associated research and development, marketing and manufacturing costs, or to otherwise effectively anticipate and manage the risks and challenges associated with our potential expansion into new product and geographic markets, could adversely affect our ~~revenues~~ - **revenue** and our ability to achieve or sustain profitability. We may fail to capture customers as we design and develop new products and update existing products. We are pursuing opportunities in energy management and energy storage that are highly competitive markets. We have made investments in our infrastructure, increased our operating costs and forgone other business opportunities in order to seek opportunities in these areas and will continue to do so. Any new product is subject to certain risks, including component sourcing, strategic partner selection and execution, customer acceptance, competition, product differentiation, market timing, challenges relating to economies of scale in component sourcing and the ability to attract and retain qualified personnel. There can be no assurance that we will be able to develop and grow these or any other new concepts to a point where they will become profitable or generate positive cash flow. If we fail to execute on our plan with respect to new product introductions, or fail to adequately update our legacy products, we may fail to generate revenue in the quantities or timeline projected, thus, having a materially adverse impact on our operating results and financial stability. We **continue to develop new** ~~started production shipments of IQ8 microinverters and our most recent generation~~ **generations** of **our IQ Microinverters,** IQ Batteries ~~to customers in North America during the fourth quarter of 2021,~~ and ~~we continue to develop our~~ EV charging products. ~~Our~~ **Developing** new products ~~are~~ **or next generation products is** complex and ~~require~~ **requires** significant preparation, precautionary safety measures, time- consuming string calculations, extensive design expertise and specialized installation equipment, training and knowledge. Together, these factors significantly increase complexity and cost of installation and limit overall productivity for the installer. Our installers may not have sufficient resources or expertise necessary to sell our products at the prices, in the volumes and within the time frames that we expect, which could hinder our ability to expand our operations and harm our revenue and operating results. **Enphase Energy, Inc. | 2023 Form 10- K | 20** We depend upon a small number of outside contract manufacturers, and our business and operations could be disrupted if we encounter problems with these contract manufacturers. We do not have internal manufacturing capabilities and rely upon a small number of contract manufacturers to build our products. In particular, we outsource the manufacturing of our products to third- party contract manufacturers. Flex, Salcomp and Sunwoda assemble and test our IQ Microinverter, ACM products, IQ Battery storage systems and IQ Gateway products. Prices for such services are agreed to by the parties on a quarterly basis, and we are obligated to purchase manufactured products and raw materials that cannot be resold upon the termination of the related agreement. As of December 31, ~~2022~~ **2023** , our related purchase obligations (including amounts related to component inventory procured by our primary contract manufacturers on our behalf) were approximately $ ~~589~~ **184** . ~~3~~ **4** million. The timing of purchases in future periods could differ materially from our estimates due to fluctuations in demand requirements related to varying sales levels as well as changes in economic conditions. Flex also provides receiving, kitting, storage, transportation, inventory visibility and other value- added logistics services at locations managed by Flex. In addition, we rely on several unaffiliated companies to supply certain components used in the fabrication of our products. ~~Enphase Energy, Inc. | 2022 Form 10- K | 21~~ Our reliance on a small number of contract manufacturers makes us vulnerable to possible capacity constraints and reduced control over component availability, delivery schedules, manufacturing yields and costs. We do not have long- term supply contracts with our contract manufacturing partners. Consequently, these manufacturers are not obligated to supply products to us for any period, in any specified quantity or at any certain price. If any of these suppliers reduce or eliminate the supply of the components to us in the future, our ~~revenues~~ - **revenue** , business, financial condition and results of operations would be adversely impacted. Further, the ~~revenues~~ - **revenue** that our contract manufacturers generate from our orders may represent a relatively small percentage of their overall ~~revenues~~ - **revenue** . As a result, fulfilling our orders may not be considered a priority in the event of constrained ability to fulfill all of their customer obligations in a timely manner. In addition, the facilities in which the vast majority of our products are manufactured are located outside of the United States. We believe that the location of these facilities outside of the United States increases our supply risk, including the risk of supply interruptions or reductions in manufacturing quality or controls. If any of our contract manufacturers were unable or unwilling to manufacture our products in required volumes and at high quality levels or renew existing terms under supply agreements, we would have to identify, qualify and select acceptable alternative contract manufacturers, which may not be available to us on favorable terms, if at all. An alternative contract manufacturer may not be available to us when needed or may not be in a position to satisfy our quality or production requirements on commercially reasonable terms. Any significant interruption in manufacturing would require us to reduce our supply of products to our customers, which in turn would reduce our ~~revenues~~ - **revenue** , harm our relationships with our customers and cause us to forgo potential revenue opportunities. **installers with** training and other programs,including accreditations and certifications;however,these programs may not be effective or utilized consistently.Further,newer distributors and installers may require extensive training and may take significant time and resources to achieve productivity.Our distributors and installers may subject us to lawsuits,potential liability and reputational harm if,for example,any were to misrepresent the functionality of our platform or products to customers,fail to perform services to our customers' expectations,or violate laws or our policies.In addition,our distributors and installers may utilize our platform to develop products and services that could potentially compete with products and services that we offer ~~Enphase Energy,Inc.| 2023 Form 10- K | 21~~ currently or in the future.Concerns over competitive matters or intellectual property ownership could constrain the growth and development of these relationships or result in the termination of one or more relationships.If we fail to effectively manage and grow our network of distributors and installers,or properly monitor the quality and efficacy of their service delivery,our ability to sell our products and efficiently provide our services may be impacted,and our operating results may be harmed.Our future performance depends on our ability to effectively manage our relationships with our existing customers,as well as to attract additional customers that will be able to market and support our products effectively,especially in markets in which we have not previously distributed our products.Termination of agreements with current customers,failure by customers to **perform as expected,or failure by us to cultivate new** If we or our contract manufacturers are unable to obtain raw materials in a timely manner or if the price of raw materials increases significantly, production time and product costs could increase, which may adversely affect our business. The manufacturing and packaging processes used by our contract manufacturers depend on raw materials such as copper, aluminum, silicon and petroleum- based products. From time to time, suppliers may extend lead times, limit supplies or increase prices due to capacity constraints or other factors. Certain of our suppliers have the ability to pass along to us directly or through our contract manufacturers any increases in the price of raw materials. If the prices of these raw materials rise significantly, we may be unable to pass on the increased cost to our customers. While we may from time to time enter into hedging transactions to reduce our exposure to wide fluctuations in the cost of raw materials, the availability and effectiveness of these hedging transactions may be limited. Due to all these factors, our results of operations could be adversely affected if we or our contract manufacturers are unable to obtain adequate supplies of raw materials in a timely manner or at reasonable cost. In addition, from time to time, we or our contract manufacturers may need to reject raw materials that do not meet our specifications, resulting in potential delays or declines in output. Furthermore, problems with our raw materials may give rise to compatibility or performance issues in our products, which could lead to an increase in product warranty claims. Errors or defects may arise from raw materials supplied by third parties that are beyond our detection or control, which could lead to additional product warranty claims that may adversely affect our business and results of operations. Manufacturing problems could result in delays in product shipments, which would adversely affect our revenue, competitive position and reputation. We have in the past and may in the future experience delays, disruptions or quality control problems in our manufacturing operations. Our product development, manufacturing and testing processes are complex and require significant technological and production process expertise. Such processes involve a number of precise steps from design to production. Any change in our processes could cause one or more production errors, requiring a temporary suspension or delay in our production line until the errors can be researched, identified and properly addressed and rectified. This may occur particularly as we introduce new products, modify our engineering and production techniques and expand our capacity. In addition, our failure to maintain appropriate quality assurance processes could result in increased product failures, loss of customers, increased production costs and delays. Any of these developments could have a material adverse effect on our business, financial condition and results of operations. A disruption could also occur in one of our contract manufacturers' facilities due to any number of reasons, such as equipment failure ~~,~~ contaminated materials **, process deviations** , the effects of climate change and related extreme weather events, **or social, geopolitical or health factors, including pandemics or widespread health epidemics such as the** COVID-19 pandemic ~~impacts or process deviations~~ , which could adversely impact manufacturing yields or delay product shipments. As a result, we could incur additional costs that would adversely affect our gross profit, ~~Enphase Energy, Inc. | 2022 Form 10- K | 22~~ and product shipments to our customers could be delayed beyond the schedules requested, which would negatively affect our revenue, competitive position and reputation. Additionally, manufacturing yields depend on a number of factors, including the stability and manufacturability of the product design, manufacturing improvements gained over cumulative production volumes, and the quality and consistency of component parts. Capacity constraints, raw materials shortages, logistics issues, labor shortages and changes in customer requirements, manufacturing facilities or processes have historically caused, and may in the future cause, reduced manufacturing yields, negatively impacting the gross profit on, and our production capacity for, those products. Moreover, an increase in the rejection and rework rate of products during the quality control process before, during or after manufacture would result in our experiencing lower yields, gross profit and production capacity. Furthermore, counterfeit parts in our supply chain have been and continue to be a concern, since any counterfeit part can be a lower quality product, which may affect our system reliability. The risks of these types of manufacturing problems are further increased during the introduction of new product lines, which has from time to time caused, and may in the future cause, temporary suspension of product lines while problems are addressed or corrected. Since our business is substantially dependent on a limited number of product lines, any prolonged or substantial suspension of an individual product line could result in a material adverse effect on our revenue, gross profit ~~,~~ **and** competitive position ~~and distributor and customer relationships. We rely primarily on distributors, installers and providers of solar financing to assist in selling our products to customers, and the failure of these customers to perform at the expected level, or at all, would have an adverse effect on our business, financial condition and results of our operations. We sell our solutions primarily through distributors,~~ as well as ~~through direct sales to solar equipment installers and developers of third- party solar finance offerings. We do not have exclusive arrangements with these third parties. As a result, many of these third parties, or~~ **our** customers, also use or market and...... products. We typically provide our distributors - **distributor** and installers with training and other programs,...... or failure by us to cultivate new customer relationships ~~, could hinder our ability to expand our operations and harm our revenue and operating results~~ . ~~The COVID- 19 pandemic may continue to, and other actual or threatened epidemics, pandemics, outbreaks, or public health crises may in the future, adversely affect our and our customers' results of operations and financial condition, our supply chain and our business. The global spread of COVID- 19 and other actual or threatened epidemics, pandemics, outbreaks, or public health crises may adversely affect our results of operations and disrupt global supply chains. Any disruptions to our suppliers and manufacturers by, for example, worker absenteeism, quarantines, office and factory closures, disruptions to ports and other shipping infrastructure, or other travel or health- related restrictions have adversely~~ Enphase Energy, Inc. | ~~2022~~ **2023** Form 10- K | 23 ~~affected and could continue to have an adverse impact on our business and operations. As a result of these supply chain constraints and possible disruptions, we have worked with our suppliers to improve our supply chain in the event of future shutdowns, but there can be no assurance that supply chain constraints and disruptions will not adversely impact our business. In addition, potential disruptions have and could in the future put limits on our manufacturing availability or capacity, or cause delays in production or delivery of components, and our ability to produce finished products, all of which could adversely affect our business, operations and customer relationships. Our liquidity also may be negatively impacted if sales decline significantly for an extended period due to the impact of COVID- 19 or other epidemics. Further, the extent to which the COVID- 19 pandemic and our precautionary measures in response thereto impact our business and liquidity will depend on future developments, which are uncertain and cannot be precisely predicted at this time. Moreover, the long- term effects of the COVID- 19 pandemic remain unknown, and it is possible that following the pandemic in- person interactions will remain limited, which would negatively impact our sales team and our future revenues. These and other potential impacts of the COVID- 19 pandemic discussed elsewhere in this " Risk Factors " section, as well as any future and unforeseen risks related to the pandemic not yet contemplated, could materially and adversely affect our business, financial condition and results of operations. To the extent the evolving effects of the COVID- 19 pandemic adversely affect our business, financial condition and results of operations, they may also have the effect of heightening many of the other risks and uncertainties described elsewhere in this " Risk Factors " section. It is also possible that future global pandemics could also occur and also materially and adversely affect our business, financial condition and results of operations.~~ The loss of, or events affecting, one of our major customers could reduce our sales and have an adverse effect on our business, financial condition and results of operations. For the fiscal year ended December 31, ~~2022~~ **2023** , one customer accounted for approximately ~~37~~ **40** % of total net revenues. Further, as of December 31, ~~2022~~ **2023** , amounts due from one customer represented approximately ~~24~~ **40** % of the total accounts receivable balance. Our customers' decisions to purchase our products are influenced by a number of factors outside of our control, including **, among others,** retail energy prices **, the macroeconomic environment,** and government regulation and incentives ~~, among others~~ . Although we have agreements with some of our largest customers, these agreements generally do not have long- term purchase commitments and are generally terminable by either party after a relatively short notice period. In addition, these customers may decide to no longer use, or to reduce the use of, our products and services for other reasons that may be out of our control. We may also be affected by events impacting our large customers that result in their decreasing their orders with us or impairing their ability to pay for our products. The loss of, or events affecting, one or more of our large customers has had from time to time, and could in the future have a material adverse effect on our business, financial condition and results of operations. Our energy systems, including our storage ~~solution~~ **solutions** ~~, integrated ACM Module~~ , IQ8 ~~solar~~ microinverters and Ensemble **OS** technology, may not achieve broader market acceptance, which would prevent us from increasing our revenue and market share. If we fail to achieve broader market acceptance of **the** Enphase Energy System, including international acceptance of our **storage solutions,** IQ8 microinverters, ACM products and Ensemble **OS** technology, there would be an adverse impact on our ability to increase our revenue, gain market share and achieve and sustain profitability. Our ability to achieve broader market acceptance for our products and services will be impacted by a number of factors, including: • our ability to produce ~~PV~~ **energy** systems that compete favorably against other solutions on the basis of price, quality, reliability and performance; • our ability to timely introduce and complete new designs and timely qualify and certify our products; • whether installers, system owners and solar financing providers will continue to adopt our systems, which have a relatively limited history with respect to reliability and performance; • whether installers, system owners and solar financing providers will adopt our storage solution, which is a relatively new technology with a limited history with respect to reliability and performance; • the ability of prospective system owners to obtain long- term financing for solar PV installations based on our product platform on acceptable terms or at all; ~~Enphase Energy, Inc. | 2022 Form 10- K | 24~~ • our ability to develop products, systems and services that comply with local standards and regulatory requirements, as well as potential in- country manufacturing requirements; and • our ability to develop and maintain successful relationships with our customers and suppliers. In addition, our ability to achieve increased market share will depend on our ability to increase sales to established solar installers, who have traditionally sold central or string inverters, or who currently sell DC- to- DC optimizers. These installers often have made substantial investments in design, installation resources and training in traditional central or string inverter systems or DC optimizers, which may create challenges for us to achieve their adoption of our solutions. **If our** ~~Our success in marketing and selling ACM~~ products ~~depends in part upon our ability to continue to work closely with leading solar module manufacturers. We continue to work on variants of our microinverter systems that enable direct attachment of a microinverter to solar modules. The market success of such ACM products will depend in part on our ability to continue to work closely with SunPower and other solar module manufacturers to design microinverters that are compatible with and can be attached directly to solar modules. We may not be able to encourage solar module manufacturers to work with us on the development of such compatible solutions for a variety of reasons, including differences in marketing or selling strategy, competitive considerations, lack of competitive pricing and technological compatibility. In addition, our ability to form effective relationships with solar module manufacturers may be adversely affected by the substantial challenges faced by many of these manufacturers due to declining prices and revenues from sales of solar modules and the tariffs in the United States. If our IQ Microinverters or IQ Batteries~~ contain manufacturing ~~defects, or our~~ **or** ~~Ensemble contains~~ software defects, our business and financial results could be harmed. We design and make complex products and they may contain undetected or latent errors or defects. Complex hardware and software systems, such as our products, can often contain undetected errors when first introduced or as new versions are released. In the past, we have experienced latent defects only discovered once the microinverters or batteries are deployed in the field. Changes in our supply chain or the failure of our suppliers to otherwise provide our third- party contract manufacturers with components or materials that meet our specifications could introduce defects into our products. As we grow our product volumes, the chance of manufacturing defects could increase. In addition, new product introductions or design changes made for the purpose of cost reduction, performance improvement ~~,~~ or improved reliability could introduce new design defects that may impact the performance and life of our products. Any design or manufacturing defects or other failures of our products to **Enphase Energy, Inc. | 2023 Form 10- K | 24** perform as expected could cause us to incur significant service and re- engineering costs, divert the attention of our engineering personnel from product development efforts and significantly and adversely affect installer and customer satisfaction, market acceptance and our business reputation. Furthermore, if we are unable to correct manufacturing defects or other failures of products in a manner satisfactory to our customers, our results of operations, customer satisfaction and our business reputation could be adversely affected **. Since some of our products are electricity- producing devices, it is possible that our systems could result in injury, whether by product malfunctions, defects, improper installation, or other causes. We rely on third party installers to install our products according to our installation guides and with local laws. Any significant installation problems could cause us significant harm, including, the incurrence of significant service costs, diverting the attention of our engineering personnel from product development efforts and adversely affecting installer and customer satisfaction, market acceptance and our business reputation, and could subject us to litigation and regulatory costs** . In addition, due to the high energy density of lithium- ion cells, mishandling, inappropriate storage or delivery, non- compliance with safety instructions or field failures can potentially cause a battery cell to rapidly release its stored energy, which may in turn cause a thermal event that can ignite nearby materials, including other lithium- ion cells. As the use of lithium- ion batteries becomes more widespread, these events may occur more often, causing damage to property, injury, lawsuits and adverse publicity, which may adversely affect our reputation, results of operations or financial condition. If we fail to retain our key personnel or if we fail to attract additional qualified personnel, we may not be able to achieve our anticipated level of growth and our business could suffer. Our future success and ability to implement our business strategy depends, in part, on our ability to attract and retain key personnel, and on the continued contributions of members of our senior management team and key personnel in areas such as engineering, marketing and sales, any of whom would be difficult to replace. For example, we are highly dependent on our president and chief executive officer, Badrinarayanan Kothandaraman. Mr. Kothandaraman possesses technical knowledge of our business, operations and strategy, and he has substantial experience and contacts that help us implement our goals, strategy and plan. If we lose his services or if he decides to join a competitor or otherwise compete directly or indirectly with us, our business, operating results and financial condition could be materially harmed. ~~Enphase Energy, Inc. | 2022 Form 10- K | 25~~ All of our employees, including our senior management, are free to terminate their employment relationships with us at any time. Competition for highly skilled executives and employees in the technology industry is intense, and our competitors have targeted individuals in our organization that have desired skills and experience. If we are not able to continue to attract, train and retain our leadership team and our qualified employees necessary for our business, the progress of our product development programs could be hindered, and we could be materially adversely affected. To help attract, retain and motivate our executives and qualified employees, we use stock- based incentive awards, including restricted stock units. If the value of such stock awards does not appreciate as measured by the performance of the price of our common stock, or if our share- based compensation otherwise ceases to be viewed as a valuable benefit, our ability to attract, retain and motivate our executives and employees could be weakened, which could harm our business and results of operations. Also, if the value of our stock awards increases substantially, this could potentially create substantial personal wealth for our executives and employees and affect our ability to retain our personnel. In addition, any ~~future~~ restructuring plans may adversely impact our ability to attract and retain key employees. Additionally, our ability to attract qualified personnel, including senior management and key technical personnel, is critical to the execution of our growth strategy. Competition for qualified senior management personnel and highly skilled individuals with technical expertise is extremely intense, and we face challenges identifying, hiring and retaining qualified personnel in all areas of our business. In addition, integrating new employees into our team could prove disruptive to our operations, require substantial resources and management attention and ultimately prove unsuccessful. Our failure to attract and retain qualified senior management and other key technical personnel could limit or delay our strategic efforts, which could have a material adverse effect on our business, financial condition, results of operations and prospects **. Restructuring activities could disrupt our business and adversely affect our results of operations. We have taken steps, including reducing our global workforce, streamlining our operations and internal reorganizations, to increase operational efficiencies and execution, reduce operating costs, and better align our workforce and cost structure with current market condition. We may take similar steps in the future as we seek to Enphase Energy, Inc. | 2023 Form 10- K | 25 realize operating synergies, meet our strategic priorities and profitability objectives, or to reflect more closely changes in our business needs. These changes could be disruptive to our business, including our research and development efforts, and could result in significant expense, including accounting charges for inventory and technology- related write- offs, workforce reduction costs and charges relating to consolidation of excess facilities. Substantial expense or charges resulting from restructuring activities could adversely affect our results of operations and use of cash in those periods in which we undertake such actions** . Any failure by management to properly manage growth could have a material adverse effect on our business, operating results and financial condition. Our business has grown rapidly, and, if our business develops ~~as currently expected~~ , we **may** ~~anticipate that we will~~ continue to grow **our business** rapidly ~~in the near future~~ . ~~Our expected rapid growth~~ **Growth in our business** could place significant demands on our management, operations, systems, accounting, internal controls and financial resources, and it may also negatively impact our ability to retain key personnel. If we experience difficulties in any of these or other areas, we may not be able to expand our business successfully or effectively manage our growth. Any failure by management to manage our growth and to respond to changes in our business could have a material adverse effect on our business, financial condition and results of operations. If we are unsuccessful in continuing to...... 2022 Form 10- K | 26 Our business has been and could continue to be affected by seasonal trends and construction cycles. We have been and could continue to be subject to industry- specific seasonal fluctuations. Historically, the majority of our ~~revenues~~ **revenue** are from the North American and European regions, which experience higher sales of our products in the second, third and fourth quarters and have been affected by seasonal customer demand trends, including weather patterns and construction cycles. The first quarter historically has had softer customer demand in our industry, due to these same factors. In the United States, customers will sometimes make purchasing decisions towards the end of the year in order to take advantage of tax credits or for budgetary reasons. In addition, construction levels are typically slower in colder and wetter months. In European countries with FiTs, the construction of solar PV systems may be concentrated during the second half of the calendar year, largely due to the annual reduction of the applicable minimum FiT and the fact that the coldest winter months are January through March. Accordingly, our business and quarterly results of operations could be affected by seasonal fluctuations in the future. If we are unsuccessful in continuing to expand our direct- to- consumer sales channel by driving purchases through our website,our business and results of operation could be harmed.Although we primarily sell our solutions and products directly to solar distributors,who resell to installers and integrators,who then in turn integrate our products into complete solar PV installations for residential and commercial system owners,we have recently invested significant resources in our direct- to- consumer sales channel through our website,and our future growth relies,in part,on our ability to attract consumers through this channel.Expanding our direct- to- consumer sales model will require significant expenditures in marketing,software development and infrastructure.Further,the success of direct- to- consumer sales through our website is also subject to general business regulations and laws,as well as federal,state,foreign and provincial regulations and laws specifically governing the internet and e- commerce.These regulations and laws may cover taxation,tariffs,privacy,data protection,pricing,distribution,electronic contracts and other communications,consumer protection and intellectual property.These laws and regulations can be complex,difficult to interpret and may change over time.Continued regulatory limitations and other obstacles interfering with our ability to sell our products directly to consumers could have a negative and material impact our business,prospects,financial condition and results of operations.Further,the expansion of our direct- to- consumer channel could alienate some of our existing distributors and installers and cause a reduction in sales from these third parties.Our existing distributors and installers may perceive themselves to be at a disadvantage based on the direct- to- consumer sales offered through our website.Due to these and other factors,conflicts in our sales channels could arise and cause our existing distributors and installers to divert resources away from the promotion and sale of our products.If we are unable to successfully continue to drive traffic to,and increase sales through,our website,our business and results of operations could be harmed.Enphase Energy,Inc.| ~~2023~~ **2022** Form 10- K | 26 Risks Related to our Intellectual Property and Technology We are dependent on information technology systems, infrastructure and data. We **or third parties upon which we rely** could be subject to breaches of our information technology systems caused by system security risks, failure of our data protection, cyber- attacks and erroneous or non- malicious actions or failures to act by our employees or others with authorized access to our networks, which could cause significant reputational, legal and financial damages. Like many companies, **in the ordinary course of business** we **process,** use **transfer, generate, disclose, secure, transmit** and store a wide variety of confidential and proprietary information **including personal information and other sensitive information** relating to our business **, products and services** . The secure maintenance of this information is critical to our business and reputation. Despite our implementation of security measures, our systems are vulnerable to damages from computer viruses, computer denial- of- service attacks, ransomware, supply chain attacks, worms and other malicious software programs or other attacks, covert introduction of malware to computers and networks, unauthorized access, including impersonation of ~~unauthorized~~ -- **authorized** users **, social-engineering attacks (including through deep fakes, which may be increasingly more difficult to identify as fake, and phishing attacks)** , efforts to discover and exploit any security vulnerabilities or securities weaknesses and other similar **issues and** disruptions **. In particular, severe ransomware attacks are becoming increasingly prevalent – particularly for companies like ours that interact with critical infrastructure or manufacturing – and can lead to significant interruptions in our operations, and ability to provide our products or services** . Although we make significant efforts to maintain the security ~~and~~ **, availability,** integrity **and confidentiality** of our information technology and related systems and have implemented measures to manage the risk of a security breach or disruption, there can be no assurance that our security efforts and measures will be effective, or that attempted security breaches or disruptions would not be successful or damaging **. Remote work has become more common and has increased risks to our information technology and related systems, as more of our employees utilize network connections, computers and devices outside our premises or network, including working at home, while in transit and in public locations** . The techniques used in attempted cyber- attacks and intrusions are sophisticated and constantly evolving and may be difficult to detect for long periods of time. We may be unable to anticipate these techniques or implement adequate preventative measures. Although to date we have not experienced any material breaches of our systems that could have material adverse effect on our business, attacks and intrusions on our systems will continue and we may experience a breach of our systems that compromises sensitive company information or customer data **including personal information** . In addition, hardware, software, or applications we develop or procure from third parties may contain defects in design or manufacture or other problems that could unexpectedly compromise information security. Intentional or non- malicious breaches by employees or others may pose a risk that sensitive data, including our intellectual property, trade secrets or personal information of our employees, customers or users, or other business partners may be exposed to unauthorized persons or to the public, or that risks of loss or misuse of this information could occur. Furthermore, if we experience a significant data security breach, we could be exposed to reputational damage and significant costs, including to rebuild our systems, modify our products and services, defend litigation, respond to government enforcement actions, pay damages or take other remedial steps, any of which could adversely affect our business, results of operations and financial condition. In addition, we may be required to incur significant costs to protect against damage caused by these disruptions or security breaches in the future. These risks, as well as the number and frequency of cybersecurity events globally, may also be heightened during times of geopolitical tension or instability **. Future** ~~between countries, including, for~~ - **or** ~~example, the ongoing military conflict between Russia~~ **past business transactions (such as acquisitions or integrations) could expose us to additional cybersecurity risks** and ~~Ukraine~~ **vulnerabilities, as our systems could be negatively affected by vulnerabilities present in acquired or integrated entities' systems and technologies** . We may also **rely on and** share information with contractors and third- party providers to conduct our business **and provide our products and services** . Although such contractors and third- party providers **take steps designed** ~~typically implement encryption and authentication technologies~~ to secure ~~the transmission and storage of~~ data **and prevent security incidents** , **our ability to monitor** ~~those~~ **these third- parties' information security practices and potential security incidents is limited, and these third- parties may not have adequate information security measures in place. These** third- party providers may experience a significant data security breach, which may also detrimentally affect our business, **ability to provide our products and services,** results of operations ~~,~~ and financial condition. The cost and operational consequences of implementing further data protection measures could be significant and theft of our intellectual property or proprietary business information could require substantial expenditures to remedy. Further, we cannot be certain that (a) our liability insurance will be sufficient in type or amount to cover us against claims related to security breaches, cyberattacks and other related breaches; (b) such coverage will cover any indemnification claims against us relating to any incident, will continue to be available to us on economically reasonable terms, or at all; and (c) any insurer will not deny coverage as to any future claim. The successful assertion of one or more large claims against us that exceed available insurance coverage, or the occurrence of changes in our insurance policies, including premium increases or the imposition or large deductible or co- insurance requirements, could adversely affect our reputation, business, financial condition and results of operations. Unauthorized use or disclosure of, or access to, any personal information maintained by us or on our behalf, whether through breach of our systems, breach of the systems of our suppliers or vendors by an unauthorized party, or through employee or contractor error, theft or misuse, or otherwise, could harm our business. If any such unauthorized use or disclosure of, or access to, such personal information was to occur, our operations could be seriously disrupted, and we could be subject to demands, claims and litigation by private parties and investigations, related actions and penalties by regulatory authorities. In addition, we could incur significant costs in notifying affected persons and entities and otherwise complying with the multitude of foreign, federal, state and local laws and regulations relating to the unauthorized access to, or use or disclosure of, personal information. Finally, any perceived or actual unauthorized access to, or use or disclosure of, such information could harm our reputation, substantially impair our ability to attract and retain customers and have an adverse impact on our business, financial condition and results of operations. The software we use in providing system configuration recommendations or potential energy savings estimates to customers relies in part on third- party information that may not be accurate or up- to- date; this may therefore generate inaccurate recommendations or estimates, resulting in a loss of reputation and customer confidence. We provide our customers online tools to help them determine proper system sizing and configurations, estimates of bill savings and potential revenues resulting from executing a specific curtailment strategy. These estimates are in turn based on a number of factors such as customer tariff structures, estimated wholesale electricity prices, future economic conditions and estimates of the reduction in electricity usage as a result of a curtailment activity. If the estimates we provide prove to be significantly different from actual payments or savings received by our customers, it may result in the loss of reputation and / or customer confidence. We are subject to stringent **and evolving data** privacy **and security** laws **, contractual obligations** , information security policies and ~~contractual~~ **other** obligations governing the use, processing and transfer of personal information, and any unauthorized access to, or disclosure or theft of, personal information we gather, store or use could harm our reputation and subject us to claims or litigation. We receive, store and use certain personal information of our customers, and the end- users of our customers' energy systems, including names, addresses, e- mail addresses, energy system details and performance information. We also store and use personal information of our employees. We take steps to protect the security, integrity and confidentiality of the personal information we collect, store and transmit, but there is no guarantee that inadvertent or unauthorized use or disclosure will not occur or that third parties will not gain unauthorized access to this information despite our efforts. Because techniques used to obtain unauthorized access or sabotage systems change frequently and generally are not identified until they are launched against a target, we and our suppliers or vendors may be unable to anticipate these techniques or to implement adequate preventative or mitigation measures. We are subject to a variety of local, state, national and international laws, directives and regulations that apply to the collection, use, retention, protection, disclosure, transfer and other processing of personal data in the different jurisdictions in which we operate, including **, for example,** comprehensive regulatory systems in the United States ~~and~~ **,** Europe ~~. The United States has five new state privacy laws coming into effect in 2023, Europe continues to enforce the General Data Protection Regulation,~~ and **Brazil** ~~countless other jurisdictions in which we operate or have customers with energy systems similarly have privacy regulations or laws~~ . It remains unclear what additional requirements will be codified in future laws, how those laws will be enforced, and how these legal shifts impact our operations and risk. We may be required to modify our data practices and policies, at potentially substantial additional costs and expenses. Complying with these forthcoming and future laws, regulations, amendments to or re- interpretations of existing laws and regulations, and contractual or other obligations relating to privacy, data protection, data transfers, data **localization, or information security may require us to make changes to our services to enable us or our customers to meet new legal requirements, incur substantial operational costs, modify our data practices and policies, and restrict our business operations.** Enphase Energy, Inc. | ~~2022~~ **2023** Form 10- K | 28 ~~localization, or information security may require us to make changes to our services to enable us or our customers to meet new legal requirements, incur substantial operational costs, modify our data practices and policies, and restrict our business operations.~~ Additionally, certain privacy and other laws impose obligations to provide notification of security breaches of computer databases that contain personal information to affected individuals, state officers and others. Any actual or perceived failure by us to comply with these laws, regulations or other obligations may lead to significant fines, penalties, regulatory investigations, lawsuits, significant costs for remediation, damage to our reputation, or other liabilities. If we fail to protect, or incur significant costs in enforcing, our intellectual property and other proprietary rights, our business and results of operations could be materially harmed. Our success depends to a significant degree on our ability to protect our intellectual property and other proprietary rights. We rely on a combination of patent, trademark, copyright, trade secret and unfair competition laws, as well as confidentiality and license agreements and other contractual provisions, to establish and protect our intellectual property and other proprietary rights. We have applied for patent and trademark registrations in the United States ~~,~~ and in other countries, many of which have been issued. We cannot guarantee that any of our pending applications will be approved or that our existing and future intellectual property rights will be sufficiently broad to protect our proprietary technology, and any failure to obtain such approvals or finding that our intellectual property rights are invalid or unenforceable could force us to, among other things, rebrand or re- design our affected products. This includes an inherent risk that our registered or unregistered trademarks or trade names that we own or use may be challenged, infringed, circumvented, declared generic, lapsed or determined to be infringing on or dilutive of other marks, and that we may not be able to protect our rights, all of which may cause material adverse impact on our marketing abilities. Our patent protection depends on compliance with various required procedures, document submissions, fee payments, and other requirements imposed by national patent offices, and our patent protection could be reduced or eliminated for non- compliance with these requirements, despite our engagement of reputable law firms and other professionals to help us comply with such requirements. Even where we do comply with such requirements and enjoy the full length of patent protection, patent terms are finite in length – generally 20 years from the earliest U. S. non- provisional priority filing date – which may be inadequate to protect our competitive position on our products. In countries where we have not applied for patent protection or where effective intellectual property protection is not available to the same extent as in the U. S., we may be at greater risk that our proprietary rights will be misappropriated, infringed or otherwise violated. To protect our unregistered intellectual property, including our trade secrets and know- how, we rely in part on trade secret laws and confidentiality and invention assignment agreements with our employees and independent contractors. We also require other third parties who may have access to our proprietary technologies and information to enter into non- disclosure agreements. Such measures, however, provide only limited protection, and we cannot assure that our confidentiality and non- disclosure agreements will prevent unauthorized disclosure or use of our confidential information, especially after our employees or third parties end their employment or engagement with us, or provide us with an adequate remedy in the event of such disclosure. Furthermore, competitors or other third parties may independently discover our trade secrets, copy or reverse engineer our products or portions thereof, or develop similar technology. If we fail to protect our intellectual property and other proprietary rights, or if such intellectual property and proprietary rights are infringed, misappropriated or otherwise violated, our business, results of operations or financial condition could be materially harmed. In the future, we may need to take legal action to prevent third parties from infringing upon or misappropriating our intellectual property or from otherwise gaining access to our technology. Protecting and enforcing our intellectual property rights and determining their validity and scope could result in significant litigation costs and require significant time and attention from our technical and management personnel, which could significantly harm our business. In addition, we may not prevail in such proceedings. An adverse outcome of any such proceeding may reduce our competitive advantage or otherwise harm our financial condition and our business. We may be subject to disruptions or failures in information technology systems and network infrastructures that could have a material adverse effect on our business and financial condition. We rely on the efficient and uninterrupted operation of complex information technology systems and network infrastructures to operate our business. In addition, our web- based monitoring service, which our installers and end- user customers use to track and monitor the performance of their energy systems, is dependent on cloud- based hosting services, along with the availability of ~~WiFi~~ **internet** or ~~mobile~~ **cellular** data services at end- user premises. Despite testing by us, real or perceived errors, failures or bugs in our customer solutions, software or technology or the technology or **software we license from third parties, including open source software, may not be found until our customers use our products. Real or perceived errors, failures or bugs in our products could result in negative publicity, loss of or** Enphase Energy, Inc. | ~~2022~~ **2023** Form 10- K | 29 ~~software we license from third parties, including open source software, may not be found until our customers use our products. Real or perceived errors, failures or bugs in our products could result in negative publicity, loss of or~~ delay in market acceptance of our products, harm to our brand, weakening of our competitive position or claims by customers for losses sustained by them. A disruption, infiltration or failure of our information technology systems, third- party cloud hosting platforms or end- user data services as a result of software or hardware malfunctions, system implementations or upgrades, computer viruses, cyber- attacks, third- party security breaches, employee / human error, theft or misuse, malfeasance, power disruptions, natural disasters or accidents could cause breaches of data security, failure of our service, loss of intellectual property and critical data and the release and misappropriation of sensitive competitive information and partner, customer and employee personal data. We have been and may in the future be subject to fraud attempts from outside parties through our electronic systems (such as " phishing " e- mail communications to our finance, technical or other personnel), which could put us at risk for harm from fraud, theft or other loss if our internal controls do not operate as intended. Any such future events could further harm our competitive position, result in a loss of customer confidence, cause us to incur significant costs to remedy any damages and ultimately materially adversely affect our business and financial condition. Third parties may assert that we are infringing upon their intellectual property rights, which could divert management' s attention, cause us to incur significant costs, and prevent us from selling or using the technology to which such rights relate. Our competitors and other third parties hold numerous patents related to technology used in our industry, and claims of patent or other intellectual property right infringement or violation have been litigated against our competitors. We may also be subject to such claims and litigation. Regardless of their merit, responding to such claims can be time consuming, divert management' s attention and resources, and may cause us to incur significant expenses. While we believe that our products and technology do not infringe upon any intellectual property rights of third parties, we cannot be certain that we would be successful in defending against any such claims. Furthermore, patent applications in the United States and most other countries are confidential for a period of time before being published, so we cannot be certain that we are not infringing third parties' patent rights or that we were the first to conceive or protect inventions covered by our patents or patent applications. An adverse outcome with respect to any intellectual property claim could invalidate our proprietary rights and force us to do one or more of the following: • obtain from a third- party claiming infringement a license to sell or use the relevant technology, which may not be available on reasonable terms, or at all; • stop manufacturing, selling, incorporating or using products that embody the asserted intellectual property; • pay substantial monetary damages; • indemnify our customers under some of our customer contracts; or • expend significant resources to redesign the products that use the infringing technology, or to develop or acquire non- infringing technology. Any of these actions could result in a substantial reduction in our revenue and could result in losses over an extended period of time. Our failure to obtain the right to use necessary third- party intellectual property rights on reasonable terms, or our failure to maintain, and comply with the terms and conditions applicable to these rights, could harm our business and prospects. We have licensed, and in the future we may choose or be required to license, technology or intellectual property from third parties in connection with the development and marketing of our products. We cannot assure you that such licenses will be available to us on commercially reasonable terms, or at all, and our inability to obtain such licenses could require us to substitute technology of lower quality or of greater cost. Further, such licenses may be non- exclusive, which could result in our competitors gaining access to the same intellectual property. The licensing or acquisition of third- party intellectual property rights is a competitive area, and other established companies may pursue strategies to license or acquire third- party intellectual property rights that we may consider attractive or necessary. These established companies may have a competitive advantage over us due to their size, capital resources or greater development or commercialization capabilities. In addition, companies that perceive us to be a competitor may be unwilling to assign or license rights to us. We could encounter delays and incur significant costs, in product or service introductions while we attempt to develop ~~Enphase Energy, Inc. | 2022 Form 10- K | 30~~ alternative products or services, or redesign our products or services, to avoid infringing third- party patents or proprietary rights. Failure to obtain any such licenses or to develop a workaround could prevent us from **Enphase Energy, Inc. | 2023 Form 10- K | 30** commercializing products or services, and the prohibition of sale or the threat of the prohibition of sale of any of our products or services could materially affect our business and our ability to gain market acceptance for our products or services. In addition, we incorporate open source software code in our proprietary software. Use of open source software can lead to greater risks than use of third- party commercial software, since open source licensors generally do not provide warranties or controls with respect to origin, functionality or other features of the software. Further, companies that incorporate open source software into their products have, from time to time, faced claims challenging their use of open source software and compliance with open source license terms. As a result, we could be subject to lawsuits by parties claiming ownership of what we believe to be open source software or claiming noncompliance with open source licensing terms. Some open source software licenses require users who distribute open source software as part of their products to publicly disclose all or part of the source code in their software and make any derivative works of the open source code available for limited fees or at no cost. Although we monitor our use of open source software, open source license terms may be ambiguous, and many of the risks associated with the use of open source software cannot be eliminated. If we were found to have inappropriately used open source software, we may be required to release our proprietary source code, re- engineer our software, discontinue the sale of certain products in the event re- engineering cannot be accomplished on a timely basis, or take other remedial action. Furthermore, if we are unable to obtain or maintain licenses from third parties or fail to comply with open source licenses, we may be subject to costly third- party claims of intellectual property infringement or ownership of our proprietary source code. There is little legal precedent in this area and any actual or claimed requirement to disclose our proprietary source code or pay damages for breach of contract could harm our business and could help third parties, including our competitors, develop products and services that are similar to or better than ours. Any of the above could harm our business and put us at a competitive disadvantage. Risks related to Legal Proceedings and Regulations Changes in current laws or regulations or the imposition of new laws or regulations, or new interpretations thereof, in the solar energy sector, by federal or state agencies in the United States or foreign jurisdictions could impair our ability to compete and could materially harm our business, financial condition and results of operations. There has been and will continue to be regulatory uncertainty in the clean energy sector generally and the solar energy sector in particular. Changes in current laws or regulations, or the imposition of new laws and regulations in the United States and around the world, could materially and adversely affect our business, financial condition and results of operations. In addition, any changes to the laws and implementing regulations affecting the clean energy sector may create delays in the introduction of new products, prevent our customers from deploying our products or, in some cases, require us to redesign our products. For example, several states or territories, including California, Hawaii and Queensland, Australia, have either implemented or are considering implementing rules regulating the installation of solar power systems, and we may not be able to adequately evolve our products and services to accommodate such new policies and regulations, which may result in new rates and tariffs. In the event that we cannot comply with these or other new regulations or implement a solution to such noncompliance as they arise, the total market available for our microinverter and battery products in such states, and our business as a result, may be adversely impacted. Additionally, if the federal or state agencies in the United States takes action to eliminate or reduce laws, regulations and incentives supporting solar energy, such actions may result in a decrease in demand for solar energy in the United States and other geographical markets, it would harm our business, financial condition and results of operations. Changes in the United States trade environment, including the recent imposition of import tariffs, could adversely affect the amount or timing of our ~~revenues~~ - **revenue** , results of operations or cash flows. Escalating trade tensions between the U. S. and China have led to increased tariffs and trade restrictions, including tariffs applicable to certain of our products. For example, in September 2018, the U. S. began assessing 10 % tariffs on certain solar products manufactured in China, including our microinverter products and related accessories which are manufactured in China. These tariffs increased to 25 % in May 2019, and on January 2020, ~~Enphase Energy, Inc. | 2022 Form 10- K | 31~~ the United States and China entered into an initial trade deal which preserves the bulk of the tariffs imposed in 2018 and maintains a threat of additional sanctions should China breach the terms of the deal. **Enphase Energy, Inc. | 2023 Form 10- K | 31** However, in March 2020, the Office of the U. S. Trade Representative announced certain exclusion requests related to tariffs on Chinese imported microinverter products that fit the dimensions and weight limits within a Section 301 Tariff exclusion (the “ Tariff Exclusion ”). The Tariff Exclusion applied to covered products exported from China to the United States from September 24, 2018 until August 7, 2020. Accordingly, we sought and received refunds totaling approximately $ 38. 9 million plus approximately $ 0. 6 million accrued interest on tariffs previously paid from September 24, 2018 to March 31, 2020 for certain microinverters that qualify for the Tariff Exclusion. This exemption expired in August 2020, and our request to extend it has been denied. Unless U. S. policy changes, or we are eligible for other exemptions or take other actions to avoid them, such tariffs will continue to apply to our microinverters and other products. Such tariffs could hurt the demand for these products and materially harm our business, financial condition and results of operations. There is no guarantee that we will be successful in obtaining exemptions or that any actions that we may pursue with respect to the organization and operation of our business will effectively mitigate the effects of any tariffs that apply to our business. If we are not able to avoid or mitigate the effects of such tariffs, the tariffs (or mitigating actions we might take) could result in material additional costs to us and our suppliers, and our results of operations could be negatively impacted as a result. It is unknown whether and to what extent additional new tariffs or other new laws or regulations will be adopted that increase the cost of manufacturing in China and / or importing components from China to the United States. Further, it is unknown what effect that any such new tariffs or retaliatory actions would have on us or our industry and customers. Our lithium- ion phosphate (“ LFP ”) battery cells for our storage products are supplied solely via our two suppliers in China. Although we are in the process of searching for other suppliers outside of China for future supplies, the expertise and industry for the LFP battery cell is primarily in China and we cannot be certain that we will locate additional qualified suppliers with the right expertise to develop our battery cells outside of China, if at all. In response to the tensions in ~~US~~ **U. S.** - China trade relations and increased tariffs, we focused efforts and resources on attaining manufacturers outside of China, primarily in Mexico and India. The tariffs and the possibility of additional tariffs in the future have created uncertainty in the industry. If the price of solar power systems in the United States increases, the use of solar power systems could become less economically feasible and could reduce our gross margins or reduce the demand of solar power systems manufactured and sold, which in turn may decrease demand for our products. Additionally, existing or future tariffs may negatively affect key partners, suppliers, and manufacturers. Such outcomes could adversely affect the amount or timing of our ~~revenues~~ - **revenue** , results of operations or cash flows, and continuing uncertainty could cause sales volatility, price fluctuations or supply shortages or cause our customers to advance or delay their purchase of our products. It is difficult to predict what further trade- related actions governments may take, which may include additional or increased tariffs and trade restrictions, and we may be unable to quickly and effectively react to such actions. As additional new tariffs, legislation and / or regulations are implemented, or if existing trade agreements are renegotiated or if China or other affected countries take retaliatory trade actions, such changes could have a material adverse effect on our business, financial condition, results of operations or cash flows. In addition, while we are not aware of any other current or proposed export or import regulations that would materially restrict our ability to sell our products in countries where we offer our products for sale, any change in export or import regulations or related legislation, shift in approach to the enforcement or scope of existing regulations, or change in the countries, persons or technologies targeted by these regulations, could result in decreased use of our products by, or in our decreased ability to export or sell our products to, existing or potential customers with international operations. In such event, our business and results of operations could be adversely affected. Our significant international operations subject us to additional risks that could adversely affect our business, results of operations and financial condition. We have significant international operations, including in emerging markets such as India, and we are continuing to expand our international operations as part of our growth strategy. As of December 31, ~~2022~~ **2023**, approximately ~~50~~ **54** % of our total employees were located in India, where we primarily conduct our research and development activities, procurement, customer support services, and other general and administrative support functions. Enphase Energy, Inc. | ~~2022~~ **2023** Form 10- K | 32 In addition, during ~~2022~~ **2023**, we continued to expand our operations into Europe and for the year ended December 31, ~~2022~~ **2023** approximately ~~19~~ **31** % of our **net** ~~revenue~~ **revenues** was derived from Europe as compared to approximately ~~14~~ **19** % of our **net** ~~revenue~~ **revenues** from the same region for the year ended December 31, ~~2021~~ **2022**. Our current international operations and our ongoing plans to expand our international operations have placed, and will continue to place, a strain on our employees, management systems and other resources. Our international operations may fail to succeed due to risks inherent in operating businesses internationally, such as: • adverse social, political and economic conditions, such as inflation and rising interest rates; • our lack of familiarity with commercial and social norms and customs in countries which may adversely affect our ability to recruit, retain and manage employees in these countries; • difficulties and costs associated with staffing and managing foreign operations; • the potential diversion of management' s attention to oversee and direct operations that are geographically distant from our U. S. headquarters; • compliance with multiple, conflicting and changing governmental laws and regulations, including **environmental,** employment, tax, privacy and data protection laws and other regulatory requirements; • legal systems in which our ability to enforce and protect our rights may be different or less effective than in the United States and in which the ultimate result of dispute resolution is more difficult to predict; • difficulty and cost of staffing and managing foreign operations; • tariffs, export controls and other non- tariff barriers such as quotas and local content rules; • more limited protection for intellectual property rights in some countries; • adverse tax consequences, including as a result of transfer pricing adjustments involving our foreign operations; • effects of adverse changes in currency exchange rates; • higher incidence of corruption or unethical business practices; • restrictions on the transfer of funds; • natural disasters (including as a result of climate change), acts of war or terrorism, and public health emergencies, including the COVID- 19 pandemic; and • uncertain economic, legal and political conditions in Europe, Asia and other regions where we do business, including, for example, as a result of the ongoing military ~~conflict~~ **conflicts in** ~~between Russia and~~ Ukraine **, the Gaza Strip** and **nearby areas, and any** changes in China- Taiwan and U. S.- China relations. 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. **Expectations relating to ESG considerations and related reporting obligations may expose the business to potential liabilities, increased costs, and reputational harm. Many stakeholders including governments, regulators, investors, employees and business partners are increasingly focused on corporate environmental, social and governance (" ESG ") considerations such as greenhouse gas emissions, natural resource management, human rights and human capital management practices. Any failure, perceived or otherwise, to comply with existing and emerging ESG- related laws and regulations in the United States, Europe and elsewhere, or to meet varied and evolving stakeholder expectations or standards with respect to ESG issues could result in legal and regulatory proceedings and may harm our business, reputation, financial condition and results of operations. Enphase Energy, Inc. | 2023 Form 10- K | 33** We could be adversely affected by any violations of the FCPA, the U. K. Bribery Act, and other foreign anti- bribery laws. The U. S. FCPA generally prohibits companies and their intermediaries from making improper payments to non- U. S. government officials for the purpose of obtaining or retaining business. Other countries in which we operate also have anti- bribery laws, some of which prohibit improper payments to government and non- government persons and entities, and others (e. g., the FCPA and the U. K. Bribery Act) extend their application to activities outside of their country of origin. Our policies mandate compliance with all applicable anti- bribery laws. We currently operate in, and may further expand into, key parts of the world that have experienced governmental corruption to some degree and, in certain circumstances, strict compliance with anti- bribery laws may conflict with local customs and practices. In addition, due to the level of regulation in our industry, our entry into new jurisdictions through internal growth or acquisitions requires substantial government contact where norms can differ from U. S. standards. Additionally, the costs of complying with these laws (including the costs of investigations, auditing, and monitoring) could adversely affect our current or future business. Although, we implement policies and procedures and conduct ~~Enphase Energy, Inc. | 2022 Form 10- K | 33~~ training designed to facilitate compliance with these anti- bribery laws, thereby mitigating the risk of violations of such laws, our employees, subcontractors, agents and partners may take actions in violation of our policies and anti- bribery laws. Any such violation, even if prohibited by our policies, could subject us to criminal or civil penalties or other sanctions, which could have a material adverse effect on our business, financial condition, cash flows, and reputation. From time to time we are involved in a number of legal proceedings and, while we cannot predict the outcomes of such proceedings and other contingencies with certainty, some of these outcomes could adversely affect our business and financial condition. We are, or may become, involved in legal proceedings, government and agency investigations, and consumer, employment, tort and other litigation. We cannot predict with certainty the outcomes of these legal proceedings. The outcome of these legal proceeding could require us to take, or refrain from taking, actions which could negatively affect our operations or could require us to pay substantial amounts of money adversely affecting our financial condition and results of operations. There can also be no assurance that we are adequately insured to protect against all claims and potential liabilities. Additionally, defending against lawsuits and legal proceedings may involve significant expense and could divert the attention of our key personnel. Risks Related to our Financial Condition and Liquidity Our gross profit may fluctuate over time, which could impair our ability to achieve or maintain profitability. Our gross profit has varied in the past and is likely to continue to vary significantly from period to period. Our gross profit may be adversely affected by numerous factors, some of which are beyond our control, including: • changes in customer, geographic or product mix; • increased price competition, including the impact of customer and competitor discounts and rebates **; • the impact of inflation and higher interest rates** ; • our ability to reduce and control product costs, including our ability to make product cost reductions in a timely manner to offset declines in our product prices; • warranty costs and reserves, including changes resulting from changes in estimates related to the long- term performance of our products, product replacement costs and warranty claim rates, as well as changes in the discount rates; • loss of cost savings due to changes in component or raw material pricing or charges incurred due to inventory holding periods if product demand is not correctly anticipated; • introduction of new products; • ordering patterns from our distributors; • price reductions on older products to sell remaining inventory; • component shortages and related expedited shipping costs; • our ability to reduce production costs, such as through technology innovations, in order to offset price declines in our products over time; **Enphase Energy, Inc. | 2023 Form 10- K | 34** • changes in shipment volume; • changes in distribution channels; • excess and obsolete inventory and inventory holding charges; • expediting costs incurred to meet customer delivery requirements; • **changes to** the **IRA** ~~impact of inflation~~ ; • tariffs assessed on our products imported to the U. S. and elsewhere; and • fluctuations in foreign currency exchange rates. Fluctuations in gross profit may adversely affect our ability to manage our business or achieve or maintain profitability. ~~Enphase Energy, Inc. | 2022 Form 10- K | 34~~ We are under continuous pressure to reduce the prices of our products, which has adversely affected, and may continue to adversely affect, our gross margins. The solar power industry has been characterized by declining product prices over time. We have reduced the prices of our products in the past, and we expect to continue to experience pricing pressure for our products in the future, including from our major customers. In addition, we have reduced our prices ahead of planned cost reductions of our products, which has adversely affected our gross margins. When seeking to maintain or increase their market share, our competitors may also reduce the prices of their products. In addition, our customers may have the ability or seek to internally develop and manufacture competing products at a lower cost than we would otherwise charge, which would add additional pressure on us to lower our selling prices. If we are unable to offset any future reductions in our **ASPs** ~~average selling prices~~ by increasing our sales volume, reducing our costs and expenses or introducing new products, our gross margins would continue to be adversely affected. Given the general downward pressure on prices for our products driven by competitive pressure and technological change, a principal component of our business strategy is reducing the costs to manufacture our products to remain competitive. If our competitors are able to drive down their manufacturing costs faster than we can or increase the efficiency of their products, our products may become less competitive even when adjusted for efficiency, and we may be forced to sell our products at a price lower than our cost. Further, if raw materials costs and other third- party component costs were to increase, we may not meet our cost reduction targets. If we cannot effectively ~~execute~~ **remain price competitive, this could result in lost market share and lower gross margins. If we do not forecast demand for our products accurately, we may experience product shortages, delays in product shipment** ~~our~~ - **or excess product inventory,** any of which will adversely affect our business and financial condition.We manufacture our products according to our estimates of customer demand.This process requires us to make multiple forecasts and assumptions relating to the demand of our distributors,their end customers and general market conditions.Because we sell most of our products to distributors,who in turn sell to their end customers,we have limited visibility as to end- customer demand.We depend significantly on our distributors to provide us visibility into their end- customer demand,and we use these forecasts to make our own forecasts and planning decisions.If the information from our distributors turns out to be incorrect,then our own forecasts may also be inaccurate.Furthermore,we do not have long- term purchase commitments from our distributors **,installers** or end customers,and our sales are generally made by purchase orders that may be canceled,changed or deferred without notice to us or penalty.As a result,it is difficult to forecast future customer demand to plan our operations. ~~Enphase Energy,Inc.| 2022 Form 10- K | 35~~ If we overestimate demand for our products,or if purchase orders are canceled or shipments are delayed,we may have excess inventory that we cannot sell.We may have to make significant provisions for inventory write- downs based on events that are currently not known,and such provisions or any adjustments to such provisions could be material.We may also become involved in disputes with our suppliers who may claim that we failed to fulfill forecast or minimum purchase requirements.Conversely,if we underestimate demand,we may not have sufficient inventory to meet end- customer demand,and we may lose market share,damage relationships with our distributors and end customers and forgo potential revenue opportunities.Obtaining additional supply in the face of product shortages may be costly or impossible,particularly in light of supply chain disruptions and our outsourced manufacturing processes,which could prevent us from **fulfilling orders in a timely and** cost **- efficient manner or at all. In addition, if we overestimate our** ~~reduction~~ **production** ~~roadmap manner or at all.In addition,if we overestimate our production~~ requirements,our contract manufacturers may purchase excess components and build excess inventory.If our contract manufacturers,at our request,purchase excess components **Enphase Energy,Inc.| 2023 Form 10- K | 35** that are unique to our products and are unable to recoup the costs of such excess through resale or return or build excess products,we could be required to pay for these excess parts or products and recognize related inventory write- downs.In addition,we plan our operating expenses,including research and development expenses,hiring needs and inventory investments,in part on our estimates of customer demand and future revenue.If customer demand or revenue for a particular period is lower than we expect , we may not be able to ~~remain price competitive~~ **proportionately reduce our fixed operating expenses for that period** , which would **harm our operating** ~~result~~ **results** ~~in~~ **for that period. Our focus on a limited number of specific markets increases risks associated with the modification, elimination or expiration of governmental**

subsidies and economic incentives for on- grid solar electricity applications. To date, we have generated ~~lost~~ **most of our revenue from North America, and revenue generated from the U. S.** market **represented 64 %, 76 % and 80 % of our total net revenues for the annual periods ended on December 31, 2023, 2022 and 2021, respectively. We also expect to continue to generate a majority of our revenue from North America in the future. There** ~~share~~ -- **are several important incentives (including the ITC), AMPTC** and **other U** ~~lower gross margins~~ . ~~important incentives (including the ITC,AMPTC and other U.~~ S.federal and state tax incentives ~~)~~ ,that impact our business.Under the IRA,the ITC was extended until 2032 to allow a qualifying homeowner to deduct 30 % of the cost of installing residential solar systems from their U.S.federal income taxes,thereby returning a material portion of the purchase price of the residential solar system to homeowners.Under the terms of the current extension,the ITC will remain at 30 % through the end of 2032,reduce to 26 % for 2033,reduce to 22 % for 2034,and further reduce to ~~0.~~ 0 % after the end of 2034 for residential solar systems,unless it is further extended before that time. ~~The Internal Revenue Service has not provided guidance so there is still uncertainty on how the new tax rules will be applied.~~ If the ITC,AMPTC **,** or other tax credits are reduced or eliminated as part of futures changes to the U.S.Internal Revenue Code,changes to state law or regulatory reform initiatives by subsequent legislative action or by a presidential administration,sales of our products in North America and other markets could be adversely affected.In addition, **changes** ~~if we develop plans~~ to ~~increase our manufacturing with third- party manufacturers in the United States in reliance of the incentives in~~ the IRA **could impact** ~~,there is no guarantee that we will realize~~ the benefits we currently expect **to receive** ~~in the future.In addition,net energy metering tariffs are being evaluated and,in some instances modified,which may have a negative impact on future inverter sales.We derive a significant portion of our revenues~~ from ~~California' s residential solar market and the existing California net energy metering tariff has been very successful in incentivizing the installation of residential solar power systems.Future legislative or~~ **our** ~~regulatory changes~~ **plans to increase our domestic manufacturing footprint** in ~~California,such as~~ the **United States** ~~current NEM 3.0 decision~~ , ~~may discourage further growth~~ in ~~the residential solar market~~ **partnership with third- party contract manufacturers** . **Several** ~~A number of~~ European countries,including Germany,Belgium,Italy and the United Kingdom **,** have adopted reductions in or concluded their net energy metering or FiT programs.Certain countries have proposed or enacted taxes levied on renewable energy.These and related developments have significantly impacted the solar industry in Europe and may adversely affect the future demand for ~~the~~ solar energy solutions in Europe,which could adversely impact our results of operations.We also sell our products in Australia.In 2012 **,** Australia enacted a Renewable Energy Target that is intended to ensure that 33,000 Gigawatt- hours of Australia' s electricity comes from renewable sources by 2020.This policy supports both the installation of large- scale centralized renewable generation projects,along with small- scale systems of under 100kW each for residential and small business customers.This target was met in 2019;however,the scheme continues to require high- energy users to meet their obligations under the policy until 2030.During **2018,the state of Victoria introduced state- based incentive schemes,aimed at solar customers in the state of Victoria.Other Australian states and territories introduced similar programs in 2019.Any change in,or failure to implement,these programs may adversely affect the demand for solar energy solutions in Australia.Reductions in incentives and uncertainty around future energy policy,including local content requirements,have negatively affected and may continue to negatively affect our business,financial condition and results of operations as we seek to increase our business domestically and abroad.Additionally,as we further expand to other countries,changes in incentive programs or electricity policies could negatively affect returns on our investments in those countries as well as our business,financial condition and results of operations.** Enphase Energy,Inc.| ~~2022~~ **2023** Form 10- K | 36 ~~2018,the~~ A drop in the retail price of electricity derived from the utility grid or from alternative energy sources, or a change in utility pricing structures, may harm our business, financial condition and results of operations. We believe that a system owner' s decision to purchase a solar PV system is strongly influenced by the cost of electricity generated by solar PV installations relative to the retail price of electricity from the utility grid and the cost of other renewable energy sources, including electricity from solar PV installations using central inverters. Decreases in the retail prices of electricity from the utility grid would make it more difficult for all solar PV systems to compete. In particular, growth in unconventional natural gas production and an increase in global liquefied natural gas capacity are expected to keep natural gas prices relatively low for the foreseeable future. Persistent low natural gas prices, lower prices of electricity produced from other energy sources, such as nuclear power or coal- fired plants, or improvements to the utility infrastructure could reduce the retail price of electricity from the utility grid, making the purchase of solar PV systems less economically attractive and depressing sales of our products. In addition, energy conservation technologies and public initiatives to reduce demand for electricity also could cause a fall in the retail price of electricity from the utility grid. Moreover, technological developments by our competitors in the solar industry, including manufacturers of central inverters and DC- to- DC optimizers, could allow these competitors or their partners to offer electricity at costs lower than those that can be achieved from solar PV installations based on our product platform, which could result in reduced demand for our products. Additionally, as increasing adoption of distributed generation places pressure on traditional utility business models or utility infrastructure, utilities may change their pricing structures to increase the cost of installation or operation of solar distributed generation. Such measures can include grid access fees, costly or lengthy interconnection studies, limitations on distributed generation penetration levels, or other measures. If the cost of electricity generated by solar PV installations incorporating our solutions is high relative to the cost of electricity from other sources, our business, financial condition and results of operations may be harmed. If we do not forecast demand for...... condition, and results of operations. Our portfolio of marketable securities is subject to market, interest and credit risk that may reduce its value. As of December 31, ~~2022~~ **2023** , we had approximately $ 1, ~~139~~ **406** . ~~6~~ **3** million in debt security investments. These investments consisted primarily of money market funds, U. S. Treasuries, U. S. government securities, commercial paper and debt securities of corporations. We currently do not use derivative financial instruments to adjust our investment portfolio risk or income profile. These investments, as well as any cash deposited in bank accounts, are subject to general credit, liquidity, market and interest rate risks, which may be exacerbated by unusual events, such as the COVID- 19 pandemic and the U. S. debt ceiling crisis, which affected various sectors of the financial markets and led to global credit and liquidity issues. If the global credit market continues to experience volatility or deteriorates, our investment portfolio may be impacted and some or all of our investments may experience other- than- temporary impairment, which could adversely impact our operating results and position. Risks Related to our Acquisition Activity As part of growing our business, we have made and expect to continue to make acquisitions. If we fail to successfully select, execute or integrate our acquisitions, then our business and operating results could be harmed and our stock price could decline. From time to time, we will undertake acquisitions to add new product lines and technologies, gain new sales channels or enter new sales territories. For example, in 2021, we acquired Sofdesk, the solar design business of DIN, 365 Pronto, and ClipperCreek, **Inc. (" ClipperCreek "),** and in 2022, we acquired SolarLeadFactory **, LLC (" SolarLeadFactory ")** and GreenCom **Networks AG (" GreenCom ")** . Acquisitions involve numerous risks and challenges, including but not limited to the following: • integrating the companies, assets, systems, products, sales channels and personnel that we acquire; • higher than anticipated acquisition and integration costs and expenses; • reliance on third parties to provide transition services for a period of time after closing to ensure an orderly transition of the business; • growing or maintaining revenues to justify the purchase price and the increased expenses associated with acquisitions; • entering into territories or markets with which we have limited or no prior experience; • establishing or maintaining business relationships with customers, vendors and suppliers who may be new to us; **Enphase Energy, Inc. | 2023 Form 10- K | 37** • overcoming the employee, customer, vendor and supplier turnover that may occur as a result of the acquisition; • disruption of, and demands on, our ongoing business as a result of integration activities including diversion of management' s time and attention from running the day to day operations of our business; • inability to implement uniform standards, disclosure controls and procedures, internal controls over financial reporting and other procedures and policies in a timely manner; • inability to realize the anticipated benefits of or successfully integrate with our existing business the businesses, products, technologies or personnel that we acquire; and • potential post- closing disputes. ~~Enphase Energy, Inc. | 2022 Form 10- K | 37~~ As part of undertaking an acquisition, we may also significantly revise our capital structure or operational budget, such as issuing common stock that would dilute the ownership percentage of our stockholders, assuming liabilities or debt, utilizing a substantial portion of our cash resources to pay for the acquisition or significantly increasing operating expenses. Our acquisitions have resulted and may in the future result in charges being taken in an individual quarter as well as future periods, which results in variability in our quarterly earnings. In addition, our effective tax rate in any particular quarter may also be impacted by acquisitions. Following the closing of an acquisition, we may also have disputes with the seller regarding contractual requirements and covenants, purchase price adjustments, contingent payments or for indemnifiable losses. Any such disputes may be time consuming and distract management from other aspects of our business. In addition, if we increase the pace or size of acquisitions, we will have to expend significant management time and effort into the transactions and integrations, and we may not have the proper human resources bandwidth to ensure successful integrations and accordingly, our business could be harmed or the benefits of our acquisitions may not be realized. As part of the terms of an acquisition, we may commit to pay additional contingent consideration if certain revenue or other performance milestones are met. We are required to evaluate the fair value of such commitments at each reporting date and adjust the amount recorded if there are changes to the fair value. We cannot ensure that we will be successful in selecting, executing and integrating acquisitions. Failure to manage and successfully integrate acquisitions could materially harm our business and operating results. In addition, if stock market analysts or our stockholders do not support or believe in the value of the acquisitions that we choose to undertake, our stock price may decline. We invest in companies for both strategic and financial reasons but may not realize a return on our investments. We have made, and continue to seek to make, investments in companies around the world to further our strategic objectives and support our key business initiatives. These investments may include equity or debt instruments of public or private companies and may be non- marketable at the time of our initial investment. We do not restrict the types of companies in which we seek to invest. These companies may range from early- stage companies that are often still defining their strategic direction to more mature companies with established revenue streams and business models. If any company in which we invest fails, we could lose all or part of our investment in that company. If we determine that an other- than- temporary decline in the fair value exists for an equity or debt investment in a public or private company in which we have invested, we will have to write down the investment to its fair value and recognize the related write- down as an investment loss. The performance of any of these investments could result in significant impairment charges and gains (losses) on other equity investments. We must also analyze accounting and legal issues when making these investments. If we do not structure these investments properly, we may be subject to certain unfavorable accounting impact, such as potential consolidation of financial results. Furthermore, if the strategic objectives of an investment have been achieved, or if the investment or business diverges from our strategic objectives, we may seek to dispose of the investment. Our non- marketable equity investments in private companies are not liquid, and we may not be able to dispose of these investments on favorable terms or at all. The occurrence of any of these events could harm our results. Gains or losses from equity securities could vary from expectations depending on gains or losses realized on the sale or exchange of securities and impairment charges related to debt instruments as well as equity and other investments. **Enphase Energy, Inc. | 2023 Form 10- K | 38** An impairment in the carrying value of goodwill or other intangible and long- lived assets could negatively affect our operating results. We record goodwill from the purchase consideration paid in excess of the fair value of the net assets recorded in connection with a business acquisition. We may not realize all the economic benefit from our business acquisitions, which could result in an impairment of goodwill or intangible assets. As of December 31, ~~2022~~ **2023** , goodwill and intangible assets, net were approximately $ ~~213~~ **214** . 6 million and $ ~~99~~ **68** . 5 million, respectively. We test goodwill for impairment at least annually during the fourth quarter of each fiscal year or between annual tests if an event occurs or circumstances change that would indicate the carrying amount may be impaired. Goodwill is tested at the reporting unit level, which we have determined to be the same as the entity as a whole (entity level). We first perform a qualitative assessment to determine whether it is more likely than not that the fair value of our reporting unit is less than its carrying value. If, after assessing the qualitative factors, we determine that it is more likely than not that the fair value of our reporting unit is less than it’ s carrying value, an impairment analysis will be performed. **Qualitative factors include industry and market consideration,overall financial performance,share price trends and market capitalization and company- specific events** . **We may be required to record a significant charge in our financial statements during the period in which any impairment of our goodwill or amortizable intangible assets is determined,which would negatively impact our operating results.Risks Related to our Debt and Equity Securities** Our financial results may vary significantly from quarter to quarter due to a number of factors,which may lead to volatility in our stock price.Our quarterly revenue and results of operations have varied in the past and may continue to vary significantly from quarter to quarter.As a result,the trading price of our common stock has been,and is likely to continue to be,volatile and could be subject to wide fluctuations in response to various factors,some of which are beyond our control.In addition,the trading prices of the securities of solar companies in general have been highly volatile,and the volatility in market price and trading volume of securities is often unrelated or disproportionate to the financial performance of the companies issuing the securities.Factors affecting the market price of our common stock,some of which are beyond our control,include:• seasonal and other fluctuations in demand for our products;• the timing,volume and product mix of sales of our products,which may have different **ASPs** ~~average selling prices~~ or profit margins;• changes in our pricing and sales policies or the pricing and sales policies of our competitors;• the impact of supply chain disruptions ~~,the ongoing COVID- 19 pandemic and the war in Ukraine,~~ on our business,sales and results of operations;• our ability to design,manufacture and deliver products to our customers in a timely and cost- effective manner and that meet customer requirements;• our ability to manage our relationships with our contract manufacturers,customers and suppliers;• quality control or yield problems in our manufacturing operations;• the anticipation,announcement or introductions of new or enhanced products by our competitors and ourselves;• reductions in the retail price of electricity;• our exposure to the credit risks of our customers,particularly in light of the fact that some of our customers are relatively new entrants to the solar market without long operating or credit histories,and the impact of inflation and higher interest rates;• changes in laws,regulations and policies applicable to our business and products,particularly those relating to government incentives for solar energy applications;• the impact of tariffs on the solar industry in general and our products in particular;• the amount and timing of operating costs and capital expenditures related to the maintenance and expansion of our business operations;• the impact of government- sponsored programs on our customers;• our ability to estimate future warranty obligations due to product failure rates,claim rates or replacement costs;• our ability to forecast our customer demand and manufacturing requirements,and manage our inventory; ~~• fluctuations in foreign currency exchange rates;• announcement of acquisitions or dispositions of our assets or business operations;• issuances of our common stock or equity- linked securities such as the Convertible Notes;• changes in our management;Enphase Energy,Inc.| 2022 Form 10-~~ Enphase Energy, Inc. | ~~2022~~ **2023** Form 10- K | ~~38 Qualitative~~ **39 • fluctuations in foreign currency exchange rates; • announcement of acquisitions or dispositions of our assets or business operations; • issuances of our common stock or equity- linked securities such as the Convertible Notes; • changes in our management; • technical** factors ~~include~~ **in the public trading market for our common stock that may produce price movements that may or may not comport to macro,** industry **or** ~~and market consideration, overall financial performance, share price trends and market capitalization and~~ company- specific ~~events. We~~ **fundamentals, including, without limitation, the sentiment of retail investors (including as** may be **expressed on** ~~required to record a significant charge in our~~ financial ~~statements during~~ **trading and** ~~the~~ **other** ~~period in which any impairment~~ **social media sites), the amount and status** of ~~our goodwill~~ **short interest in** ~~or~~ **our** ~~amortizable intangible assets is determined, which would negatively impact our operating results. Risks Related to our Debt and Equity Securities~~ **securities** ~~The market price of~~ **, rising interest rates, inflation, access to margin debt, trading in options and other derivatives on** our common stock **and any related hedging** ~~may be volatile or may decline regardless of our~~ - **or** ~~operating performance. The market price of our common stock has been and could be subject to wide fluctuations in response to, among~~ other **technical trading** ~~things, the other risk~~ factors **;** ~~described herein,~~ and ~~other~~ **• general social, geopolitical, environmental or health** factors ~~beyond~~ **, including pandemics** ~~our~~ - **or** ~~control,~~ **widespread health epidemics** such as ~~quarterly variations in operating results, announcements of technology innovations or new products by us or our competitors, changes in financial estimates, negative recommendations by securities analysts, the operating and stock price performance of other~~ -- **the COVID- 19 pandemic** ~~companies that investors may deem comparable to us, and new reports relating to trends in our markets or general economic conditions~~ . **The above factors are difficult to forecast, and** ~~These~~ **these** ~~fluctuations often have been unrelated or disproportionate to the operating performance of those companies. These broad market and industry fluctuations~~ , as well as ~~general economic~~ **other factors** , ~~political~~ **could materially** and **adversely** ~~market conditions, such as recessions, interest rate changes, inflation or international currency fluctuations, may negatively~~ affect **our quarterly and annual results of operations. Any failure to adjust spending quickly enough to compensate for a revenue shortfall could magnify** the ~~market~~ **adverse impact of this revenue shortfall on our results of operations. Moreover, our results of operations may not meet our announced guidance or the expectations of research analysts or investors, in which case the** price of our common stock ~~, regardless of our operating performance~~ **could decrease significantly. There can be no assurance that we will be able to successfully address these risks** . In addition, ~~the use of the Internet, social media, and blogging have allowed short sellers to publicly attack a company’ s credibility, strategy and veracity by means of so- called “ research reports ” that mimic the type of investment analysis performed by legitimate securities research analysts. These short attacks have~~ in the past **,** ~~led to stock price declines and significant selling activity in our common stock. Many~~ **many** companies that have experienced volatility in the market price of their stock have been subject to securities class action litigation. We have been in the past and may become **in the future** the target of this type of litigation in the future. Securities litigation against us could result in substantial costs and divert our management’ s attention from other business concerns, which could seriously harm our business. Conversion of our Convertible Notes may dilute the ownership interest of existing stockholders or may otherwise depress the price of our common stock, adversely affect our financial condition and operating results. In March 2021, we issued and sold a total of $ 575. 0 million aggregate principal amount of our 0. 0 % convertible senior notes due 2028 (the " Notes due 2028 ") and $ 632. 5 million aggregate principal amount of our 0. 0 % convertible senior notes due 2026 (the " Notes due 2026 "). In March 2020, we issued and sold a total of $ 320. 0 million aggregate principal amount of our 0. 25 % convertible senior notes due 2025 (the " Notes due 2025 "). In August 2018, we issued and sold a total of $ 65. 0 million aggregate principal amount of our 4. 0 % convertible senior notes due 2023 (the " Notes due 2023 ") in a private placement to qualified institutional buyers and an affiliate of ours. In May 2019, we entered into separately and privately negotiated transactions with certain holders of the Notes due 2023 resulting in the repurchase and exchange of $ 60. 0 million aggregate principal amount of the notes in consideration for the issuance of shares of common stock and separate cash payments. ~~The Conversion Condition for~~ **On July 28, 2023, the holder of** the Notes due ~~2025 was met during the quarter ended December 31, 2022. Therefore, the Notes due 2025 became convertible at the holders' option beginning on January 1,~~ 2023 ~~and continue to be convertible~~ --- **converted** ~~through March 31, 2023. Accordingly, we have classified~~ the **remaining outstanding** ~~net carrying amount of the Notes due 2025 of~~ $ ~~90~~ **5** . ~~9~~ **0** million ~~as debt, current on the consolidated balance sheet as of December 31, 2022. We may receive conversion requests that require settlement~~ in ~~the first quarter of 2023. If more holders elect to convert their Notes due 2025 in future periods, we intend to settle all or a portion of our conversion obligation related to the~~ aggregate principal amount ~~in cash~~ **into 900** , **090 shares of our common stock based on the conversion rate of 180. 018 shares of common stock per $ 1, 000 principal amount of notes (** which **is equivalent to** ~~could adversely affect our liquidity and result in~~ a ~~material adverse effect on our financial position, results of operations and cash flows. In addition, to the extent we receive~~ conversion ~~requests, we may also record a loss on early~~ **price of approximately $ 5. 56 per share). Following the** ~~conversions~~ - **conversion,** ~~of the~~ Notes due ~~2025~~ **2023 are no longer outstanding** ~~converted by note holders based on the difference between the fair market value allocated to the liability component on the settlement date and the net carrying amount of the liability component and unamortized debt issuance on the settlement date~~ . ~~Enphase Energy, Inc. | 2022 Form 10- K | 39~~ As of December 31, ~~2022~~ **2023** we have following Convertible Notes outstanding: • ~~$ 575. 0 million aggregate principal amount of~~ the Notes due 2028 ~~were outstanding; (the foregoing, collectively, the " 2028 Convertible Notes ")~~ ; • ~~$ 632. 5 million aggregate principal amount of~~ the Notes due 2026 ~~were outstanding~~ ; **and** ~~(the foregoing, collectively, the " 2026 Convertible Notes ");~~ • ~~$ 102. 2 million aggregate principal amount of~~ the Notes due 2025 ~~were outstanding; (the foregoing, collectively, the " 2025 Convertible Notes "); and • $ 5. 0 million aggregate principal amount of the Notes due 2023 were outstanding; (the foregoing, collectively, the " 2023 Convertible Notes ", together with the 2028 Convertible Notes, the 2026 Convertible Notes and the 2025 Convertible Notes, the " Convertible Notes ")~~ . The conversion of some or all of the Convertible Notes may dilute the ownership interests of existing stockholders. Any sales in the public market of the common stock issuable upon such conversion could adversely affect prevailing market prices of our common stock. In addition, the existence of the Convertible Notes may encourage short selling by market participants because the conversion of the Convertible Notes could be used to satisfy short positions. In addition, the anticipated conversion of the Convertible Notes into shares of our common stock could depress the price of our common stock. **Enphase Energy, Inc. | 2023 Form 10- K | 40** Servicing our debts requires a significant amount of cash, and we may not have sufficient cash flow from our business to pay our debts. Our ability to make scheduled payments of the principal of, to pay interest on or to refinance our indebtedness, including the Convertible Notes, depends on our future performance, which is subject to economic, financial, competitive and other factors beyond our control. Our business may not continue to generate cash flow from operations in the future sufficient to service our debts, including the Convertible Notes, and make necessary capital expenditures. If we are unable to generate cash flow, we may be required to adopt one or more alternatives, such as selling assets, restructuring debt or obtaining additional equity capital on terms that may be onerous or highly dilutive. Our ability to refinance our indebtedness, including the Convertible Notes, will depend on the capital markets and our financial condition at such time. We may not be able to engage in any of those activities or engage in these activities on desirable terms, which could result in a default on our debt obligations, including our obligations under the Convertible Notes. We may not have the ability to raise the funds necessary to settle conversions of the Convertible Notes or repurchase the Convertible Note upon a fundamental change, and our future debt may contain limitations on our ability to pay cash upon conversion or repurchase of the Convertible Notes. Holders of our Convertible Notes will have the right to require us to repurchase their Convertible Notes upon the occurrence of a fundamental change at a fundamental change repurchase price equal to 100 % of the principal amount of the Convertible Notes to be repurchased, plus accrued and unpaid interest, if any. Fundamental change is defined in the Convertible Notes Indenture entered into in connection with the financing and consists of events such as an acquisition of a majority of our outstanding common stock, an acquisition of our company or substantially all of our assets, the approval by our stockholders of a plan of liquidation or dissolution, or our common stock no longer being listed on the Nasdaq Global Select Market or the Nasdaq Global Market. Upon conversion of the Convertible Notes, unless we elect to deliver solely shares of our common stock to settle such conversion (other than paying cash in lieu of delivering any fractional share), we will be required to make cash payments in respect of the Convertible Notes being converted. However, we may not have enough available cash or be able to obtain financing at the time we are required to make such repurchase of the Convertible Notes. In addition, our ability to repurchase the Convertible Notes or to pay cash upon conversion of the Convertible Notes may be limited by law, by regulatory authority or by agreements governing our future indebtedness. Our failure to repurchase notes at a time when the repurchase is required by the relevant indenture or to pay any cash payable on future conversions of the notes as required by the relevant indenture would constitute a default under the relevant indenture. A default under the indenture or a fundamental change itself could also lead to a default under agreements governing our future indebtedness. If the repayment of the related indebtedness were to be accelerated after any applicable notice or grace periods, we may not have sufficient funds to repay the indebtedness and repurchase the Convertible Notes or make cash payments upon conversion of the Convertible Notes. ~~Enphase Energy, Inc. | 2022 Form 10- K | 40~~ The convertible note hedge and warrant transactions and / or their early termination may affect the value of our common stock. In connection with the offering of the Notes due 2028, Notes due 2026 and Notes due 2025, we entered into privately negotiated convertible note hedge transactions pursuant to which we have the option to purchase approximately the same number of shares of our common stock initially issuable upon conversion of the Notes due 2028, Notes due 2026 and Notes due 2025, at a price approximately the same as the initial conversion price of the Notes due 2028, Notes due 2026 and Notes due 2025. These transactions are expected to reduce the potential dilution with respect to our common stock upon conversion of the Notes due 2028, Notes due 2026 and Notes due 2025. Separately, we also entered into privately negotiated warrant transactions to acquire the same number of shares of our common stock initially issuable upon conversion of the Notes due 2028, Notes due 2026 and Notes due 2025 (subject to customary anti- dilution adjustments) at an initial strike price of approximately $ 370. 33, $ 397. 91 and $ 106. 94 per share for Notes due 2028, Notes due 2026 and Notes due 2025, respectively. If the market value per share of our common stock, as measured under the warrants, exceeds the strike price of the warrants, the warrants will have a dilutive effect on the ownership interests of existing stockholders and on our earnings per share, unless we elect, subject to certain conditions, to settle the warrants in cash. However, we may not have enough available cash or be able to obtain financing at the time of settlement. In addition, the existence of the convertible note hedge and warrant transactions may encourage purchasing and selling share of our common stock, or other of our securities and instruments, in open market and / or privately negotiated transactions in order to modify hedge positions. Any of these activities could adversely affect the value of our common stock and the value of the Notes due 2028, Notes due 2026 and Notes due 2025. **Enphase Energy, Inc. | 2023 Form 10- K | 41** Changes in current accounting methods, standards, or regulations applicable to the Convertible Notes due 2028, Notes due 2026 and Notes due 2025 could have a material impact on our reported financial results, future financial results, future cash flows, and / or our stock price. Under Accounting Standards Codification (" ASC ") 470- 20, " Debt with Conversion and Other Options, " an entity must separately account for the host contract and conversion option associated with convertible debt instruments, such as the Notes due 2025, that may be settled entirely or partially in cash upon conversion, in a manner that reflects the issuer' s economic interest cost ~~. For the Notes due 2025, conversion option met the classification of an embedded derivative liability, from March 9, 2020 to May 19, 2020, and hence we had included embedded derivative liability in the Debt, non- current on our condensed consolidated balance sheet at the issuance date. Effective upon the filing of an amendment to our certificate of incorporation on May 20, 2020, the conversion option of the Notes due 2025 met the classification of an equity component, hence we reclassified the embedded derivative liability in the Debt, non- current to additional paid- in capital section of stockholders' equity on our condensed consolidated balance sheet on May 20, 2020. This change in fair value of derivatives has resulted in a charge recognized of $ 44. 3 million for the year ended December 31, 2020. We have treated the value of the equity component and embedded derivative liability as debt discount for the host contract at the issuance date~~. We are required to amortize the debt discount as non- cash interest expense over the term of the Notes due 2025, which could adversely affect our reported or future financial results or the trading price of our common stock. In August 2020, the FASB issued Account Standard Update (" ASU ") 2020- 06, " Debt- Debt with Conversion and Other Options (subtopic 470- 20), " effective January 1, 2022, the Notes due 2028 and **the** Notes due 2026 were accounted for as a single liability measured at its amortized cost. Interest expense associated with the Notes due 2028 and **the** Notes due 2026 recorded in the consolidated statements of operations is close to the coupon rate interest expense. Further, for the diluted earnings per share calculation, treasury stock method ~~will~~ **is** no longer ~~be~~ permitted for the Notes due 2028, ~~the~~ Notes due 2026 and ~~the~~ Notes due 2025. The if- converted method is used for the calculation of the diluted earnings per share calculation, when accounting for the shares issuable upon conversion of the Notes due 2028, ~~the~~ Notes due 2026 and ~~the~~ Notes due 2025, which will adversely affect our diluted earnings per share. However, if the principal amount of the Notes due 2028, Notes due 2026 and Notes due 2025 being converted is required to be paid in cash and only the excess is permitted to be settled in shares, the if- converted method will produce a similar result as the " treasury stock " method which was applied prior to the adoption of ASU 2020- 06. ASU 2016- 15, " Statement of Cash Flows (Topic 230): Classification of Certain Cash Receipts and Cash Payments, " clarifies how certain cash receipts and payments should be classified in the statement of cash flows, including the cash settlement for the Notes due 2025. Upon cash settlement, repayment of the principal amount of the Notes due 2025 will be bifurcated between cash outflows for operating activities for the portion related to accreted interest attributable to debt discounts arising from the difference between the coupon interest rate and the ~~Enphase Energy, Inc. | 2022 Form 10- K | 41~~ effective interest rate, and financing activities for the remainder. This will require us to classify remainder of the debt discount of $ ~~21~~ **5** . ~~9~~ **6** million for **the** Notes due 2025 of accreted interest as cash used in operating activities in our consolidated statement of cash flows upon cash settlement, which could adversely affect our future cash flow from operations . Our financial results may vary significantly......, which could seriously harm our business . We may not be able to raise additional capital to execute on our current or future business opportunities on favorable terms, if at all, or without dilution to our stockholders. We believe that our existing cash and cash equivalents and cash flows from our operating activities will be sufficient to meet our anticipated cash needs for at least the next 12 months. However, we may need to raise additional capital or debt financing to execute on our current or future business strategies, including to: • provide additional cash reserves to support our operations; • invest in our research and development efforts; • expand our operations into new product markets and new geographies; • acquire complementary businesses, products, services or technologies; or • otherwise pursue our strategic plans and respond to competitive pressures, including adjustments to our business to mitigate the effects of any tariffs that might apply to us or our industry. We do not know what forms of financing, if any, will be available to us. If financing is not available on acceptable terms, if and when needed, our ability to fund our operations, enhance our research and development and sales and marketing functions, develop and enhance our products, respond to unanticipated events and opportunities, or otherwise respond to competitive pressures would be significantly limited. In any such event, our business, financial condition and results of operations could be materially harmed, and we may be unable to continue our operations. Moreover, if we raise additional funds through the issuance of equity or convertible debt securities, the percentage ownership of our stockholders could be significantly diluted, and these newly issued securities may have rights, preferences or privileges senior to those of existing stockholders. **Enphase Energy, Inc. | 2023 Form 10- K | 42** We currently do not intend to pay dividends on our common stock and, consequently, your only opportunity to achieve a return on your investment is if the price of our common stock appreciates. We currently do not plan to declare dividends on shares of our common stock in the foreseeable future. In addition, our term loan agreement restricts our ability to pay dividends. Consequently, an investor' s only opportunity to achieve a return on its investment in our company will be if the market price of our common stock appreciates and the investor sells its shares at a profit **. General Risks Related to our Business Natural disasters, public health events, significant disruptions of information technology systems, data security breaches, or other catastrophic events could adversely affect our operations. Our worldwide operations could be subject to natural disasters (including as a result of climate change), public health events, significant disruptions of information technology systems, data security breaches and other catastrophic business disruptions, which could harm our future revenue and financial condition and increase our costs and expenses. For example, our corporate headquarters in Fremont, California is located near major earthquake fault lines and our Petaluma, California facility is near fault lines and the sites of recent catastrophic wildfires. We rely on third- party manufacturing facilities, including for all product assembly and final testing of our products, which are performed at third- party manufacturing facilities, in China, Mexico and India. There may be conflict or uncertainty in the countries in which we operate, including public health issues (for example, the ongoing COVID- 19 pandemic or an outbreak of other contagious diseases or health epidemics), safety issues, natural disasters, fire, disruptions of service from utilities, nuclear power plant accidents, regional wars, or general economic or political factors. Such risks could result in an increase in the cost of components, production delays, general business interruptions, delays from difficulties in obtaining export licenses for certain technology, tariffs and other barriers and restrictions, longer payment cycles, increased taxes, restrictions on the repatriation of funds and the burdens of complying with a variety of foreign laws, any of which could ultimately have a material adverse effect on our business. In the event that natural disasters (including as a result of climate change), public health epidemics or technical catastrophes were to damage or destroy any part of our facilities or those of our contract manufacturer, destroy or disrupt vital infrastructure systems or interrupt our operations or services for any extended period of time, our business, financial condition and results of operations would be materially and adversely affected. If we fail to maintain an effective system of internal controls or are unable to remediate any deficiencies in our internal controls, we might not be able to report our financial results accurately or prevent fraud; in that case, our stockholders could lose confidence in our financial reporting, which would harm our business and could negatively impact the price of our stock. Effective internal controls are necessary for us to provide reliable financial reports and prevent fraud. In addition, Section 404 of the Sarbanes- Oxley Act of 2002, as amended (the " Sarbanes- Oxley Act "), requires us to establish and maintain internal control over financial reporting and disclosure controls procedures. The process of implementing our internal controls and complying with Section 404 of the Sarbanes- Oxley Act has required, and will continue to require, significant attention of management. If we or our independent registered public accounting firm discover a material weakness in our internal controls over financial reporting, the disclosure of that fact, even if quickly remedied, could reduce the market' s confidence in our financial statements and harm our stock price. To the extent any material weaknesses in our internal control over financial reporting are identified, we could be required to expend significant management time and financial resources to correct such material weaknesses or to respond to any resulting regulatory investigations or proceedings. Enphase Energy, Inc. | 2023 Form 10- K | 43 Our business is subject to tax liabilities. We are subject to income tax, indirect tax or other tax claims by tax agencies in jurisdictions in which we conduct business. Significant judgment is required in determining our worldwide provision for income taxes. Tax laws are dynamic and subject to change as new laws are passed and new interpretations of the law are issued or applied. The IRA included significant changes to the U. S. federal income tax laws, the consequences of which could increase our future U. S. income tax expense. As additional guidance is issued by the applicable taxing authorities and as new accounting treatment is clarified, we may report additional adjustments in the period if new information becomes available. We have deferred tax assets related to net operating losses or tax credits that could be subject to limitations under IRS Code Sections 382 or 383, and State separate return limitation year rules. The limitations could reduce our ability to utilize our net operating losses or tax credits before the expiration of the tax attributes. Tax law changes or the limitations could be material and could materially affect our tax obligations and effective tax rate. In the ordinary course of our business, there are many transactions and calculations where the ultimate income tax, indirect tax, or other tax determination is uncertain. Although we believe our tax estimates are reasonable, we cannot be certain that the final determination of our tax audits and litigation will not be materially different from that which is reflected in historical tax provisions and accruals. Should additional taxes be assessed as a result of an audit, assessment or litigation, there could be a material adverse effect on our cash, tax provisions and net income in the period or periods for which that determination is made** . Our charter documents and Delaware law could prevent a takeover that stockholders consider favorable and could also reduce the market price of our stock. Our certificate of incorporation and our bylaws contain provisions that could delay or prevent a change in control of our company. These provisions could also make it more difficult for stockholders to elect directors and take other corporate actions, including effecting changes in our management. These provisions include: • providing for a classified board of directors with staggered, three- year terms, which could delay the ability of stockholders to change the membership of a majority of our board of directors; ~~Enphase Energy, Inc. | 2022 Form 10- K | 43~~ • not providing for cumulative voting in the election of directors, which limits the ability of minority stockholders to elect director candidates; • authorizing our board of directors to issue, without stockholder approval, preferred stock rights senior to those of common stock, which could be used to significantly dilute the ownership of a hostile acquiror; • prohibiting stockholder action by written consent, which forces stockholder action to be taken at an annual or special meeting of our stockholders; • requiring the affirmative vote of holders of at least 66 2 / 3 % of the voting power of all of the then outstanding shares of voting stock, voting as a single class, to amend provisions of our certificate of incorporation relating to the management of our business, our board of directors, stockholder action by written consent, advance notification of stockholder nominations and proposals, forum selection and the liability of our directors, or to amend our bylaws, which may inhibit the ability of stockholders or an acquiror to effect such amendments to facilitate changes in management or an unsolicited takeover attempt; • requiring special meetings of stockholders may only be called by our chairman of the board, if any, our chief executive officer, our president or a majority of our board of directors, which could delay the ability of our stockholders to force consideration of a proposal or to take action, including the removal of directors; and • requiring advance notification of stockholder nominations and proposals, which may discourage or deter a potential acquiror from conducting a solicitation of proxies to elect the acquiror' s own slate of directors or otherwise attempting to obtain control of us. In addition, the provisions of Section 203 of the Delaware General Corporate Law may prohibit large stockholders, in particular those owning 15 % or more of our outstanding common stock, from engaging in certain business combinations, without approval of substantially all of our stockholders, for a certain period of time. **Enphase Energy, Inc. | 2023 Form 10- K | 44** These provisions in our certificate of incorporation, our bylaws and under Delaware law could discourage potential takeover attempts, reduce the price that investors might be willing to pay for shares of our common stock in the future and result in the market price being lower than it would be without these provisions. ~~General Risks Related to our Business Natural disasters, public health events, significant disruptions of information technology systems, data security breaches, or other catastrophic events could adversely affect our operations. Our worldwide operations could be subject to natural disasters (including as a result of climate change), public health events, significant disruptions of information technology systems, data security breaches and other catastrophic business disruptions, which could harm our future revenue and financial condition and increase our costs and expenses. For example, our corporate headquarters in Fremont, California is located near major earthquake fault lines and our Petaluma, California facility is near fault lines and the sites of recent catastrophic wildfires. We rely on third- party manufacturing facilities, including for all product assembly and final testing of our products, which are performed at third- party manufacturing facilities, in China, Mexico and India. There may be conflict or uncertainty in the countries in which we operate, including public health issues (for example, the ongoing COVID- 19 pandemic or an outbreak of other contagious diseases or health epidemics), safety issues, natural disasters, fire, disruptions of service from utilities, nuclear power plant accidents, regional wars, or general economic or political factors. Such risks could result in an increase in the cost of components, production delays, general business interruptions, delays from difficulties in obtaining export licenses for certain technology, tariffs and other barriers and restrictions, longer payment cycles, increased taxes, restrictions on the repatriation of funds and the burdens of complying with a variety of foreign laws, any of which could ultimately have a material adverse effect on our business. In the event that natural disasters (including as a result of climate change), public health epidemics or technical catastrophes were to damage or destroy any part of our facilities or those of our contract manufacturer, destroy or disrupt vital infrastructure systems or interrupt our operations or services for any extended period of time, our business, financial condition and results of operations would be materially and adversely affected. Enphase Energy, Inc. | 2022 Form 10- K | 44 If we fail to maintain an effective system of internal controls or are unable to remediate any deficiencies in our internal controls, we might not be able to report our financial results accurately or prevent fraud; in that case, our stockholders could lose confidence in our financial reporting, which would harm our business and could negatively impact the price of our stock. Effective internal controls are necessary for us to provide reliable financial reports and prevent fraud. In addition, Section 404 of the Sarbanes- Oxley Act of 2002, as amended (the " Sarbanes- Oxley Act "), requires us to establish and maintain internal control over financial reporting and disclosure controls procedures. The process of implementing our internal controls and complying with Section 404 of the Sarbanes- Oxley Act has required, and will continue to require, significant attention of management. If we or our independent registered public accounting firm discover a material weakness in our internal controls over financial reporting, the disclosure of that fact, even if quickly remedied, could reduce the market' s confidence in our financial statements and harm our stock price. To the extent any material weaknesses in our internal control over financial reporting are identified, we could be required to expend significant management time and financial resources to correct such material weaknesses or to respond to any resulting regulatory investigations or proceedings. Our business is subject to tax liabilities. We are subject to income tax, indirect tax or other tax claims by tax agencies in jurisdictions in which we conduct business. Significant judgment is required in determining our worldwide provision for income taxes. Tax laws are dynamic and subject to change as new laws are passed and new interpretations of the law are issued or applied. The IRA included significant changes to the U. S. federal income tax laws, the consequences of which could increase our future U. S. income tax expense. As additional guidance is issued by the applicable taxing authorities and as new accounting treatment is clarified, we may report additional adjustments in the period if new information becomes available. We have a significant amount of deferred tax assets and a portion of the deferred tax assets related to net operating losses or tax credits could be subject to limitations under the Code Sections 382 or 383, separate return limitation year rules. The limitations could reduce our ability to utilize our net operating losses or tax credits before the expiration of the tax attributes. Tax law changes or the limitations could be material and could materially affect our tax obligations and effective tax rate. In the ordinary course of our business, there are many transactions and calculations where the ultimate income tax, indirect tax, or other tax determination is uncertain. Although we believe our tax estimates are reasonable, we cannot be certain that the final determination of our tax audits and litigation will not be materially different from that which is reflected in historical tax provisions and accruals. Should additional taxes be assessed as a result of an audit, assessment or litigation, there could be a material adverse effect on our cash, tax provisions and net income (loss) in the period or periods for which that determination is made.~~