

November 2025 Technology Overview

November 13, 2025
Enphase Energy, Inc.



Safe harbor

Use of Forward-Looking Statements

This presentation contains forward-looking statements made pursuant to the Safe Harbor provisions of the Private Securities Litigation Reform Act of 1995, including, but not limited to, Enphase Energy’s business strategies, including anticipated trends and developments in markets in which it operates and in the markets in which it plans to expand; the market adoption and availability of Enphase Energy’s new products and technologies, the benefits to homeowners and installers, and the performance and cost when compared to competitors; the capabilities and performance of its technology and products, including product features; and Enphase Energy’s performance in operations, including manufacturing, supplying “FEOC Compliant” products and products with domestic content; product quality, safety, reliability, cost management and customer service; and the benefits, costs, and availability of financing products for installers and homeowners; the availability of and qualification for certain tax incentives. Any statements that are not of historical fact, may be forward-looking statements. Words used such as “anticipates,” “believes,” “could,” “potential,” “predicts,” “continues,” “designed,” “estimates,” “expects,” “goal,” “intends,” “likely,” “may,” “ongoing,” “plans,” “projects,” “pursuing,” “seeks,” “should,” “will,” “would” and similar expressions are intended to identify forward-looking statements, although not all forward-looking statements contain these words. All forward-looking statements are based on Enphase Energy’s current assumptions, expectations and beliefs, and involve substantial risks and uncertainties that may cause results, performance or achievement to materially differ from those expressed or implied by these forward-looking statements. You are cautioned that these forward-looking statements are only predictions and may differ materially from actual future events or results. A detailed discussion of risk factors that affect Enphase Energy’s business is included in the filings it makes with the Securities and Exchange Commission (SEC) from time to time, including its most recent reports on Form 10-K and Form 10-Q, particularly under the heading “Risk Factors.” Copies of these filings are available on Enphase Energy’s website through its investor page or on the SEC website. All forward-looking statements in this presentation are based on information currently available to Enphase Energy, and Enphase Energy assumes no obligation to update these forward-looking statements in light of new information or future events.

Industry Information

Information regarding market and industry statistics in this presentation is based on available information that Enphase Energy believes is accurate. It is generally based on publications that are not produced for purposes of economic analysis.

2026 Innovations

2026 Innovations

1. IQ[®]10C battery system
2. Pre-paid lease with loan offerings
3. IQ[®]9 microinverter for commercial solar
4. The Netherlands VPP and battery attach
5. Existing fleet monetization

1. IQ[®] 10C battery system¹

- 4th Generation Battery System is ramping
- Meter collar approved in 47 utilities, including SDGE and PG&E
- Strong competitiveness in both backup and grid tied applications
 - 7kW PV with a 10kWh (Enphase)
 - Enphase system LCOE \$0.23/kWh
 - Drivers for better LCOE with Enphase
 - Greater energy production from PV
 - One replacement of batteries compared to two
 - 20-40% greater battery efficiency from PowerMatch
- Other benefits of Enphase
 - Reliability (no single point of failure; 25-yr PV, 15-yr battery)
 - Simpler install and easier service (lightweight, modular)
 - Safer low-voltage DC architecture
 - Load-control and whole-home backup, including full black-start

¹All figures used on this page are approximate



2. PPL + Loan¹

- Captures the 48E tax credit expected to fully offset the loss of 25D
- Structured as a 25-year lease with an optional buyout in year 5
- Prepaid on day 1 via loan with ownership transfer after year 5
- Competitive loan rates with no dealer fees and zero money down
- Strengthens installer cash flow through improved working capital
- One simple transaction with one low monthly payment
- Enphase working with partners to enable access to installers
- Pilots underway and expect partners to launch broadly in Q1'26

¹Program structure and terms are preliminary and for illustrative purposes only; may not be available in all States; and actual offering(s) may vary based upon specific facts and circumstances. TPO providers should consult their advisors for applicability.



2. PPL + Loan (cont.)

10kW PV Texas / 40% ITC System price: \$30,000	Cash No 25D	Loan No 25D	PPL With 48E	PPL + Loan With 48E	TPO With 48E
Annual Escalator	0%	0%	0%	0%	2.90%
Yr 1 Monthly payment	\$30,000	\$241	\$20,174	\$169	\$163
Yr 25 Monthly payment	N/A	\$241	N/A	\$169	\$323

- The market size for residential solar was greatest when customer ownership options were economical
- Above structure delivers low, fixed monthly payments with no annual escalator (e.g. \$169/month for 25 years)
- Allows homeowners to capture the benefit of the ITC indirectly through the PPL + Loan structure
- Enables homeowners the optionality to own their system after 5 years
- PPL + Loan offers lower, stable monthly payments as compared to a traditional solar loan and TPO

Disclaimer: The above figures are all approximations and estimations and are for illustrative purposes only; they do not include all assumptions, market conditions, or customer-specific variables; may not be available in all States; and actual offering(s) may vary based upon specific facts and circumstances. TPO providers should consult their advisors for applicability. TPO data is based on internal Enphase Solargraf™ proposals.

3. IQ[®]9 micro for commercial solar

Market

- 2026 U.S. SAM: ~ 2 GW¹
- 50 kW to 1 MW DC system range
- Interconnection: 208/120V and 480/277V three-phase

Value proposition

- GaN enables high power and sleek form factor
- Production, Reliability, Simplicity, Safety
- Up to 30 modules on a single branch circuit
- Multi-family homes with complex roofs (Title 24 in CA)
- Safe harbor: 5% or PWT
- 45X credits help support competitive pricing
- “FEOC Compliant”² and Domestic content planned

Products

- IQ[®]8P-3P: 208/120V interconnection
- IQ9N-3P: 480V/277V interconnection



¹ Source: Enphase internal data based on extrapolation from multiple sources including Ohm and Wood Mac

² Means certain components are not manufactured by a prohibited foreign entity which should allow TPOs to include percentages based on the tables for distributed solar in IRS Notice 2025-08 as currently drafted

4. The Netherlands -- VPP; Battery

Solar homes in the NL need to add a battery

- Export penalties up to 400 € per year
- NEM expiration at end of 2026 (no grandfathering)
- Payback > 10 years
- Awareness of these changes is growing with homeowners

Opportunity

- ~450,000 Enphase homes ; ~4.5 GWh potential

VPP Partnerships with Essent and Vattenfall

- Co-marketing with Enphase to serve overlapping customers
- Total customers served: ~4M
- Overlapping Enphase customers: ~200,000

Homeowner benefits

- Earn up to ~1450 € /year in VPP payments
- Enjoy self-consumption and eliminate export penalty
- Payback < 7 years



5. Existing fleet monetization

Market

- ~4 Million Enphase homes globally
- Multi billion \$ revenue potential from existing fleet

Opportunity

- Expand energy independence: solar, storage, EV charging upgrades
- Grow revenue from field replacement of out of warranty components
- Drive installer engagement through leads and upgrade incentives
- Enphase Care: subscription-based maintenance plan, ~2K signed
- Support long tail installers with online store

Organization

- Boots on the ground Enphase field service technicians
- World class inside sales team supporting customers globally
- Introducing AI assistant for proactive customer engagements



Ongoing Technology Innovation

Ongoing Technology Innovation

1. Technology driven cost reduction
2. Next generation microinverter – IQ9
3. Fifth generation residential battery
4. PowerMatch
5. EV charger
6. Small commercial battery
7. Flex/VPP



1. Technology driven cost reduction

Semiconductor integration

- Reduce number of components

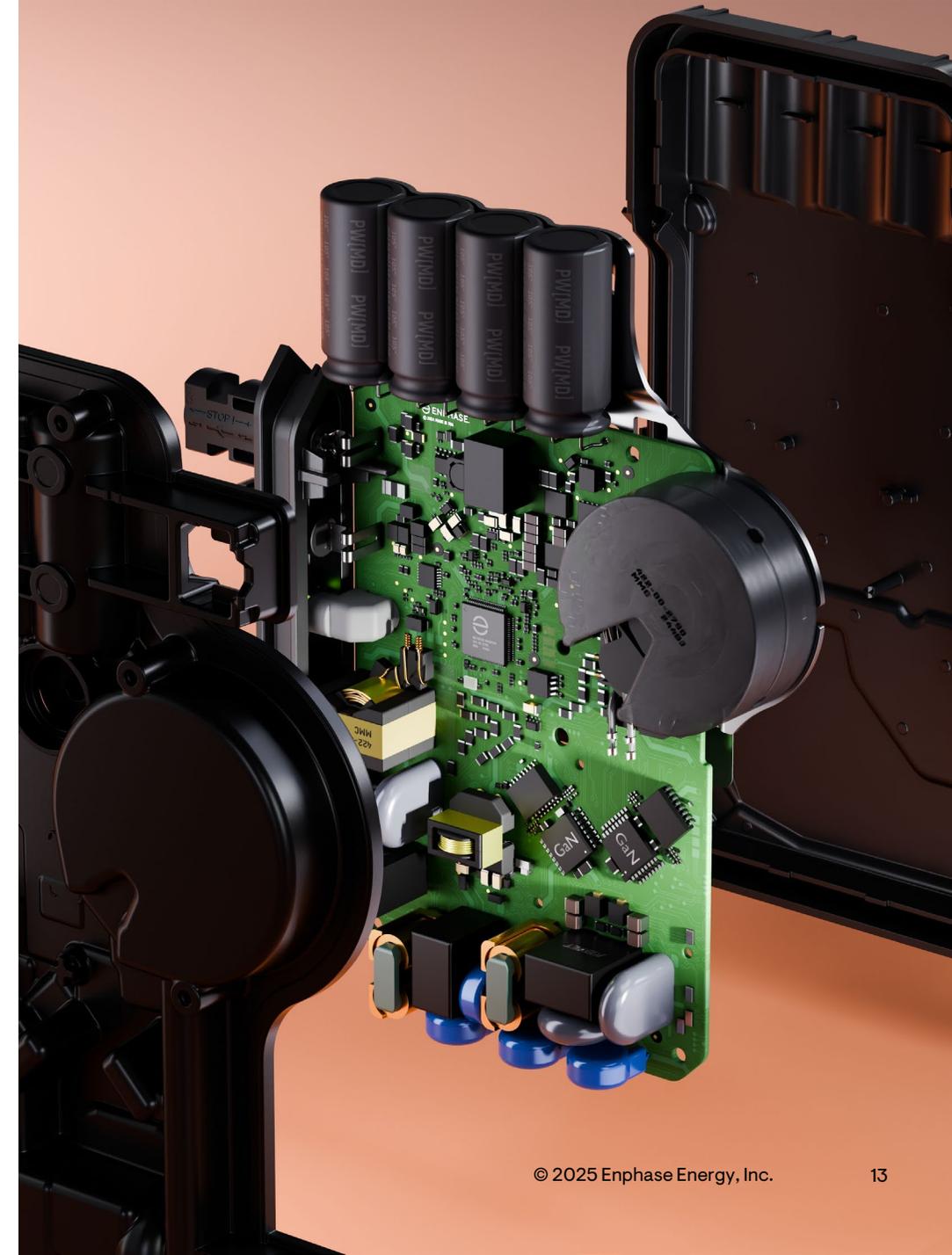
Module power increases

- Increase power of micros to match the modules
- Power economies of scale

Wide bandgap power semis

- Gallium Nitride (650V) and beyond
- Bi-directional GaN Switches reduce component count
- Enables increased operating frequency (2 – 4x); smaller components

GaN enables a whole new trajectory in cost and performance



2. Next generation microinverter

IQ9 microinverter family

Specifications

- Power of 427 VA and 548 VA; Supports module current of 16A
- Based on bi-directional GaN technology
- ~13% higher power density compared to IQ8 residential
- Lower \$/W cost by ~10%; 45X enables further cost down
- Safe harbor: 5% or PWT
- “FEOC Compliant”¹ and Domestic content planned

Value proposition

- Productive, Reliable, Easy to install, Safe
- Smaller and more powerful

Expected availability

- Q4’25 (commercial); Q1’26 (residential)

¹ Means certain components are not manufactured by a prohibited foreign entity which should allow TPOs to include percentages based on the tables for distributed solar in IRS Notice 2025-08 as currently drafted.



3. 5th generation residential battery

Specifications

- 5 kWh building block; Stackable Up to 20 kWh
- Energy density of 94 Wh/L, ~50% higher than the 4th generation
- Heating element for outdoor use in low temp. environments

Value proposition

- ~40% cost reduction compared to the 4th generation battery
- Stackable, easy to install and service
- PowerMatch™ significantly increases efficiency
- Reliable with 15-year limited warranty
- Safe low voltage DC; Large scale fire tested; UL 9540C
- “FEOC Compliant”¹ and Domestic content planned

Expected availability

- Pilots Q2’26; Production Q3’26



PRELIMINARY DIMENSIONS
21" x 10" x 54"

4. PowerMatch

Only the power you need – Exactly when you need it

How it works

- Most homes operate at very low load for much of the day
- Traditional inverters waste power at low loads
- PowerMatch activates only the microinverters needed
- Battery output is matched precisely to real-time demand

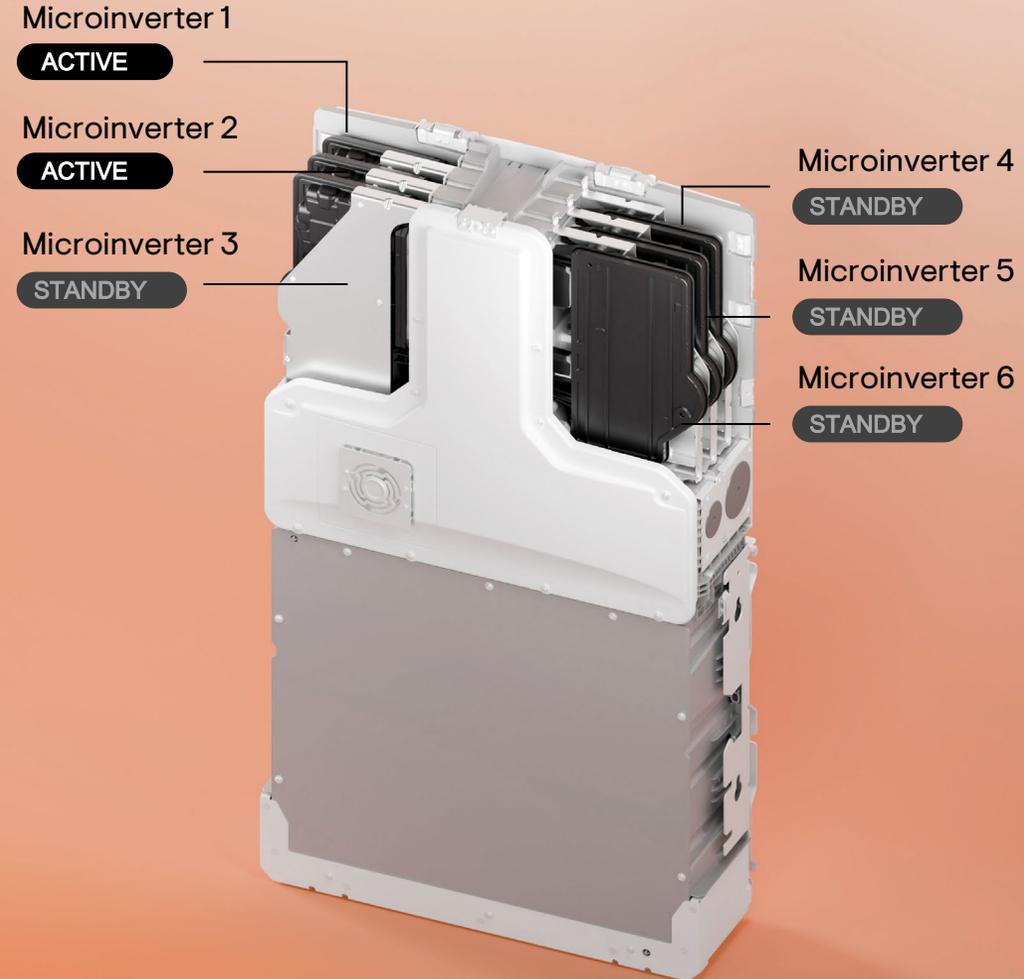
Value proposition

- Batteries operate at higher efficiency during low load
- Stored energy can last up to ~40% longer versus competition

Availability

- Now, with over-the-air software upgrade
- Works with both 3rd generation and 4th generation batteries

Microinverter status during low consumption



5. EV charger

EV is a significant flexible load

Installed standalone or as part of the Enphase energy system

Released products

- Gen 1 residential and commercial
- Gen 2 for EU and ANZ: AC Bi-Di ready; ISO 15118 compliant
- Gen 2 for US market shipping shortly in Nov. '25

Coming soon

- US DC Bi-Di prototype ready; release in H2'26
 - Simple and Elegant Backup (Bi-Di + Meter collar)
 - Full V2G and V2H capability
 - 1000VDC (Car) ↔ Home AC with ~11.5 kW power; 1 or 3-phase
 - Fully installed price ~\$8K¹
 - Expands TAM significantly to include EV owners
- Working on auto vendor partnerships



6. Small commercial battery

Specifications

- 2027 US TAM: ~1 GWh¹
- 80 kWh AC-coupled building block
- Supports configurations up to 1 MWh
- Two or Four-hour battery
- High density 314 Ah LFP prismatic cells
- Interconnection: 208/120V and 480/277V three-phase

Value proposition

- Demand charge reduction and time shifting
- Title 24 compliance in CA for new construction
- Modular design makes it easier to install and service
- 15-year limited warranty
- “FEOC Compliant”² and Domestic content planned

Expected availability

- Pilots Q4’26; Production Q1’27



¹ Source: Enphase internal estimate based on 35% CAGR market growth through 2027

²Means certain components are not manufactured by a prohibited foreign entity which should allow TPOs to include percentages based on the tables for distributed BESS in IRS Notice 2025-08 as currently drafted



PRELIMINARY DIMENSIONS
30" x 36" x 82"

7. Flex/VPP

Utilities need Flex capacity

- 50+ VPP programs underway and accelerating
- Extensive API portfolio enables low-friction utility onboarding
- PowerMatch leads to better dispatch accuracy and lower costs

US utilities are embracing Enphase as VPP enabler

- San Diego Community Power; Green Mountain Power
- Wholesale capacity pricing signals growing value for flex resources
- Ability to deliver bundled flex portfolios
 - Solar, battery, smart thermostat, EVSE

Flexible interconnection

- UL 3141 (power control system) adoption across utilities



Conclusion

Conclusion

Multiple potential growth vectors in 2026

- 4th Generation system
- TAM recovery with new financing options
- SAM expansion with entry into 3-phase 480V commercial solar
- Europe recovery starting with the Netherlands

Technology innovation

- GaN enables a new trajectory for cost reduction for micros and batteries
- SAM expansion into the commercial battery market is a big opportunity
- Bi-directional EV chargers can be a game changer enabling a larger TAM
- Homeowners eligible to make money with Flex/VPP



© 2025 Enphase Energy. All rights reserved. Enphase, the Enphase logo, IQ9, IQ10Power Match, Solargraf, and certain other names are trademarks or service marks of Enphase Energy, Inc.