



Enphase Energy, Inc.

Environmental, Social, and Governance Report 2022





Enphase Energy, Inc.

Environmental, Social, and Governance Report 2022

Contents

	A letter from our President and CEO	04
About us		06
	Enphase in numbers	07
	Our purpose	08
	Our core values	09
	Enphase culture playbook	10
	Our technology	12
	Start-up to industry leader	14
	Customer first	15
	Financial sustainability	17
	Our financial performance	18
Environment		20
	E1. Environmental stewardship	21
	E2. Clean energy production	23
	E3. Emissions and energy	24
	E4. Product lifecycle and waste	29
	E5. Case studies	32
People		38
	P1. Company demographics	39
	P2. Recruiting and retaining the best	40
	P3. Embracing diversity, equity, and inclusion	42
	P4. Developing our people	46
	P5. Promoting a safe and healthy workplace	48
	P6. Responsible supply chain	50
Society		53
	S1. Enphase Corporate Social Responsibility (CSR) initiatives	54
	S2. Enphase grid services	58
	S3. Enphase innovation and industry leadership	60
	S4. Promoting clean energy policy	62
Governance		65
	G1. ESG governance and leadership	66
	G2. Business ethics and compliance	70
	G3. Data privacy, cybersecurity, intellectual property	72
Appendix		76
	Emission and energy calculation methodologies	77
	GRI index	79
	SASB index	81
	TCFD response	82
	Membership associations	86
	Contributing to the UN Sustainable Development Goals	87
	About this report	89
	Forward-looking statements and other important legal information	90
	Management assertion	91
	Third party attestation	92
	GAAP to Non-GAAP reconciliation	93

A Letter from our President and CEO



Badri Kothandaraman
President and CEO

“As the world’s leading supplier of microinverter-based solar-plus-storage systems, we are proud of our ability to enact transformative, sustainable growth.”

I am pleased to share our third Environmental, Social, and Governance (ESG) Report with you. As the world’s leading supplier of microinverter-based solar-plus-storage systems, we are proud of our ability to enact transformative, sustainable growth. Our systems help millions of people gain access to clean, affordable, and reliable energy.

Since the founding of our Company, we have shipped approximately 58 million microinverters and more than 815 megawatt hours (MWh) of storage, which form key components of our Enphase® Energy System™ suite.¹ Over 3.0 million Enphase-based systems have been deployed in more than 145 countries. Approximately 19 gigawatts (GW) DC of Enphase microinverters have been installed in solar systems since inception, reducing 45 million metric tons of carbon dioxide equivalent (MTCO_{2e}) – the equivalent of providing energy to 5.7 million homes for one year.¹

We remain focused on technology and products that help improve quality of life while keeping true to our core purpose of sustainability. In 2022, we continued to ramp shipments of IQ8™ Microinverters in North America, France, and the Netherlands. IQ8 Microinverters are able to form a microgrid during a power outage using only sunlight, providing backup power, even without a battery. And, with a battery and our Sunlight Jump Start™ feature, IQ8 Microinverters can restart a home energy system using only sunlight even after prolonged grid outages that may result in a fully depleted battery. The IQ8’s grid-forming technology eliminates traditional ratio requirements between solar system size and battery size. We currently ship IQ™ Batteries to customers in North America, Germany, and Belgium, and our shipments of IQ Batteries in 2022 more than doubled those shipped in 2021.

We also offer electric vehicle (EV) charging solutions to customers in North America. The increasing penetration of EVs has implications for home energy management, as households not only consume significantly more power by charging an EV, but also have a large battery that could be used for backup. In the future, our smart EV chargers will provide connectivity and control, enabling use cases like green charging and allowing homeowners visibility into the operation of their Enphase solar-plus-storage-plus-EV charger system through the Enphase® App.

¹Estimate based on Enphase managed systems data as of December 31, 2022 grossed up for non-managed systems based on performance monitoring data; CO_{2e} calculations based on [U.S. Environmental Protection Agency \(U.S. EPA\) Greenhouse Gas \(GHG\) calculator](#).

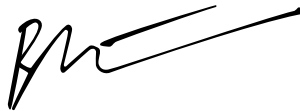
“We have taken important steps on our journey to reducing our emissions footprint, focusing on our customers and partners, building a world-class diverse and engaged workforce, and continuing to operate with transparency and integrity.”

The ways in which we support our customers, partners, employees, and communities define our company today, just as they did when Enphase was founded in 2006 with key elements to our value proposition: deliver products that are productive, reliable, smart, simple, and safe. As part of our longstanding commitment to operational excellence, we remain dedicated to doing our part as a global business leader to drive tangible, sustainable business practices.

We have taken important steps on our journey to reducing our emissions footprint, focusing on our customers and partners, building a world-class diverse and engaged workforce, and continuing to operate with transparency and integrity. While embracing our role as good stewards of our planet, our communities, and our people, we will stay focused on delivering leading edge technology, products, and services that help to improve quality of life while keeping true to our core value of sustainability.

Thank you for your continued interest in our ESG efforts. We appreciate our employees, customers, partners, and stockholders for their dedication as our accomplishments this past year would not have been possible without their collective support.

Sincerely,

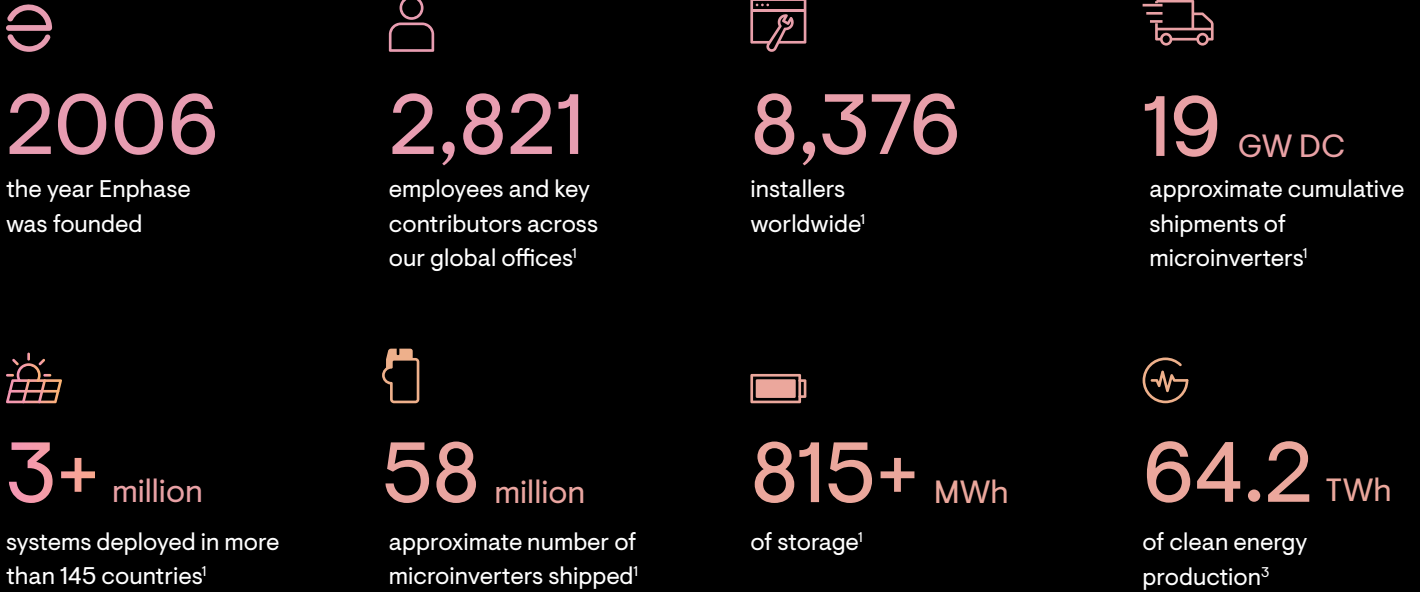


Badri Kothandaraman
President and CEO

About us



Enphase in numbers



¹As of December 31, 2022

²Estimate based on Enphase managed systems data as of December 31, 2022 grossed up for non-managed systems based on cumulative production records; CO₂e calculations based on U.S. EPA GHG calculator

³Annual running total estimate based on Enphase managed systems data as of December 31, 2022 grossed up for non-managed systems based on cumulative production records

Our purpose

Advancing a sustainable future for all.

Founded in 2006, Enphase has transformed the solar industry with our revolutionary microinverter technology which turns sunlight into a safe, reliable, resilient, and scalable source of energy to power our lives. Today, our intelligent microinverters work with virtually every solar panel made, and when paired with our award-winning smart battery technology, we engineer one of the industry's best-performing clean energy systems.

The Enphase Energy System, powered by IQ8 Microinverters and IQ Batteries, enables people to make, use, save, sell, and own their power. This includes our industry-leading Enphase App, which provides unprecedented data and control in the palm of your hand. For the first time in the evolution of our centuries-old grid, people can get paid for the clean energy they produce and share with their communities, helping to build a new energy future that harnesses the sun. This clean, free, abundant source of energy can power our lives and ultimately help replace fossil fuels altogether.

Today, if you see a home with solar panels on it, there is a good chance it is an Enphase home. As of the end of 2022, more than 58 million microinverters have been installed on more than three million homes in over 145 countries,¹ helping millions of people gain access to clean, affordable, and reliable energy while creating jobs and a more carbon-free future. Enphase is putting people and their power at the center of our shared energy future.

Enphase. Power by people.



¹Estimate based on Enphase managed systems data as of 12/31/22 grossed up for non-managed systems based on cumulative production records since inception



Our core values

Our company values are reflected in the way we work together, our performance, and how we are rewarded.

Customer first

We exist for our customers.

We listen to our customers and measure our success based on their feedback.

We take action to deliver the best customer experience.

Integrity

We tell the truth at all times, without making excuses.

We do what is best for the company.

We take ownership of our behaviors and results.

Innovation

We value innovation and recognize that it is the cornerstone of our existence.

We encourage appropriate risk-taking and challenge the status quo to find solutions.

We actively promote innovation through curiosity and continuous learning.

Teamwork

We appreciate and respect different behavioral styles and perspectives.

We collaborate globally to achieve more together than we can on our own.

We actively work to break down silos.

Quality

We place safety and quality above everything else.

We measure everything that matters and drive continuous improvement.

We make the highest quality products.



Enphase culture playbook

The pillars of the Enphase Culture Playbook help align and guide daily interactions with our purpose and values.

High performance

- We set the standard.
- We stretch ourselves to achieve exceptional results.
- We are relentless in the pursuit of excellence.

Recruiting and retaining the best

- We hire only the best.
- We reward and retain the best.
- We promote our people who get results.

Openness and transparency

- We are curious and encourage new ideas.
- We recognize that people have different styles and encourage diverse perspectives.
- We openly discuss issues and want to learn rapidly from our mistakes.

Accountability and execution

- We acknowledge reality and get things done without making excuses.
- We measure what matters and manage our performance through metrics.
- Our metrics have clear targets that don't change on a whim, and we publish progress against these each quarter.

Learning organization

- We encourage innovation.
- We develop employees through two-way coaching and feedback.
- We learn from our mistakes using a structured problem-solving approach known as 8-D.
- We document and share knowledge freely.

Culture playbook →



LESSONS FROM THE STYLES EXERCISE

- Diversity brings strength to a team.
- There is no one right style:
- Style mix results
- Identify strengths and weaknesses
- Adapt your style, but listen to your team
- Implement your style.
- Start to address others' blind spots
- Work together to improve our business.

PHASE

Our technology

“The Enphase® Energy System™ suite brings a high technology, networked approach to solar generation plus energy storage by leveraging our design expertise across power electronics, semiconductors, and cloud-based software technologies.”

Enphase was founded on the deep-rooted belief that an AC-coupled distributed architecture will always win in the long run on both cost and reliability. To build products based on this architecture, we have developed core competencies in semiconductor-based power conversion, software-defined Internet of Things (IoT) systems, and an energy management platform. Our homegrown high-speed digital ASIC, which is responsible for power control and power line communication, forms the brain of our microinverters. The microinverter, along with our battery, system controller, and cloud software form a true IoT system. Our Ensemble™ technology energy management system manages energy flows between the various distributed energy resources (DERs), the utility grid, and home loads, all with the aim of delivering the most reliable solution at the lowest available energy cost.

The Enphase® Energy System™ suite brings a high technology, networked approach to solar generation plus energy storage by leveraging our design expertise across power electronics, semiconductors, and cloud-based software technologies. Our integrated approach to energy solutions maximizes a home’s energy potential while providing advanced monitoring and remote maintenance capabilities. The Enphase Energy System suite uses a single technology platform for seamless management of the whole solution, enabling rapid commissioning with the Enphase Installer App™; consumption monitoring with the Enphase IQ™ Gateway with IQ™ Combiner+ and the Enphase® App, a cloud-based energy management platform; and our IQ™ Battery.

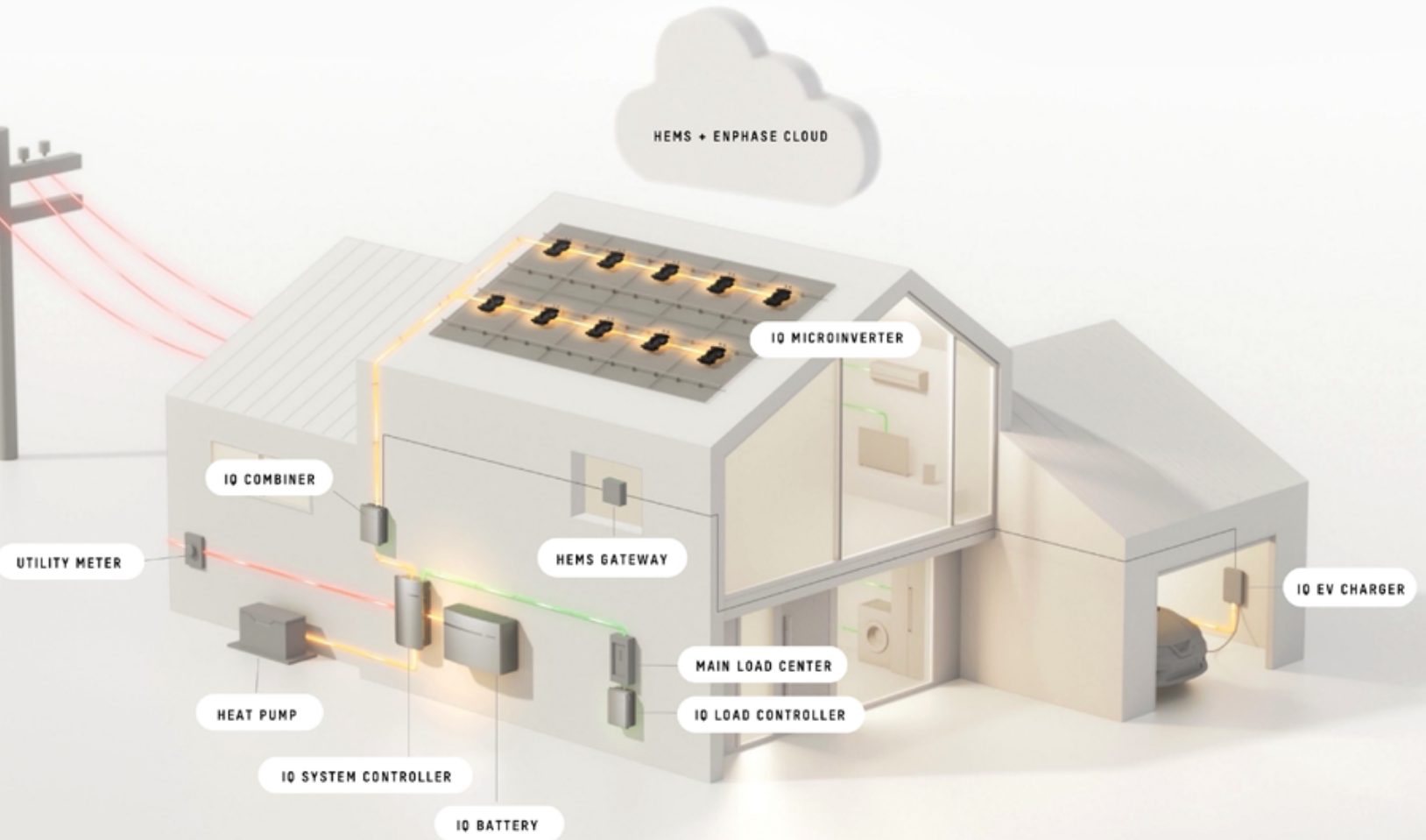
The solar industry is transitioning from solar only systems to complete energy management solutions, comprised of solar, batteries, load control, EV charging, compatibility with third-party generators, and grid services. This transition has contributed to the rising global interest in the full electrification of homes and businesses through renewable sources of energy.

The increasing penetration of EVs has implications for home energy management, as households not only consume significantly more power with an EV, but also have a large battery that can be used for both backup and grid service. Our EV chargers are compatible with most EVs sold in North America.

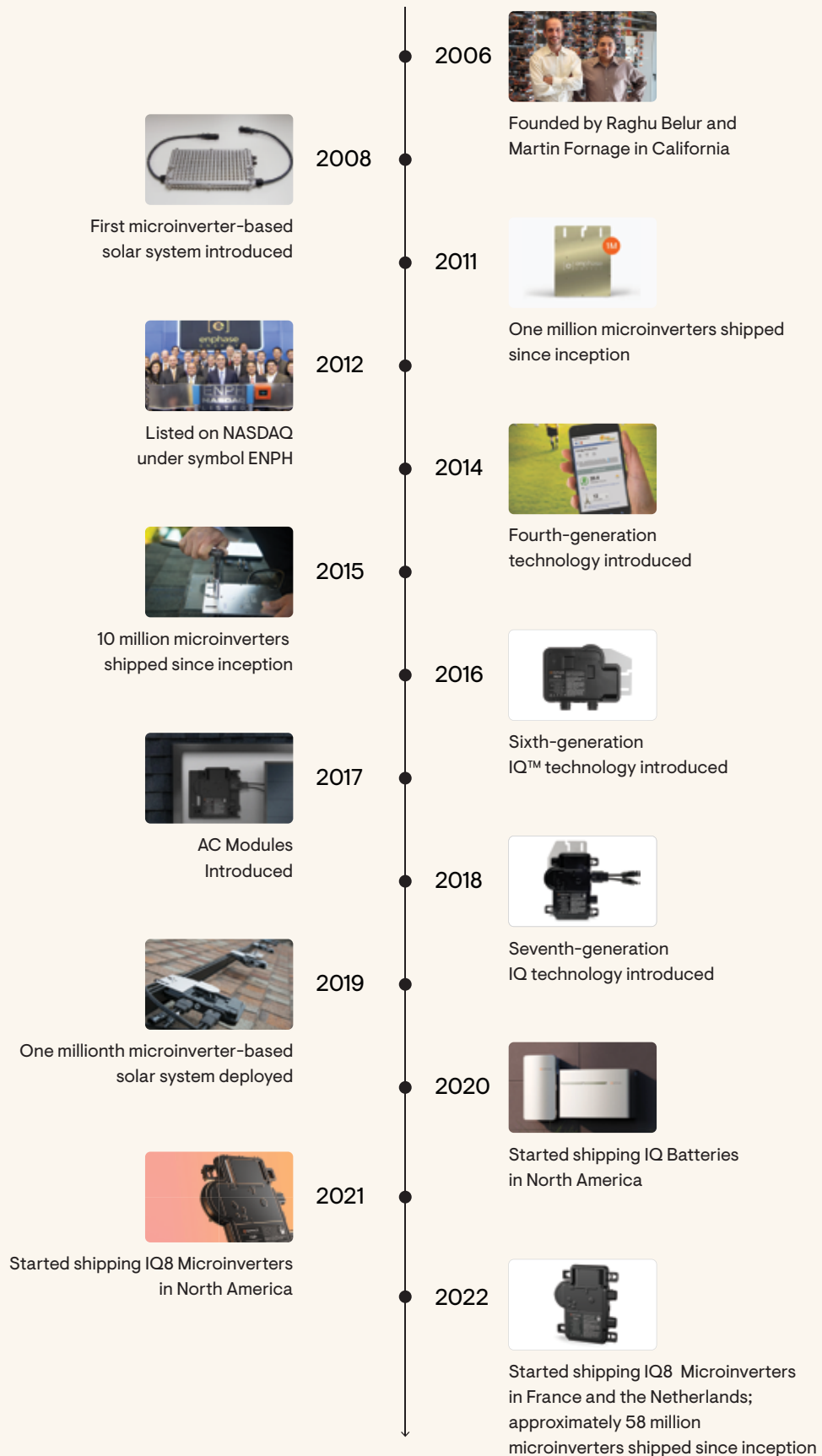
In January 2023, we demonstrated our bidirectional EV charger technology enabling vehicle-to-home and vehicle-to-grid functionality. This new bidirectional EV charger, along with Enphase’s solar and battery storage, will provide connectivity and control, enabling use cases like green charging and allowing homeowners visibility into the operation of their Enphase solar-plus-storage-plus-EV charger system, through the Enphase App - empowering homeowners to make, use, save, and sell their own power.



Enphase Home Energy Management System



Start-up to industry leader



Customer first

Customer experience

We exist to serve our customers and communicate consistently with them to review their experiences and levels of satisfaction with our products. We incorporate customer feedback into future product design and functionality, with the end goal of maintaining a high degree of satisfaction among distributors, installers, and homeowners. The ability to successfully grow and evolve our business requires open and continuous dialogue to ensure a smooth experience, and we take this aspect of our business very seriously.

69%

Net Promoter Score (NPS)
among homeowners and
installers worldwide

24/7

call center support with
average wait time under
two minutes

700

customer
support staff

100

field service
technicians

Enphase Installer Network

Our commitment to safe, powerful, and reliable home solar and storage systems does not stop with our products – it also extends to the installers who are certified under the Enphase Installer Network (EIN). The EIN is carefully designed to identify installers who can deliver the highest standards of customer service and system quality using Enphase products. We offer more than 25 different certification and qualification courses for installers pertaining to the commissioning of specific Enphase products, which are available in nine native languages across the United States, Latin America, Europe, Australia, and Brazil.

Enphase University

The Enphase University platform is on-demand and supported by a team of 24 employees worldwide, available twenty four hours a day, seven days a week. This platform has been in service for several years and supports our remote training team dedicated to teaching our installers how to successfully install and commission Enphase systems. Additionally, Enphase conducts in-person training events to support many solar installers across the globe, and we use two solar vans equipped with Enphase system products to bring training about storage commissioning best practices to installers in remote locations across the United States and Puerto Rico. Training is also available on demand via our Enphase Energy Training YouTube channel where we currently have over 1,000 subscribers.

10,000+

installers certified in
Enphase Energy Systems

17,860


installers certified in Enphase
photovoltaic (PV) systems

2,300

solar installation companies
represented worldwide

342,000+

courses completed by installers
in Enphase University



Our mobile vans provide hands on training support
for learning commissioning best practices

Financial sustainability

69%

increased revenue in 2022

\$2.3 billion

revenue in 2022

15.4 million

microinverters shipped in 2022

42.6%

non-GAAP gross margin in 2022

We have built a solid financial foundation driven by operational excellence. In 2022, revenue increased 69% year-over-year to \$2.3 billion, compared to \$1.4 billion in 2021. We shipped 15.4 million microinverters in 2022, compared to 10.4 million in 2021. Our non-GAAP gross margin in 2022 was 42.6%,¹ compared to 40.7% in 2021.

Our balance sheet remained very strong in 2022. We exited 2022 with \$1.6 billion in cash, cash equivalents, and marketable securities. We generated record free cash flow of \$698.4 million, more than double from \$315.5 million in 2021.

In March 2021, we successfully completed the issuance of approximately \$1.2 billion in green convertible notes (the Green Bond Notes). As part of the Green Bond Notes offering, we established a Green Financing Framework that reinforces our commitment to our planet and our communities. During 2021 and 2022, we allocated all the proceeds of the Green Bond Notes to finance a variety of environmentally impactful projects as summarized in the table below, which included research and development (R&D) for new products, capital expenditures to increase our manufacturing capabilities to support our global product portfolio, the cost of goods sold, and increased headcount. The terms of this capital raise were some of the most favorable to an issuer in history, and we were bestowed with an ESG award and a structured equity award from International Financing Review (IFR) in February 2022.

Table 1: Enphase Energy eligible green bond disbursement report (\$ in millions)*

Net Proceeds from Green Bond Issuances	
Issuance Dates:	March 1, 2021 and March 12, 2021
Notes due 2026	\$622.53
Notes due 2028	\$565.91
Total Net Proceeds	\$1,188.44
Eligible Green Expenditures	
Eligible Green Project Categories	from April 1, 2021 through September 30, 2022
Renewable Energy	\$973.69
Eco-Efficient Production Technologies and Process	\$214.75
Total Disbursed Expenditures	\$1,188.44

*Please refer to Management assertion and Third party attestation in Appendix

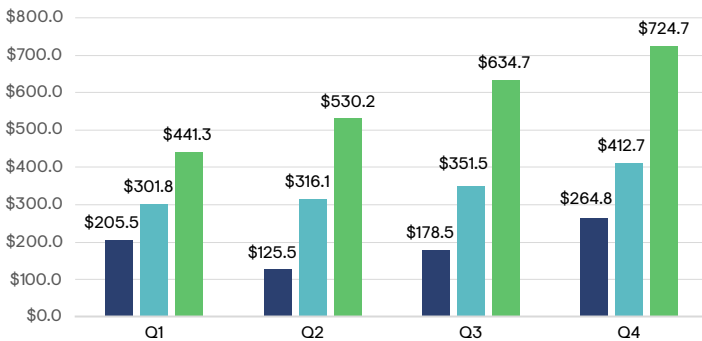
¹See Appendix for reconciliation to comparable GAAP measures

Our financial performance

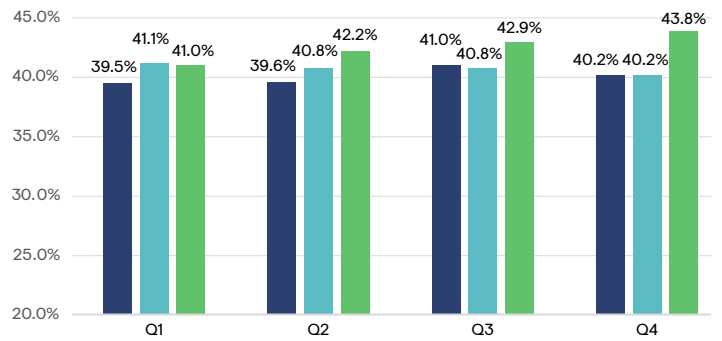
“We had another record year for profitability in 2022.”

We had another record year for profitability in 2022. We generated a record \$744.8 million in cash flow from operations in 2022, compared to \$352.0 million in 2021. GAAP net income was \$397.4 million, resulting in diluted earnings per share of \$2.77. Non-GAAP net income was \$647.4 million, resulting in non-GAAP diluted earnings per share of \$4.62.¹

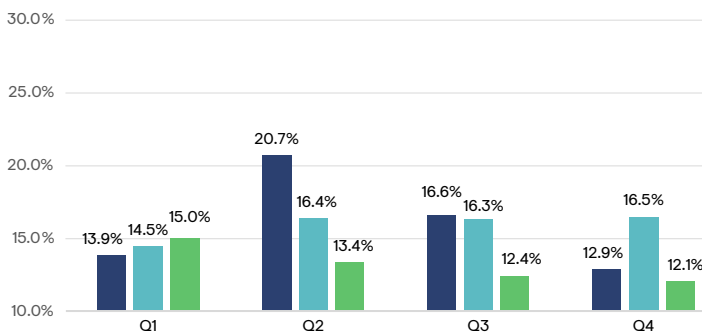
Quarterly revenue by year



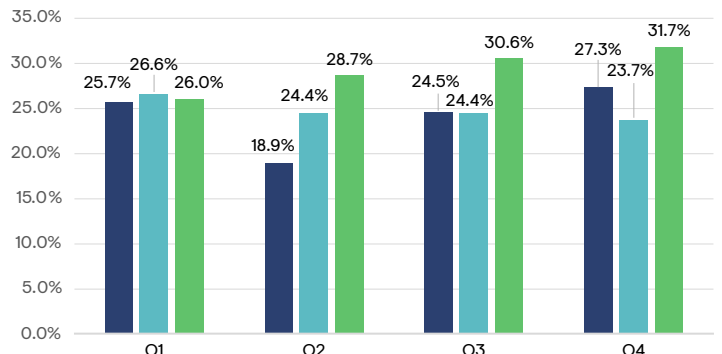
Quarterly gross margin % by year



Quarterly operating expenses % by year



Quarterly operating income % by year



■ 2020 ■ 2021 ■ 2022

¹See Appendix for reconciliation to comparable GAAP measures



Enphase IQ 5P™ Battery with 2x continuous and peak power to be introduced in 2023

Environment

Enphase's best-in-class energy management solutions, spanning solar energy generation, battery storage, EV charging, and cloud-based monitoring and control, provide the smart energy needed to drive global sustainable development. Our products and services directly address the urgent challenges presented by climate change and the transition to a low-carbon economy.



E1. Environmental stewardship

Enphase's best-in-class energy management solutions, spanning solar energy generation, battery storage, EV charging, and cloud-based monitoring and control, provide the smart energy needed to drive global sustainable development. Our products and services directly address the urgent challenges presented by climate change and the transition to a low-carbon economy, and we also acknowledge responsibility for helping to reduce adverse environmental impacts across the value chain.

“Our products and services directly address the urgent challenges presented by climate change and the transition to a low-carbon economy.”

Climate change strategy

At Enphase, we create the clean energy technologies the world needs to help slow the pace of global warming, protect the environment, and accelerate the transition to a clean, accessible, and resilient energy system. Our climate change strategy disclosures align with the recommendations of the Taskforce for Climate-Related Financial Disclosures (TCFD) and may be found in the [Appendix](#).

Environmental management system (EMS)

Enphase demands of itself superior environmental performance, and 100% of our facilities are ISO 14001:2015 certified. Our EMS is continually improved to align with business strategy, promote positive environmental impacts, and minimize adverse impacts. Through the EMS, we proactively assess environmental risks and opportunities, define key performance indicators (KPIs) and targets, and evaluate progress toward environmental goals.

Supplier expectations

Enphase works with suppliers who share our commitment to environmental stewardship, and all suppliers and vendors are expected to uphold the same standards of environmental stewardship as we do. Suppliers are screened on specific criteria including the presence of an environmental policy; EMS or Eco-Management and Audit Scheme (EMAS) certification; Restriction of Hazardous Substances (RoHS) and Registration, Evaluation, Authorization, and Restriction of Chemicals (REACH) compliance; conflict minerals reporting; as well as the establishment of human rights and labor policies.

Auditing

Our environmental audit program includes periodic and complete evaluations of our product development and R&D centers. Audits include air and water quality, waste management practices, spill prevention and control, hazardous materials management, and employee awareness.

Reporting and stakeholder consultation

We report our annual environmental performance in line with prevailing sustainability reporting frameworks. Stakeholders such as our shareholders, local communities, customers, suppliers and contractors, government agencies, and other organizations focused on protecting the environment are allies and collaborators, and their priorities and feedback regarding our environmental performance are considered when assessing our environmental performance.

Product lifecycle stewardship

“We support pollution prevention programs and use materials and energy efficiently to conserve natural resources.”

Our products are designed to be safe for the environment and their intended use. All hazardous waste generated across our operations is disposed of properly or recycled, and we comply where we operate with all applicable laws and directives regarding hazardous waste, including Waste from Electrical and Electronic Equipment (WEEE), RoHs, REACH, and the European Union (EU) batteries directive. We support pollution prevention programs and use materials and energy efficiently to conserve natural resources, including measuring emissions and implementing an emissions reduction strategy.

Legal compliance

Enphase complies in the areas where we operate with all applicable environmental, health and safety laws, as well as all pertinent industry codes and standards. We also expect our suppliers, partners, and customers to comply with all applicable environmental laws and regulations.

Empowering employees

We harness the intellect and energy of our employees to achieve positive and lasting environmental impacts resulting from our business. Employees at all levels actively participate in environmental goal-setting processes, allowing for important insights and innovation to be realized across the company. We incentivize performance toward environmental-related goals, with all employees eligible to tie their bonuses to associated objectives.

E2. Clean energy production

During
2022

21 billion

kilowatt-hours (kWh)
generated by Enphase
microinverters³

14 million

MTCO₂e prevented from
entering the atmosphere²

Since
2006

64 billion

kilowatt-hours (kWh)
generated by Enphase
microinverters³

45 million

MTCO₂e prevented from
entering the atmosphere²



² Estimate based on Enphase managed systems data as of December 31, 2022 grossed up for non-managed systems based on cumulative production records; CO₂e calculations based on [U.S. EPA GHG calculator](#)

³ Annual running total estimate based on Enphase managed systems data as of December 31, 2022 grossed up for non-managed systems based on cumulative production records

E3. Emissions and energy

We completed our second year of a greenhouse gas (GHG) emissions inventory. The calculations follow the guidance provided in the GHG Protocol Corporate Standard, covering direct (Scope 1), electricity-indirect (Scope 2), and certain Scope 3 emissions categories. Please refer to the [Appendix](#) for a detailed explanation of the methodology used in our GHG emissions inventory.

Scope 1

We consider Scope 1 emissions to be negligible given our “OpEx Lite” operating model, where we do not own or operate any large factories. Emissions from our field service and training vehicle fleet do not represent more than 5% of our total Scope 1 and 2 emissions and are excluded from our GHG inventory.

Scope 2

Energy consumption among our leased facilities globally comprises our Scope 2 emissions. We are actively reducing our Scope 2 emissions by increasing the number of PV systems on our leased buildings and completing energy efficiency projects on a continuing basis. Our energy management program is informed by the ISO 50001 standard.

Note that we intentionally forgo market solutions to drive down Scope 2 emissions. This allows us to confidently claim that our operations run on renewable energy, while cultivating a net positive outcome. By leaving installed PV on the leased buildings after we vacate, we leave the facilities in a better condition than originally found.

Scope 3

We collaborate with upstream and downstream partners to reduce our Scope 3 emissions. In 2023, we plan to install a 900 kW Enphase microinverter system at Salcomp, India, our contract manufacturing facility that has produced more than five million Enphase microinverters. Several other of our key suppliers and customers have set ambitious GHG reduction targets through the Science-Based Targets Initiative (SBTi), helping to further reduce Scope 3 emissions. We will continue to measure our Scope 3 emissions and explore opportunities for further reductions moving forward.

“2022 is our second year of completing a greenhouse gas (GHG) emissions inventory.”

Reducing GHG emissions

We are actively reducing our operational emissions and have set a target to reduce our Scope 1 and Scope 2 economic emissions intensity by 30% by 2030 through the following means:

“We have set a target to reduce our economic emissions intensity by 30% by 2030.”

- Installing on-site PV generation capacity among leased facilities
- Implementing energy efficiency projects
- Strategically siting our facilities to ensure access to renewable energy
- Installing bi-directional EV chargers when available among facilities
- Incentivizing energy conservation efforts
- Continuing transition to cloud storage to reduce data center energy consumption

2022 actions taken

- Increased facilities’ on-site generation capacity by 73%
- Reached total on-site generation capacity of 260 kW, with expansion plan developed to increase to 1,747 kW by the end of 2023
- Began tracking renewable energy mix across purchased grid electricity
- Planned LED motion-sensing light fixture upgrades representing annual savings of 152,675 kWh

Table 2: GHG emissions* and emissions intensity

Emissions type	Units
Direct emissions (Scope 1) (MTCO ₂ e)	0
Electricity-indirect emissions (Scope 2) (MTCO ₂ e)	10,603
Other indirect emissions (Scope 3) (MTCO ₂ e)	53,542
Total emissions (MTCO ₂ e)	64,145
Scope 1 + 2 emissions intensity (MTCO₂e/\$M revenue)	4.55

*All emissions figures represent location- and market-based calculation.

Chart 1: On-site PV generation capacity (kW)

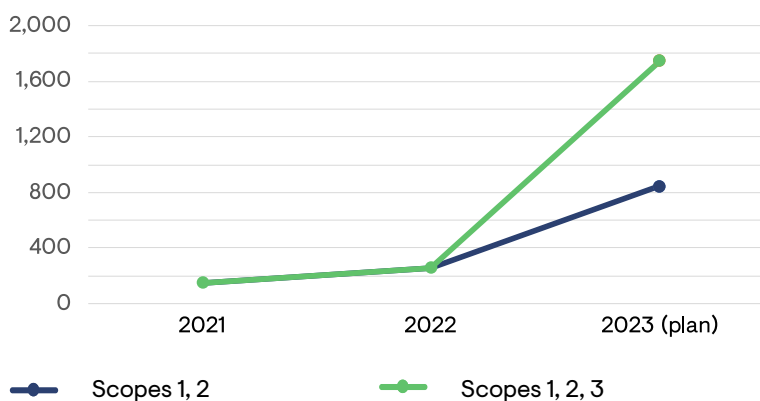


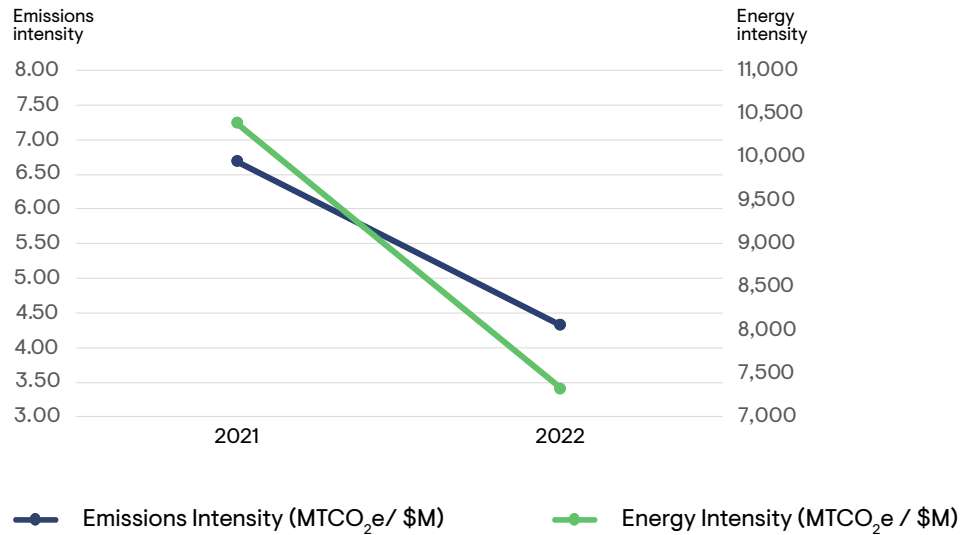
Table 3: Energy consumption and intensity

Energy type	Units
Electricity (kWh)	15,649,167
Heating (kWh)	1,953,424
Total energy consumption (kWh)	17,602,591
Energy intensity (kWh / \$M revenue)	7,554

74%

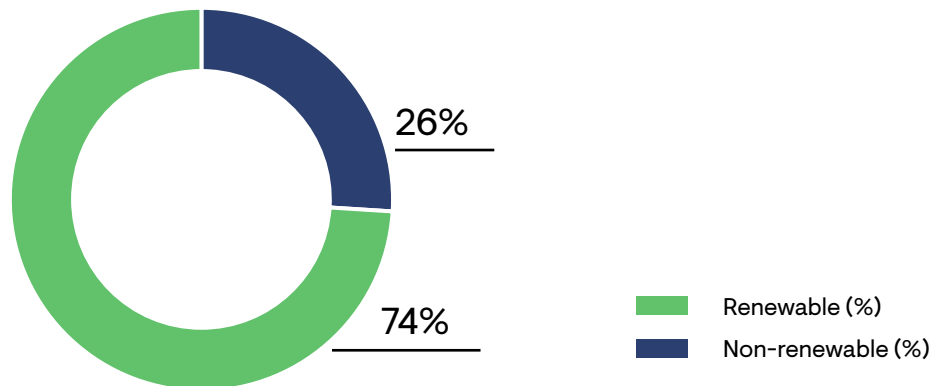
renewable
energy mix

Chart 2: Emissions and energy intensity*



*Scopes 1 and 2 only

Chart 3: Renewable energy mix



Hazardous air pollutants

Enphase installed products reduce the amount of hazardous air pollutants (HAPs) that enter the atmosphere, helping to alleviate human health issues related to the release of particulate matter (PM 2.5), nitrous oxides (NOx), sulfur oxides (SOx), and other ozone-depleting substances (ODS). These are typically released from fuel combustion among both mobile and stationary sources such as cars, trucks, and factories. Many people are disproportionately impacted by air pollution, including those who live in communities of color or low-income communities. Every clean kilowatt-hour generated by an Enphase system helps to reduce air pollution and promote environmental justice.

“Every clean kilowatt-hour generated by an Enphase system helps to reduce air pollution and promote environmental justice.”

We do not consider the release of HAPs across Enphase’s operations to be significant, given we do not own or operate a company vehicle fleet or any large factories. However, we do hold upstream suppliers and contract manufacturers accountable for environmental performance as outlined in our Enphase [Supplier Code of Conduct](#) and proactively work to reduce Scope 3 emissions, including HAPs, as described earlier in this report.



Enphase EV chargers have a charging current range between 32 amperes and 64 amperes

E4. Product lifecycle and waste

Activities across the entire value chain from raw material extraction to product end-of-life methods comprise our environmental footprint, and we are committed to reducing adverse environmental impacts as much as possible. We continually seek opportunities to reduce the inputs needed to build reliable, high-quality products, integrate recycled materials where possible, and design equipment that can be repurposed or recycled at the end of its lifespan. By following “Design for Environment” (DfE) principles, we spur innovation and position ourselves to compete in the growing circular economy.

Currently, we are primarily concerned with managing our electronic waste (e-waste), hazardous waste, and universal waste responsibly across global operations. These wastes are generated through R&D, prototyping, and creating experimental apparatus for new product development and improvement across our product portfolio. Our dedication to building innovative, best-in-class products regarding safety, quality, and reliability requires extensive testing and failure analysis. Test equipment is disassembled or deconstructed, with the constituent parts recycled and reclaimed for future use, where possible. We make every effort to divert these wastes from landfills by sending e-waste, hazardous waste, and universal waste to certified vendors who provide certificates of destruction, outlining the percent composition, mass, and recycling method employed for each constituent material.

100%

waste generated in North America is diverted from landfill*

100%

RoHS, REACH, WEEE, and EU Battery Directive compliant

“We continually seek opportunities to reduce the inputs needed to build reliable, high-quality products, integrate recycled materials where possible, and design equipment that can be repurposed or recycled at the end of its designed lifespan.”

We focus significant efforts on residential, commercial, and industrial battery disposal and recycling. We evaluate third-party recycling vendors for certifications and compliance performance prior to engaging with them. Our battery recycler is certified to the R2 standard, which prohibits incineration as a disposal solution. All battery waste is processed thermally or chemically to recover valuable metals such as nickel, lithium, cobalt, and copper, with the remaining plastic and byproducts separated for recycling. This allows for valuable components to be reused as material inputs for new products. We design our batteries for long-term duration to decrease waste, using lithium iron phosphate (LFP) chemistry as the storage material. Beyond batteries, we are reviewing the methods of other third-party vendors to validate that material is diverted from landfill, and we are developing a vendor audit program to verify the destination of generated waste.

We promote our company’s commitment to recycling and preventing products and materials from ending up in landfills through our internal training and compliance with applicable federal, state, and local regulations. Employees working in our R&D labs undergo additional annual training to ensure they understand how to properly dispose of any hazardous materials that are not eligible for our recycling programs.

*Hazardous waste, e-waste, and universal waste

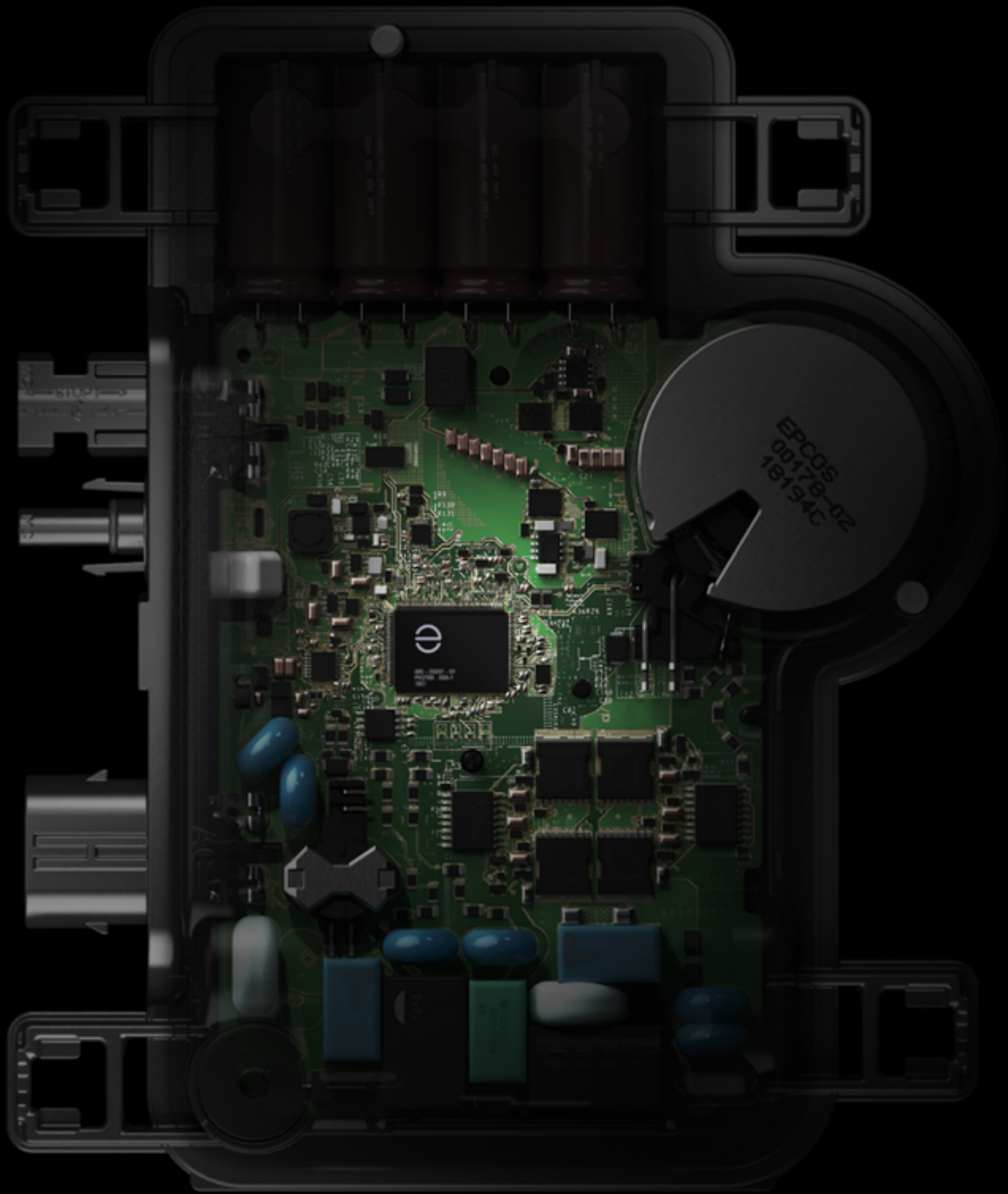
Sustainable facilities

We also make a conscientious effort to ensure responsible resource consumption across our facilities. Water conservation is encouraged, and we have installed auto stop taps to reduce consumption. Facilities are equipped with reusable and compostable materials, single-use items are eliminated, and employees are provided with reusable dishware, utensils, and mugs. Additionally, ink cartridges, organics, plastic, glass, cardboard, fluorescent bulbs, and metal scraps are recycled as standard practice among facilities.

Table 4: Waste*

Waste Type	Amount Generated (MT)	Amount Diverted from Landfill (MT)	Percent Recycled (%)	Percent Directed to Landfill (%)
Hazardous Waste	0.45	0.45	100	0.0
E-Waste	89.26	89.26	100	0.0
Universal Waste	27.14	27.14	100	0.0

*U.S. R&D locations only



Our high-speed digital ASIC forms the brain of our microinverters

E5. Case studies

United States

Solar Revolution LLC, an installer of Enphase products, completed an 87.8 kW rooftop solar energy project on the Erie Fire Station in Erie, Pennsylvania. The installation will power critical emergency services and is expected to help save taxpayers hundreds of thousands of dollars over the life of the system.

Erie Fire Station

Organization

Solar Revolution LLC

Enphase product installer

Erie, Pennsylvania

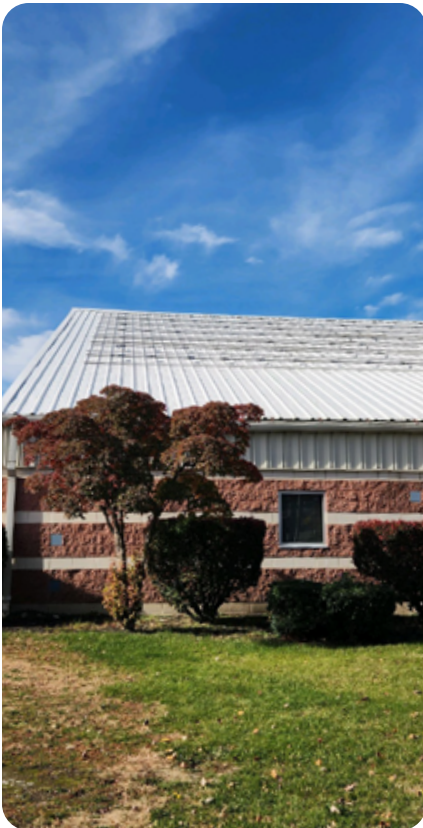
Location

87.8 kW

solar energy system size

98.3 MWh

estimated annual production



Puerto Rico

Enphase Energy partnered with Genesis Solar and non-profit organizations to help with lowering utility bills and back-up power for communities in Culebra, a small east coast island in Puerto Rico, by installing 45 Enphase Energy Systems.

Environmental
Defense Fund

Organization

Genesis Solar

Enphase product installer

Culebra Island

Location

3 kW 10 kWh

solar energy
system size

battery size

6 MWh

estimated annual production per system, plus backup storage



Europe

Smart To, an installer of Enphase products, completed a rooftop solar energy project for a summer camp in Haute-Savoie, France. The system was designed to provide clean energy support for the camp and help reduce electricity bills. The installation consisted of 44 solar panels with IQ7+™ microinverters.

A summer camp facility in France

Organization

Smart To

Enphase product installer

Haute-Savoie, France

Location

17.8 kW

solar energy system size

30%

of annual energy consumption estimated as annual production



Australia

Genelec Power Solutions (GPS), an installer of Enphase products, completed a 180 kW rooftop solar energy project on the new Sydney Football Stadium, commercially known as Allianz Stadium. The system design targeted annual power generation of 158 MWh, which, after multiple modeling simulations of various other inverter technologies, could best be achieved by leveraging the flexibility and performance of the Enphase IQ7A™ microinverters.

Sydney Football Stadium (Allianz Stadium)

Organization

Genelec Power Solutions

Enphase product installer

Moore Park, Sydney, Australia

Location

180 kW

solar energy system size

158 MWh

estimated annual production



Brazil

An installer of Enphase systems, Plug Solar Energia, installed a solar energy system at a condominium building in São Paulo, Brazil. The roof has multiple orientations, and designing with Enphase microinverters was the best solution to ensure maximum efficiency and savings. The customer also chose Enphase microinverters so that it could add Enphase batteries at a later time.

Alphaville Tambore 3

Organization

Plug Solar Energia

Enphase product installer

Santana de Parnaíba/ Sao Paulo

Location

41.3 kW

solar energy system size

57.6 MWh

estimated annual production



India

Ornate Solar, an installer of Enphase products, built a massive 1,638 panel solar energy system across 45,000 square feet, on the rooftop space of B.L. Argo facility in Bareilly, Uttar Pradesh. The proprietary InRoof system is a unique structural solution that can integrate panels of any shape and size to replace conventional metal roofs. The solar panels themselves became the roof. This system is touted by Ornate Solar as one of India's largest integrated roof solar energy systems.

BL Agro Industries Ltd

Organization

Ornate Solar

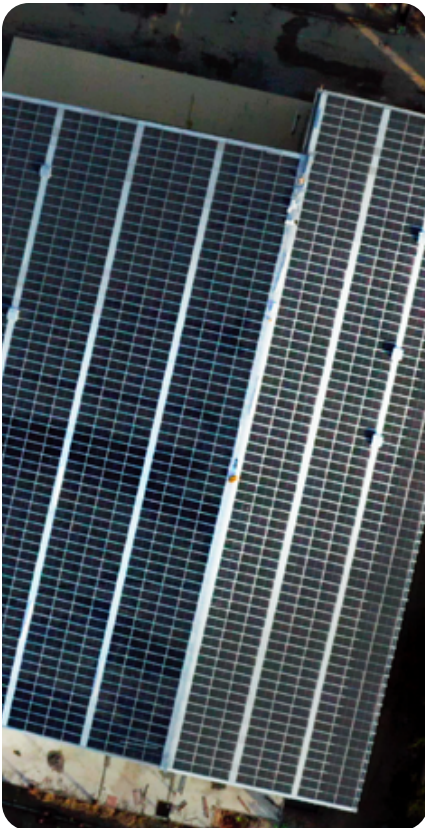
Enphase product installer

**Bareilly, Uttar Pradesh,
India**

Location

745 kW

solar energy system size



People

At Enphase, we strive to be a great place to work by recruiting and retaining the best, embracing diversity, equity, and inclusion, providing opportunities for learning and development, and cultivating a safe and healthy work environment.

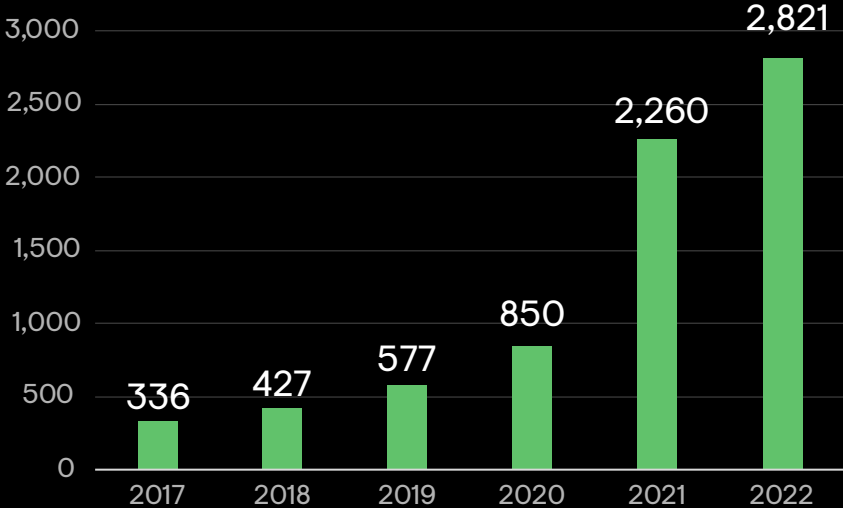


P1. Company demographics

Geographic headcount



Employee headcount



P2. Recruiting and retaining the best

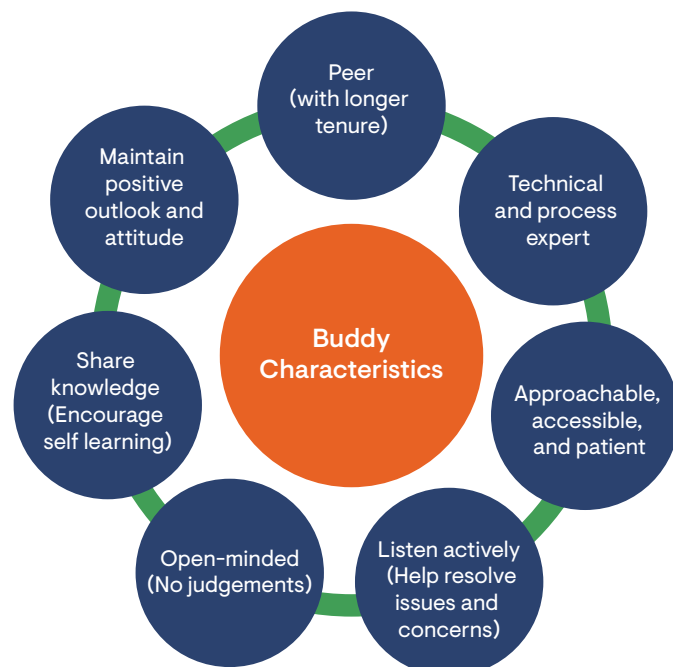
We are committed to attracting the best talent and developing a strong group of employees from diverse backgrounds. Our robust talent management program includes university outreach, global recruitment, career progression, and leadership development – empowering our employees to reach their full potential and find work satisfaction.

Recruitment and onboarding

We leverage various employee referral programs, seek talent from specialized conferences, including university recruitment, and work with recruiting agencies to supply a diverse slate of candidates for each job opportunity. In addition, our talent acquisition department sponsors events, partners with multiple student organizations on university campuses, makes certain all published job descriptions contain inclusive language, and ensures that interview teams are broadly represented. Once hired, our world-class, scalable, and blended model for new employee onboarding and training creates an environment where all employees feel welcomed, supported, and valued.

Buddy Up!

As part of our new employee onboarding, every new employee is paired with a colleague who is a go-to person for the new employee. The buddy provides assistance and information during the settling-in period and ensures that the new employee is engaged and supported, especially when working remotely. Our buddies benefit from improved self-confidence and the ability to hone managerial and leadership skills. Over 120 buddies received positive recognition in the first six months of launching the program.



Employee wellness, engagement, and satisfaction

The physical, social, emotional, and financial needs of our employees and their families guide our global wellness program. Accordingly, our employees worldwide are paid competitive wages and are provided retirement saving programs, paid vacation days, sick leave, subsidized health insurance plans, employee assistance programs (EAPs), virtual fitness programs, and other benefits according to local regulations. All employees are eligible for awards of Restricted Stock Units (RSUs) and quarterly cash bonuses, and can participate (where available) in the Employee Stock Purchase Plan (ESPP).

We conduct an annual Employee Net Promoter Score (eNPS) and employee engagement survey. This survey drives our employee engagement plans and activities for the upcoming year. Each function and business unit also prepares its own action plans for the year based on the survey results and feedback.



P3. Embracing diversity, equity, and inclusion

Our ability to innovate relies on hiring the best and valuing the perspectives and knowledge from employees across a broad range of backgrounds and experiences. We ensure our leaders and employees at all levels of the organization work with each other to foster an inclusive culture and mindset, and continuously improve our interactions with each other, our partners, our customers, and our communities. In 2022, we formed our DEI Council, which is charged with raising awareness of our global DEI strategy, focused on hiring, engagement, retention, and development efforts to achieve a world-class workforce that is inclusive and diverse.

Eliminating bias and ensuring equal opportunity

We address the topic of “unconscious bias” in training available to recruiters, hiring managers, and interviewers to ensure inclusive hiring practices. Through our “Interviewing the Enphase Way” and “Hiring the Enphase Way” philosophies and training programs, we evaluate candidates on merit and do not fall victim to prejudice or discrimination.

We do not tolerate discrimination of any kind based on race, color, sex, gender, gender expression, religion, sexual orientation, national origin, ancestry, disability, medical condition, genetic information, marital status, pregnancy, military or veteran status, or any other protected characteristic as outlined by federal, state, or local laws. This policy applies to all employment practices within our organization, including hiring, recruiting, promotion, termination, layoff, recall, leave of absence, compensation, benefits, training, and apprenticeship.

“Our ability to innovate relies on hiring the best and valuing the perspectives and knowledge from employees across a broad range of backgrounds and experiences.”



Table 5: Gender diversity

Employee group	Female (%)	Male (%)	Not disclosed (%)
Executive officers (16)	25.0	75.0	0.0
Leadership (208)	12.5	81.3	6.2
Managers (462)	15.1	81.2	3.7
All employees (2,821)	18.1	72.6	9.3



Table 6: Ethnic diversity

Ethnicity	All employees (No. 2,821) (%)	Leadership (No. 208) (%)	Managers (No. 462) (%)
American Indian or Alaska Native (not Hispanic or Latino)	0.6	0.0	0.2
Asian (not Hispanic or Latino)	49.3	47.6	57.8
Black or African American (not Hispanic or Latino)	1.2	0.0	0.4
Hispanic or Latino	4.8	1.9	2.8
Native Hawaiian or Other Pacific Islander (not Hispanic or Latino)	0.4	0.5	0.2
Two or more races (not Hispanic or Latino)	1.2	1.9	1.3
Not disclosed	16.1	11.1	8.9
White (not Hispanic or Latino)	26.4	37.0	28.4



Table 7: Age diversity

Employee group	< 30 Years (%)	31-50 Years (%)	> 50 Years (%)	Not disclosed (%)
Leadership (208)	0.0	56.7	39.9	3.4
Managers (462)	5.9	72.5	19.9	1.7
All employees (2,821)	35.8	50.7	10.7	2.8

DEI organizations and partnerships

Avtar and Seramount



In 2022, Avtar, India’s premier DEI solutions firm, along with Seramount, a strategic professional services firm dedicated to advancing DEI in the workplace in the United States, conducted the seventh successive edition of the Best Companies for Women in India (BCWI) and the Most Inclusive Companies Index (MICI) in 2022. Enphase received two awards – “Top 100 Best Companies for Women in India” and “Exemplar of Inclusion.” These awards honor Enphase’s unbiased, focused efforts towards identifying and developing diverse talent and adopting leading practices in DEI areas.

CEO Action for D&I



Enphase’s CEO signed the CEO Action for Diversity & Inclusion pledge in 2021, joining more than 2,000 other CEOs, to act on supporting more inclusive workplaces. We continued our pledge to promote diversity in our leadership team and began to implement changes focused on attracting more qualified and diverse talent into the company. The pledge also challenges us to evolve our hiring practices to be more inclusive, including with all new executive- and Board-level positions.

ParityPledge



Enphase is a signatory to the corporate “ParityPledge,” alongside a significant number of established corporations in support of women and people of color in the workplace. We are continuing to honor the pledge goal, which requires a commitment to interview and consider at least one qualified woman and person of color for every open role, vice president and higher, including C-suite and the Board.

SEIA DEIJ Certification Program



In 2022, Enphase joined forces with the Solar Energy Industries Association (SEIA) to help advocate for diversity and inclusion in the solar industry. SEIA's Diversity, Equity, Inclusion & Justice (DEIJ) program increases social awareness by promoting solar companies that become certified. A company participating in the DEIJ program can earn certification for their work on these issues, allowing SEIA to showcase a company's progress in this space and educate other member companies through various programs, training, and resource development. SEIA's DEIJ database provides resources that assist us in expanding our own internal diversity programs.

Women in Cleantech & Sustainability

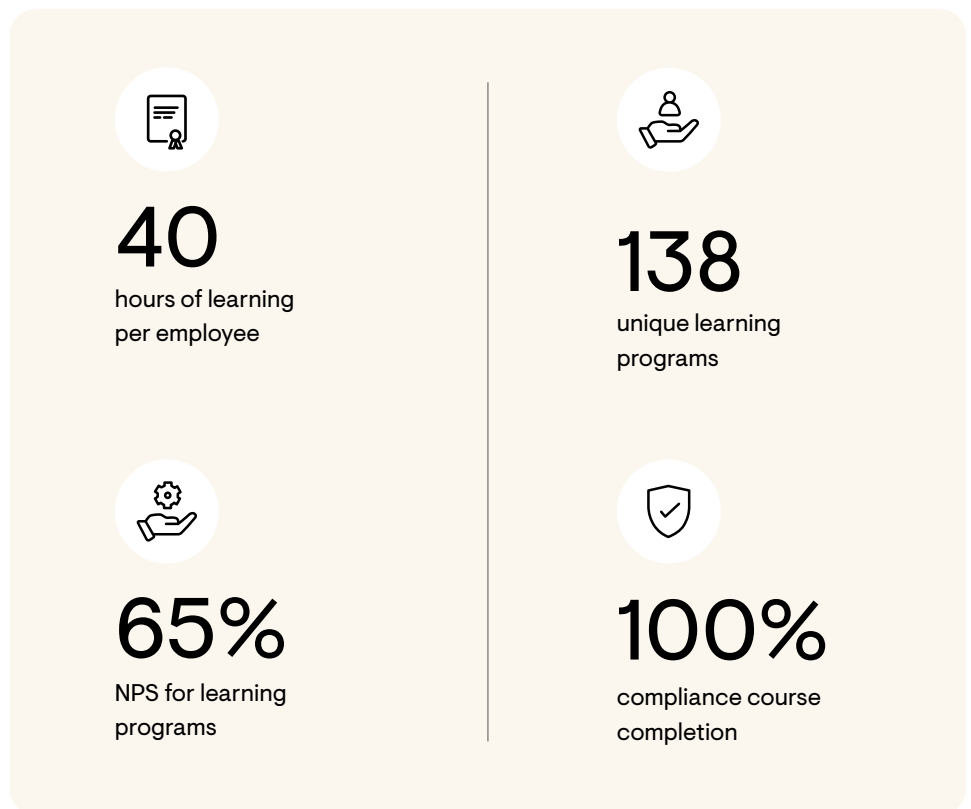


Enphase continued its partnership with Women in Cleantech & Sustainability (WCS), an organization that fosters an influential network of professionals to further the roles of women in growing the green economy and making a positive impact on the environment. By supporting WCS, we are helping to shine a light on the need for more women in cleantech and fostering support for clean energy with participation in events and mentorship opportunities.

P4. Developing our people

‘Experience-Exposure-Education’ learning model

Our learning model is designed to enable the majority of knowledge gained from job-related experiences, followed by learning from coaching and mentoring, and participating in formal learning events. This model reinforces our belief that learning is not just a result of functional responsibility – it goes beyond formal training. Learning and development are therefore embedded into daily work, cross-functional interactions, informal mentoring, and stretch assignments.



Enphase Learning Academy

Last year we built the Enphase Learning Academy, our employee resource learning center. The Academy utilizes EdCast’s Learning Experience Platform (LXP) and serves as a centralized learning hub for all employees. The Enphase Learning Academy brings together internal, external, formal, and informal sources of learning and knowledge in a simple, easy-to-use interface. The platform uses artificial intelligence and machine learning to personalize the content, driving an intuitive user experience for our employees. Apart from self-paced learning, we offer talks on niche technical topics, webinars on wellness and work-life balance, management development modules, and functional product and technical training programs.

‘Ennovate’ – Enphase’s innovation program

Innovation is a core value at Enphase and is key to the long-term success of our company. Ennovate, Enphase’s annual company hackathon program, is one of those programs that drives innovation at Enphase. In 2022, the Ennovate program solicited ideas from employees across three broad themes - software, systems, and business processes. We received 130 stunning ideas of which 29 were shortlisted for review by our executive team, funded by Enphase for demo and prototype creation, and the best ideas were awarded with a cash prize based on their novelty and business potential.



Education Assistance Program

Our Education Assistance Program (EAP) offers qualifying employees financial support to advance their educational goals and increase their business knowledge. In 2022, Enphase enhanced its regional budget for this benefit, enabling employees to choose from a better and wider range of courses offered by education institutions.

Enphase behavioral competency framework

Competencies play a critical role in organizational success in that they define the skills, behaviors, and attributes for all roles. In 2022, Enphase launched its behavioral competency framework, which includes a set of core capabilities, as well as additional competencies that may be required for specific tasks or responsibilities. These competencies have become the core of internal employee practices such as hiring, performance evaluation, and development.

P5. Promoting a safe and healthy workplace

Occupational Health and Safety

Enphase’s Occupational Health and Safety (OHS) program has implemented a culture of safety compliance, framed on identifying hazards, minimizing workplace risks, and promoting continuous improvement in safety performance. The U.S. Department of Labor’s Occupational Health & Safety Administration (OSHA) guidelines are the building blocks for our OHS program in the U.S. and provide significant influence over the development of our OHS systems globally. The OHS program either complies with or exceeds the occupational health and safety regulations in the countries where we operate.

“In 2022, Enphase had zero reportable notices of health and safety violations, worldwide.”

We continually monitor and evaluate our OHS program. In 2022, we updated the OHS policy’s strategic direction, guiding principles, and relevant responsibilities for management, employees, and the newly formed Enphase Environmental Health and Safety (EHS) team. Our EHS team is led by a safety professional trained and certified by the Board of Certified Safety Professionals (BCSP). In 2022, Enphase had zero reportable notices of health and safety violations, worldwide.

Workplace accident and injury rates

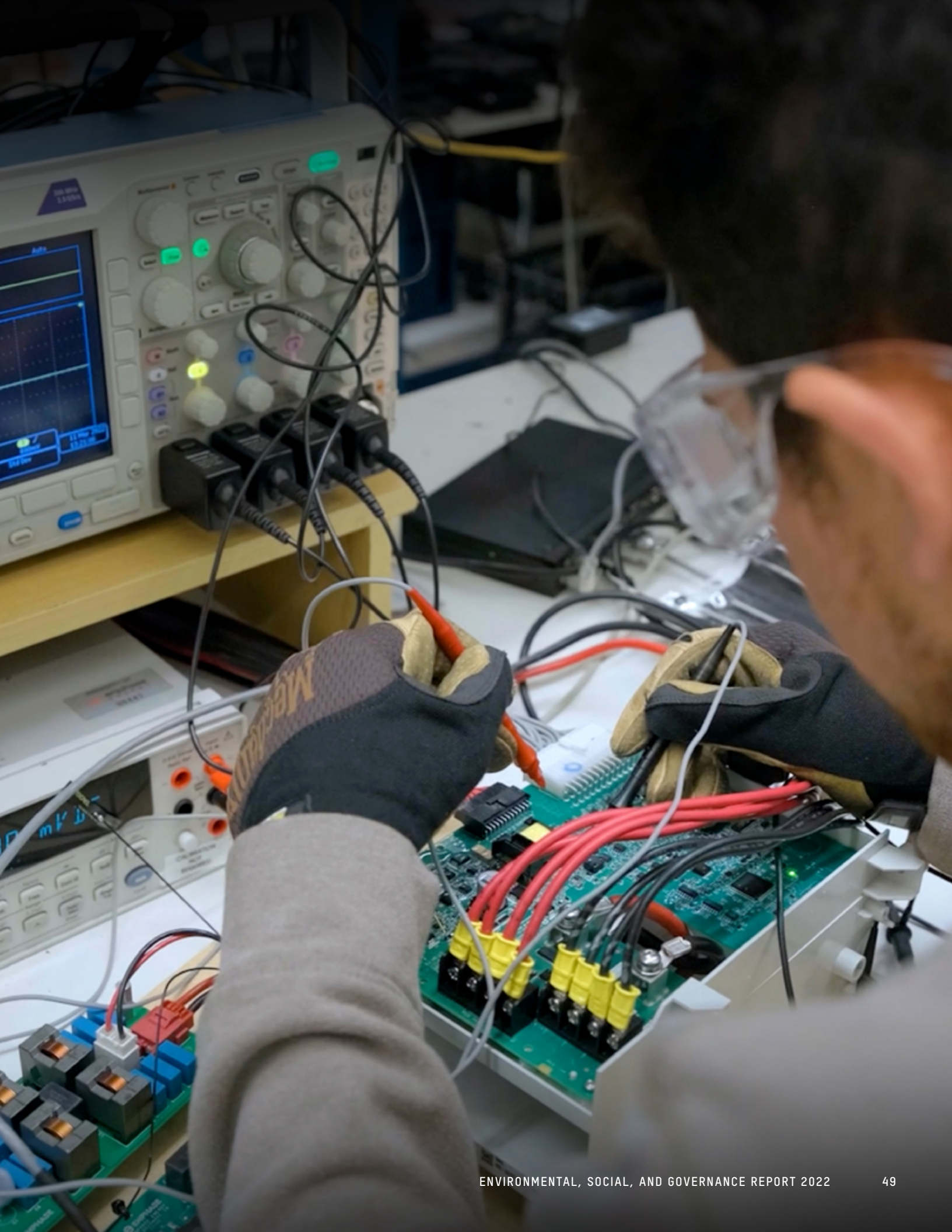
Enphase uses OSHA definitions to calculate recordable incidents, lost time, and restricted-day injuries. These definitions are also implemented globally for data gathering and analysis. As a result of these efforts, our recordable incidents, lost-time, and restricted-day injuries are below industry averages published by the U.S. Bureau of Labor Statistics.

Table 8: Accident and injury rates*

	Total Recordable Incident Rate (TRIR)	Days Away, Restricted, Transfer (DART)	Lost Time Incident Rate (LTIR)	Cases with Job Transfer or Restriction	Other Recordable Cases	Fatality Rate
Enphase Energy	0.09	0.09	0.04	0.05	0	0
Industry Benchmark⁴	2.7	1.7	1.1	0.6	1	No data

*North America operations

⁴ NAICS 221114, Solar Electric Power Generation



P6. Responsible supply chain

Our commitment to human rights

We acknowledge our responsibility to protect, preserve, and promote human rights around the world. As we expand our global reach and impact, the need for vigilance and due diligence regarding human rights issues throughout our operations will grow. We are committed to ensuring that the people and communities impacted by our business are able to live a life of liberty, dignity, and respect. Our internal codes and policies on human rights are rooted in established frameworks and conventions including:

- United Nations Declaration on Human Rights
- The Code of Conduct of the Responsible Business Alliance (RBA)
- The United Nations Guiding Principles for Business and Human Rights (UNGPs)
- The Organization for Economic Cooperation and Development (OECD) Guidelines for Multinational Enterprises
- International Labour Organization (ILO) Declaration on Fundamental Principles and Rights at Work

“We believe access to energy helps to reduce poverty, improve health, reduce inequality, and raise standards of living.”

Beyond the fundamental rights defined in these frameworks and conventions, we also consider access to clean, reliable, and affordable energy as a basic human right and a prerequisite for achieving the 2030 United Nations Sustainable Development Goals (UN SDGs). We believe access to energy helps to reduce poverty, improve health, reduce inequality, and raise standards of living. For more information, please refer to our [Human Rights Policy](#).

Business relationships

We seek to do business with those who share our values and commitment to human rights and expect all business partners to abide by our codes of conduct. We promote awareness and respect for human rights across the value chain, including the adoption of contractual clauses and supplier screening measures. Grievance mechanisms are available, including the use of an anonymous third-party whistleblower hotline when instances of non-compliance with the [Enphase Energy Code of Conduct \(Code of Conduct\)](#) or our [Supplier Code of Conduct](#) are observed or reported. Corrective actions are taken by managers, executive sponsors, and the Audit Committee of the Board when appropriate.

At a minimum, we expect our business partners to uphold basic human rights pertaining to minimum wage, maximum working hours, freedom of association and the right to collective bargaining, corporal punishment and disciplinary practices, acceptable living conditions, non-discrimination, and compliance with health and safety laws as defined in domestic and international conventions and frameworks.

Eradicating forced labor and human trafficking in supply chains

We take the issues of slavery and human trafficking very seriously and will continue doing our part by responsibly managing our supply chain to help eradicate human trafficking and slavery.

“We are committed to following all materials guidance and environmental regulatory compliance requirements in all the countries in which we operate and sell.”

As stated in our [Supplier Code of Conduct](#), our suppliers must not support, promote, or engage in the practice of forced labor, child labor, slavery, or human trafficking. The Supplier Code of Conduct requires our suppliers, next-tier suppliers, and subcontractors to comply with all international standards and applicable laws regarding slavery and human trafficking and to conduct due diligence on their operations to verify compliance that the materials used in our products comply with laws regarding human trafficking and slavery. Also see our [California Transparency in Supply Chains Disclosure](#).

We are committed to protecting human rights, enforcing fair labor practices, and addressing the potential risks of forced labor, child labor, human trafficking, and slavery across our operations and supply chain. We continuously monitor and evaluate our processes for assessing supply chain risk exposure, with regular updates provided to the Board of Directors.

Materials sourcing and conflict minerals

We are committed to following all materials guidance and environmental regulatory compliance requirements in all the countries in which we operate and sell. We do not use cobalt in our batteries as this mineral represents an increased risk of being sourced from the Democratic Republic of the Congo (DRC) and other conflict-affected areas associated with unfair labor practices. We expect our suppliers to source materials and operate in a responsible manner consistent with the Organization for Economic Cooperation and Development’s Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas. Our conflict minerals disclosure on responsible sourcing is updated annually and filed with the SEC and posted on our website. For additional information, please refer to our most recent [conflict minerals report](#) and [conflict minerals policy](#).

We expect our suppliers to acknowledge and agree to the following terms with respect to conflict minerals:

- to meet the requirements of the Dodd-Frank Wall Street Reform and Consumer Protection Act
- to provide us with conflict mineral content and country of origin information on products supplied to us
- to cooperate in our or independent third-party auditing of the supply chain and procurement process, conflict mineral audits, and due diligence on its suppliers, and
- to collaborate with us in developing a chain of custody for conflict minerals in the supply chain and identifying and sourcing conflict-free sources for minerals used in our products.

Supplier selection and auditing

The success of our products would not be possible without positive and long-lasting relationships with suppliers and partners that share our values of quality, design, and sustainability. We work closely with all our contract manufacturers – from onboarding to customer delivery – to ensure that our products are made while adhering to the highest ethical, environmental, and socially responsible standards.

“The success of our products would not be possible without positive and long-lasting relationships with suppliers and partners that share our values of quality, design, and sustainability.”

We provide a Supplier Quality Assurance Manual that outlines our expectations of new and existing partners. We are committed to producing high quality, reliable, and cost-effective products that are shipped on time, provide customer value, and conform to national and international requirements. We, along with our customers, demand and expect defect-free products and services.

Potential suppliers are rigorously screened for quality, including performance on environmental and social factors. Screening and assessment criteria cover:

- Compliance with our Supplier Code of Conduct
- Certification to ISO 9001 or ISO/TS 16949 Quality Management System (QMS)
- Certification to ISO 14001 Environmental Management System (EMS)
- Workforce policies and commitments to uphold best practices in human rights, fair labor, and business ethics
- Presence of environmental policy, and
- Published REACH and RoHS compliance



Society

We aim to support a cleaner, more reliable, and better-performing grid, and to collaborate with a wide range of stakeholders to advance policy outcomes in support of clean energy across the world.



S1. Enphase Corporate Social Responsibility (CSR) initiatives

United States



5,120 kW
solar installed

1,432
families served

\$31.94 million
lifetime savings

96,248 tons
of GHG emissions avoided

GRID Alternatives

We have been partnering with GRID Alternatives, a national non-profit leader, for over a decade. GRID's mission is to build community-powered solutions to advance economic and environmental justice through renewable energy. GRID works towards this mission by handling solar installations and providing job training in low-income communities. Through the partnership, we have historically donated our industry-leading microinverter products. Now, as part of an expanded partnership, Enphase will provide IQ™ Batteries and EV chargers for select GRID projects. These products will help further the nonprofit's important work, bringing energy resilience and clean transportation to disadvantaged communities with the goal of achieving an equitable energy transition.

Over the lifetime of our partnership, GRID has installed more than 9,300 solar energy systems in low-income communities across the United States using Enphase's products, which equates to more than 37 megawatts of solar power. These homes will see an estimated lifetime savings of more than \$268 million and help prevent more than 620,000 tons of greenhouse gas emissions from entering the atmosphere. Enphase's employees have volunteered more than 3,000 hours over the past decade, which led to the installation of solar on dozens of low-income homes and community buildings. This work has also provided job trainees and volunteers with more than 550,000 hours of solar education and training. For the most current information on Enphase's and GRID's impact, please visit the [website](#).





The Footprint Project

We provided a cash donation to The Footprint Project in support of its efforts to send solar powered generators and trailers to aid Ukraine war refugees. The Footprint Project has a mission to provide clean energy for communities in crisis. The organization was able to coordinate shipments including 600 solar reading lamps for shelters, 25 solar generators for medical facilities vulnerable to grid outages, and a solar trailer to provide scene lighting and clean power access for Ukrainian refugees in Palanca, Moldova.



Semper Cares

We continued our collaboration with Semper Solaris, a leading California solar installer, to support the company's Semper Cares Initiative. The initiative provides help to veterans and their families in need of energy independence and security. We donated solar energy system equipment to help complete a project and give back to the U.S. military's veteran community by providing more affordable and reliable power.



Sulzbacher Village

We partnered with Everybody Solar and Sulzbacher to help bring a 50 kW solar energy system to support a homeless shelter community in northeast Florida. Sulzbacher is one of the largest providers for people experiencing or at risk of homelessness in Florida. Enphase donated hundreds of IQ Microinverters to support the project, which will ultimately decrease the operating costs of the facility and service more people in the community.



Taylor Energy

Enphase and Taylor Energy partnered to develop a large solar energy system for Greenacre Homes, a local non-profit agency providing trauma-informed care for boys and young men. The 25 kW solar project was built on Greenacre's main campus and offices, which will help lower their energy costs and enable more resources to go toward supporting the community. The Enphase Energy System, powered by Enphase IQ Microinverters, will save Greenacre Homes an estimated \$500,000 over the life of the system.

Australia



Second Life Solar

We partnered with the Blue Tribe Company on a first-of-its-kind second life solar pilot project for Dubbo Regional Council, funded by the New South Wales Circular Solar Grants Program. We donated 38 IQ Microinverters to the project, which demonstrated the viability of reusing fully functional solar panels destined for landfills in behind-the-meter community solar gardens to deliver renewable energy and circular economy outcomes for commercial customers. Our microinverter technology was instrumental in allowing more recycled systems to be developed because different panels could be used with our microinverters within the same system. Leading industry groups have recognized Second Life Solar as a winner of the World Wildlife Fund's (WWF) Impact Challenge, a finalist in The Circle Awards AUS & NZ 2022, and a finalist in the 2022 NSW Banksia Awards.

Brazil



Miracema City Solar Project

We collaborated with "Domingão com Huck," a Brazilian TV show with a dedicated segment about providing support for low-income people. As part of the collaboration, we and the show supported a charitable project in Miracema City, a remote area in the countryside of Rio de Janeiro. We donated a 2 kW system to help a local advocate lower his energy bills while the TV show renovated his entire home.



UNESCO Sost

We partnered with Brazilian solar installer, Solstar, to donate a 6 kW system to UNESCO Sost Transcriativa Home, based in a quilombola community in Bahia. The home will foster the creativity of Brazilian leaders and entrepreneurs, and will also feature a creative sustainability showcase in Brazil and an ideation laboratory for sustainable projects.

India



Indian Institute of Technology

We provided funding to the Indian Institute of Technology (Dharwad) on a project called "Power Electronics and Controls for Renewable Energy Applications." The funding helped with fees for students and interns from underprivileged backgrounds who were working on the project.



India Sudar

We helped support multiple government schools across rural Karnataka by distributing notebooks and stationery supplies, funding infrastructure development at two government aided schools, providing funding for computer centers in four schools, and distributing science kits and purchasing library books for students at eight schools.



Rotary Club of Bangalore

We have been actively supporting Rotary Club of Bangalore with its various charitable initiatives, including funding towards the expenses and fees for students and participants from Lingarajapuram Pre-Primary School in Bangalore, Rotary School in Channapatana, and RCB's vocational training programs in Bangalore.



Selco Foundation

We partnered with the Selco Foundation to provide energy efficient medical equipment to government-run primary healthcare centers in Karnataka (Chamrajnagar district, Karnataka).



Smt. Rajeshwari Radhakrishnan Charitable Trust

We partnered with Smt. Rajeshwari Radhakrishnan Charitable Trust to help provide access to clean drinking water for the students at an all-girls high school in Thiruvannamail. We also funded the building and supplied a library for students at the school, school fees for students from underprivileged backgrounds, and the education of five students pursuing science, technology, engineering, and mathematics (STEM) degrees.



Society of St. Vincent De Paul

We worked with Society of St. Vincent De Paul in Mandya to provide funding for students at the Sharon School on the outskirts of Bangalore. The funding assisted with the fees for 60 students at the school - whose parents are mostly migrant laborers or otherwise from underprivileged backgrounds - and helped revamp and renovate the facilities available to students.



Trinity Care Foundation

We partnered with Trinity Care Foundation to install a rooftop solar system at a government aided school in Ramanagara Dst., Karnataka. We donated eight IQ7A Microinverters. We also helped fund a computer lab equipped with ten computers and accessories, as well as one year's salary for the staff to support the lab.

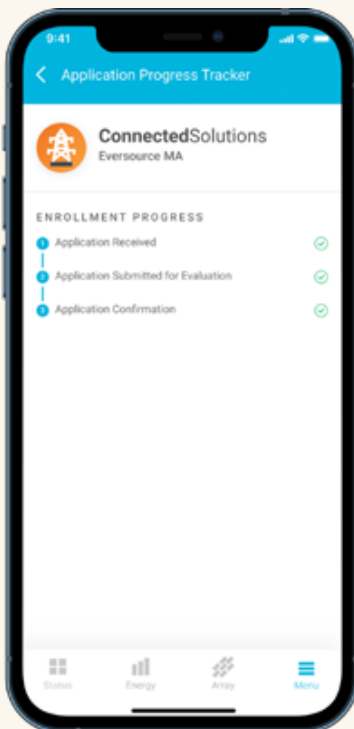
S2. Enphase grid services

Adding value to customers and society with Enphase solar and battery systems.

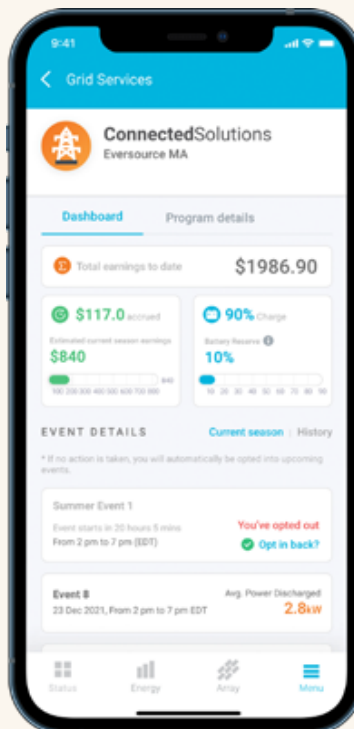
We expanded our grid services programs, enabling more homeowners with IQ Batteries the chance to participate in utility programs and earn money. These programs, also known as virtual power plants (VPPs), create a network of home batteries that are managed by utilities and grid operators. The programs pay homeowners to send the stored energy in their home batteries to the grid when it is needed most. As a result, utilities can rely less on the expensive, polluting power plants that traditionally address peak power demand.

In many grid services programs, customers can sign-up, monitor, and control participation in the program using the Enphase App™. The incentives reduce the cost of the home energy system and make home batteries more accessible and affordable to more people. As these programs scale, we will have cleaner, more affordable, and more reliable energy for everyone.

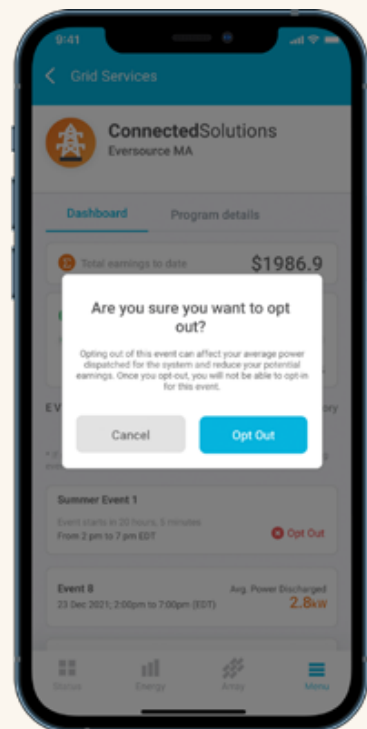
Enroll



Monitor



Backup and opt-out



In 2021, we announced our participation in the ConnectedSolutions program, Hawaiian Electric's Battery Bonus grid services program, and the Arizona Public Service, or APS, residential battery grid services program. ConnectedSolutions is an incentive program implemented by utilities in Connecticut, Massachusetts, and Rhode Island to reduce electrical demand during high-use periods. The Hawaiian Electric's Battery Bonus grid services program offers incentive for homeowners on the island of Oahu who install a new home battery. The APS residential battery grid services program offers homeowners who install Enphase IQ Batteries in APS's service territory the chance to participate and earn money through one-time, upfront incentives. We believe this valuable new program from APS will help further accelerate the adoption of Enphase systems in Arizona.

In 2022, we launched two more grid services programs in the United States, with plans to expand globally in the coming years:

Green Mountain Power



Enphase and Vermont-based utility Green Mountain Power (GMP) announced an alliance to offer Enphase Energy Systems suite to customers in a cutting-edge battery lease grid services pilot program. Homeowners can also enroll in GMP's "Bring Your Own Device" (BYOD) grid services program, which enables customers with their own Enphase Energy Systems to participate and earn an up-front incentive.

As part of the GMP partnership, Enphase also launched Grid Services Manager, a distributed energy resource management system (DERMS) that GMP will use to manage virtual power plants with Enphase Energy Systems. Enphase is now licensing this software product for utility grid managers, installers, and distributed energy resource aggregators to manage VPPs using Enphase IQ Batteries.

Pacific Gas and Electric Company (PG&E) Power Saver Rewards Program



PG&E and Enphase launched a home battery energy storage program, with the use of Enphase IQ Batteries, to support vulnerable, low-income customers during power outages. Through the initiative, PG&E is providing battery systems at no cost to approximately 100 residential customers who have been frequently impacted by outages because of PG&E's Enhanced Powerline Safety Settings (EPSS).

An overview of our grid services programs can be found on our [website](#).

S3. Enphase innovation and industry leadership

Supporting a more clean, reliable, and better-performing grid.

Underwriters Laboratory (UL) and the Institute of Electrical and Electronics Engineers (IEEE)

In May 2022 we announced that we were the first in the world to be certified by UL, a global safety science leader, to UL 1741, 3rd edition including the Supplement SB. This certification meets the new North American safety and grid interconnection standards for connecting solar inverters, energy storage systems, and DERs to the grid in compliance with IEEE 1547-2018 and IEEE 1547-1 2020.

“In May 2022 we announced that we were the first in the world to be certified by UL, a global safety science leader.”

Enphase works closely with UL and IEEE, including acting as a co-convenor for these specific standards and actively participating in the standards process for a variety of safety and compliance issues including:

- UL Standards Technical Panels participation: UL 1741, UL 3741, UL2703, UL 6703, UL 9540, UL 9540A, and UL 1699B. We hold a group leadership role for Power Control Systems within the UL 1741 panel.
- Acting Vice Chair of IEEE 1547.10: we are helping to define the recommended specifications for a DER gateway platform in grid applications across various domains including recommended procedures for cybersecurity, centralized manageability, monitoring, grid edge intelligence and control, multiple entities management, error detection and mitigation, events tracking and notification, communication protocol translation, and communication network performance monitoring.

Interstate Renewable Energy Council (IREC) and Sustainable Energy Action Committee (SEAC)

Enphase is a founding member and active participant in SEAC’s work to advance clean energy permitting and inspection initiatives. Led by IREC, the SEAC provides a forum for stakeholders to address code enforcement and permitting for sustainable energy systems. The SEAC clarifies interpretation of confusing codes, which can slow down the deployment of solar and battery systems and create more work for local officials and project developers.

International Code Council

We are working alongside other clean energy stakeholders, in collaboration with the International Code Council, to develop changes to the International Fire Code and the International Residential Code to develop practical solutions. The group actively participates in the code-making process to recommend solutions for future versions of the Code.

“We have led the development of rapid shutdown equipment and standard setting in the solar industry, allowing energized equipment to be powered down quickly and safely in an emergency.”

International Electrotechnical Commission (IEC)

The IEC is a global, not-for-profit membership organization, whose work underpins quality infrastructure and international trade in electrical and electronic goods. We work with the IEC to support the writing of international codes and standards. Specifically, our team is actively engaged as members of the IEC Technical Committee 82, which is scoped to look at solar photovoltaic energy systems. Within this committee, we are actively involved with Working Groups 3 (balance of system components) and 6 (inverter safety). We have also participated in working groups to develop the following IEC standards:

- IEC 63027 (DC arc fault)
- IEC 62109-1 (Inverter safety)
- IEC 62109-3 (AC module safety)
- IEC 62548 (PV array design requirements)

Supporting emergency response and first responder safety

In line with our commitment to safety, we have helped train thousands of firefighters across the United States and Brazil on the critical strategies and tactics needed to mitigate structure fires involving PV and energy storage systems (ESS). We have led the development of rapid shutdown (RSD) equipment and standard setting in the solar industry, allowing energized equipment to be powered down quickly and safely in an emergency. We are committed to setting the gold standard with respect to PV and ESS safety. For more information, please see our [Energy Story: Safety and Solar](#).

S4. Promoting clean energy policy

We collaborated with a wide range of stakeholders to advance policy outcomes in support of clean energy across the globe. Working with policymakers, public advocacy groups, and industry partners, we worked on fair valuation for clean energy exports, expanding access to solar and battery technology, defining codes and standards, and much more.

In the United States, we continued our leadership role with the Solar Energy Industry Association as members of the Board of Directors, as well as taking on leadership positions in various committees and subcommittees. We also continued our role as members of the Board of Directors for the California Solar and Storage Association, which represents the largest state-affiliated solar and battery industry association in the United States.

We were leading members globally in dozens of industry association groups, including several across Europe, Australia, New Zealand, Asia, and Latin America. Some of the highlights include:

United States



U.S. Federal Inflation Reduction Act

The Inflation Reduction Act (IRA) was passed and signed into law during the second half of 2022. It extends significant tax benefits for solar, storage, energy efficiency retrofits, and vehicle electrification. The IRA also provides tax credits for manufacturers of advanced technologies in the renewable energy industry to incentivize the establishment of a U.S. manufacturing base. As a leading producer in the renewable energy industry, we worked directly with political stakeholders and closely with national trade associations to develop the tax credits and incentives in the IRA that support the development of a manufacturing presence in the U.S., as well as to incentivize customer demand for our suite of products.

California

In California, the largest solar and storage market in the U.S., the California Public Utilities Commission (CPUC) finalized its new tariff for distributed generation customers. The new tariffs change the rules for net energy metering (NEM) across the state. Recognizing the outsized impact these new regulations called NEM 3.0 could have, not only on California customers, but throughout the nation as other public utility commissions follow suit, we played a critical voice in stakeholder discussions. We advocated on how to improve the tariff to better transition the market from solar-only to solar-plus-storage, without harming customers in the process. Specifically, Enphase submitted multiple rounds of written comments and delivered an oral argument that helped shape the final, and much improved, decision.

“We collaborated with a wide range of stakeholders to advance policy outcomes in support of clean energy across the globe.”

“Our team led a working group with other renewable energy stakeholders to develop the protocol and testing plan for the new program to ensure that it would be implementable and achieve its goals.”

Hawaii

In Hawaii, one of the most advanced renewable energy states in the United States, the Public Utilities Commission (PUC) embarked on creating its new statewide “Bring Your Own Device” grid services program to provide additional resilience features for Hawaii’s grid. Our team led a working group with other renewable energy stakeholders to develop the protocol and testing plan for the new program to ensure that it would be implementable and achieve its goals. The protocol was accepted by Hawaii Electric and will help ensure that Hawaii’s distributed generation customers have a reliable and effective program to compensate them for the benefit their systems can provide to the grid.

Illinois

The Illinois Commerce Commission (ICC) embarked on developing a new storage program to follow up on its landmark “Climate and Equitable Jobs Act,” signed into law in 2021. Based on our programmatic experience in multiple jurisdictions, we met with the ICC, presented at and led a workshop on energy storage best practices, and submitted written comments that helped the ICC develop its report to the Governor and General Assembly, formally recommending a variety of programs to bolster energy storage in the state. We are now working through SEIA to pursue legislation to codify one of these programmatic recommendations. These programs will help strengthen storage adoption throughout the state and enable those customers to dispatch their assets to benefit the grid.

Australia



Enphase Australia’s internal policy working group meets bi-monthly to assess our engagements across the multitude of forums that impact our business. This group includes experts from our U.S. policy team, along with the local engineering and business development staff who sit on working groups with the Clean Energy Council, the Smart Energy Council and Standards Australia.

Policy work

In 2022, we provided submissions to inquiries by the South Australian government, Queensland government, and national regulatory bodies Australian Energy Regulator (AER), Australian Energy Market Commission (AEMC), and Australian Energy Market Operator (AEMO). We are also actively engaged in policy discussions with the Western Australian government (via Western Power) and the Victorian government (via SolarVictoria).

We also continued policy activities as a founding member of SaferSolar, an advocacy group of installers and original equipment manufacturers (OEMs) who are advocating for the adoption of a rapid shutdown equivalent standard in the Australian solar market.

At the federal level, we are working with several key independent Parliament members, for whom climate action is a key policy priority, to ensure they support advanced power electronics in the solar industry, focusing on safety.

Technical standards

Though our own direct participation and via electrical industry associations Master Electricians Australia (MEA) and National Electrical and Communications Association (NECA), we sit on multiple Standards Australia committees. These committees work on technical standards that govern solar installations (AS5033), inverters (AS4777.1, AS4777.2), and batteries (AS5139), along with more general behind-the-meter technology. In 2022, we contributed directly to discussions, where all four standards were in an active revision process.

Brazil



Codes and safety policy

The Enphase team in Brazil meets regularly with firefighter associations in the city of Brasilia to help advance various solar energy safety measures. These policy advancements will help to make solar energy in Brazil safer for homeowners and businesses, benefitting the industry overall. In 2022, we worked to draft safety codes and rapid shutdown standards requirements and developed a variety of educational activities designed to help firefighters across the country.

“The Enphase team in Brazil meets regularly with firefighter associations in the city of Brasilia to help advance various solar energy safety measures.”



Corporate governance

Our corporate governance framework is firmly rooted in risk management and compliance, which serves as the foundation for sustainability and ESG efforts at Enphase. To support our commitment to drive the adoption of sustainable clean energy solutions, we participate in the development of policies and regulations around the world as part of our core governance principles.



G1. ESG governance and leadership

Board oversight of ESG

Our Board of Directors (Board) is presided over by an Independent Chair of the Board. We believe that having an Independent Chair, separate from our CEO, creates an environment that is more conducive to objective evaluation and oversight of management's performance. We further believe this increases management's accountability and improves the Board's ability to monitor whether management's actions are in the best interests of our company and our shareholders.

Our governance framework is firmly rooted in risk management and compliance, which serves as the foundation for sustainability and ESG efforts at Enphase. We appreciate the importance of ESG risks and opportunities, and the Board and its committees are responsible for directing our overall ESG strategy.

“We appreciate the importance of ESG risks and opportunities, and the Board and its committees are responsible for directing our overall ESG strategy.”

The Nominating and Corporate Governance Committee oversees ESG matters including strategy, initiatives, policies, and outreach to investors and other interested stakeholders. Our cross-functional ESG executive leadership team provides regular updates to the Board's Nominating and Corporate Governance Committee on emerging ESG trends, reporting and regulations, and assessment of strategic objectives over the short-, medium-, and long-term on climate and emissions, diversity, human rights, and other material ESG topics.

The Audit Committee annually identifies and assesses all key financial risks and monitors our risk mitigation efforts. The risk management program considers material ESG risk factors, including climate risks, which is reviewed by our management and executives with oversight by the Audit Committee. In 2022, the Audit Committee made the strategic decision to move from an Enterprise Risk Management (ERM) approach in evaluating risks and opportunities to an Objective-Centric Risk Management approach (OCRM). The Audit Committee believed that the objective-centric approach better aligns with our vision and mission and facilitates the appropriate integration of risk and strategy.

The Compensation Committee oversees matters related to human capital management, including inclusion and diversity, leadership development, and talent assessments. The Committee is also responsible for executive compensation and pay metrics.

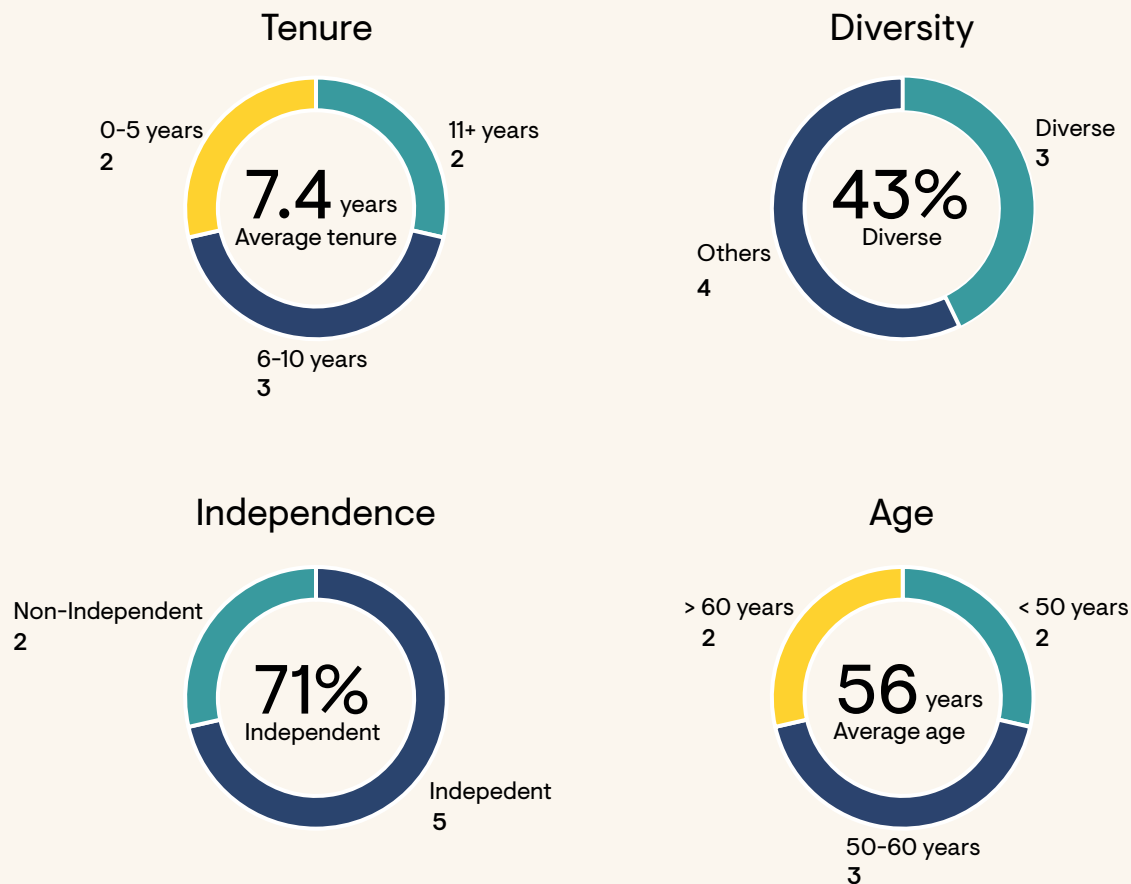
Additional information about the role of the Board of Directors and its various committees is available in our [Corporate Governance Guidelines](#) and our most recently filed [Proxy Statement](#).

Board diversity and independence

We take seriously our longstanding and continuing commitment to effectiveness in the boardroom. We believe that our Board should represent diversity of thought, background, skill, experience, and expertise. We recognize that enhancing demographic diversity on the Board, through the representation of women and underrepresented groups, encourages a thoughtful decision-making process that is important to effective corporate governance. Consistent with our philosophy, we have codified a version of the Rooney Rule in our Corporate Governance Guidelines, which states that, “the Nominating and Corporate Governance Committee will ensure each pool of qualified candidates for additional or vacant Board positions from which Board nominees are chosen includes candidates who bring racial and/or gender diversity.”

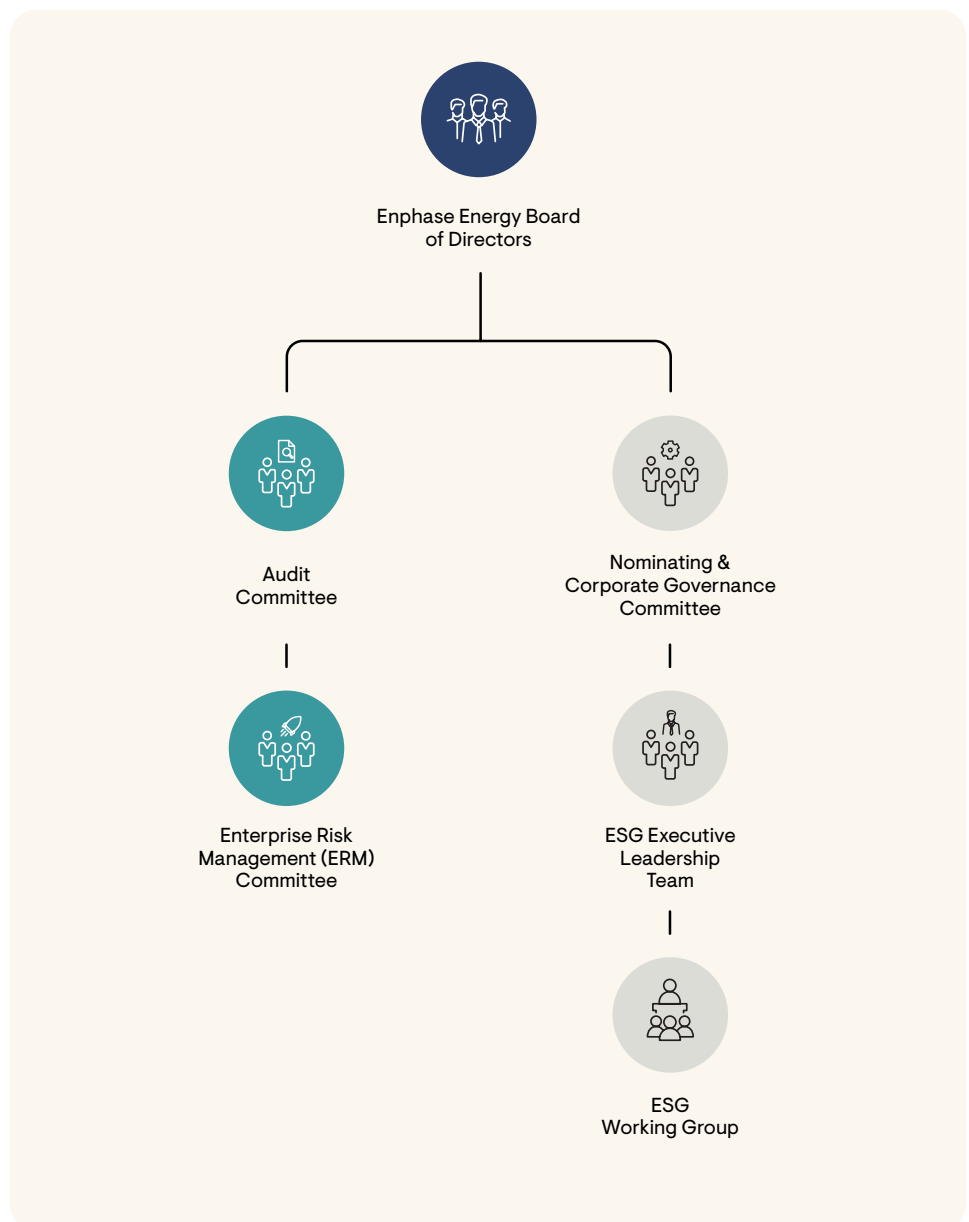
The composition of our seven-person Board reflects a variety of backgrounds, experiences, and tenures, and we continue to seek opportunities to enhance the diversity and effectiveness of our Board.

Board composition



ESG management structure

Our ESG efforts are overseen by our General Counsel, with participation from an executive leadership team, along with board-level oversight led by our Nominating and Corporate Governance Committee. Our cross-functional supporting working groups manage and operationalize the ESG program across the company, meeting regularly to review ESG risks and opportunities, develop ESG goals and targets, and allocate necessary resources to achieve ESG objectives. The supporting ESG working groups include senior leaders and key internal stakeholders representing legal, investor relations, global policy and government affairs, facilities, EHS, procurement, supply chain, manufacturing, customer service, human resources, compliance, and risk management. Progress toward ESG goals and targets is incentivized through our annual and quarterly bonus programs.



“Our ESG program is rooted in addressing those issues most important to both our company and our stakeholders.”

ESG pay link

We are in the business of providing climate change solutions to the world to mitigate the most serious consequences of global warming. Given our purpose, remuneration to executives, senior leadership, managers, and individual contributors drives performance under the environmental ESG pillar, including quarterly bonus payouts that are a function of company profitability, our company performance against targets, and individual performance. Beyond climate-related goals, employees can also be rewarded in a similar manner through the quarterly bonus system for advancing progress among other various ESG initiatives under the social and governance pillars.

Materiality assessment

Our ESG program is rooted in addressing those issues most important to both our company and our stakeholders. This allows us to identify and prioritize sustainability risks and opportunities and proactively respond to stakeholder concerns. Our materiality assessment approach considers the expressed concerns among stockholders, company leadership, employees, customers and suppliers, and potential investors, alongside with the evolving regulatory landscape, disclosure requirements, and emerging ESG trends. These issues are scored and ranked based on stakeholder importance, urgency, and legitimacy and help us identify those ESG issues that are most relevant for our company.

G2. Business ethics and compliance

Enphase Code of Conduct

We believe that all people should be treated with dignity and respect. Our [Code of Conduct](#) applies to all officers, directors and employees, contractors, and consultants. It provides general guidelines to ensure proper and ethical behavior, legal compliance, and compliance with our standards, policies, and procedures. We are committed to complying with all applicable laws and regulations everywhere we operate.

Supplier Code of Conduct

We choose business partners who share our mission and intend to work only with those who agree that our shared success is based on acting ethically and lawfully. We expect our business partners to adhere to our [Supplier Code of Conduct](#), which includes (a) conducting business with high ethical standards; (b) complying with applicable laws; (c) supporting the human rights of workers and treat their employees with dignity; (d) adhering to anti-slavery and human trafficking principles; and (e) maintaining safe and healthy working conditions.

Compliance training

To meet legal requirements and regulations, such as anti-discrimination laws, health and safety regulations, and data privacy laws, we offer a set of compliance trainings, with an objective to provide all the required information and awareness to all employees on the topics of safety, code of conduct, workplace harassment prevention, ISO training and more. We achieved 100% completion of our required compliance courses and had no confirmed cases of breaches to our Code of Conduct in 2022.

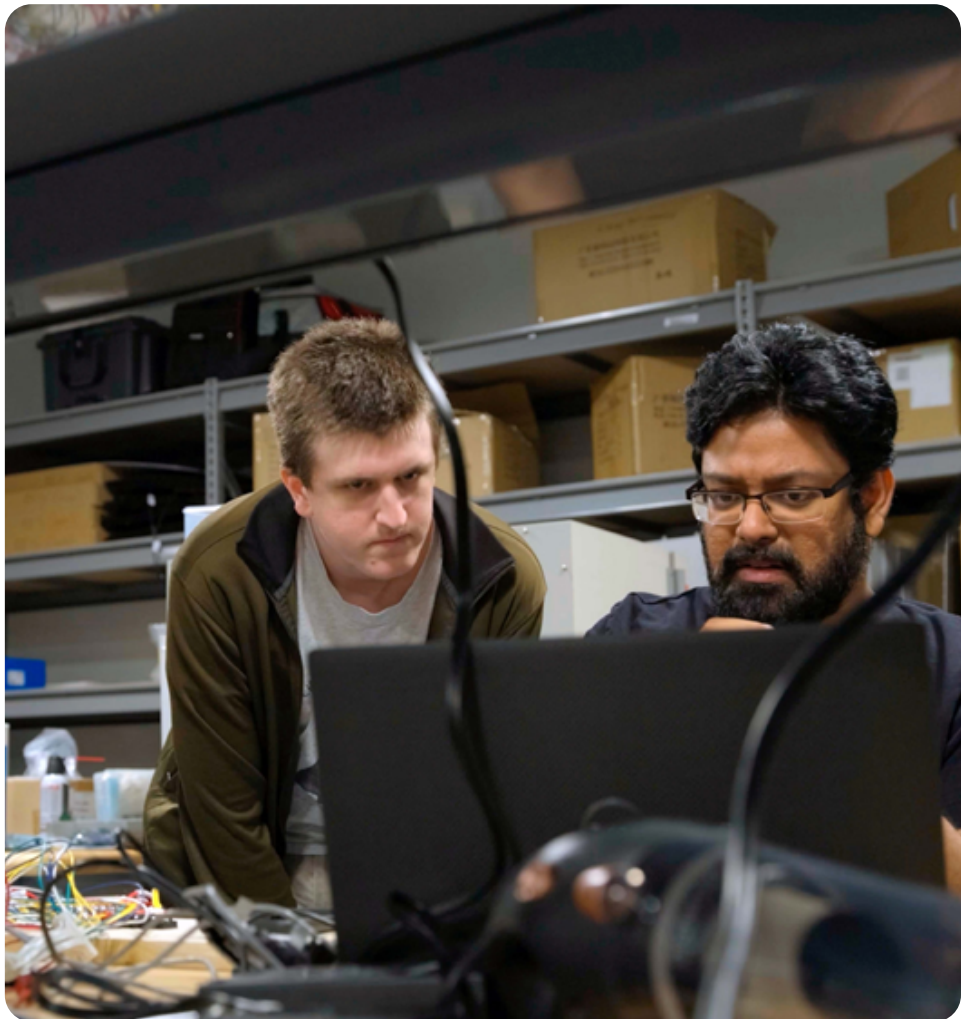
Clawback policy

Our clawback policy applies to all employees and allows us to recover any incentive-based compensation that was paid based on erroneous financial information reported under securities laws. Specifically, we may recoup any incentive compensation from any employee if: (i) the employee engages in intentional misconduct pertaining to any financial reporting policy; (ii) there is a material negative revision of a financial or operating measure on the basis of which incentive compensation was awarded or paid to the employee; or (iii) the employee engages in any fraud, theft, misappropriation, embezzlement or dishonesty. Any recoupment will be made irrespective of whether the employee's conduct contributed to the need for the restatement and/or revision. For additional information, please refer to our [2022 Proxy Statement](#).

“We achieved 100% completion of our compliance courses and had no confirmed cases of breaches to our Code of Conduct in 2022.”

Whistleblower policy

We take matters of ethics and integrity seriously at all levels of our organization and provide an anonymous platform to report violations of the Code of Conduct. We empower each employee to report any witnessed or suspected wrongdoing to ensure the highest levels of integrity. Under our whistleblower protection and non-retaliation provisions, any employee, supplier, or other party is encouraged to anonymously or non-anonymously report concerns and violations of our policies. Our hotline is available 24 hours a day, seven days a week, and all reports are investigated promptly with the highest degree of confidentiality. Retribution or retaliation against whistleblowers is strictly prohibited, and employees are also encouraged to report any suspicious or unethical activity directly to their manager, human resources, the legal department, or our Compliance Officer. For additional information, please refer to our [Code of Conduct](#).



G3. Data privacy, cybersecurity, intellectual property

Data privacy and cybersecurity

We continue to carry out our belief that every global citizen is entitled to strong privacy protection. This is encapsulated in our commitment and advancement in the ways of data privacy cybersecurity.

Our data privacy program includes record-keeping, communications, and practices that are formed using the world's strictest standards, including the EU's General Data Protection Regulation (GDPR), California Consumer Privacy Act (CCPA), and California Privacy Rights Act (CPRA). Every processing activity follows this framework, which ensures that we treat our employees, customers, partners, and general consumers in the proper way. As a few notable examples:

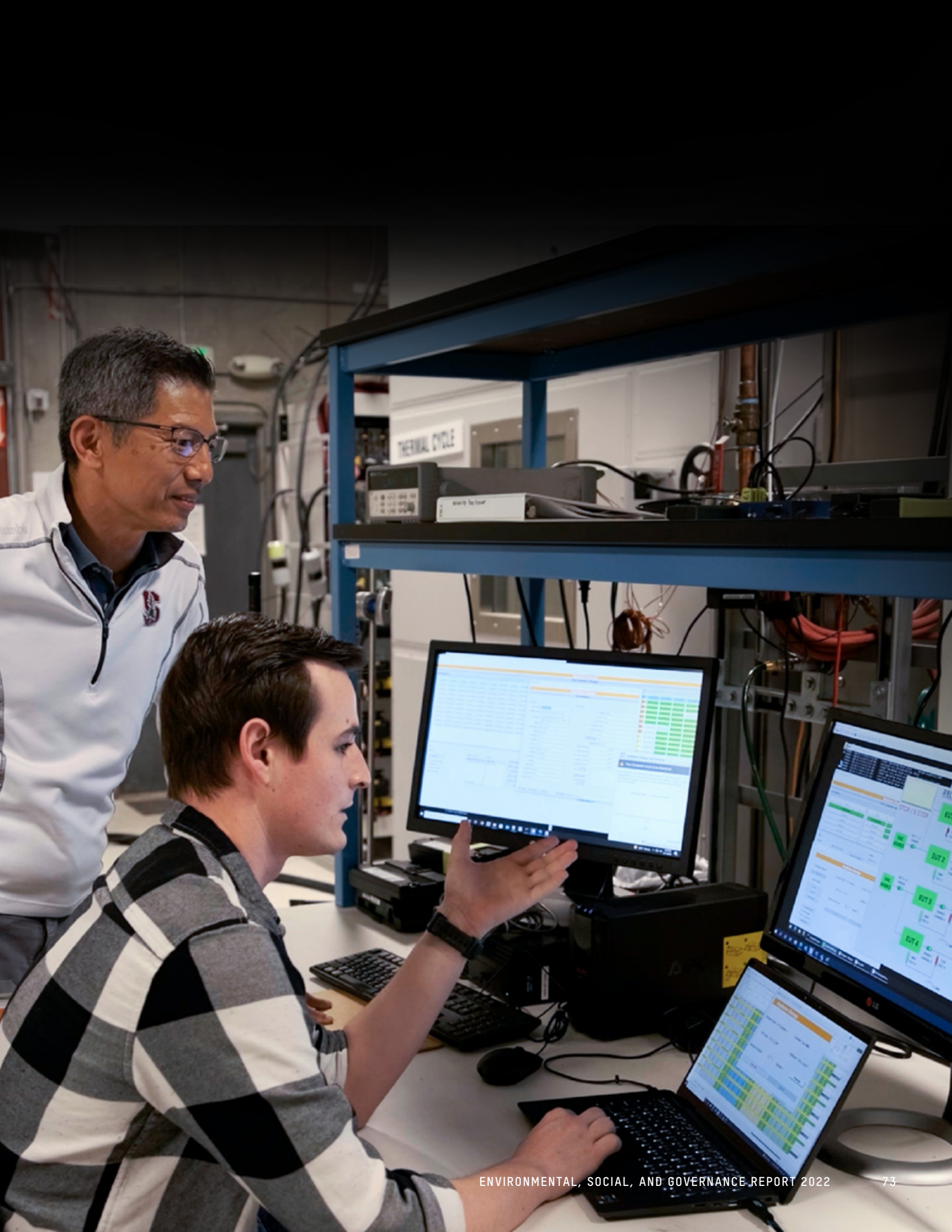
- We commit to not “sell” personal information
- We have a valued practice of giving consumers notice and choice as to which third-parties may access their data, including built-in consent in many instances where it is not legally required
- We comply with data subject requests regardless of where the data subject is located, including requests to access, delete, know, rectify, or not sell or share
- Our privacy team routinely engages with consumers on data issues, even where there is no legally recognized privacy request
- We demand best-in-class privacy clauses with our service providers/processors

“We are trained on our privacy policy and other data processing activities and frequently refer to it in developing and supporting our products and services.”

Our public [privacy policy](#) reflects our privacy practices globally, for every data processing activity in each of our various businesses. Going much deeper than just legal compliance, our privacy policy was created and continues to evolve based on what is “right” rather than merely what is “required.” Our policy is routinely reviewed and updated in accordance with leading data privacy laws, internal policies, and to reflect improvements in internal practices consistent with the principles above. We are trained on our privacy policy and other data processing activities and frequently refer to it in developing and supporting our products and services.

All partnerships involving personal information are treated by or at the direction of our privacy team, which seeks to ensure that the relevant responsibilities of the parties are appropriately defined. This includes best-in-class privacy clauses, definition of flows of personal information and, in particular, an emphasis on minimizing collection and further processing personal information, and definition of data retention periods which are defined in consideration with the length of time that such data is relevant or needed.

We also deeply integrate our privacy and cybersecurity efforts, on the understanding that the confidentiality, integrity, and availability of personal information inherently impacts our delivery on privacy principles. During 2022, we certified one of our core architectures with SOC2 Type 1 and continue to seek third-party cybersecurity certification both to cover other products and services, and to mature our existing certification.



We have a Security Incident Response Team responsible for identifying and handling security events. This program continues to mature through improved documentation, tabletop exercises, cross-functional involvement, and other improvements.

Our other ongoing cybersecurity programs include:

- Vulnerability management intake and remediation
- Enterprise-wide security initiatives designed to constantly adapt to the evolving threat landscape
- Cybersecurity Training and Awareness Program that includes new employee training, annual risk-relevant refresher trainings for all employees, quarterly penetration exercises, just-in-time training assignments, and secure coding training for software developers
- Next-generation product architectures are designed specifically with security in mind
- Our executive staff and Audit Committee are also engaged in periodic reporting and improvement in our security posture

Intellectual property

We emphasize developing and protecting our clean technologies through a variety of intellectual property types. Patents and trade secrets are among our most valuable assets as they protect our investment in R&D. We place particular emphasis in protecting our digital innovation, including software, through a specifically focused High-Value Trade Secret program. Our patents, as always, reflect our dedication to innovation, and our industry-leading portfolio as of the end of 2022 now has more than 365 patents and more than 185 pending applications, spread across microinverters, batteries, EV supply equipment, grid and microgrid interaction, our supporting hardware and software suite, and various components and technologies within these major categories. We expect this protection to grow exponentially in the years ahead, owing both to our increased innovation and our focus on enhancing our intellectual property position.

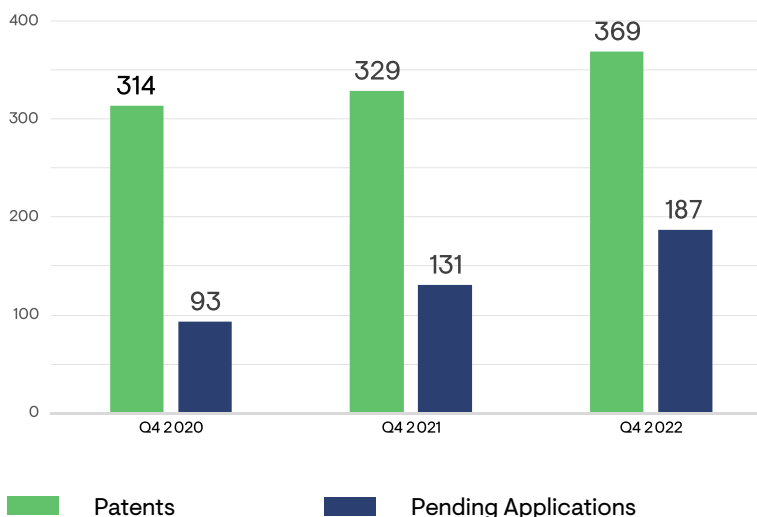
365+

patents

185+

pending applications

Chart 4: Patents and pending applications

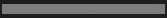


“Falling between the discrete forms of intellectual property, we protect all our confidential information with confidentiality agreements, both with employees and external parties.”

As a leading international brand, we also protect our trademarks and have a portfolio of more than 100 unique trademarks, both registered and unregistered. This includes pending marks in more than 40 countries. Our domain protection reflects similar intensity as we continue to expand internationally. We emphasize protection of our copyrights as well, where we restrict any use of Enphase copyrighted content without an express license granted by our intellectual property team.

Falling between the discrete forms of intellectual property, we protect all our confidential information with confidentiality agreements, both with employees and external parties. All our R&D personnel have additionally entered into invention assignment agreements with the company, requiring employees to assign to us all the inventions, designs, and technologies they develop during their employment with us.

While we expect others to respect our intellectual property, we similarly respect the rights of others, routinely evaluating relevant portfolios for freedom-to-operate, rigidly enforcing internal open-source consumption policies, observing Digital Millennium Copyright Act (DMCA) copyright takedown procedures, and ensuring that we are honoring others' intellectual property rights.



Appendix



Emissions and energy calculation methodologies

Avoided metric tons of carbon dioxide equivalent (MTCO_{2e}) figures were derived from actual kilowatt-hour (kWh) production of our deployed microinverter fleet from Enphase's inception through December 31, 2022 as recorded in our Enlighten™ monitoring database, including a gross up factor of 1.2 to account for deployed systems which are not monitored in the Enlighten database. The conversion of kWh production to carbon dioxide equivalent figures was made using the [U.S. EPA Greenhouse Gas Equivalencies calculator](#).

The 2022 GHG emissions inventory follows the GHG Protocol Corporate Standard, covering Scope 1, Scope 2, and certain Scope 3 categories. All emissions were calculated using an operational control and location-based method for electricity and heat consumption across all leased facilities globally. We forgo market products to reduce emissions, so the reported location-based figures are equivalent to market-based emissions figures. Note that heat consumption was only gathered for facilities located in North America. Electricity consumption for European office locations was estimated by square foot using data from the [U.S. Commercial Buildings Energy Consumption Survey \(CBECS\)](#), representing 2% of energy consumption reported. Electricity and heat consumption were converted to MTCO_{2e} using emission factor data provided in the [Emissions Factors for Greenhouse Gas Inventories](#) provided by the U.S. EPA for U.S. locations and the [Emissions Factors 2021](#) data set from the International Energy Agency (IEA) for international locations. Emissions calculations cover those attributable to carbon dioxide (CO₂), nitrous oxide (N₂O), and methane (CH₄) resulting from electricity generation, heat generation, and transmission and distribution losses. Emissions are converted to CO_{2e} by multiplying by their global warming potential (GWP), referencing default factors provided by the Intergovernmental Panel on Climate Change (IPCC). Hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulphur hexafluoride (SF₆), and nitrogen trifluoride (NF₃) gases are excluded from our inventory, as facilities under our operational control do not produce significant amounts of these GHGs.

The data supporting Scope 3 disclosures were provided by our third-party travel agency, contract manufacturers, and internal logistics team, covering purchased goods and services (category 1), upstream transportation and distribution (category 4), business commuting (category 6), and downstream transportation and distribution (category 9).

Emissions attributable to contract manufacturing were made using supplier-specific data, covering Scope 1 and Scope 2 of manufacturing activity at three manufacturing sites, representing substantially all of total contract manufacturing spend in 2022. The emissions disclosed represent only that fraction of activity attributable to the manufacture of Enphase products.

Emissions from upstream and downstream transportation were estimated using the distance-based method outlined in the GHG Protocol, covering freight of consigned raw materials into contract manufacturers (CMs) and distribution centers (DCs) and freight of finished goods from CMs to DCs or customers. Vehicles considered include aircraft, medium- and heavy-duty trucks, and waterborne craft, as per the table below. MTCO_{2e}

estimates were derived referencing emissions factors made available by the U.S. EPA, covering CO₂, CH₄, and N₂O GHGs. Emissions were converted to CO₂e referencing IPCC GWP factors.

Freight type	Methodology	Unit
Air	Specific ton-miles pulled directly from internal reports.	ton-mile
Truck	Average distance per shipment derived from zip code data, representing least possible theoretical distance. Number of truckloads was estimated using product shipment figures.	vehicle-mile
Ocean	Average distance per shipment derived from zip code data, representing least possible theoretical distance. Tonnage estimated from product shipments in terms of twenty-foot equivalents (TEUs) converted to ton-miles.	ton-mile

Renewable energy mix was calculated by referencing information made available by local utility grid operators for all leased facilities globally. Electricity consumption in kWh, as billed or estimated by square footage, was multiplied by the non-fossil fuel percentage of the specific utility grid mix and divided by the total kWh consumed. Note that this does not account for the impact of any PV systems or bi-directional EV chargers installed across leased facilities, meaning the actual figure may exceed the reported figure of 74% renewable.

GRI index

GRI Standard	Disclosure	Location
GRI 2: General disclosures	2-1 Organizational details	See 10-K at https://investor.enphase.com/sec-filings
	2-3 Reporting period, frequency, and contact point	FY 2022, annually
	2-6 Activities, value chain, and other business relationships	See About Us and Environment sections; See 10-K (Business Section) at https://investor.enphase.com/sec-filings
	2-7 Employees	See People Section
	2-9 Governance structure and composition	See Corporate governance Section; See Proxy Statement at https://investor.enphase.com/sec-filings
	2-10 Nomination and selection of the highest governance body	See Corporate governance Section (ESG governance and leadership); See Proxy Statement at https://investor.enphase.com/sec-filings
	2-11 Chair of the highest governance body	See Corporate governance Section (ESG Governance and leadership); See Proxy Statement at https://investor.enphase.com/sec-filings
	2-12 Role of the highest governance body in overseeing the management of impacts	See Corporate governance Section (ESG Governance and leadership); See Proxy Statement at https://investor.enphase.com/sec-filings
	2-13 Delegation of responsibility for managing impacts	See Corporate governance Section (ESG Governance and leadership); See Proxy Statement at https://investor.enphase.com/sec-filings
	2-14 Role of the highest governance body in sustainability reporting	See Corporate governance Section (ESG Governance and leadership)
	2-15 Conflicts of interest	See Proxy Statement at https://investor.enphase.com/sec-filings
	2-17 Collective knowledge of the highest governance body	See Board of Directors information on Enphase company website
	2-18 Evaluation of the performance of the highest governance body	See Proxy Statement at https://investor.enphase.com/sec-filings
	2-19 Remuneration policies	See Proxy Statement at https://investor.enphase.com/sec-filings
	2-20 Process to determine remuneration	See Proxy Statement at https://investor.enphase.com/sec-filings
	2-22 Statement on sustainable development strategy	See CEO Letter
	2-25 Processes to remediate negative impacts	See Enphase Code of Conduct
	2-26 Mechanisms for seeking advice and raising concerns	See Corporate governance Section (Business ethics and compliance)
	2-27 Compliance with laws and regulations	See Enphase Code of Conduct
	2-28 Membership associations	See pp. 62 , 82 of this report
2-29 Approach to stakeholder engagement	See p. 69 of this report	
2-30 Collective bargaining agreements	See 10-K (Business Section) at https://investor.enphase.com/sec-filings	
GRI 3: Material topics	3-1 Process to determine material topics	See p. 69 of this report
GRI 201: Economic performance	201-1 Direct economic value generated and distributed	See Financial Sustainability Section and GAAP to non-GAAP Reconciliation, pp. 93-94
	201-2 Financial implications and other risks and opportunities due to climate change	See TCFD Response, p. 82
GRI 203: Indirect economic impacts	203-1 Infrastructure investments and services supported	See About us , Environment , and Society sections
GRI 302 Energy 2016	302-1 Energy consumption within the organization	See Environment and Emissions and energy calculation methodologies sections
	302-3 Energy intensity	See Environment and Emissions and energy calculation methodologies sections
	302-4 Reduction of energy consumption	See Environment and Emissions and energy calculation methodologies sections
GRI 305 Emissions 2016	305-1 Direct (Scope 1) GHG emissions	See Environment and Emissions and energy calculation methodologies sections
	305-2 Energy indirect (Scope 2) GHG emissions	See Environment and Emissions and energy calculation methodologies sections

GRI Standard	Disclosure	Location
	305-3 Other indirect (Scope 3) GHG emissions	See Environment and Emissions and energy calculation methodologies sections
	305-4 GHG emissions intensity	See Environment and Emissions and energy calculation methodologies sections
	305-5 Reduction of GHG emissions	See Environment and Emissions and energy calculation methodologies sections
GRI 306 Waste 2020	306-1 Waste generation and significant waste-related impacts	pp. 29-30
	306-2 Management of significant waste-related impacts	pp. 29-30
GRI 308 Supplier Environmental Assessment 2016	308-1 New suppliers that were screened using environmental criteria	p. 52
	308-2 Negative environmental impacts in the supply chain and actions taken	pp. 29-30 , 50-52
GRI 401 Employment 2016	401-2 Benefits provided to full-time employees that are not provided to temporary or part-time employees	p. 41
GRI 403 Occupational Health and Safety 2018	403-1 Occupational health and safety management system	p. 48
	403-2 Hazard identification, risk assessment, and incident investigation	p. 48
	403-3 Occupational health services	p. 48
	403-4 Worker participation, consultation, and communication on occupational health and safety	p. 48
	403-5 Worker training on occupational health and safety	p. 48
	403-6 Promotion of worker health	p. 48
	403-7 Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	p. 48
	403-8 Workers covered by an occupational health and safety management system	p. 48
	403-9 Work-related injuries	p. 48
	403-10 Work-related ill health	p. 48
GRI 404 Training and Education 2016	404-1 Average hours of training per year per employee	p. 46
	404-2 Programs for upgrading employee skills and transition assistance programs	pp. 46-47
	404-3 Percentage of employees receiving regular performance and career development reviews	100%
GRI 405 Diversity and Equal Opportunity 2016	405-1 Diversity of governance bodies and employees	p. 43
GRI 408 Child Labor 2016	408-1 Operations and suppliers at significant risk for incidents of child labor	pp. 50-52
GRI 409 Forced or Compulsory Labor 2016	409-1 Operations and suppliers at significant risk for incidents of forced or compulsory labor	pp. 50-52
GRI 414 Supplier Social Assessment 2016	414-1 New suppliers that were screened using social criteria	pp. 50-52
GRI Customer Health and Safety 2016	416-1 Assessment of the health and safety impacts of product and service categories	p. 29
GRI Marketing and Labeling 2016	417-2 Incidents of non-compliance concerning product and service information and labeling	Zero
	417-3 Incidents of non-compliance concerning marketing communications	Zero
GRI 418 Customer Privacy 2016	418-1 Substantiated complaints concerning breaches of customer privacy and losses of customer data	Zero

SASB index

Topic	Accounting Metrics	Code	Response
Hazardous Waste Management	Amount of hazardous waste generated , percentage recycled	RR-ST-150a.1	0.45 MT, 100%, see p. 30
	Number and aggregate quantity of reportable spills, quantity recovered	RR-ST-150a.2	0, n/a
Management of Energy Infrastructure Integration & Related Regulations	Description of risks associated with integration of solar energy into existing energy infrastructure and discussion of efforts to manage those risks	RR-ST-410a.1	pp. 58-64
	Description of risks and opportunities associated with energy policy and its impact on the integration of solar energy into existing energy infrastructure	RR-ST-410a.2	pp. 58-64
Product End-of-life Management	Percentage of products by revenue that contain IEC 62474 declarable substances, arsenic compounds, antimony compounds, or beryllium compounds	RR-ST-410b.3	Estimated less than 0.1%
Product End-of-life Management	Description of approach and strategies to design products for high-value recycling	RR-ST-410b.4	pp. 22, 29
Materials Sourcing	Description of the management of risks associated with the use of critical materials	RR-ST-440a.1	pp. 50-52
Total Project Development Assets	Reporting currency	RR-ST-000.C	Financial sustainability section
Energy Management in Manufacturing	(1) Total energy consumed, (2) percentage grid electricity, (3) percentage renewable	RR-ST-130a.1	See Environment section
Water Management in Manufacturing	(2) Total water consumed*	RR-ST-140a.1	7,609 m ³

*Water consumption information collected for certain operations in the United States and India only. Water consumption was drawn from municipal supplies.

TCFD response

The following responses to the Taskforce for Climate-Related Financial Disclosures (TCFD) recommendations are not meant to be an exhaustive review of climate-related issues impacting the business. Rather, the following should be treated as a supplement to our [2022 Form 10-K filing](#).

Governance

The Board of Directors (“Board”) oversees company strategy, including all climate risks and opportunities, with the [Nominating and Corporate Governance Committee](#) overseeing the environmental, social, and corporate governance (ESG) program specifically. The Board receives periodic updates on sustainability and ESG matters from the Nominating and Corporate Governance Committee, covering strategy, policies, initiatives, progress against goals and targets, climate-related performance incentives, and communications with employees, investors, and other company stakeholders. The [Audit Committee](#) reviews climate risk matters as part of its risk management activities. Please see [Leadership and governance](#) section of the Enphase website for additional information.

The ESG steering committee, led by our General Counsel and comprised of executive leadership, meets quarterly to prioritize strategic objectives and review status of various climate-related initiatives, drawing on the results of our ESG materiality assessment and other inputs as appropriate. Functions represented include legal, investor relations, global policy and government affairs, facilities, EHS, procurement, supply chain, manufacturing, customer service, human resources, compliance, and risk management. Updates are provided to the Nominating and Corporate Governance Committee and to the Board.

ESG working groups, comprised of department heads, extended leadership, and individual contributors, manage progress toward climate-related goals and targets as defined by the steering committee. Supporting activities across global operations are tracked and rolled up into corporate dashboards, which are reviewed by the director of ESG and shared with the ESG steering committee on a quarterly basis.

Strategy

Our purpose is advancing a sustainable future for all. Our strategy is to build best-in-class home energy systems and deliver them to customers through our installer and distributor partners, enabled by a comprehensive installer platform. Successful execution reduces GHG emissions, slows the pace of global warming, and accelerates the transition to a clean, accessible, and resilient energy system.

Thus, the impact of climate issues on our financial condition is positive, so long as climate risk is managed appropriately over the long-term as discussed below. Key aspects of our low-carbon transition plan include continued execution of our strategy in service of our purpose, transitioning operations to renewable energy, and building resilience into the value chain through enhanced cooperation with suppliers, contract manufacturers, and customers.

Our strategy is a function of the economic, technological, legal, market, regulatory, social, and environmental context in which we operate. Per the Intergovernmental Panel on Climate Change (IPCC), significant GHG emissions reductions are needed in this decade to limit warming to below 2°C from pre-industrial levels, allowing for net-zero emissions by 2050, and avoiding the most catastrophic consequences of global warming. Thus, we are focused on driving impact as quickly and responsibly as possible while also preparing for an uncertain future which may follow a variety of warming trajectories informed by climate science. All climate-related scenarios which require reductions in GHG emissions are favorable to Enphase.

A trajectory resulting in 2°C or lower warming from pre-industrial levels will require large-scale, rapid, and equitable deployment of clean energy technologies, including those engineered by Enphase. In this case, the economic, technological, legal, market, regulatory, social, and environmental context would create increased demand for our products and drive rapid growth. However, these scenarios (e.g., Shared Socioeconomic Pathway 1) require rapid decarbonization across all sectors globally, implying the need to decouple resource extraction and consumption from economic growth. Thus, significant investment and financing for accelerated R&D, expanded operations, and enhanced coordination with value chain partners would be needed. Ultimately, with the proper global investment, planning, and coordination, a 2°C or lower scenario would allow us to rapidly deploy our products in the near-term and scale at the commensurate rate to achieve the desired outcome over the long-term.

Characteristics of short-, medium-, and long-term time horizons for climate issues at Enphase are defined as follows:

- **Short-term (0-3 years)** – rapid business growth; low-carbon transition planning and implementation; qualitative climate risk disclosures; improved emissions tracking and reporting; and setting and executing on near-term GHG reduction target.
- **Medium-term (3-7 years)** – manage continued business growth; quantitative climate scenario analysis and strategic integration; setting and executing long-term GHG reduction targets.
- **Long-term (7-25 years)** – manage continued business growth; quantitative climate scenario analysis integrated with strategic and financial planning; maintain operational alignment with global climate goals.

Short-term risks (0-3 years)

- Extreme weather events such as floods, cyclones, hurricanes, wildfires, and heatwaves could result in delays in product shipments, which could adversely affect our revenue, competitive position, and reputation.
- Delaying operational decarbonization could limit access to third-party capital and affect operating costs or reputation.
- Not evaluating potential climate risk impacts to key suppliers, contract manufacturers, and logistics partners may adversely affect our ability to execute our strategy over the long-term.

Short-term opportunities (0-3 years)

- Improve climate risk analysis and integrate results into strategic planning.
- Implement low-carbon transition plan for facilities and key suppliers.

Medium-term risks (3-7 years)

- Extreme weather events may increase in severity and frequency and disrupt operations, which could adversely affect our revenue, competitive position, and reputation.
- Chronic climate change impacts such as rising mean temperatures, rising sea levels, droughts, new diseases, population migration, and water stress may have the potential to disrupt our business operations in certain geographies.
- Increased insurance premiums for operations in geographies vulnerable to climate risk may adversely affect cost or force investment in climate mitigation projects to ensure business continuity.
- Inability to reduce quantity of virgin material inputs or integrate circular principles into product design, manufacturing, and business processes could adversely affect cost, reputation, competitiveness, and social license to operate in certain geographies.

Medium-term opportunities (3-7 years)

- Leverage climate scenario planning to inform strategic decision making, such as determining significant locations of operation.
- Enhance resilience through product lifecycle and business process innovations.

Long-term risks (7-25 years)

- Extreme weather events may further increase in severity and frequency, having the potential to disrupt our business.
- Chronic climate change impacts may become more pronounced, having the potential to negatively impact our business operations in certain geographies.

Long-term opportunities (7-25 years)

- Continued integration of climate-risk scenario analyses into strategic planning across all aspects of the business.

Risk Management

A detailed discussion of risks to the business can be found in our [2022 Form 10-K](#) for the year ended December 31, 2022.

Currently, climate risks are reviewed as part of the ESG materiality assessment process. The Director of ESG collaborates with key internal and external stakeholders to identify and rank climate risk and other enviro-social factors. Results are reviewed with the ESG steering committee to define strategic priorities and goals, which are then managed by a supporting network of extended leadership and collaborators, both within and outside the organization. Moving forward, we plan to develop quantitative, forward-looking scenario-based climate risk assessments over short-, medium-, and long-term time horizons as recommended by the TCFD and integrate results into existing risk management and strategic planning processes.

Metrics and Targets

[Financial metrics found in our quarterly filings and annual reports](#) reflect how well we are performing with respect to climate opportunities. Please see page 7, [Enphase in numbers](#), of this report for additional climate opportunity indicators. Relevant climate risk metrics can be found in the [Emissions and energy](#) section of this report.

Performance against climate metrics and targets is connected to remuneration at all levels of the organization, as all revenue generated by us ultimately results in emissions reductions through renewable energy deployments and improved efficiency in energy management. All employees have the option to explicitly link individual goals to climate metrics. CEO compensation for 2023 is explicitly tied to increasing on-site generation capacity across leased facilities and preventing emissions resulting from product deployments. The results of CEO performance directly modulate bonuses paid out to all employees.

Membership associations

North America

Solar Energy Industry Association (SEIA)
Advanced Energy Economy
Vehicle - Grid Integration Council
Electric Vehicle Charging Association
Interstate Renewable Energy Council
California Solar + Storage Association (CSSA)
The Climate Center
Florida Solar Industries Association
Hawaii Solar Energy Association (HSEA)

Latin America

Solar Energy and Storage Association of Puerto Rico (SESA)
AMF (Asociación Mexicana de la Industria Fotovoltaica)
Asolmex (Asociación Mexicana de Industria Solar)
Absolar (Associação Brasileira de Energia Fotovoltaica)
ABGD (Associação Brasileira de Geracao Distriuida)

Europe

Solar Power Europe
Enerplan (France)
UNEF (Spain)
APPA (Spain)
BIHEE
Eurelectric
EEBUS

Asia-Pacific

Master Electricians of Australia
Clean Energy Council
Sustainable Energy Association of New Zealand
National Electrical and Communications Association
Smart Energy Council
Jeanes Holland and Associates
AMCHAM India
ASSOCHAM
Bridge to India
Mercon, SolQuarter, REI

Contributing to the UN Sustainable Development Goals

GOAL	DESCRIPTION	TARGETS	ENPHASE CONTRIBUTION
	End poverty in all its forms everywhere	1.5	Enphase directly reduces exposure and vulnerability to extreme climate events and other economic, social, and environmental shocks and disasters by deploying renewable energy generation and management systems across the globe. Renewable energy directly reduces GHG emissions and mitigates climate risk.
	Ensure healthy lives and promote well-being for all at all ages	3.9	Renewable energy generation and management promotes environmental justice, good health, and well-being by avoiding the release of hazardous chemicals and air, water, and soil pollution associated with traditional forms of energy production.
	Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all	4.3, 4.4, 4.5	We promote technical and vocational education in the renewable energy industry through our company learning platform and non-profit partnerships. As our geographic reach continues to grow, we will expand opportunities for adults and children to learn about the renewable energy industry and create opportunities to contribute to global deployment of renewable energy technologies.
	Achieve gender equality and empower all women and girls	5.1, 5.2, 5.5	We do not tolerate discrimination in any form, including against women. We are committed to eliminating human trafficking, slavery, and any type of human rights abuses across our supply chain. We have a woman on our Board of Directors and represented in executive and managerial positions throughout the company.
	Ensure access to affordable, reliable, sustainable, and modern energy for all	7.1, 7.2, 7.3, 7.a, 7.b	<p>Access to reliable, affordable, and modern energy services is what Enphase offers its customers. Enphase microinverters boast the highest levels of reliability, and our next generation off-grid solutions are paving the way for further access.</p> <p>As Enphase continues to grow globally and gain market share, it accelerates its positive impact and contributes to the goal of increasing the global renewable energy mix.</p>



Promote sustained, inclusive, and sustainable economic growth, full and productive employment and decent work for all

8.2, 8.3, 8.7, 8.8

Through our work in deploying renewable energy systems in emerging markets, we are supporting economic growth in developing countries. We employ local leaders and attract talent from local markets, helping to provide decent work globally. We are committed to eradicating forced child labor and ending modern slavery and human trafficking of children, including the use of child soldiers as set forth in our [human rights policy](#).



Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation

9.2, 9.4, 9.5

Our core business contributes directly to the “adoption of clean and environmentally sound technologies and industrial processes.” We have expanded our manufacturing footprint globally, accelerating our ability to upgrade infrastructure to be more sustainable, particularly regarding clean and environmentally-sound renewable energy generation and management technologies.



Make cities and human settlements inclusive, safe, resilient, and sustainable

11.3

Sustainable urbanization is a priority for residential and small commercial applications of our products and services. Additionally, we support this goal through our long-standing philanthropic activities that help to provide solar energy for low-income communities through our partnership with GRID alternatives.



Take urgent action to combat climate change and its impacts

13.1

The Enphase® Energy System helps communities be more resilient in the face of climate-related hazards and natural-disasters through its grid-agnostic and energy storage capabilities; allowing homeowners and businesses to stay safe and connected even when grid services are interrupted or when there is extensive damage to energy infrastructure due to natural disasters.

About this report

We referenced the Sustainability Accounting Standards Board (SASB) to identify material financial ESG metrics for the investor community and referenced the Global Reporting Initiative (GRI) standards to report on additional material sustainability issues. We drew upon subject matter expertise of our colleagues throughout Enphase to collect and organize the content relative to the areas we identified for disclosure. Additionally, we provided disclosures aligned with the four key themes of the Taskforce for Climate-Related Financial Disclosures (TCFD). Lastly, we compared our activities to the United Nations Sustainable Development Goals (SDGs) to assess and convey how we are contributing to these important goals. For specific information about this report or our sustainability program overall, please contact us at ir@enphaseenergy.com. We intend to issue this report on an annual basis. All information included in this report is for the twelve-month period ended December 31, 2022, unless otherwise stated. References to “we,” “us,” “our,” “Enphase” or “Enphase Energy” throughout this report pertain to Enphase Energy, Inc.

Forward-looking statements and other important legal information

This report and the materials or websites cross-referenced contain statements that are aspirational or reflective of our views about our future performance that constitute “forward-looking statements” within the meaning of the Private Securities Litigation Reform Act of 1995. Forward-looking statements are generally identified through the inclusion of words such as “aim,” “anticipate,” “aspire,” “believe,” “commit,” “endeavor,” “estimate,” “expect,” “goal,” “intend,” “may,” “plan,” “seek,” “strive,” “target,” “projection,” “will,” and “work,” or similar statements or variations of such terms and other similar expressions. The forward-looking statements in this document and the materials or websites cross-referenced concern our goals, progress or expectations with respect to corporate responsibility, sustainability, employees, environmental matters, policy, and business risks and opportunities. Forward-looking statements inherently involve risks and uncertainties that could cause actual results to differ materially from those predicted in such statements. These statements are based on numerous assumptions that we believe are reasonable, but are open to a wide range of uncertainties and business risks. In addition, these statements may be based on standards for measuring progress that are still developing, controls and processes that continue to evolve, and assumptions that are subject to change in the future. Consequently, actual results may vary materially from what is contained in a forward-looking statement.

For a further description of the risks and uncertainties that could cause actual results to differ from those expressed in these forward-looking statements, as well as risks relating to our business in general, see our Annual Report on Form 10-K filed with the Securities and Exchange Commission (SEC) on February 13, 2023 and our subsequent periodic reports filed with the SEC from time to time. Copies of these filings are available on the Enphase website at <http://investor.enphase.com/sec.cfm>, or on the SEC website at www.sec.gov. All forward-looking statements in this report are based on information currently available to us, and we assume no obligation to update these forward-looking statements in light of new information or future events.

The information included in, and any issues identified as material for purposes of, this document may not be considered material for SEC reporting purposes. In the context of this report, the term “material” is distinct from, and should not be confused with, such term as defined for SEC reporting purposes. Website references and hyperlinks throughout this document are provided for convenience only, and the content on the referenced third-party websites is not incorporated by reference into this report, nor does it constitute a part of this report. We assume no liability for the content contained on the referenced third-party references. This report contains non-GAAP financial measures relating to our performance. You can find the reconciliation of these measures to the most directly comparable GAAP financial measures on the next page.

Management assertion



Enphase Energy, Inc. (“Enphase Energy”) is responsible for the completeness, accuracy, and validity of the following Enphase Energy Eligible Green Bond Disbursement Report (the “Green Bond Report”). Management asserts that an amount equal to or in excess of the \$1,188.44 million net proceeds from the issuance of both 0.0% convertible senior notes due 2026 and 0.0% convertible senior notes due 2028 between March 1, 2021 and March 12, 2021 was disbursed by Enphase Energy during the period from April 1, 2021 through September 30, 2022, for eligible green projects (the “Eligible Green Projects”) that meets the eligible green expenditures criteria described in Note 1 of the Green Bond Report (the “Eligible Green Expenditures”).

Enphase Energy Eligible Green Bond Disbursement Report

\$ in millions

Net Proceeds from Green Bond Issuances	
Issuance Dates:	March 1, 2021 and March 12, 2021
Notes due 2026	\$622.53
Notes due 2028	\$565.91
Total Net Proceeds	\$1,188.44

Eligible Green Project Categories	Eligible Green Expenditures from April 1, 2021 through September 30, 2022 ¹
Renewable Energy	\$973.69
Eco-Efficient Production Technologies and Process	\$214.75
Total Disbursed Expenditures	\$1,188.44

¹ Amounts disbursed during the period from April 1, 2021, through September 30, 2022, do not represent the full costs of the respective Eligible Green Projects.

Note 1: Eligible Green Expenditures Criteria

Enphase Energy’s Eligible Green Projects include projects with expenditures related to one or more of the following eligible criteria:

- **Renewable Energy:** Expenditures related to research, development, acquisitions, manufacturing, distribution, maintenance and operation of solar energy generation products and systems, solar energy storage systems and enabling technologies for solar energy storage and optimization.
- **Eco-efficient Production Technologies and Process:** Expenditures related to research, development, acquisitions, manufacturing, distribution, maintenance and operation of energy management hardware and software and building automation systems.

Third party attestation



Deloitte & Touche LLP
555 Mission Street
Suite 1400
San Francisco, CA 94105
USA

Tel: +1 415 783 4000
www.deloitte.com

INDEPENDENT ACCOUNTANTS' REPORT

To the Audit Committee of Enphase Energy Inc.,
Fremont, CA

We have examined management of Enphase Energy Inc.'s (the "Company") assertion, included in the accompanying Management's Assertion and Enphase Energy Eligible Green Bond Disbursement Report ("Management's Assertion Report"), that an amount equal to or in excess of the \$1,188.44 million net proceeds from the March 1, 2021 issuance of 0.0% convertible senior notes due 2026 and the March 12, 2021 issuance of the 0.0% Convertible senior notes due 2028 (collectively the "Green Bond Issuances" was disbursed by the Company during the period from April 1, 2021 through September 30, 2022, for Eligible Green Projects in accordance with the criteria in Note 1 set forth in Management's Assertion Report ("management's assertion"). The Company's management is responsible for its assertion. Our responsibility is to express an opinion on management's assertion based on our examination.

Our examination was conducted in accordance with attestation standards established by the American Institute of Certified Public Accountants. Those standards require that we plan and perform the examination to obtain reasonable assurance about whether management's assertion is fairly stated, in all material respects. An examination involves performing procedures to obtain evidence about management's assertion. The nature, timing and extent of the procedures selected depend on our judgment, including an assessment of the risks of material misstatement of management's assertion, whether due to fraud or error. We believe that the evidence we obtained is sufficient and appropriate to provide a reasonable basis for our opinion.

Our examination was not conducted for the purpose of evaluating (i) the completeness of the amount used for Eligible Green Projects set forth in Management's Assertion Report, (ii) the environmental benefits of the Eligible Green Projects, or (iii) conformance of the Eligible Green Projects with any third-party published principles, standards or frameworks, such as the Green Bond Principles published by the International Capital Market Association. Accordingly, we do not express an opinion or any other form of assurance other than on management's assertion included in the accompanying Management's Assertion Report.

The information included on pages 1 to 90 and pages 93 to 96 the Environmental, Social and Governance Report 2022 is presented by management and is not part of management's assertion. The information included on pages 1 to 90 and pages 93 to 96 has not been subjected to the procedures applied in the examination engagement, and accordingly, we make no comment as to its completeness and accuracy and do not express an opinion or provide any assurance on it.

In our opinion, management's assertion that an amount equal to or in excess of the \$1,188.44 million net proceeds from the Green Bond Issuances was disbursed by the Company during the period from April 1, 2021 through September 30, 2022, for Eligible Green Projects in accordance with the criteria in Note 1 set forth in Management's Assertion Report is fairly stated, in all material respects.

Deloitte & Touche LLP

April 7, 2023

GAAP to non-GAAP reconciliation

Reconciliation of non-GAAP financial measures

In millions, except percentages	FY'20	FY'21	Q1'22	Q2'22	Q3'22	Q4'22	FY'22
Gross profit (GAAP)	\$345.9	\$554.4	\$177.0	\$219.0	\$267.9	\$310.7	\$974.6
Stock-based compensation	3.8	7.4	2.5	3.1	3.2	4.3	13.1
Tariff refunds	(38.9)	-	-	-	-	-	-
Acquisition related amortization	-	0.2	1.3	1.5	1.4	2.1	6.3
Gross profit (non-GAAP)	\$310.8	\$562.0	\$180.8	\$223.6	\$272.5	\$317.1	\$994.0
Gross margin (GAAP)	44.7%	40.1%	40.1%	41.3%	42.2%	42.9%	41.8%
Stock-based compensation	0.5%	0.6%	0.6%	0.6%	0.5%	0.6%	0.5%
Tariff refunds	(5.1%)	-%	-%	-%	-%	-%	-%
Acquisition related amortization	-%	-%	\$0.0	\$0.0	\$0.0	\$0.0	0.3%
Gross margin (non-GAAP)	40.1%	40.7%	41.0%	42.2%	42.9%	43.8%	42.6%
Operating expenses (GAAP)	\$159.6	\$338.6	\$115.2	\$125.0	\$132.5	\$153.7	\$526.3
Stock-based compensation	(38.8)	(106.9)	(45.3)	(49.9)	(49.1)	(59.4)	(203.7)
Acquisition related expenses and amortization	(2.5)	(10.8)	(3.6)	(3.9)	(4.2)	(4.8)	(16.5)
Restructuring and asset impairment charges	-	-	-	-	(0.6)	(1.8)	(2.4)
Operating expenses (non-GAAP)	\$118.3	\$220.9	\$66.3	\$71.2	\$78.6	\$87.7	\$303.7
Income from operations (GAAP)	\$186.4	\$215.8	\$61.8	\$94.0	\$135.4	\$157.0	\$448.3
Stock-based compensation	42.5	114.3	47.8	53.1	52.3	63.6	216.8
Tariff refunds	(38.9)	-	-	-	-	-	-
Acquisition related expenses and amortization	2.5	11	4.9	5.3	5.6	7	22.8
Restructuring and asset impairment charges	-	-	-	-	0.6	1.8	2.4
Income from operations (non-GAAP)	\$192.5	\$341.1	\$114.5	\$152.4	\$193.9	\$229.4	\$690.3

Reconciliation of non-GAAP financial measures (continued)

In millions, except per share data		FY'22
Net income (GAAP)	\$	397.4
Stock-based compensation		216.8
Acquisition related expenses and amortization		22.8
Restructuring and asset impairment charges		2.4
Non-cash interest expense		8.1
Non-GAAP income tax adjustment		(0.1)
Net income (non-GAAP)	\$	647.4
Net income per share, diluted (GAAP)	\$	2.77
Stock-based compensation		1.55
Acquisition related expenses and amortization		0.16
Restructuring and asset impairment charges		0.02
Non-cash interest expense		0.06
non-GAAP income tax adjustment		0.06
Net income per share, diluted (non-GAAP) (1)	\$	4.62
Shares used in diluted per share calculation GAAP		144.4
Shares used in diluted per share calculation Non-GAAP (2)		140.3

(1) Calculation of non-GAAP diluted net income per share for the year ended December 31, 2022 excludes convertible Notes due 2023 interest expense, net of tax of less than \$0.1 million in each period from non-GAAP net income.

(2) Effect of dilutive in-the-money portion of convertible senior notes and warrants are included in the GAAP weighted-average diluted shares in periods where we have GAAP net income. We excluded in-the-money portion of convertible Notes due 2026 and Notes due 2028 totaling 2,018 thousand shares in the year ended December 31, 2022 from non-GAAP weighted-average diluted shares as we entered into convertible note hedge transactions that reduce potential dilution to our common stock upon any conversion of the Notes due 2026 and Notes due 2028.



©2023 Enphase Energy, Inc. All Rights Reserved.

Enphase Energy, Enphase, the E logo, IQ, IQ5P, IQ7A, IQ7+, IQ8, Enphase Energy System, IQ Microinverter, IQ Battery, Enphase App, Ensemble, IQ Gateway, IQ Combiner, IQ Load Controller, IQ System Controller, and other trademarks or service names are the trademarks of Enphase Energy, Inc. Other names and marks used herein may be trademarks or services marks owned by third parties.