

# Enphase Energy, Inc.

NasdaqGM:ENPH

Analyst: Ryan Ahlers
Sector: Industrials

BUY
Price Target: \$16.50

# Key Statistics as of 3/31/15

Market Price: \$13.17

Industry: Electrical Equipment

Market Cap: \$580.58 M 52-Week Range: \$17.97 - \$6.82

Beta: 0.25

## Thesis Points:

- Increasing growth domestically and internationally
- Increasing customer diversification will fuel more revenue growth
- Continuous product innovation → industry leader
- Debt Free and increasing margins will add value

# **Company Description:**

Enphase Energy, Inc. develops and sells microinverter technology for the solar photovoltaic industry domestically (United States) and internationally. Enphase Energy is the first company to invent and create microinverters which contrast the conventional string and central solar inverters. The solar inverters are necessary to convert direct current (DC) generated by a single solar module to alternating current (AC) to power electronics. Enphase Energy is operated by a management team that has extensive background and knowledge in the field of energy electrical equipment. CEO, Paul Nahi, was previously CEO of two semiconductor companies prior to coming to Enphase. Co-founder and Chief Technology Officer, Martin Fornage, has extensive experience and research in designing cost effective electronics susceptible to harsh environments. Co-founder, Vice President of Products and Strategic Initiatives, Raghu Belur, has more than 20 years of experience in the clean energy technology industry. Enphase Energy sells its microinverters directly to installers, distributors and strategic partners. Enphase Energy, Inc. was founded in 2006 and is headquartered in Petaluma, California.



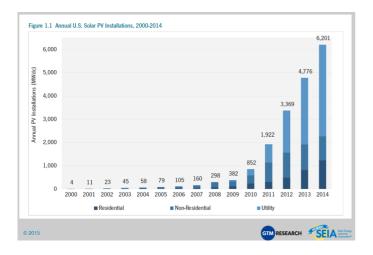


### Thesis

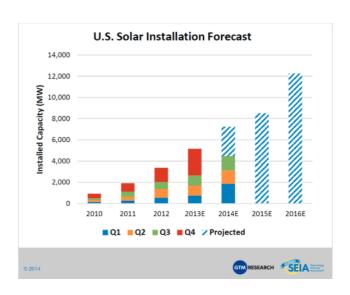
Enphase Energy is the leader in microinverter technology for the photovoltaic industry and will continue to be with their continuous product innovation. They have rapidly grown with revenue increasing 47% from 2013 to 2014. Enphase will continue to grow due to their increasing market share domestically and internationally. As well, Enphase is increasing their customer diversification by expanding to commercial businesses, fueling more growth. As Enphase moves forward in the next year margins are expected to improve as revenue grows and costs reduction plans continue.

### **Industry Outlook**

The solar energy industry has been rapidly growing over the past decade in the United States and worldwide. As can be seen in the graph below, the United States has increased their annual photovoltaic installations from 3,369 megawatts in 2012 to 4,776 megawatts in 2013 to 6,201 megawatts in 2014. This growth is attributed to strong demand from residential consumers, but even more from commercial consumers.



The growth among the solar technology industry is expected to continue into the near future as demand continues to increase and the price of photovoltaic cells decreases. As can be seen in the graph below, it is projected by 2016 the annual photovoltaic installations could increase to over 12,000 megawatts.



# Increasing Growth Domestically and Internationally

A major catalyst that will drive growth for Enphase Energy is their initiative to continue expanding domestically and internationally. According to Enphase CEO, Paul Nahi, "The global demand for solar continues to grow rapidly according to the International Energy Agency or IEA the world added more solar PV capacity during 2013 than in the previous four decades. The total global installed capacity was over 150 gigawatts in early 2014. The IEA envisions solar to be a dominant source of power generation in the world by 2050." Currently, Enphase Energy has a U.S. versus international mix of 85:15, which has been the ratio for the past year. By the end of 2015, management plans to have the ratio adjusted towards a mix of 80:20 and within 3-5 years a mix of 50:50.

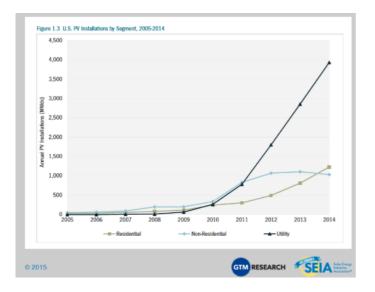
For instance, in the United Kingdom fourth quarter revenue increased 87% year-over-year and will continue to grow as Enphase expands their distribution channel with major residential installers. Australia and New Zealand also had a fourth quarter revenue increase of 25%. As Enphase increases their market share internationally, it allows for more opportunity for revenue growth.

## **Increasing Customer Diversification**

Enphase is currently selling to the seven out of the top-10 Tier 1 installers in the U.S. residential market. In addition, their market share is increasing with the Tier 2



installers as well as with the thousands of smaller installers across the country. Currently, the majority of Enphase Energy's customers are the residential and small commercial market, but Enphase is creating products to sell and accommodate the large commercial market as well. Entering into the large commercial market will be a huge catalyst for Enphase's revenue growth. Currently, about 85% of Enphase's revenue comes from the residential market and the remaining 15% comes from the small commercial market. This shows that there is a tremendous growth opportunity for Enphase in the overall commercial market, especially the large commercial market. In order to enter the large commercial market Enphase Energy microinverters to meet the specific needs of the market. CEO Paul Nahi explains, "The C250, the product we just introduced, is the product that is purposely built for large commercial market, it has the features and functions that we haven't had to address before. So, that will certainly change our presence in the large commercial market." As one can see in the graph below, commercial solar activity (the black line) is growing at an extreme rate and is a perfect opportunity for Enphase Energy to enter the large commercial solar market.



### **Continuous Product Innovation**

Enphase Energy is in the electrical equipment industry and as with anything technological there must be a constant effort for innovation in order to keep products updated. From 2013 – 2014 Enphase increased their Research & Development expense 31.5% from \$34.5 million to \$45.4 million in an effort to keep their

position as and industry leader.

Conveniently, Enphase Energy has recently released what their R&D expense has been going towards and where the company is headed: The Enphase Energy Management System. The Enphase Energy Management System will set Enphase apart even more from their competitors in the microinverter industry because they are positioning themselves to become more than just a microinverter provider. Ultimately, the management system will allow Enphase to enter the energy storage market, which is the idea of taking the energy produced from solar panels and storing the energy in batteries for when it is needed. What is exciting about this is the storage market, for residential/commercial use, does not really exist yet. CEO Paul Nahi explains, "This system offers powerful energy generation, plug and play storage, advanced control capabilities and load management to provide a better return on investment for system owners." The entire system adds new elements to solar energy, which has never been seen before in the market. Enphase Energy believes the storage business will be a multibillion-dollar market within the next five years and that it is essential in helping solar gain broader acceptance and higher penetration. Enphase Energy is the pioneer of the storage market and as it grows their revenue will grow, as well. The Enphase Energy Management System will be a major catalyst for the companies growth.

## Debt Free / Increasing Margins

When looking at the financials of Enphase Energy a notable feat is their debt was paid off in 2014. This debt free structure means there is no risk of not being able to pay interest payments, ridding Enphase of the possibility of default and they will have less expenses moving forward.

Another major catalyst and value driver for Enphase is management's goal to continue increasing margins. For example, Enphase has steadily increased their EBITDA margin to positive levels from -11.81 in 2012 to -6.52 in 2013 to 1.11 in 2014. As Enphase continues to innovate and create new products, they are also implementing a cost reduction plan for their products. Therefore, as Enphase grows and revenue increases, costs will be decreasing at the same time, increasing their margins. As Enphase's margins increase the value of Enphase will increase as well.



### Conclusion

Enphase Energy is the leader in microinverter technology, a necessity for the growing photovoltaic industry. They have constant innovation of new products and ideas that will keep them in front of their competitors. Enphase is rapidly increasing their growth both domestically and internationally, as well as increasing their customer diversification to penetrate the market even deeper to fuel growth. Management is doing all of this while staying debt free, controlling their costs and increasing their margins. Enphase Energy is a company that will continue to rapidly grow and innovate and because of these reasons the company is a BUY.

### Sources:

The Bloomberg Terminal
Capital IQ
SEIA.org
Enphase Energy Inc. Earnings Call Q3, Q4 2014
Enphase.com



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Enphase Energy, Inc.	enph	Analyst Ryan Ahlers	Current Price \$13.17	Intrinsic Value \$13.23	Target Value \$16.49	Divident Yield	Target Return	NEUTRAL
Gene	eral Info	Peers	Market Cap.	\$13.23	•	anagement	23,22/0	
Sector	Industrials	SolarCity Corporation	\$4,885.62	Professional	Title	Comp. FY2012	Comp. FY2013	Comp. FY2014
Industry	Electrical Equipment	First Solar, Inc.	\$6,086.72	Nahi, Paul	Chief Executive Officer, Preside	•	•	•
Last Guidance	Feb-17-2015	Acuity Brands, Inc.	\$7,484.27	Sennesael, Kris	Chief Financial Officer, Principa			
Next earnings date	NM	Fronius International GmbH		Loebbaka, Jeff	Senior Vice President of Global			
	cet Data	0	\$0.00	Fornage, Martin	Co-Founder and Chief Technol		\$ -	\$ -
Enterprise value	\$538.55	0	\$0.00	Belur, Raghuveer	Co-Founder and Vice President	- · · ·	\$ -	\$ -
Market Capitalization	\$580.58	0	\$0.00	Spencer, Darien	Vice President of Manufacturing	z \$ -	\$ -	\$ -
Daily volume	0.34	0	\$0.00	Historical Performance				
Shares outstanding	43.92	0	\$0.00		enph	Peers	Industry	All U.S. firms
Diluted shares outstanding	42.90	0	\$0.00	Growth	24.7%		6.0%	6.0%
% shares held by institutions	49.56%	Current Capital Str	ucture_	Retention Ratio	0.0%		40.9%	61.6%
% shares held by insiders	2.67%	Total debt/market cap	0.00%	ROIC			29.6%	11.8%
Short interest	11.84%	Cost of Borrowing	0.00%	EBITA Margin	0.0%	#VALUE!	11.3%	13.7%
Days to cover short interest	6.10	Interest Coverage	-227,00%	Revenues/Invested capital	156.1%		153.0%	202.3%
52 week high	\$17.97	Altman Z	3.64	Excess Cash/Revenue	#DIV/0!	#VALUE!	15.9%	18.5%
52-week low	\$6.82	Debt Rating	D	Unlevered Beta	-0.24	2.04	1.19	0.95
5y Beta	0.25	Levered Beta	1.22	TEV/REV	1.0x	2.07	2.0x	2.4x
6-month volatility	81.87%	WACC (based on market value weights)	8.55%	TEV/EBITDA	145.1x		10.9x	11.3x
o month volutiney		rning Surprises	0.5570	TEV/EBITA	113.11		13.4x	15.4x
	Revenue	EBITDA	Norm, EPS	TEV/UFCF			26.5x	26.8x
Last Quarter	4.8%	120.4%	133.3%	111,4,61,61	Non GA	AP Adjustments	20.04	20.04
Last Quarter-1	4.2%	22.0%	14.3%	Operating Leases Capitalization	100%	Straightline	10 y	ears
Last Quarter -2	14.8%	22.070	11.070	R&D Exp. Capitalization	100%	Straightline	10 y	
Last Quarter -3	3.6%			Expl./Drilling Exp. Capitalization		N/A	N/	
Last Quarter -4	0.9%			SG&A Capitalization	19%	Straightline	10 y	
,	*****	Proforma Assumptions		To the superior of the superio		Forecasted Pro		
		Period	Rev. Growth	Adj. Op. Cost/Rev	Revenue	NOPLAT	Invested capital	UFCF
Operating. Cash/Cash	0.0%	LTM	48%	83%	\$343.90	\$7.54	\$170.34	\$37.83
Unlevered Beta	1.19	LTM+1Y	26%	80%	\$433.82	\$24.11	\$263.22	-\$38.48
Rev/Invested Capital	153.0%	LTM+2Y	25%	77%	\$542.27	\$47.42	\$311.09	-\$0.45
Continuing Period Revenue Growth	3.0%	LTM+3Y	5%	77%	\$569.02	\$53.25	\$351.75	\$12.59
Long Term ROIC	14.9%	LTM+4Y	7%	77%	\$608.44	\$58.87	\$388.81	\$21.80
Invested Capital Growth	Equals to Maintenance	LTM+5Y	5%	77%	\$641.90	\$62.88	\$421.94	\$29.75
Justified TEV/REV	2.0x	LTM+6Y	5%	77%	\$671.62	\$66.54	\$457.16	\$31.31
Justified TEV/EBITDA	10.9x	LTM+7Y	4%	77%	\$698.93	\$69.82	\$482.40	\$44.58
Justified TEV/EBITA	13.4x	LTM+8Y	4%	77%	\$724.64	\$74.28	\$504.40	\$52.28
Justified TEV/UFCF	18.0x	LTM+9Y	3%	76%	\$749.26	\$77.95	\$524.55	\$57.80
	ROIC	WACC	<u>Valua</u> EVA	tion Enterprise Value	Total Debt	Other claims	Equity	Adjusted Price
LTM	3.8%	8.6%	-\$8.16	\$621.92	\$0.00	\$32.35	\$589.57	\$14.19
LTM+1Y	14.2%	8.6%	\$14.54	\$760.04	\$0.00	\$34.81	\$725.23	\$17.24
LTM+2Y	18.0%	8.7%	\$28.92	\$836.22	\$0.00	-\$9.19	\$845.41	\$19.85
LTM+3Y	17.1%	8.8%	\$29.16	\$891.40	\$0.00	-\$61.04	\$952.43	\$22.31
LTM+4Y	16.7%	8.9%	\$30.35	\$944.14	\$0.00	-\$119.38	\$1,063.52	\$24.85
LTM+5Y	16.2%	9.0%	\$30.17	\$993.20	\$0.00	-\$183.64	\$1,176.84	\$27.53
LTM+6Y	15.8%	9.1%	\$30.37	\$1,046.50	\$0.00	-\$248.24	\$1,294.74	\$30.13
LTM+7Y	15.3%	9.2%	\$29.17	\$1,091.18	\$0.00	-\$319.99	\$1,411.17	\$32.68
LTM+8Y	15.4%	9.3%	\$30.62	\$1,136.04	\$0.00	-\$373.67	\$1,509.71	\$34.94
LTM+9Y	15.5%	9.4%	\$31.67	\$1,179.38	\$0.00	-\$432.24	\$1,611.62	\$36.70
	D.	Monte Carlo Simulation Assu		M	Diving a	Mor	nte Carlo Simulation Re	
B 77 1 1	Base	Stdev	Min	Max	Distribution		Intrinsic Value	1y-Target
Revenue Variation	0	10%	N/A	N/A	Normal	Mean est.	\$14.19	\$17.24
Op. Costs Variation	0	10%	N/A	N/A	Normal	σ(ε)	\$0.32	\$0.25
Market Risk Premium	5%	N/A	5%	7%	Triangular	3 σ(ε) adjusted price	\$13.23	\$16.49
Long term Growth	3%	N/A	3%	25%	Triangular	Current Price	\$13.17	
Terminal Value	0	0.1	N/A	N/A	Normal	Analysts' median est.		\$17.06