
**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549**

FORM 8-K

**CURRENT REPORT
Pursuant to Section 13 or 15(d)
of the Securities Exchange Act of 1934**

Date of Report (Date of earliest event reported): November 17, 2015

ENPHASE ENERGY, INC.
(Exact name of registrant as specified in its charter)

Delaware
(State
of incorporation)

001-35480
(Commission
File No.)

20-4645388
(IRS Employer
Identification No.)

1420 N. McDowell Blvd
Petaluma, CA 94954
(Address of principal executive offices and zip code)

Registrant's telephone number, including area code: (707) 774-7000

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions (see General Instruction A.2. below):

- Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
 - Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
 - Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
 - Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))
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Item 7.01 Regulation FD Disclosure

Enphase Energy, Inc., or the Company, hosted an Analyst Day on Tuesday, November 17, 2015, in New York from 9:30am – 12:30pm ET. The presentation handout, together with a slide setting forth certain cautionary language intended to qualify the forward-looking statements included in the presentation handout, are furnished as Exhibit 99.1 to this Current Report and are incorporated herein by reference. The presentation handout is also available in the “Investor Relations” section of the Company’s website, located at www.enphase.com.

The information contained in this Item 7.01 and in the accompanying Exhibit 99.1 to this Current Report shall be deemed to be “furnished” and shall not be deemed to be “filed” for purposes of Section 18 of the Exchange Act, or otherwise subject to the liabilities of that Section or Sections 11 and 12(a)(2) of the Securities Act. The information contained in this Item 7.01 and in the accompanying Exhibit 99.1 to this Current Report shall not be incorporated by reference into any filing with the U.S. Securities and Exchange Commission under the Securities Act or the Exchange Act made by the Company, whether made before or after the date hereof, regardless of any general incorporation language in such filing.

Item 9.01 Financial Statements and Exhibits.

(d) Exhibits.

<u>Exhibit Number</u>	<u>Description</u>
99.1	Slide presentation entitled, “Enphase Energy Analyst Day November 2015”

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

Date: November 17, 2015

ENPHASE ENERGY, INC.

By: /s/ Kris Sennesael
Kris Sennesael
Vice President and Chief Financial Officer



Enphase Energy
Analyst Day

November 2015



Safe harbor

Use of forward-looking statements

- This presentation contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995, as amended, including, but not limited to, statements related to Enphase Energy's financial performance, advantages of its technology, product cost reductions and market trend.
- These forward-looking statements are based on Enphase's current expectations and are inherently subject to risks and uncertainties. They should not be considered guarantees of future results, which could differ materially from the results set forth in, contemplated by, or underlying this presentation.
- Factors that could cause actual results to differ materially from the Company's expectations are described in the reports filed by the Company with the Securities and Exchange Commission pursuant to the Securities Exchange Act of 1934 and we encourage you to review our filing carefully, especially the sections entitled "Risk Factors" in our quarterly report on form 10-Q for the quarter ended September 30, 2015.
- Enphase Energy undertakes no duty or obligation to update any forward-looking statements contained in this presentation as a result of new information, future events or changes in its expectations.

Agenda

Paul Nahi

Enphase Energy vision

Martin Fornage

Technology for cost reduction

Greg Steele

Engineering for cost reduction

Darien Spencer

Operations and automation for cost reduction

Stefan Zschiegner

Product cost reduction roadmap

Raghu Belur

Home energy systems roadmap

Stefan Zschiegner

Enlighten demo



Paul Nahi

President and CEO



Enphase focus and priorities

Enphase is executing on its strategy to address market-driven cost pressures in the near term, while positioning the company for long-term growth:

- [1] Significantly reduce the cost of a solar system through product cost reduction and simplification of the installation process**
- [2] Create a total energy solution for homes and businesses through the development of new products, features and services**

Enphase goals

- [1] Invest in our next generation technology to reduce costs by 50% in 24 months, towards \$0.10 per Watt
- [2] Provide our partners with best-in-class power electronics, storage solutions, communications, and load control all managed by a cloud based energy management system

Enphase in more than 375,000 systems in 95 countries



Martin Fornage

Chief Technology Officer



Enphase 10 years of innovation

First predictive digital control system

First custom chip

First Mixed signal ASIC

Next Gen power train control design

Next Gen power train first operation

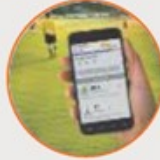
Next Gen enclosure prototypes

2006

2015



First microinverter system introduced



1 million units shipped, Enphase expands globally



Fourth-generation technology introduced

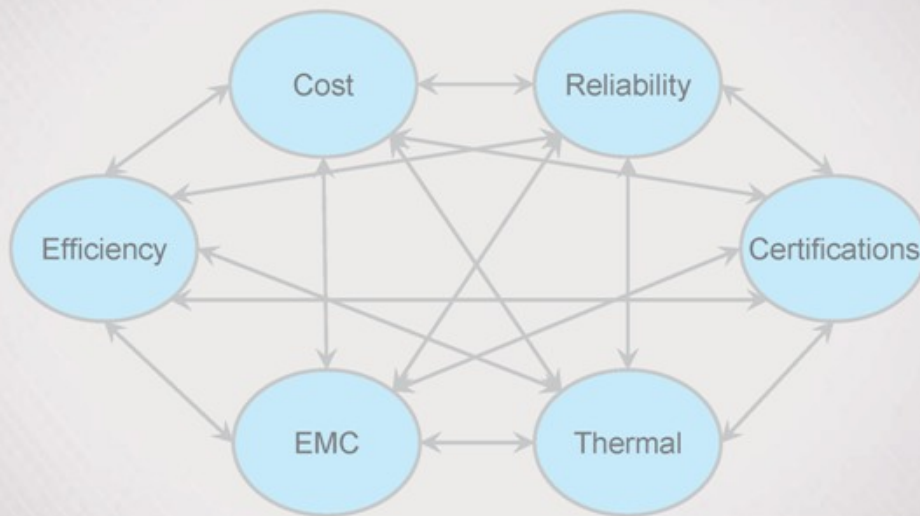


AC battery announced



Fifth-generation Introduced

Microinverter design constraints are difficult to balance



General design philosophy

- The **System** approach is critical
- System behavior is defined by **Software**
- **Distributed architecture** wins
- **Digital control** wins

The approach to inverter system design

- Choose a low noise, high efficiency **power train**
- Move to a **polymeric enclosure**
- Simplify the **wiring**
- Simplify the **installation**

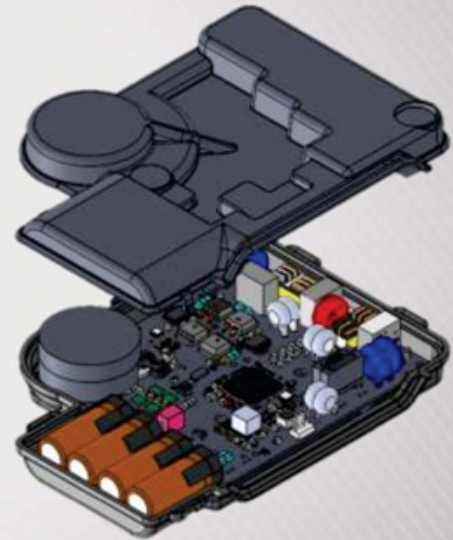
Enphase power train and control

- **Advanced power train features**
 - Fully resonant, soft-switched, bidirectional, single-stage converter
 - World's first sub-cycle control capability
 - Much improved EMC signature
 - WBG semiconductors can be used to further reduce cost and increase efficiency
- **Additional integration opportunities**

Polymeric enclosure

Low-noise power train allows for **polymeric enclosure**

- Reduced mechanical stress on components
- Lowest transformation cost
- Higher freedom of design
- Improved thermal performance
- No ground wire
- Embedded bulkhead connectors reduce number of cables needed



2-wire cable system

Polymeric enclosure enables a **2-wire AC cable**

- Less than half the weight per inverter
- Easier installation
 - More flexible
 - Much smaller bend radius



AC module

Advances in size, weight and technology enable the **AC module**

- Next level of integration with PV module
- Eliminates unnecessary components like extra wire and bypass diodes
- Possible removal of PV junction box





Greg Steele

Senior VP of Engineering



Key technologies to enable cost reductions

Architectural design and silicon integration



Magnetics design



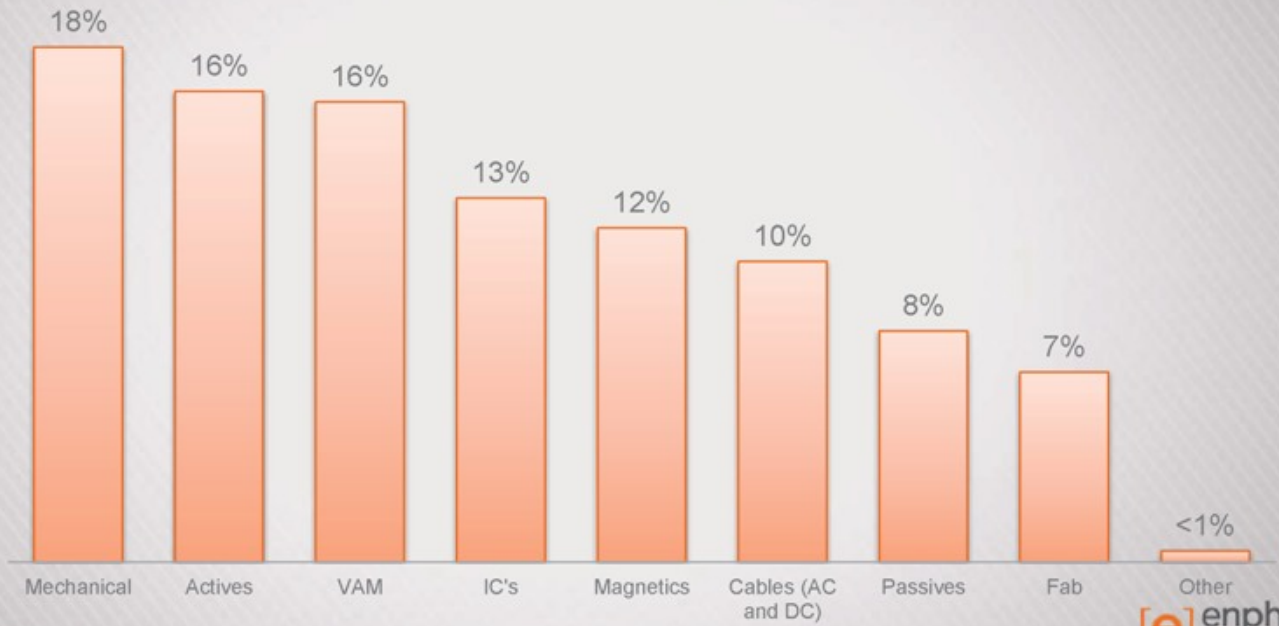
Polymer enclosure



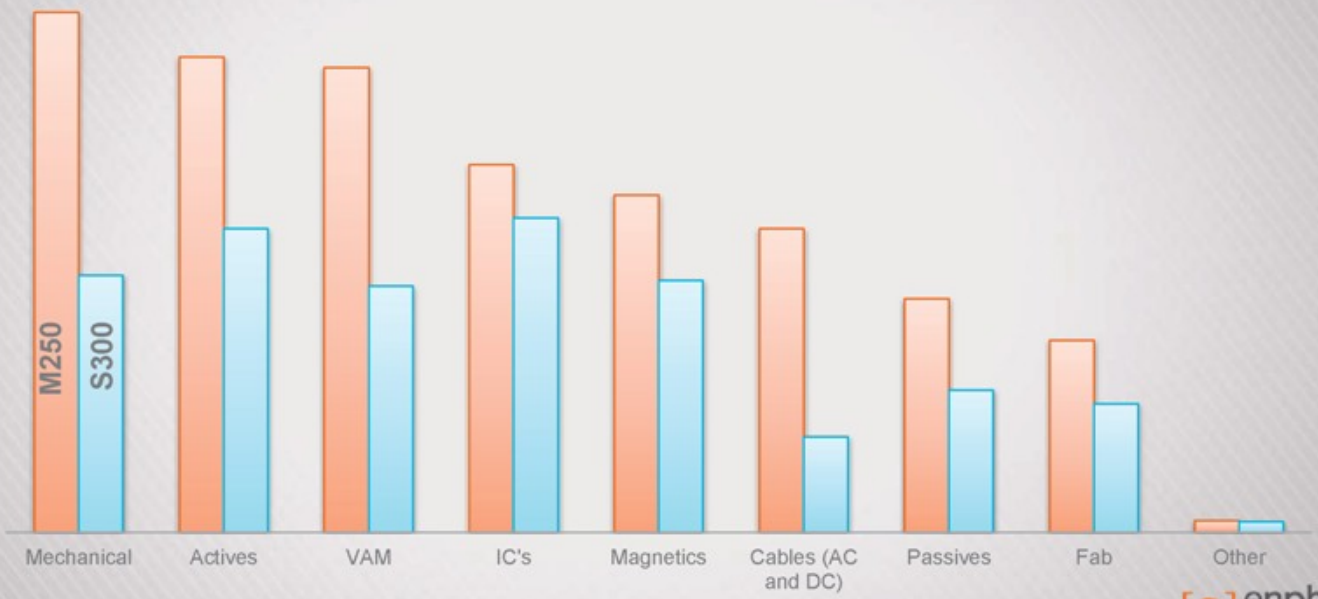
Cable simplification



Where is the cost in the inverter today (M250)?



Where will the cost be in the future (S300)?



Cost reduction – “By the numbers”



	M250 2015
Part count	396
ASIC count	1
ASIC gates (millions)	1.8
AC cable wires	4
Weight (kg)	1.66
AC cable weight (kg)	0.985
Max AC power	250W

Cost reduction – “By the numbers”



	M250 2015	S290 2016	% change
Part count	396	339	-14%
ASIC count	1	1	
ASIC gates (millions)	1.8	2.8	+55%
AC cable wires	4	2	-50%
Weight (kg)	1.66	1.38	-17%
AC cable weight (kg)	0.985	0.407	-59%
Max AC power	250W	290W	+16%

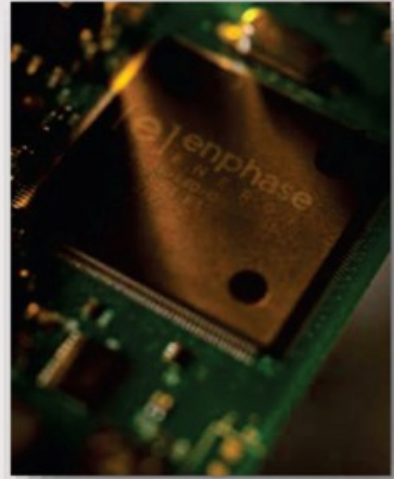
Cost reduction – “By the numbers”



	M250 2015	S290 2016	S300 2017	% change
Part count	396	339	250	-37%
ASIC count	1	1	3	+200%
ASIC gates (millions)	1.8	2.8	5	+178%
AC cable wires	4	2	2	-50%
Weight (kg)	1.66	1.38	1.15	-31%
AC cable weight (kg)	0.985	0.407	0.407	-59%
Max AC power	250W	290W	300W	+20%

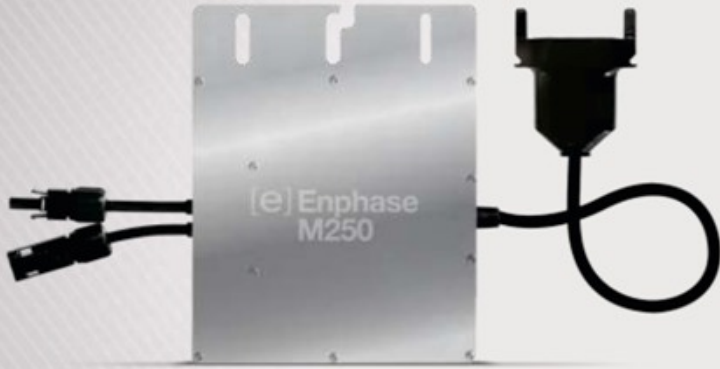
Enphase semiconductor development

- 8th generation
- 2.8 million gates
- Designed in partnership with TSMC
 - 30-person design team in Silicon Valley
- TSMC 55nm LP CMOS process for SoC



Substantial reduction in size and cost

Residential and commercial microinverters



M250



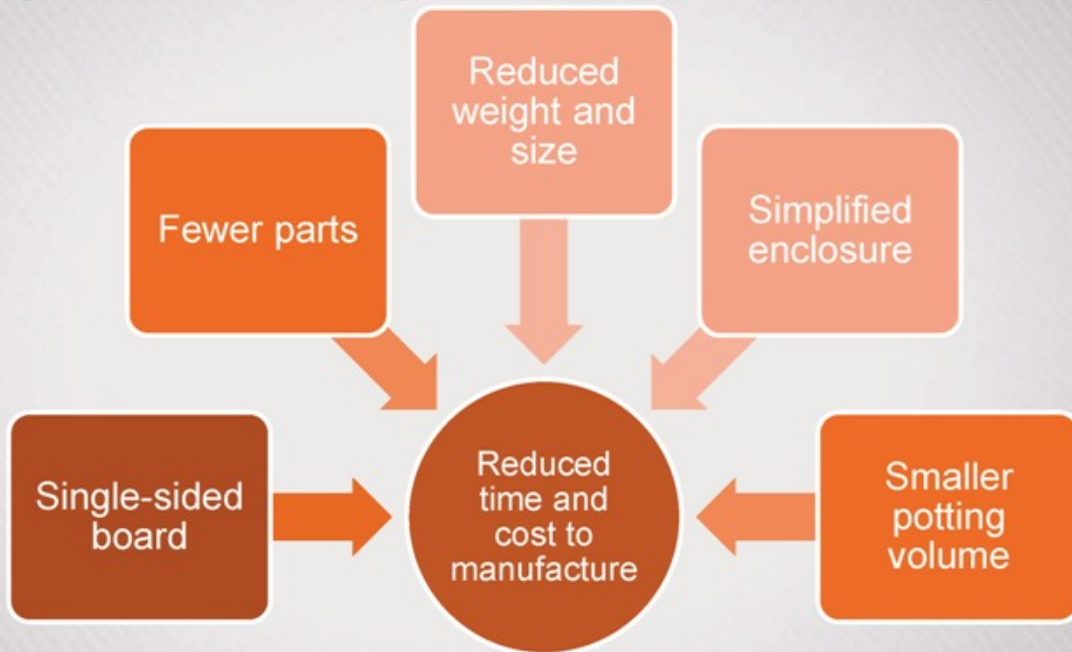
S290



S300



Design for reliability and manufacturability



Darien Spencer

VP of Manufacturing and Operations



Global industry-leading operations

Costs

- 15% year-over-year cost reduction demonstrated

Partners

- Global experts
- Highly leverageable

Quality & reliability

- >25 year useful life for microinverters
- Highest factory yield

Factories

- Highly automated
- Global, scalable, flexible

Inventory carrying

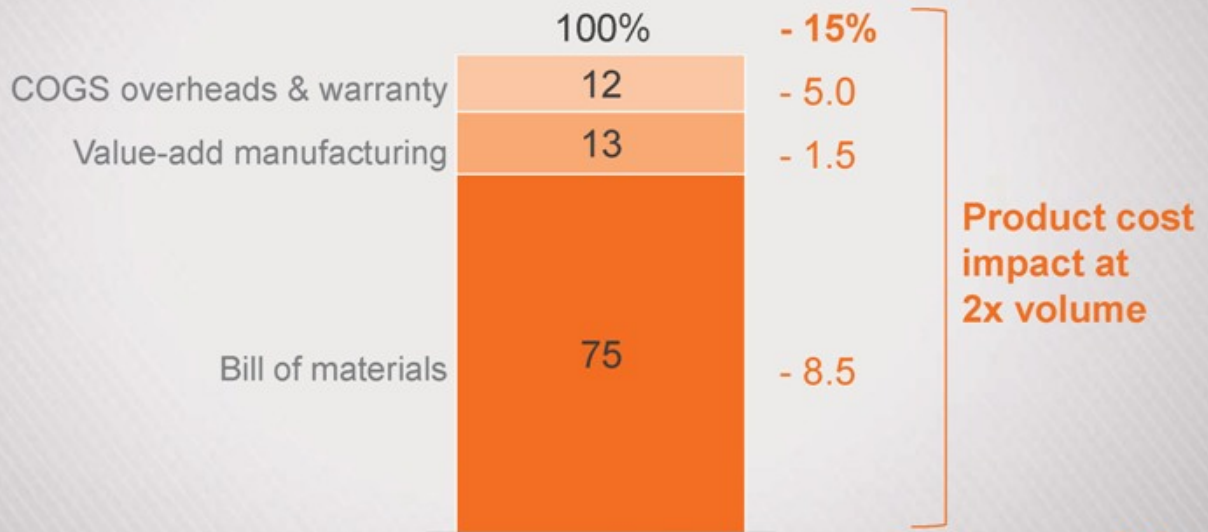
- Few SKUs

Distribution

- Global footprint
- Low cost
- Automated systems

Higher manufacturing volume reduces costs

Microinverter cost breakdown



Manufacturing cost drivers continue to improve

		2013	2015	2017
Bill of materials	Sourcing localization	Asia/Europe	Asia/Europe	Asia/Europe/LA
	Raw material and transformation	Manual	Semi-automated	Automated
	Component count	425	396	250
Value-add manufacturing	Labor/automation (units/quarter/operator)	1,000	2,500	5,000
	Process touchpoints	180	96	68
	Yield management (cum)	93%	99.5%	99.8%
	SKU management (lines)	2 SKU-specific automated + 2 manual	3 universal automated	4 universal automated
	Component lead time (average days)	65	52	45
	Depreciation/asset efficiency	Baseline	+25%	+50%
	COGS overheads	Baseline	+100%/unit	+200%/unit
	Automation line throughput (number/day/line)	7,500	11,000	15,000

Quality and reliability throughout the process

Enphase continues investment in quality and reliability infrastructure with commissioning of New Zealand QA lab



Manufacturing automation creates efficiencies



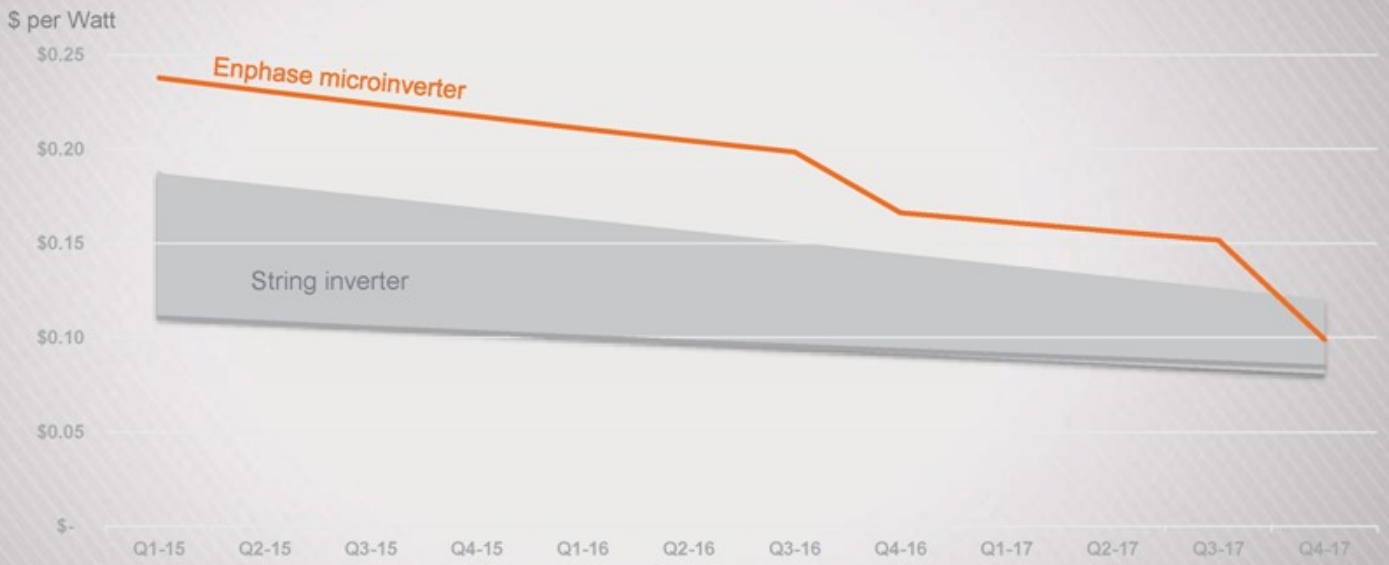


Stefan Zschiegner

VP of Product Management



50% cost reduction in 2 years



AC Module: A solar module with an integrated microinverter



- Lower cost
 - Microinverter cost savings: 2 cents per Watt
 - Module cost savings: 3 cents per Watt
 - Installation cost savings: 2 cents per Watt

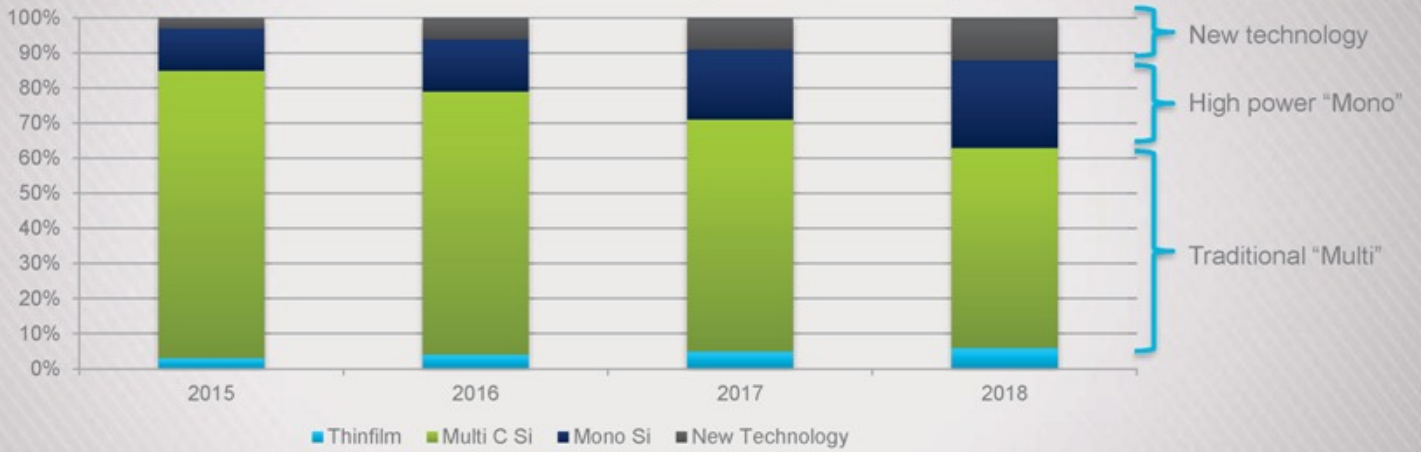
AC Module: A solar module with an integrated microinverter



- Lower cost
 - Microinverter cost savings: 2 cents per Watt
 - Module cost savings: 3 cents per Watt
 - Installation cost savings: 2 cents per Watt
- Simplified installation and logistics
 - Simplified design and installation process
 - Single SKU
 - Simplified logistics

Higher power modules uniquely benefit microinverters

Global PV module technology mix (in MW)



Raghu Belur

VP of Products and Strategic Initiatives



The Enphase home: Complete energy solution

Increase revenue per home from +\$1,000 to +\$6,000



Consumption monitoring and disaggregation

Enhancing the consumer engagement



Enphase AC Battery storage solution

1.2 kWh energy capacity, 270W power, 10+ year lifetime

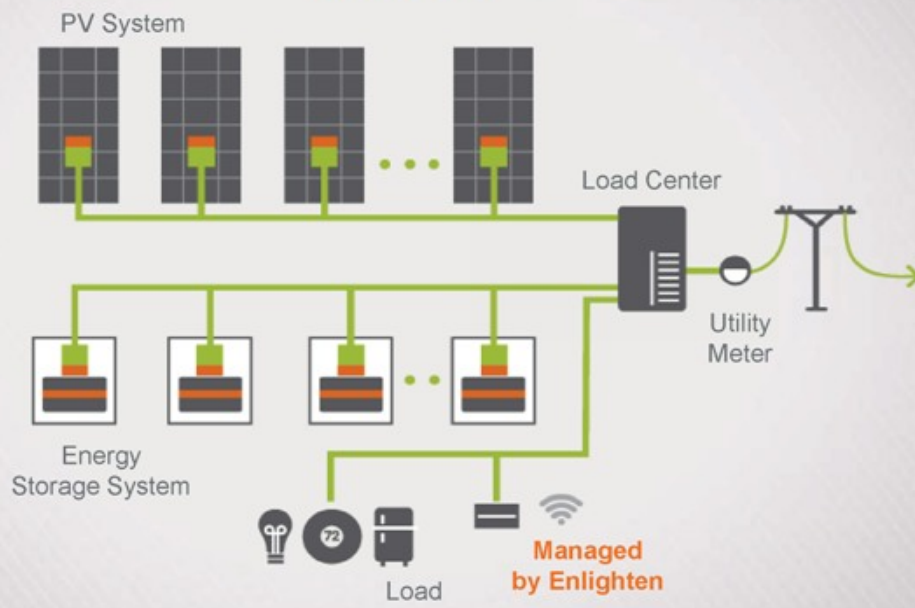
- Modular and scalable distributed architecture
- Highest lifetime value
- Seamless integration
- Safe and reliable



 enphase
ENERGY

Enphase storage solution

Distributed PV (AC Module) and Distributed storage (AC Battery)



Enphase AC coupled versus DC coupled systems

Value

- Efficiency
- 2 cycles per day, >95% depth of discharge
- Less expensive to install

Modular

- Pay only for what you need
- Expandable

Reliability

- No single point of failure

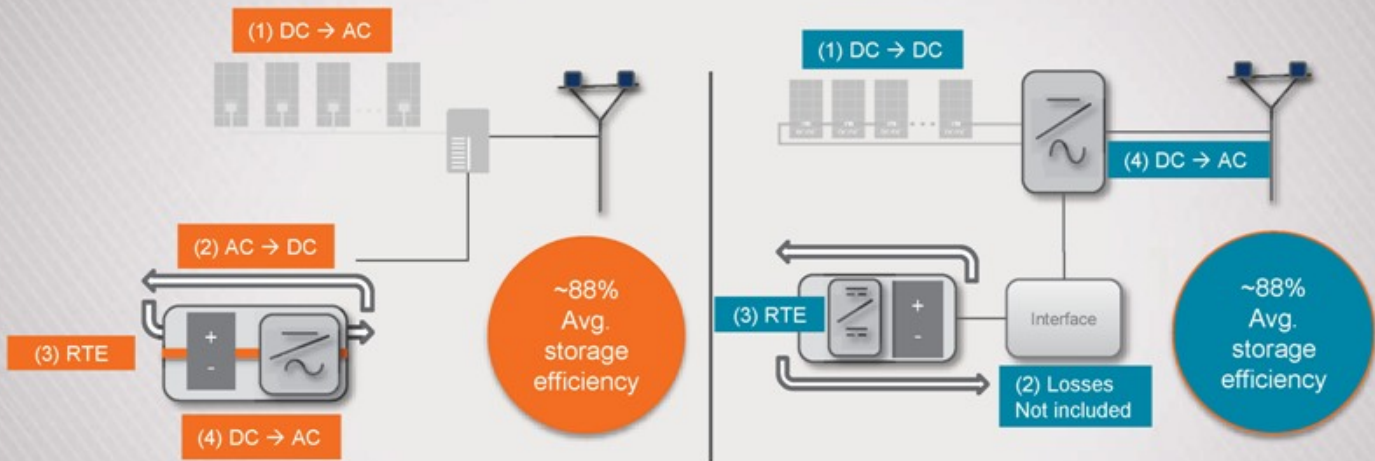
Safety

- No high voltage DC
- TUV safety certified LFP versus NCA and NMC chemistry

Retrofit

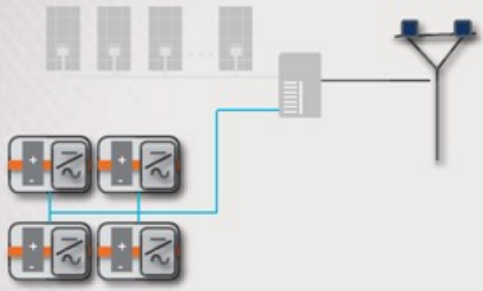
- Easy to retrofit any solar system

Efficiency in AC versus DC coupled systems



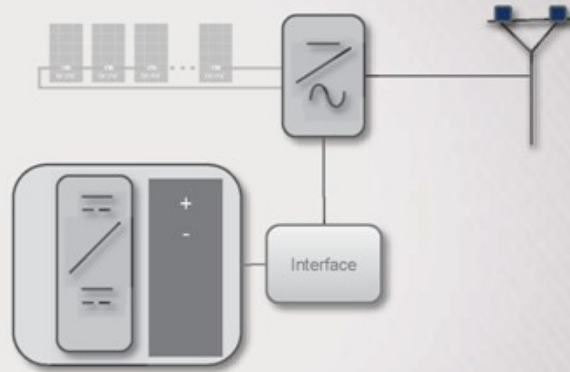
The AC coupled advantage

Enphase's distributed architecture is the clear choice for retrofits



Enphase AC Battery

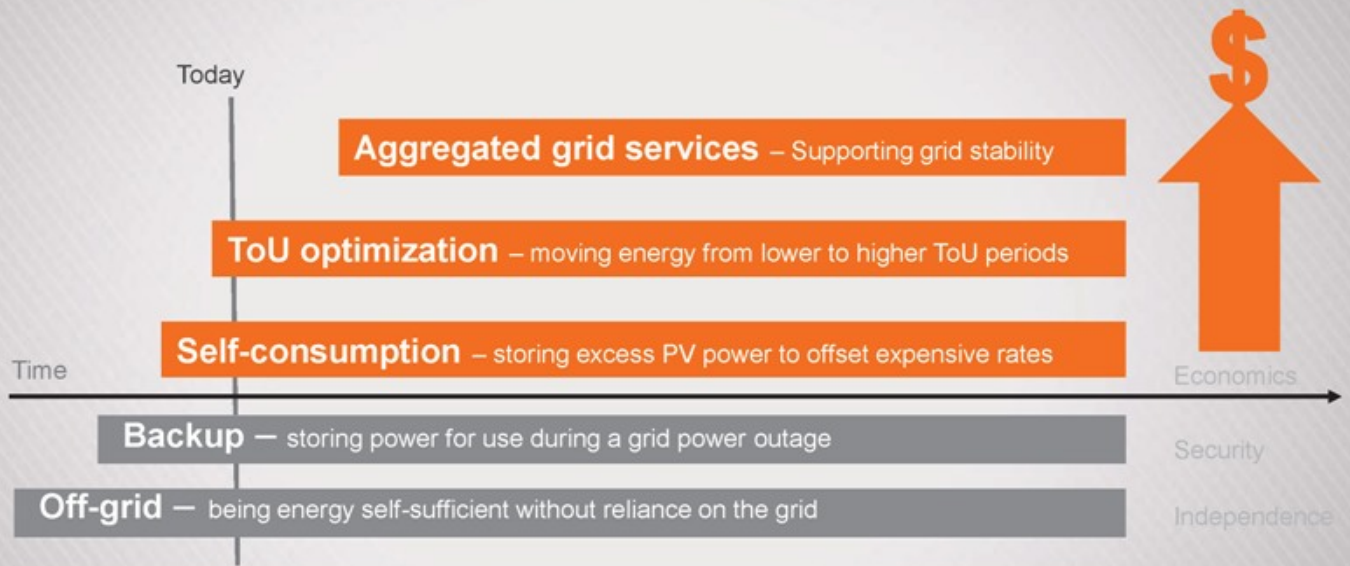
No need to replace existing inverters



DC coupled battery with string & DC optimizers

Must upsize inverter to accommodate battery

Evolution of use cases for storage





Stefan Zschiegner

VP of Product Management

Enlighten demo





Paul Nahi

President and CEO



Enphase goals

- [1] Invest in our next generation technology to reduce costs by 50% in 24 months, towards \$0.10 per Watt
- [2] Provide our partners with best-in-class power electronics, storage solutions, communications, and load control all managed by a cloud based energy management system

The Enphase Promise:

We make solar simple
and energy smart.