

STALEY WARREN R  
Form 4  
January 14, 2005

**FORM 4**

UNITED STATES SECURITIES AND EXCHANGE COMMISSION  
Washington, D.C. 20549

OMB APPROVAL

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Check this box if no longer subject to Section 16. Form 4 or Form 5 obligations may continue. See Instruction 1(b).

**STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP OF SECURITIES**

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934, Section 17(a) of the Public Utility Holding Company Act of 1935 or Section 30(h) of the Investment Company Act of 1940

(Print or Type Responses)

1. Name and Address of Reporting Person \*  
STALEY WARREN R

(Last) (First) (Middle)  
1000 NICOLLET MALL  
(Street)  
MINNEAPOLIS, MN 55403  
(City) (State) (Zip)

2. Issuer Name and Ticker or Trading Symbol  
TARGET CORP [TGT]

3. Date of Earliest Transaction  
(Month/Day/Year)  
01/12/2005

4. If Amendment, Date Original Filed(Month/Day/Year)

5. Relationship of Reporting Person(s) to Issuer

(Check all applicable)

Director  10% Owner  
 Officer (give title below)  Other (specify below)

6. Individual or Joint/Group Filing(Check Applicable Line)  
 Form filed by One Reporting Person  
 Form filed by More than One Reporting Person

**Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned**

1. Title of Security (Instr. 3)	2. Transaction Date (Month/Day/Year)	2A. Deemed Execution Date, if any (Month/Day/Year)	3. Transaction Code (Instr. 8)	4. Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5)	5. Amount of Securities Beneficially Owned Following Reported Transaction(s) (Instr. 3 and 4)	6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	7. Nature of Ownership (Instr. 4)
Common Stock, \$.0833 per share				(A) or (D) Price	2,778	D	

Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly.

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SEC 1474 (9-02)

**Table II - Derivative Securities Acquired, Disposed of, or Beneficially Owned (e.g., puts, calls, warrants, options, convertible securities)**

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1. Title of Derivative Security (Instr. 3)	2. Conversion or Exercise Price of Derivative Security	3. Transaction Date (Month/Day/Year)	3A. Deemed Execution Date, if any (Month/Day/Year)	4. Transaction Code (Instr. 8)	5. Number of Derivative Securities Acquired (A) or Disposed of (D) (Instr. 3, 4, and 5)	6. Date Exercisable and Expiration Date (Month/Day/Year)	7. Title and Amount of Underlying Securities (Instr. 3 and 4)	8. Amount or Number of Shares
Stock Option (1)	\$ 49.43	01/12/2005		A	8,093	01/12/2006 01/12/2015	Common Stock	8,093

## Reporting Owners

Reporting Owner Name / Address	Relationships			
	Director	10% Owner	Officer	Other
STALEY WARREN R 1000 NICOLLET MALL MINNEAPOLIS, MN 55403		X		

## Signatures

By: Jeffrey A. Proulx, Attorney-In-Fact  
Date: 01/14/2005

\*\*Signature of Reporting Person

Date

## Explanation of Responses:

\* If the form is filed by more than one reporting person, see Instruction 4(b)(v).

\*\* Intentional misstatements or omissions of facts constitute Federal Criminal Violations. See 18 U.S.C. 1001 and 15 U.S.C. 78ff(a).

(1) Option granted under the Target Corporation Long-Term Incentive Plan in a transaction exempt under Rule 16b-3.

Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, see Instruction 6 for procedure.

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(32,953

)

(21,160

)

Investing activities:

Purchases of property and equipment

Reporting Owners

(4,121  
)

(12,167  
)

(12,525  
)

Purchases of intangible assets

—

(678  
)

(237  
)

Business divestitures

—

1,050

—

Change in restricted cash

—

—

300

Net cash used in investing activities

(4,121  
)

(11,795  
)

(12,462  
)

Financing activities:

Proceeds from common stock offerings, net of issuance costs

Explanation of Responses:

26,425

16,142

—

Proceeds from debt, net of issuance costs

26,442

23,989

—

Proceeds from borrowings under revolving credit facility

—

10,000

46,000

Payments under revolving credit facility

(10,100

)

(16,900

)

(29,150

)

Holdback payment related to prior acquisition

—

—

(300

)

Proceeds from issuance of common stock under employee stock plans

530

1,144

Explanation of Responses:

4,014

Net cash provided by financing activities

43,297

34,375

20,564

Effect of exchange rate changes on cash

646

(315

)

(522

)

Net increase (decrease) in cash and cash equivalents

11,380

(10,688

)

(13,580

)

Cash and cash equivalents — Beginning of year

17,764

28,452

42,032

Cash and cash equivalents — End of year

\$

29,144

\$

17,764

\$

28,452

Supplemental cash flow disclosure:

Explanation of Responses:

Cash paid for interest

\$

5,816

\$

2,704

\$

358

Cash paid for income taxes

\$

909

\$

1,146

\$

594

Noncash financing and investing activities:

Offering and loan costs included in accrued liabilities

\$

—

\$

518

\$

—

Purchases of fixed and intangible assets included in accounts payable

\$

551

Explanation of Responses:

\$  
700

\$  
1,718

See Notes to Consolidated Financial Statements.

56

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Table of Contents

ENPHASE ENERGY, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS  
YEARS ENDED DECEMBER 31, 2017, 2016 and 2015

1. DESCRIPTION OF BUSINESS

Enphase Energy, Inc. and subsidiaries (the “Company”) delivers simple, innovative and reliable energy management solutions that advance the worldwide potential of renewable energy. The Company’s semiconductor-based microinverter system converts direct current (DC) electricity to alternating current (AC) electricity at the individual solar module level, and brings a system-based, high technology approach to solar energy generation leveraging our design expertise across power electronics, semiconductors, networking, and cloud-based software technologies. Since inception, the Company has shipped more than 16 million microinverters, representing over 3 gigawatts of solar photovoltaic (PV) generating capacity, and more than 739,000 Enphase residential and commercial systems have been deployed in over 110 countries.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Basis of Presentation and Consolidation

The accompanying consolidated financial statements are prepared in accordance with accounting principles generally accepted in the United States (“US GAAP”). The consolidated financial statements include the accounts of the Company and its wholly-owned subsidiaries. All intercompany balances and transactions have been eliminated in consolidation.

The Company has taken and continues to take actions to improve its financial stability. Such actions include accessing additional capital, reducing its operating expense structure and substantially transitioning to its next generation of microinverters, which offer increased functionality and have a reduced cost profile.

The restructuring actions taken by the Company resulted in a \$38.4 million reduction in ongoing operating expenses (excluding restructuring charges of \$16.9 million and \$3.8 million for the years ended December 31, 2017 and 2016, respectively) for the year ended December 31, 2017 as compared to 2016.

In February of 2018 the Company raised an additional \$20.0 million through a private placement of the Company’s common stock and also reached an agreement with its lender to defer approximately 50% of the principal payments due in 2018 under its term loans, with the deferred principal being amortized over the remaining term of the loan. The Company’s management has considered the factors noted above and has concluded that substantial doubt as to its ability to continue as a going concern does not exist at the time of filing its Annual Report on Form 10-K for the period ended December 31, 2017.

Use of Estimates

The preparation of the Company’s consolidated financial statements in conformity with US GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of income and expenses during the reporting period. These estimates are based on information available as of the date of the financial statements; therefore, actual results could differ materially from management’s estimates using different assumptions or under different conditions.

Revenue Recognition

Explanation of Responses:



The Company generates revenue from sales of its microinverter systems, which include microinverter units and related accessories, an Envoy communications gateway, the cloud-based Enlighten monitoring service, and AC Battery storage solutions to distributors, large installers, OEMs and strategic partners. Enlighten service revenue represented less than 2% of the total revenues for all periods presented.

57

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## Table of Contents

Revenue from sales of the Company's products is recognized when: (i) persuasive evidence of an arrangement exists; (ii) delivery of the products has occurred in accordance with the terms of the sales agreement and title and risk of loss have passed to the customer; (iii) the sale price is fixed or determinable; and (iv) collection is reasonably assured. Provisions for rebates, sales incentives, and discounts to customers are accounted for as reductions in revenue in the same period the related sales are recorded.

Sales of an Envoy communications gateway include the Enlighten cloud-based monitoring service. The allocation of revenue between the two deliverables is based on the Company's best estimate of selling price determined by considering multiple factors including internal costs, gross margin and historical pricing practices. After allocating the overall consideration from such sale to each deliverable using a best estimate of the selling price, revenue from the sale of Envoy hardware devices is recognized upon shipment, assuming all other revenue recognition criteria have been met. Through September 30, 2017 the estimated economic life of the related Envoy devices was used to determine the period over which revenue from the cloud-based monitoring service was recognized as adequate historical user data was not available. During the fourth quarter of 2017 the Company determined historical user data was available to adequately assess the period over which the service obligation was met. As a result, the Company shortened the estimated service period of the Enlighten from 10 years to 6.5 years effective October 1, 2017. The impact of the change is estimate was an increase to revenue and earnings in the fourth quarter of 2017 of approximately \$2.6 million and a reduction of net loss per share of approximately \$0.03.

Deferred revenues consist of payments received from customers in advance of revenue recognition for the Company's products and services as described above. As of December 31, 2017 and 2016, deferred revenues consist primarily of Enlighten service revenue.

## Cost of Revenues

The Company includes the following in cost of revenues: product costs, warranty, manufacturing personnel and logistics costs, freight costs, inventory write-downs, hosting services costs related to the Company's Enlighten service offering, and depreciation and amortization of manufacturing test equipment.

## Cash and Cash Equivalents

The Company considers all highly liquid investments, such as certificates of deposit and money market instruments with maturities of three months or less at the time of acquisition to be cash equivalents. For all periods presented, its cash balances consist of amounts held in non-interest-bearing deposits and money market accounts.

## Fair Value of Financial Instruments

The carrying amounts of the Company's cash and cash equivalents, accounts receivable, accounts payable and accrued liabilities approximate fair value because of the short maturity of those instruments.

## Allowances for Doubtful Accounts

The Company maintains allowances for doubtful accounts for uncollectible accounts receivable. Management estimates anticipated losses from doubtful accounts based on days past due, collection history and the financial health of customers. The allowance for doubtful accounts was \$2.4 million and \$2.9 million at December 31, 2017 and 2016, respectively. The following table sets forth activities in the allowance for doubtful accounts for the periods indicated (in thousands):

December 31,

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	2017	2016	2015
Balance, at beginning of year	\$2,921	\$1,808	\$569
Net charges to expenses	476	3,097	1,502
Write-offs, net of recoveries	(1,019 )	(1,984 )	(263 )
Balance, at end of year	\$2,378	\$2,921	\$1,808

58

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## Table of Contents

### Inventory

Inventory is valued at the lower of cost or market. Market is current replacement cost (by purchase or by reproduction, dependent on the type of inventory). In cases where market exceeds net realizable value (i.e., estimated selling price less reasonably predictable costs of completion and disposal), inventories are stated at net realizable value. Market is not considered to be less than net realizable value reduced by an allowance for an approximately normal profit margin. The Company determines cost on a first-in first-out basis. Management assesses the valuation on a quarterly basis and writes down the value for any excess and obsolete inventory based upon expected demand, anticipated sales price, effect of new product introductions, product obsolescence, customer concentrations, product merchantability and other factors. Inventory write-downs are equal to the difference between the cost of inventories and market.

### Property and Equipment

Property and equipment are stated at cost less accumulated depreciation. Cost includes amounts paid to acquire or construct the asset as well as any expenditure that substantially adds to the value of or significantly extends the useful life of an existing asset. Repair and maintenance costs are expensed as incurred. Depreciation and amortization is computed using the straight-line method over the estimated useful lives of the assets, which range from three to ten years. Leasehold improvements are amortized over the shorter of the lease term or expected useful life of the improvements.

### Capitalized Software Costs

Internally used software, whether purchased or developed, is capitalized and amortized on a straight-line basis over its estimated useful life. Costs associated with internally developed software are expensed until the point at which the project has reached the development stage. Subsequent additions, modifications or upgrades to internal-use software are capitalized only to the extent that they provide additional functionality. Software maintenance and training costs are expensed in the period in which they are incurred. The capitalization of software requires judgment in determining when a project has reached the development stage and the period over which the Company expects to benefit from the use of that software.

### Long-Lived Assets

Property, plant and equipment, including capitalized software costs, are recorded at cost. Property, plant and equipment amounts are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset (asset group) may not be recoverable. An impairment loss would be recognized when the carrying amount of an asset exceeds the estimated undiscounted future cash flows expected to result from the use of the asset and its eventual disposition. The amount of the impairment loss to be recorded is calculated by the excess of the asset's carrying value over its fair value. Fair value is generally determined using a discounted cash flow analysis. The Company recorded asset impairment charges for specific assets that were no longer in use of approximately \$0.8 million and \$2.6 million for the years ended December 31, 2017 and 2016, respectively. The fair value of the remaining assets is in excess of the carrying value.

### Goodwill

Goodwill results from the purchase consideration paid in excess of the fair value of the net assets recorded in connection with a business acquisition. Goodwill is not amortized, but is assessed for potential impairment at least annually during the fourth quarter of each fiscal year or between annual tests if an event occurs or circumstances change that would indicate the carrying amount may be impaired. Goodwill is tested at the reporting unit level, which

the Company has determined to be the same as the entity as a whole (entity level). Once goodwill has been assigned to a reporting unit, it is no longer associated with a particular acquisition; therefore, all of the activities within a reporting unit, whether acquired or organically grown, are available to support the goodwill value. Based on management's goodwill impairment tests, there was no impairment of goodwill in any of the years presented.

#### Intangible Assets

Intangible assets include patents and other purchased intangible assets. Intangible assets with finite lives are amortized on a straight-line basis, with estimated useful lives ranging from 3 to 5 years. Indefinite-lived

Table of Contents

intangible assets are tested for impairment annually and are also tested for impairment between annual tests if an event occurs or circumstances change that would indicate that the carrying amount may be impaired. Intangible assets with finite lives are tested for impairment whenever events or circumstances indicate that the carrying amount of an asset (asset group) may not be recoverable. An impairment loss is recognized when the carrying amount of an asset exceeds the estimated undiscounted cash flows used in determining the fair value of the asset. The amount of the impairment loss to be recorded is calculated by the excess of the asset's carrying value over its fair value. Fair value is generally determined using a discounted cash flow analysis. There was no impairment of intangible assets in any of the years presented.

## Warranty Obligations

## Microinverters Sold Through December 31, 2013

The Company's warranty accrual provides for the replacement of microinverter units that fail during the product's warranty term (15 years for first and second generation microinverters and up to 25 years for third and fourth generation microinverters). On a quarterly basis, the Company employs a consistent, systematic and rational methodology to assess the adequacy of its warranty liability. This assessment includes updating all key estimates and assumptions for each generation of product, based on historical results, trends and the most current data available as of the filing date. The key estimates and assumptions used in the warranty liability are thoroughly reviewed by management on a quarterly basis. The key estimates used by the Company to estimate its warranty liability are: (1) the number of units expected to fail over time (i.e. failure rate); (2) the number of failed units expected to result in warranty claims over time (i.e. claim rate); and (3) the per unit cost of replacement units, including outbound shipping and limited labor costs, expected to be incurred to replace failed units over time (i.e. replacement cost).

**Estimated Failure Rates**—The Company's Quality and Reliability department has primary responsibility to determine the estimated failure rates for each generation of microinverter. To establish initial failure rate estimates for each generation of microinverter, the Company's quality engineers use a combination of industry standard MTBF (Mean Time Between Failure) estimates for individual components contained in its microinverters, third party data collected on similar equipment deployed in outdoor environments similar to those in which the Company's microinverters are installed, and rigorous long term reliability and accelerated life cycle testing which simulates the service life of the microinverter in a short period of time. As units are deployed into operating environments, the Company continues to monitor product performance via its Enlighten monitoring platform. It typically takes three to nine months between the date of sale and date of end-user installation. Consequently, the Company's ability to monitor actual failures of units sold similarly lags by three to nine months. When a microinverter fails and is returned, the Company performs diagnostic root cause failure analysis to understand and isolate the underlying mechanism(s) causing the failure. The Company then uses the results of this analysis (combined with the actual, cumulative performance data collected on those units prior to failure via Enlighten) to draw conclusions with respect to how or if the identified failure mechanism(s) will impact the remaining units deployed in the installed base.

**Estimated Claim Rates**—Warranty claim rate estimates are based upon assumptions with respect to expected customer behavior over the warranty period. As the vast majority of the Company's microinverters have been sold to end users for residential applications, the Company believes that warranty claim rates will be affected by changes over time in residential home ownership because the Company expects that subsequent homeowners are less likely to file claims than the homeowners who originally purchase the microinverters.

**Estimated Replacement Costs**—three factors are considered in the Company's analysis of estimated replacement cost: (1) the estimated cost of replacement microinverters; (2) the estimated cost to ship replacement microinverters to end users; and (3) the estimated labor reimbursement expected to be paid to third party installers performing replacement services for the end user. Because the Company's warranty provides for the replacement of defective microinverters over long periods of time (between 15 and 25 years, depending on the generation of product purchased), the estimated per unit cost of current and future product generations is considered in the estimated replacement cost. Estimated costs to ship replacement units are based on observable, market-based shipping costs paid by the Company to third party

freight carriers. The Company has a separate program that allows third-party installers to claim fixed-dollar reimbursements for labor costs they incur to replace failed microinverter units for a limited time from the date of original installation. Included in the

60

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## Table of Contents

Company's estimated replacement cost is an analysis of the number of fixed-dollar labor reimbursements expected to be claimed by third party installers over the limited offering period.

In addition to the key estimates noted above, the Company also compares actual warranty results to expected results and evaluates any significant differences. Management may make additional adjustments to the warranty provision based on performance trends or other qualitative factors. If actual failure rates, claim rates, or replacement costs differ from the Company's estimates in future periods, changes to these estimates may be required, resulting in increases or decreases in the Company's warranty obligations. Such increases or decreases could be material.

### Fair Value Option for Microinverters Sold Since January 1, 2014

The Company's warranty obligations related to microinverters sold since January 1, 2014 provide the Company the right, but not the requirement, to assign its warranty obligations to a third-party. Under Accounting Standards Codification ("ASC") 825—Financial Instruments, ("fair value option"), an entity may choose to elect the fair value option for such warranties at the time it first recognizes the eligible item. The Company made an irrevocable election to account for all eligible warranty obligations associated with microinverters sold since January 1, 2014 at fair value. This election was made to reflect the underlying economics of the time value of money for an obligation that will be settled over an extended period of up to 25 years.

The Company estimates the fair value of warranty obligations by calculating the warranty obligations in the same manner as for sales prior to January 1, 2014 and applying an expected present value technique to that result. The expected present value technique, an income approach, converts future amounts into a single current discounted amount. In addition to the key estimates of failure rates, claim rates and replacement costs, the Company used certain inputs that are unobservable and significant to the overall fair value measurement. Such additional assumptions included compensation comprised of a profit element and risk premium required of a market participant to assume the obligation and a discount rate based on the Company's credit-adjusted risk-free rate. See Note 8, ("Fair Value Measurements") for additional information.

Warranty obligations initially recorded at fair value at the time of sale will be subsequently re-measured to fair value at each reporting date. In addition, the fair value of the liability will be accreted over the corresponding term of the warranty of up to 25 years using the interest method.

### Warranty for Other Products

The Company offers a 5 year warranty for its Envoy communications gateway and a 10 year warranty on its AC Battery storage solution. The warranties provide the Company with the right, but not the obligation, to assign its warranty obligations to a third-party. As such, warranties for Envoy and AC Battery storage solution products are accounted for under the fair value method of accounting.

### Research and Development Costs

The Company expenses research and development costs as incurred. Research and development costs totaled \$33.2 million, \$50.7 million and \$50.8 million in 2017, 2016 and 2015, respectively.

### Stock-Based Compensation

Share-based payments are required to be recognized in the Company's consolidated statements of operations based on their fair values and the estimated number of shares expected to vest. The Company measures stock-based compensation expense for all share-based payment awards, including stock options made to employees and directors, based on the estimated fair values on the date of the grant. The fair value of stock options granted is estimated using

### Explanation of Responses:



the Black-Scholes option valuation model. The fair value of restricted stock units granted is determined based on the price of the Company's common stock on the date of grant. Stock-based compensation, net of estimated forfeitures, is recognized on a straight-line basis over the requisite service period, which is typically four years.

61

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## Table of Contents

### Comprehensive Loss

Comprehensive loss consists of two components, net loss and other comprehensive income (loss). Other comprehensive income (loss) refers to gains and losses that are recorded as an element of stockholders' equity but are excluded from net income. The Company's other comprehensive income (loss) consists of foreign currency translation adjustments for all periods presented.

### Income Taxes

The Company records income taxes using the asset and liability method, which requires the recognition of deferred tax assets and liabilities for the expected tax consequences of temporary differences between the tax bases of assets and liabilities for financial reporting purposes and amounts recognized for income tax purposes. In estimating future tax consequences, generally all expected future events other than enactments or changes in the tax law or rates are considered. Valuation allowances are provided when necessary to reduce deferred tax assets to the amount expected to be realized.

The Company operates in various tax jurisdictions and is subject to audit by various tax authorities. The Company follows accounting for uncertainty in income taxes which requires that the tax effects of a position be recognized only if it is "more likely than not" to be sustained based solely on its technical merits as of the reporting date. The Company considers many factors when evaluating and estimating its tax positions and tax benefits, which may require periodic adjustments and which may not accurately anticipate actual outcomes.

### Recently Adopted Accounting Pronouncements

In July 2015, the FASB issued ASU 2015-11, "Simplifying the Measurement of Inventory," which requires most entities to measure most inventories at the lower of cost or net realizable value ("NRV"). This simplifies the evaluation from the current method of lower of cost or market, where market is based on one of three measures (i.e. replacement cost, net realizable value, or net realizable value less a normal profit margin). ASU 2015-11 does not apply to inventories measured under the last-in, first-out method or the retail inventory method, and defines NRV as the "estimated selling price in the ordinary course of business, less reasonably predictable costs of completion, disposal, and transportation." This standard, which was adopted in the first quarter of 2017, did not have a material impact on the consolidated financial statements.

In March 2016, the FASB issued ASU 2016-09, "Improvements to Employee Share-Based Payment Accounting," which will simplify the income tax consequences, accounting for forfeitures and classification on the Statements of Consolidated Cash Flows. This standard, which was adopted in the first quarter of 2017, did not have a material impact on the consolidated financial statements.

In January 2017, the FASB issued ASU 2017-04, "Intangibles-Goodwill and Other (Topic 350): Simplifying the Test for Goodwill Impairment." This ASU simplifies the subsequent measurement of goodwill, the FASB eliminated Step 2 from the goodwill impairment test. Under the amendments in this ASU, an entity should perform its annual, or interim, goodwill impairment test by comparing the fair value of a reporting unit with its carrying amount. An entity should recognize an impairment charge for the amount by which the carrying amount exceeds the reporting unit's fair value; however, the loss recognized should not exceed the total amount of goodwill allocated to that reporting unit. Additionally, an entity should consider income tax effects from any tax deductible goodwill on the carrying amount of the reporting unit when measuring the goodwill impairment loss, if applicable. The FASB also eliminated the requirements for any reporting unit with a zero or negative carrying amount to perform a qualitative assessment and, if it fails that qualitative test, to perform Step 2 of the goodwill impairment test. Therefore, the same impairment

assessment applies to all reporting units. An entity is required to disclose the amount of goodwill allocated to each reporting unit with a zero or negative carrying amount of net assets. An entity still has the option to perform the qualitative assessment for a reporting unit to determine if the quantitative impairment test is necessary. A public business entity that is an SEC filer should adopt the amendments in this Update for its annual or any interim goodwill impairment tests in fiscal years beginning after December 15, 2019. Early adoption is permitted for interim or annual goodwill impairment tests performed on testing dates after January 1, 2017. ASU 2017-04 was early adopted by the Company for the year beginning January 1, 2017. The Company has a single reporting unit, and adoption of the standard did not have a material impact on the Company's consolidated financial statements.

Table of Contents

Recent Accounting Pronouncements Not Yet Effective

In May 2014, the FASB issued ASU 2014-09, Revenue from Contracts with Customers: Topic 606 and issued subsequent amendments to the initial guidance in August 2015, March 2016, April 2016, May 2016 and December 2016, collectively “Topic 606”). Topic 606 supersedes nearly all existing revenue recognition guidance under GAAP. The standard is effective for and was adopted by the Company on January 1, 2018.

The updated standard’s core principle is that revenue is recognized when the customer obtains control of promised goods or services in an amount that reflects the consideration to which an entity expects to be received in exchange for those goods or services. The standard generally requires an entity to identify performance obligations in its contracts, estimate the amount of variable consideration to be received in the transaction price, allocate the transaction price to each separate performance obligation, and recognize revenue as obligations are satisfied. In addition, the updated standard requires additional disclosure about the nature, amount, timing and uncertainty of revenue and cash flows arising from customer contracts.

The guidance permits two methods of adoption, the full retrospective method applying the standard to each prior reporting period presented, or the modified retrospective method with a cumulative effect of initially applying the guidance recognized at the date of initial application. The Company will adopt the standard using the modified retrospective method with a cumulative catch up adjustment to accumulated deficit and will provide additional disclosures comparing results to previous GAAP in its 2018 consolidated financial statements.

The most significant impacts upon adoption of the standard will be how the Company accounts for revenue related to its envoy communications device and related enlighten service and the timing of when certain sales incentives will be recognized. Under ASC 605 the Company’s monitoring hardware and service are considered two units of accounting with a portion of the consideration related to the hardware recognized upfront and the remaining deferred over the estimated service period. Under ASC 606 the full consideration for these products represents a single performance obligation and is deferred over the estimated service period. This treatment will result in an increase in deferred revenue of approximately \$77 million, an increase in deferred costs of approximately \$43 million and an increase in accumulated deficit of approximately \$34 million upon adoption of ASC 606.

Under ASC 605 the Company recorded certain contra revenue promotions at the later of the date revenue was recognized or the date at which the promotional offer was extended. Under ASC 606 all such contra revenue programs will be treated as variable consideration and recognized at the time the related revenue is recorded. This change in timing will result in an increase in accrued liabilities of approximately \$6 million and an increase to accumulated deficit in the same amount upon adoption of ASC 606. The change in accounting treatment affects the timing of the recognition of certain contra revenue programs, but the overall income statement impact of this new accounting method is expected to be immaterial.

Under ASC 605, the Company expensed commission costs as incurred. The new standard requires upfront contract acquisition costs, such as sales commissions, to be capitalized and amortized over the estimated life of the asset. Under the new guidance, the Company will utilize the practical expedient permitting expensing of costs to obtain a contract when the expected amortization period is one year or less, which typically results in expensing commissions paid. Commissions related to the Company’s sale of monitoring hardware and service will be capitalized and amortized over the period of the associated revenue, which is 6.5 years. This treatment will result in an increase in deferred costs of approximately \$0.8 million and an increase in accumulated deficit by the same amount upon adoption of ASC 606. The amortization of these deferred costs is immaterial to the Company’s income statement.

The Company does not expect the adoption of ASC 606 to have a material impact on the amount or timing of revenue recognition related to specific customer contracts.

In January 2016, the FASB issued ASU 2016-01, "Recognition and Measurement of Financial Assets and Financial Liabilities," which amends certain aspects of recognition, measurement, presentation, and disclosure of financial instruments. Changes to the current guidance include the accounting for equity investments, the presentation and disclosure requirements for financial instruments, and the assessment of valuation allowance on

Table of Contents

deferred tax assets related to available-for-sale securities. In addition, ASU 2016-01 establishes an incremental recognition and disclosure requirement related to the presentation of fair value changes of financial liabilities for which the fair value option has been elected. Under this guidance, an entity would be required to separately present in other comprehensive income the portion of the total fair value change attributable to instrument-specific credit risk as opposed to reflecting the entire amount in earnings. ASU 2016-01 is effective for fiscal years and interim periods beginning after December 15, 2017, and upon adoption, an entity should apply the amendments by means of a cumulative-effect adjustment to the balance sheet at the beginning of the first reporting period in which the guidance is effective. Early adoption is not permitted except for the provision to record fair value changes for financial liabilities under the fair value option resulting from instrument-specific credit risk in other comprehensive income. The Company does not expect the adoption of this standard to have a material impact on the consolidated financial statements.

In February 2016, the FASB issued Accounting Standards Codification (“ASC”) 842 (“ASC 842”), “Leases” which replaces the existing guidance in ASC 840, Leases. ASC 842 is effective for fiscal years, and interim periods within those years, beginning after December 15, 2018. ASC 842 requires a dual approach for lessee accounting under which a lessee would account for leases as finance leases or operating leases. Both finance leases and operating leases will result in the lessee recognizing a right-of-use (ROU) asset and a corresponding lease liability. For finance leases the lessee would recognize interest expense and amortization of the ROU asset and for operating leases the lessee would recognize a straight-line total lease expense. The Company is currently evaluating the impact of adoption on the consolidated financial statements.

In November 2016, the FASB issued Accounting Standards Update No. 2016-18 (ASU 2016-18), “Statement of Cash Flows,” which requires companies to include amounts generally described as restricted cash and restricted cash equivalents in cash and cash equivalents when reconciling beginning-of-period and end-of-period total amounts shown on the statement of cash flows. ASU 2016-18 is effective for fiscal years, and interim periods within those years, beginning after December 15, 2017. The Company does not expect the adoption of this guidance to have a material impact on the consolidated financial statements.

In May 2017, the FASB issued ASU 2017-09 (ASU 2017-09), "Compensation - Stock Compensation." ASU 2017-09 was issued to provide clarity and reduce both 1) diversity in practice and 2) cost and complexity when applying the guidance in Topic 718 to a change in the terms or conditions of a share-based payment award. ASU 2017-09 provides guidance about which changes to the terms or conditions of a share-based payment award require an entity to apply modification accounting under Topic 718. ASU 2017-09 is effective for fiscal years, and interim periods within those years, beginning after December 15, 2017. The Company is currently evaluating the impact of adoption on the consolidated financial statements.

### 3. INVENTORY

Inventory as of December 31, 2017 and 2016, consists of the following (in thousands):

	December 31,	
	2017	2016
Raw materials	\$2,341	\$5,095
Finished goods	23,658	26,865
Total inventory	\$25,999	\$31,960



Table of Contents

## 4. PROPERTY AND EQUIPMENT, NET

As of December 31, 2017 and 2016, property and equipment consists of the following (in thousands):

	Estimated Useful Life (Years)	December 31,	
		2017	2016
Equipment and machinery	7-10	\$41,148	\$38,486
Furniture and fixtures	5-7	2,188	2,635
Computer equipment	3-5	2,627	2,913
Capitalized software costs	3-5	11,749	11,324
Leasehold improvements	4-10	8,537	9,477
Construction in process		4,672	6,275
Total		70,921	71,110
Less accumulated depreciation and amortization		(44,438 )	(39,670 )
Property and equipment, net		\$26,483	\$31,440

Depreciation expense for property and equipment was \$8.6 million, \$10.0 million and \$8.1 million, in 2017, 2016 and 2015, respectively.

As of December 31, 2017 and 2016, unamortized capitalized software costs were \$1.1 million and \$1.9 million, respectively.

## 5. GOODWILL AND INTANGIBLE ASSETS

	December 31, 2017			December 31, 2016		
	Gross	Accumulated Amortization	Net	Gross	Accumulated Amortization	Net
Goodwill	\$3,664	\$ —	\$3,664	\$3,664	\$ —	\$3,664
Other indefinite-lived intangibles	\$286	\$ —	\$286	\$286	\$ —	\$286
Intangibles assets with finite lives:						
Patents and licensed technology	1,665	(1,436 )	229	1,665	(1,006 )	659
Total purchased intangibles	\$1,951	\$ (1,436 )	\$515	\$1,951	\$ (1,006 )	\$945

In July 2014, the Company purchased certain patents related to system interconnection and photovoltaic AC module construction. The patents were amortized over their legal life of 3 years. In October 2015, the Company licensed certain technology related to ASIC development for a 3-year term.

The aggregate amortization expense for intangibles assets was \$0.4 million, \$0.7 million and \$0.5 million for the years ended December 31, 2017, 2016 and 2015, respectively. The remaining \$0.2 million of patents and licensed technology will be amortized in 2018.



Table of Contents

## 6. ACCRUED LIABILITIES

As of December 31, 2017 and 2016 accrued liabilities consists of the following (in thousands):

	December 31,	
	2017	2016
Salaries, commissions, incentive compensation and benefits	\$3,608	\$4,227
Customer rebates and sales incentives	8,988	11,786
Freight	3,853	2,321
Other	5,998	4,603
Total	\$22,447	\$22,937

## 7. WARRANTY OBLIGATIONS

The Company's warranty activities during 2017, 2016 and 2015 were as follows (in thousands):

	December 31,		
	2017	2016	2015
Balance, at beginning of year	\$31,414	\$30,547	\$33,940
Accruals for warranties issued during the year	3,797	4,130	4,383
Changes in estimates	(732 )	2,562	31
Settlements	(7,037 )	(8,523 )	(7,269 )
Increase due to accretion expense	2,053	1,772	1,001
Fair value adjustments	321	926	(1,539 )
Balance, at end of year	29,816	31,414	30,547
Less current portion	(7,427 )	(8,596 )	(7,072 )
Long-term portion	\$22,389	\$22,818	\$23,475

The Company sold approximately 1.0 million first and second generation microinverters from 2008 through mid-2012. The Company has sold approximately 3.9 million third generation microinverters since mid-2012 through mid-2015. The Company has sold approximately 10.2 million of its fourth generation microinverters, which were introduced in mid-2013 and are still being sold. The Company began selling its IQ series microinverters in 2017, sales of which totaled approximately 1.2 million units.

## Changes in Estimates

On a quarterly basis, the Company uses the best and most complete underlying information available, following a consistent, systematic and rational methodology to determine its warranty obligations. The Company considers all available evidence to assess the reasonableness of all key assumptions underlying its estimated warranty obligations for each generation of microinverter. The changes in estimates discussed below resulted from consideration of new or additional information becoming available and subsequent developments. Changes in estimates included in the table above were comprised of the following:

## 2017

In 2017, primarily in the fourth quarter, the Company recorded the impact of further product-cost reduction initiatives for its sixth generation microinverters, which are backwards compatible with previous microinverter generations and will be used to fulfill future warranty obligations for all microinverter generations in the field. This resulted in a \$2.2 million decrease to warranty expense related to estimated future replacement costs. The Company also recorded,

## Explanation of Responses:

primarily in the third quarter, a decrease to warranty expense of \$1.9 million for labor reimbursement costs expected to be paid to third party installers performing replacement services for its second generation product as a result of a change in its reimbursement policy. In addition, the Company recorded additional warranty expense of \$3.9 million based on continuing analysis of field performance data and diagnostic root-cause failure analysis primarily relating to its second generation product.

Table of Contents

## 2016

In 2016, primarily in the fourth quarter, the Company recorded the impact of product-cost reduction initiatives for its sixth generation microinverters, which are backwards compatible with previous microinverter generations and will be used to fulfill future warranty obligations for all microinverter generations in the field. This resulted in a \$2.1 million decrease to warranty expense related to estimated future replacement costs. This decrease was offset by an increase to warranty expense of \$1.5 million for an increase in labor reimbursement costs expected to be paid to third party installers performing replacement services for its second generation product. In addition, the Company recorded additional warranty expense of \$3.0 million based on continuing analysis of field performance data and diagnostic root-cause failure analysis primarily relating to its second generation product.

## 2015

In 2015, primarily in the fourth quarter, the Company implemented product-cost reduction initiatives for its fourth generation microinverters, which are backwards compatible with prior microinverter generations and are used to fulfill warranty obligations for all microinverter generations in the field. This resulted in a \$1.5 million decrease to warranty expense related to estimated future replacement costs. This decrease was offset by an increase to warranty expense of \$0.7 million for an increase in labor reimbursement costs expected to be paid to third party installers performing replacement services for its second generation product. In addition, the Company recorded additional warranty expense of \$0.8 million based on continuing analysis of field performance data and diagnostic root-cause failure analysis performed on returned units of its second generation product.

## 8. FAIR VALUE MEASUREMENTS

The accounting guidance defines fair value as the price that would be received from selling an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. When determining the fair value measurements for assets and liabilities required to be recorded at fair value, the Company considers the principal or most advantageous market in which it would transact and considers assumptions that market participants would use when pricing the asset or liability, such as inherent risk, transfer restrictions, and risk of nonperformance. The fair value hierarchy requires an entity to maximize the use of observable inputs and minimize the use of unobservable inputs when measuring fair value. An asset's or liability's categorization within the fair value hierarchy is based upon the lowest level of input that is significant to the fair value measurement. Three levels of inputs may be used to measure fair value:

Level 1—Valuations based on quoted prices in active markets for identical assets or liabilities that the Company is able to access. Since valuations are based on quoted prices that are readily and regularly available in an active market, valuation of such assets or liabilities do not entail a significant degree of judgment.

Level 2—Valuations based on one or more quoted prices in markets that are not active or for which all significant inputs are observable, either directly or indirectly.

Level 3—Valuations based on inputs that are unobservable and significant to the overall fair value measurement.

The following table presents the Company's liabilities that were measured at fair value on a recurring basis and its categorization within the fair value hierarchy at December 31, 2017 and 2016 (in thousands):

	Fair Value Hierarchy	December 31,	
		2017	2016
Liabilities:			
Warranty obligations	Level 3	\$9,790	\$10,332
Third party option to purchase receivables at a discount	Level 3	700	—
Fair Value Option for Warranty Obligations Related to Microinverters Sold Since January 1, 2014			

Table of Contents

The Company estimates the fair value of warranty obligations by calculating the warranty obligations in the same manner as for sales prior to January 1, 2014 and applying an expected present value technique to that result. The expected present value technique, an income approach, converts future amounts into a single current discounted amount. In addition to the key estimates of failure rates, claim rates and replacement costs, the Company used certain Level 3 inputs which are unobservable and significant to the overall fair value measurement. Such additional assumptions included a discount rate based on the Company's credit-adjusted risk-free rate and compensation comprised of a profit element and risk premium required of a market participant to assume the obligation.

The following table provides a reconciliation of the beginning and ending balances of warranty obligations measured at fair value for the periods indicated (in thousands):

Balance—December 31, 2014	\$3,562
Accruals for warranties issued during period	4,140
Changes in estimates	(755 )
Settlements	(227 )
Increase due to accretion expense	1,001
Fair value adjustments	(1,539 )
Balance—December 31, 2015	\$6,182
Accruals for warranties issued during period	4,091
Changes in estimates	(1,616 )
Settlements	(1,023 )
Increase due to accretion expense	1,772
Fair value adjustments	926
Balance—December 31, 2016	\$10,332
Accruals for warranties issued during period	3,591
Changes in estimates	(4,551 )
Settlements	(1,956 )
Increase due to accretion expense	2,053
Fair value adjustments	321
Balance—December 31, 2017	\$9,790

## Third Party Option to Purchase Receivables at a Discount

The Company entered into an agreement with a third party in the fourth quarter of 2017 to sell certain current and future receivables at a discount. The buyer has the option to purchase certain additional future receivables at various fixed discounts. This option was valued at \$0.7 million using the discounted cash flow methodology based on the counterparty credit-adjusted-risk-free rate and recorded as a liability.

Table of Contents

## Quantitative and Qualitative Information about Level 3 Fair Value Measurements

As of December 31, 2017, the significant unobservable inputs used in the fair value measurement of the Company's liabilities designated as Level 3 are as follows:

Item Measured at Fair Value	Valuation Technique	Description of Significant Unobservable Input	Percent Used (Weighted-Average)
Warranty obligations for microinverters sold since January 1, 2014	Discounted cash flows	Profit element and risk premium	17%
Third party option to purchase receivables at a discount	Discounted cash flows	Credit-adjusted risk-free rate	17%
		Counter party credit-adjusted risk-free rate	4%

As of December 31, 2016, the significant unobservable inputs used in the fair value measurement of the Company's liabilities designated as Level 3 are as follows:

Item Measured at Fair Value	Valuation Technique	Description of Significant Unobservable Input	Percent Used (Weighted-Average)
Warranty obligations for microinverters sold since January 1, 2014	Discounted cash flows	Profit element and risk premium	17%
		Credit-adjusted risk-free rate	19%

## Sensitivity of Level 3 Inputs

## Warranty Obligations

Each of the significant unobservable inputs is independent of the other. The profit element and risk premium are estimated based on requirements of a third-party participant willing to assume the Company's warranty obligations. The credit-adjusted risk-free rate is determined by reference to the Company's own credit standing at the fair value measurement date. Increasing (decreasing) the profit element and risk premium input by 100 basis points would not have a material impact on the fair value measurement of the liability. Increasing (decreasing) the discount rate by 100 basis points would result in a (\$443,000) \$485,000 (decrease) increase, respectively, to the fair value measurement of the liability.

## 9. RESTRUCTURING AND OTHER

In the third quarter of 2016, the Company began implementing restructuring actions to lower its operating expenses and cost of revenues. The restructuring actions have included reductions in the Company's global workforce, the elimination of certain non-core projects, consolidation of office space at the Company's corporate headquarters and the engagement of management consultants to assist the Company in making organizational and structural changes to improve operational efficiencies and reduce expenses.

The following table presents the details of the Company's restructuring charges for the periods indicated (in thousands):

	Years Ended December 31,		
	2017	2016	2015
Employee severance and benefit arrangements	\$2,827	\$1,263	\$ —
Asset impairments	522	2,575	—
Consultants engaged in restructuring activities	12,100	—	—
Lease loss and other	1,468	579	—
Gain on business divestiture	—	(640)	—
Total restructuring and other	\$16,917	\$3,777	\$ —

## Explanation of Responses:



Table of Contents

The following table provides information regarding changes in the Company's accrued restructuring balance for the periods indicated (in thousands):

	Employee Severance and Benefits	Asset Impairments	Lease Loss Reserves and Contractual Obligations	Total
Balance as of December 31, 2015	\$ —	\$ —	\$ —	\$—
Charges	1,263	2,575	579	4,417
Cash payments	(1,065 )	—	(95 )	(1,160 )
Non-cash settlement	—	(2,575 )	—	(2,575 )
Balance as of December 31, 2016	\$ 198	\$ —	\$ 484	\$682
Charges	2,827	522	13,568	16,917
Cash payments	(2,796 )	—	(12,958 )	(15,754)
Non-cash settlement	—	(522 )	—	(522 )
Balance at end of period as of December 31, 2017	\$ 229	\$ —	\$ 1,094	\$1,323

The following table provides information regarding the computation of the Company's gain on business divestiture included in restructuring and other (in thousands) for the year ended December 31, 2016:

	Business Divestiture
Consideration	\$ 1,375
Identifiable assets	(979 )
Contingent Consideration	244
Gain on business divestiture	\$ 640

Table of Contents

## 10. DEBT

## Term Loan

In July 2016, the Company entered into a Term Loan Agreement (the “Original Term Loan”) with lenders that are affiliates of Tennenbaum Capital Partners, LLC. (the “Lenders”). Under the agreement, the Lenders committed to advance a term loan in an aggregate principal amount of up to \$25.0 million with a maturity date of July 1, 2020. The Company borrowed the entire \$25.0 million of term loan commitments on the loan closing date. Monthly payments due through June 30, 2017 were interest only, followed by consecutive equal monthly payments of principal plus accrued interest that were to begin on July 1, 2017 and continue through the maturity date. The term loan provided for an interest rate per annum equal to the higher of (i) 10.25% or (ii) LIBOR plus 9.5625%, subject to a 1.0% reduction if the Company achieves minimum levels of Revenue and EBITDA (each as defined in the Term Loan Agreement) for the twelve-consecutive month period ending June 30, 2017 as set forth in the Term Loan Agreement. In addition, the Company paid a commitment fee of 3.3% of the loan amount upon closing and a closing fee of 10.0% of the loan amount is payable in four equal installments at each anniversary of the closing date. The Company could elect to prepay the loan by incurring a prepayment fee between 1% and 3% of the principal amount of the term loan depending on the timing and circumstances of prepayment.

In February 2017, the Company entered into an Amended and Restated Loan and Security Agreement (the “Loan Agreement”) that amended and restated the Original Term Loan. The Loan Agreement provides for a \$25.0 million secured term loan to the Company (the “New Term Loan”), which is in addition to the \$25.0 million secured term loan borrowed by the Company under the Original Term Loan (together with the “New Term Loan” the “Term Loans”). The New Term Loan has the same July 1, 2020 maturity date that was applicable to the Original Term Loan. The New Term Loan was fully drawn at closing, with approximately \$10.3 million of the proceeds used to repay existing combined principal and interest due under the Company’s Revolver with Wells Fargo. Upon the repayment of loans under the Wells Fargo Revolver, the Wells Fargo Revolving Credit Agreement was terminated. The Company expects to use the remainder of the proceeds from the New Term Loan for general corporate purposes.

Monthly payments under the Term Loans through February 28, 2018 are interest only, followed by consecutive equal monthly payments of principal plus accrued interest beginning on March 1, 2018 and continuing through the maturity date. Interest on the Term Loans is the greater of (a) 10.3125%, and (b) a fluctuating rate of interest per annum equal to the three-month LIBOR Rate (rounded up to the nearest 1/16th of one percent) plus 9.25%. In addition, the Company paid a commitment fee of 3.0% of the New Term Loan amount upon closing and a closing fee of 4.0% of the New Term Loan amount, which is payable with the closing fee under the Original Term Loan in four equal installments at each anniversary of the closing date of the Original Loan Agreement. The Company may elect to prepay the Term Loans by incurring a prepayment fee between 1% and 3% of the principal amount of the Term Loans depending on the timing and circumstances of prepayment.

On February 28, 2018, the Company entered into a Second Amendment to the Term Loans. The Amendment decreases by 50% the amount of principal repayments required under the Loan Agreement for the period from March 1, 2018 through December 31, 2018 and provides that the Company shall not prepay any part of the Term Loan during that same period without the Collateral Agent’s prior written consent.

The Term Loans are secured by a first-priority security interest on substantially all assets of the Company; provided, however that the security interest in the Company’s intellectual property may be released if the Company satisfies certain requirements. The Company’s obligations under the Term Loans are not guaranteed by any of the Company’s existing subsidiaries, nor have any existing subsidiaries of the Company pledged any of their assets to secure the Term Loans.

The Loan Agreement requires that (i) at all times from the closing date to and including March 31, 2018, the Company, and any future guarantors, have Unrestricted Cash (as defined in the Loan Agreement) of at least \$10.0 million; (ii) at all times from the closing date to and including March 31, 2018, that the aggregate amount of Consolidated Unrestricted Cash, plus the value of Consolidated Receivables, plus the value of Consolidated Inventory (each as defined in the Loan Agreement) divided by the outstanding principal amount of Term Loans, shall equal or exceed 1.5; and (iii) at all times from April 1, 2018 and thereafter, that the aggregate amount of Consolidated



Unrestricted Cash, plus the value of Consolidated Receivables, plus the value of Consolidated

71

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Table of Contents

Inventory divided by the outstanding principal amount of Term Loans, shall equal or exceed 1.75. In addition, the Loan Agreement is subject to customary affirmative and negative covenants including restrictions on creation of liens, dispositions of assets, mergers, changing the nature of its business and dividends and other distributions, in each case subject to certain exceptions. The Term Loan Agreement also contains certain customary events of default including, but not limited to, failure to pay interest, principal and fees or other amounts when due, material breach of any representation or warranty, covenant defaults, cross defaults to other material indebtedness, events of bankruptcy and the occurrence of a material adverse change (as defined in the agreement) to the Company's business. The Term Loan Agreement offers TCP typical rights and remedies in any event of default, including the ability to declare all amounts outstanding immediately due and payable. The Company was in compliance with all financial covenants as of December 31, 2017.

In connection with the New Term Loan, the Company issued to the Lenders warrants to purchase an aggregate 1,220,000 shares of the Company's Common Stock at an exercise price of \$1.05 per share. The warrants have a term of seven years and contain a "cashless exercise" feature that allows the holder to exercise the warrant without a cash payment upon the terms set forth therein.

The Company estimated the fair value of the warrants by using the Black-Scholes approach and the following assumptions: stock price of \$1.56; strike price of \$1.05; volatility of 85.9%, risk-free rate of 2.23%; dividend yield of 0%; and a 7 year term. The resulting fair value was used to allocate the proceeds from the Term Loan between liability and equity components.

The Company classified the warrants as equity and allocated the proceeds from the Term Loan and warrants using the relative fair value method. Using this method, the Company allocated \$1.4 million to the warrants, which was recorded as equity. This amount represents debt discount that will be amortized to interest expense over the term of the loan.

As of December 31, 2017, the estimated schedule of principal payments due on the term loan (without regard to the February 28, 2018 amendment described above) is as follows (in thousands):

Year Amounts
2018 \$ 15,715
2019 20,939
2020 13,346
Total \$ 50,000

The amount of estimated schedule of principal payments due on the term loan including the impact of the February 28, 2018 amendment described above is as follows (in thousands):

Year Amounts
2018 \$ 8,521
2019 25,333
2020 16,146
Total \$ 50,000

Sale of Long Term Financing Receivables

The Company entered into an agreement with a third party in the fourth quarter of 2017 to sell certain current and future receivables at a discount. In December 2017, the third party made an initial purchase of receivables resulting in net proceeds to the Company of \$2.8 million. This transaction was recorded as debt on the accompanying consolidated balance sheets, and the debt balance will be relieved by January 2019 as the underlying receivables are settled. The buyer has the option to purchase certain additional future receivables at various fixed discounts. This option was valued at \$0.7 million and was recorded as a liability with a corresponding offset to debt as of December 31, 2017.

See Note 8, "Fair Value Measurements" for additional information.

72

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Table of Contents

Total long-term debt was comprised of the following at December 31, 2017 and 2016 (in thousands):

	December 31, 2017	December 31, 2016
Term loan	\$ 50,000	\$ 25,000
Less unamortized discount and issuance costs	(2,111 )	(1,200 )
Carrying amount of term loan	47,889	23,800
Sale of long term financing receivable recorded as debt	2,562	—
Less value of future purchase option	(700 )	—
Carrying amount of sale of long term financing receivable recorded as debt	1,862	—
Total carrying amount of debt	49,751	23,800
Less current portion term loan	(15,715 )	(3,032 )
Less current portion of long term financing receivable recorded as debt	(1,714 )	—
Long-term debt	\$ 32,322	\$ 20,768

## Revolving Credit Facility

The Company had a \$50.0 million revolving credit facility with Wells Fargo Bank, N.A. (“Wells Fargo”) that was entered into in November 2012, as first amended on February 14, 2014. On December 18, 2015, the Company entered into an amended and restated revolving credit agreement with Wells Fargo (the “Revolver”) which extended the maturity date to November 7, 2019 and added an uncommitted accordion feature that could increase the size of the facility by \$25.0 million, subject to the satisfaction of certain conditions. The Revolver had a balance of \$10.1 million as of December 31, 2016 and was fully repaid and terminated in February 2017.

## 11. COMMITMENTS AND CONTINGENCIES

**Operating Leases**—The Company leases office facilities under noncancelable operating leases that expire on various dates through 2022. The terms of the lease agreements generally provide for rental payments on a graduated basis, and certain leases require the Company to pay its portion of executory costs such as taxes, insurance, and operating expenses. The Company recognizes rent expense on a straight-line basis over the lease term.

Rent expense for 2017, 2016 and 2015 was \$2.8 million, \$3.8 million and \$3.2 million, respectively.

The Company’s minimum lease payments under noncancelable operating leases, exclusive of executory costs, as of December 31, 2017 are as follows (in thousands):

2018	\$ 3,011
2019	3,065
2020	2,919
2021	2,678
2022	1,973
Thereafter	1,544
Total minimum lease payments	\$ 15,190

**Purchase Obligations**—The Company has contractual obligations related to component inventory that its primary contract manufacturer procures on its behalf in accordance with its production forecast as well as other inventory

Explanation of Responses:

related purchase commitments. As of December 31, 2017, these purchase obligations totaled approximately \$26.9 million.

73

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Table of Contents

Contingencies — From time to time, the Company may be involved in litigation relating to claims arising out of its operations. The Company is not currently involved in any material legal proceedings. The Company may, however, be involved in material legal proceedings in the future. Such matters are subject to uncertainty and there can be no assurance that such legal proceedings will not have a material adverse effect on its business, results of operations, financial position or cash flows.

12. SALE OF COMMON STOCK

In January 2017, the Company completed a private placement of securities that resulted in the issuance of approximately 10.8 million shares of common stock and gross proceeds of \$10.0 million.

In December 2016, the Company entered into an At Market Issuance Sales Agreement (ATM) under which it could sell shares of its common stock up to a gross aggregate offering price of \$17.0 million. During the three months ended March 31, 2017 the Company sold approximately 11.1 million shares of common stock under the ATM and received net proceeds of approximately \$16.6 million.

13. STOCK-BASED COMPENSATION

Description of Equity Incentive Plans

2006 Plan

Under the Company's 2006 Equity Incentive Plan (the "2006 Plan"), equity awards granted generally vest over a four-year period from the date of grant with a contractual term of up to 10 years. As of December 31, 2017, there were 2.3 million shares of options outstanding under the 2006 Plan. No further stock options or other stock awards may be granted under the 2006 Plan.

2011 Plan

Under the 2011 Equity Incentive Plan (the "2011 Plan"), the Company could initially issue up to 2,643,171 shares of its common stock pursuant to stock options, stock appreciation rights, restricted stock awards, restricted stock unit awards, performance-based stock awards, and other forms of equity compensation, or collectively, stock awards, all of which may be granted to employees, including officers, and to non-employee directors and consultants. Options granted under the 2011 Plan before August 1, 2012 generally expire 10 years after the grant date and options granted thereafter generally expire 7 years after the grant date. Equity awards granted under the 2011 Plan generally vest over a four-year period from the date of grant based on continued employment. The number of shares of the Company's common stock authorized for issuance under the 2011 Plan automatically increases on each January 1 by 4.5% of the total number of shares of the Company's common stock outstanding on December 31 of the preceding calendar year, or such lesser number of shares of common stock as determined by the board of directors. As of December 31, 2017, 743,329 shares remained available for issuance pursuant to future grants under the 2011 Plan. On January 1, 2018, the shares available for issuance under the 2011 Plan automatically increased by 3,866,120 shares.

2011 Employee Stock Purchase Plan

The 2011 Employee Stock Purchase Plan ("ESPP") became effective immediately upon the execution and delivery of the underwriting agreement for the Company's IPO on March 29, 2012. The ESPP authorized the issuance of 669,603 shares of the Company's common stock pursuant to purchase rights granted to employees. The number of shares of common stock reserved for issuance will automatically increase, on each January 1, by a lesser of (i) 330,396 shares of the Company's common stock or (ii) 1.0% of the total number of shares of the Company's common stock outstanding on December 31 of the preceding calendar year, as determined by the Company's board of directors. The ESPP is implemented by concurrent offering periods and each offering period may contain up to four interim purchase periods. In general, offering periods consists of the 24 months periods commencing on each May 15 and November 15 of a calendar year.



Table of Contents

Generally, all full time employees, including executive officers, are eligible to participate in the ESPP. The ESPP permits eligible employees to purchase the Company's common stock through payroll deductions, which may not exceed 15% of the employee's total compensation subject to certain limits. Stock may be purchased under the plan at a price equal to 85% of the fair market value of the Company's stock on either the date of purchase or the first day of an offering period, whichever is lower. A two year look-back feature in the Company's ESPP causes an offering period to reset if the fair value of the Company's common stock on a purchase date is less than that on the initial offering date for that offering period. The reset feature, when triggered, will be accounted for as a modification to the original offering, resulting in additional expense to be recognized over the 24-month period of the new offering. During any calendar year, participants may not purchase shares of common stock having a value greater than \$25,000, based on the fair market value per share of the common stock at the beginning of an offering period.

As of December 31, 2017, there were 290,658 shares remained available for future issuance under the 2011 ESPP. On January 1, 2018, the shares available for issuance under the 2011 ESPP automatically increased by 700,000 shares. At the Annual Meeting of Stockholders held on May 18, 2017 the Company's stockholders approved an amendment to the Company's ESPP to increase the aggregate number of shares available for purchase by 400,000 shares and to increase the annual automatic increase in shares reserved for issuance from 330,396 to 700,000 effective January 1, 2018.

Valuation of Equity Awards

Stock Options

The fair value of each option granted was estimated on the date of grant using the Black-Scholes option-pricing model with the following assumptions:

Expected term—The expected term of the option awards represents the period of time between the grant date of the option awards and the date the option awards are either exercised, converted or canceled, including an estimate for those option awards still outstanding. The Company used the simplified method, as permitted by the SEC for companies with a limited history of stock option exercise activity, to determine the expected term for its option grants.

Expected volatility—The expected volatility was calculated based on the Company's historical stock prices, supplemented as necessary with historical volatility of the common stock of several peer companies with characteristics similar to those of the Company.

Risk-free interest rate—The risk-free interest rate was based on the U.S. Treasury yield curve in effect at the time of grant and with a maturity that approximated the Company's expected term.

Dividend yield—The dividend yield was based on the Company's dividend history and the anticipated dividend payout over its expected term.



Table of Contents

A summary of the weighted-average assumptions used to estimate the fair values of the stock options granted during the periods presented is as follows:

	Years Ended December		
	31,		
	2017	2016	2015
Expected term (in years)	4.4	4.5	4.5
Expected volatility	83.9 %	80.0 %	72.5 %
Annual risk-free rate of return	1.8 %	1.1 %	1.4 %
Dividend yield	— %	— %	— %
Weighted-average fair value on grant date	\$0.76	\$1.29	\$4.68

## Restricted Stock Units

The fair value of restricted stock units granted is determined based on the price of the Company's common stock on the date of grant.

## Stock-Based Compensation Expense

The Compensation cost for all stock-based awards expected to vest is measured at fair value on the date of grant and recognized ratably over the requisite service period. The following table summarizes the components of total stock-based compensation expense included in the consolidated statements of operations for the periods presented (in thousands):

	Years Ended December		
	31,		
	2017	2016	2015
Cost of revenues	\$1,072	\$1,188	\$1,217
Research and development	2,573	3,879	4,559
Sales and marketing	1,157	2,144	3,162
General and administrative	1,925	3,115	3,758
Total stock-based compensation expense	\$6,727	\$10,326	\$12,696

A summary of stock-based compensation expense associated with each type of award for the periods presented is as follows (in thousands):

	Years Ended December		
	31,		
	2017	2016	2015
Stock options and restricted stock units	\$5,559	\$8,384	\$10,685
ESPP	1,168	1,942	2,011
Total stock-based compensation expense	\$6,727	\$10,326	\$12,696

As of December 31, 2017, there was approximately \$10.4 million of total unrecognized compensation cost related to unvested equity awards, net of expected forfeitures, which is expected to be recognized over a weighted-average period of 3.0 years.

No income tax benefit has been recognized relating to stock-based compensation expense and no tax benefits have been realized from exercised stock options.

Table of Contents

## Equity Awards Activity

## Stock Options

A summary of the Company's stock option activity for the periods presented is as follows (in thousands, except per share data):

	Shares	Weighted-Average Exercise Price per Share
Options outstanding — December 31, 2018	8,632	\$ 4.75
Granted	1,289	8.20
Exercised	(1,079)	1.40
Canceled	(672)	9.31
Options outstanding — December 31, 2017	8,170	5.36
Granted	2,440	2.12
Exercised	(375)	0.39
Canceled	(1,505)	6.01
Options outstanding — December 31, 2016	8,730	4.55
Granted	4,500	1.22
Exercised	(425)	0.51
Canceled	(4,379)	6.91
Options outstanding — December 31, 2015	8,426	1.77

The following table summarizes information about stock options outstanding at December 31, 2017:

Range of Exercise Prices	Options Outstanding		Options Exercisable	
	Number of Shares (in thousands)	Weighted-Average Remaining Life (in years)	Number of Shares (in thousands)	Weighted-Average Exercise Price
\$0.27 — \$0.79	1,690	4.0	1,117	\$ 0.38
\$0.83 — \$1.29	1,565	6.8	34	1.06
\$1.31 — \$1.31	1,751	6.3	500	1.31
\$1.37 — \$1.98	1,726	2.8	1,415	1.66
\$2.00 — \$12.57	1,694	3.8	1,245	4.62
Total	8,426		4,311	

The intrinsic value of options exercised in 2017, 2016 and 2015 was \$0.5 million, \$0.7 million and \$4.9 million, respectively. As of December 31, 2017, there were 8.4 million options outstanding that were vested and expected to vest. Such options have a weighted-average exercise price of \$1.77 and a weighted-average remaining contractual term of 4.7 years. As of December 31, 2017, the aggregate intrinsic value was \$4.0 million for the 4.3 million exercisable shares. The intrinsic value is based on the Company's common stock fair value of \$2.41 per share as of December 31, 2017.

Table of Contents

## Restricted Stock Units

A summary of restricted stock unit activity for the periods presented is as follows: (in thousands, except per share data):

	Restricted Stock Units	Weighted Average Fair Value per Share at Grant Date
Outstanding at December 31, 2014	1,345	\$ 8.25
Granted	683	11.22
Vested	(488 )	8.58
Canceled	(227 )	10.32
Outstanding at December 31, 2015	1,313	9.31
Granted	54	1.99
Vested	(464 )	9.06
Canceled	(297 )	8.32
Outstanding at December 31, 2016	606	9.33
Granted	5,418	1.46
Vested	(885 )	3.81
Canceled	(1,634 )	1.90
Outstanding at December 31, 2017	3,505	2.03

The intrinsic value of restricted stock units vested during 2017, 2016 and 2015 was \$0.9 million, \$0.9 million and \$4.2 million, respectively. As of December 31, 2017, the restricted stock units outstanding had a weighted average remaining contractual term of 3.1 years with an intrinsic value of \$8.4 million.

On April 3, 2017, the Company commenced a Tender Offer (Offer) to exchange out of the money stock options for restricted stock units. The Offer expired on Monday, May 1, 2017. Pursuant to the Offer, the Company accepted elections to exchange options to purchase 2,362,470 shares of common stock and issued replacement awards of restricted stock units for 733,559 shares of common stock. As the transaction approximated a value-for-value exchange, it did not have a material impact on the Company's stock based compensation expense.

## ESPP

A summary of ESPP activity for the years presented is as follows: (in thousands, except per share data):

	Years Ended December 31,		
	2017	2016	2015
Proceeds from common stock issued under ESPP	\$313	\$999	\$2,497
Shares of common stock issued	478	659	499
Weighted-average price per share	\$0.65	\$1.52	\$5.00

Table of Contents

## 14. INCOME TAXES

The domestic and foreign components of loss before provision for income taxes consisted of the following (in thousands):

	Years Ended December 31,		
	2017	2016	2015
United States	\$(47,882)	\$(67,631)	\$(22,120)
Foreign	2,541	1,644	1,417
Total	\$(45,341)	\$(65,987)	\$(20,703)

The (benefit) provision for income taxes for the years presented is as follows (in thousands):

	Years Ended December 31,		
	2017	2016	2015
Current:			
Federal	\$—	\$—	\$—
State	21	36	44
Foreign	1,224	785	693
	1,245	821	737
Deferred:			
Federal	(1,092)	594	652
State	(21 )	59	41
Foreign	(281 )	1	(51 )
	(1,394)	654	642
(Benefit) provision for income taxes	\$(149)	\$1,475	\$1,379

A reconciliation of the provision for income taxes and the amount computed by applying the statutory federal income tax rate of 34% to loss before income taxes for the years presented is as follows (in thousands):

	Years Ended December 31,		
	2017	2016	2015
Income tax benefit at statutory federal rate	\$(15,416)	\$(22,435)	\$(7,039)
State taxes, net of federal benefit	(64 )	63	56
Change in valuation allowance	(20,571 )	21,370	7,812
Foreign tax rate and tax law differential	(133 )	27	(29 )
Tax credits	(382 )	(1,179 )	(1,553 )
Stock-based compensation	761	1,775	1,932
Other permanent items	479	776	61
Other nondeductible/nontaxable items	930	920	(72 )
Uncertain tax positions	106	158	211
Tax law changes	34,141	—	—
(Benefit) provision for income taxes	\$(149 )	\$1,475	\$1,379

Table of Contents

A summary of significant components of the Company's deferred tax assets and liabilities as of December 31, 2017 and 2016 is as follows (in thousands):

	December 31,	
	2017	2016
Deferred tax assets:		
Allowances and reserves	\$9,748	\$16,032
Net operating loss and tax credit carryforwards	66,243	67,875
Stock-based compensation	2,528	3,033
Deferred revenue	7,210	8,289
Fixed assets and intangibles	4,369	7,661
Other	278	2,857
Subtotal	90,376	105,747
Less valuation allowance	(88,789)	(104,554)
Total deferred tax assets, net of valuation allowance	1,587	1,193
Deferred tax liabilities:		
Goodwill	(992 )	(1,346 )
Unremitted foreign earnings	(10 )	(748 )
Total deferred tax liabilities	(1,002 )	(2,094 )
Net deferred tax asset/(liability)	\$585	\$(901 )

Accounting for income taxes requires that companies assess whether valuation allowances should be established against their deferred tax assets based on consideration of all available evidence, both positive and negative, using a "more likely than not" standard. This assessment considers, among other matters, the nature, frequency and amount of recent losses, the duration of statutory carryforward periods, and tax planning strategies. In making such judgments, significant weight is given to evidence that can be objectively verified. Due to the history of losses the Company has generated in the United States since inception, the Company believes that it is more-likely-than-not that all of its U.S. and state deferred tax assets will not be realized as of December 31, 2017. Therefore, the Company has recorded a full valuation allowance on its U.S. and state deferred tax assets at December 31, 2017 of \$88.8 million, which is a decrease of \$15.8 million as compared to December 31, 2016. Should the Company determine that it would be able to realize its deferred tax assets in the foreseeable future, an adjustment to the deferred tax assets may cause a material increase to income in the period such determination is made. Significant management judgment is required in determining the period in which the reversal of a valuation allowance should occur.

On December 22, 2017, H.R. 1 (the "Act") was enacted and included broad tax reforms. The Act reduced the U.S. corporate tax rate from 35% to 21% effective January 1, 2018. The rate change resulted in a \$28.3 million reduction in the Company's deferred tax assets from prior year. Tax law changes created the ability for federal indefinite lived assets to be generated in the years following 2017. As such, an income tax benefit was recorded to reduce the domestic indefinite lived liability that is now partially offset by indefinite lived deferred tax assets. The Company has elected to treat taxes on Global Intangible Low Tax Income ("GILTI") as period costs. The Act also imposed a deemed repatriation of foreign earnings previously considered deferred for US tax purposes. The Company had previously recorded a deferred tax liability for such unremitted earnings that were not considered permanently reinvested in the foreign jurisdictions. As of December 31, 2017, the Company has recognized the previously deferred federal liability in accordance with the Act. The Company continues to include deferred tax liabilities for potential future tax consequences of remitting such earnings, such as foreign withholding and state taxes, as of December 31, 2017.

The Company has net operating loss carryforwards for federal and California income tax purposes of approximately \$176.2 million and \$89.1 million, respectively, as of December 31, 2017. The federal and state net operating loss

carryforwards, if not utilized, will expire beginning in 2028.

80

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Table of Contents

The Company has approximately \$11.3 million of federal research credit and \$11.7 million of state research credit carryforwards. The federal credits begin to expire in 2026 and the state credits can be carried forward indefinitely.

Utilization of some of the federal and state net operating loss and credit carryforwards are subject to annual limitations due to the “change in ownership” provisions of the Internal Revenue Code of 1986 and similar state provisions. Company does not anticipate these limitations, if any, will significantly impact its ability to utilize the net operating losses and tax credit carryforwards.

The accounting for uncertain tax positions prescribes a recognition threshold and measurement attribute for the financial statement recognition and measurement of a tax position taken or expected to be taken in a tax return. The Company is required to recognize in the financial statements the impact of a tax position, if that position is more-likely-than-not of being sustained on audit, based on the technical merits of the position. The Company recorded a net charge for unrecognized tax benefits in 2017 of \$0.1 million.

The Company does not have any tax positions for which it is reasonably possible the total amount of gross unrecognized tax benefits will increase or decrease over the next year. The unrecognized tax benefits may increase or change during the next year for items that arise in the ordinary course of business. The Company recognizes interest and penalties related to uncertain tax positions in income tax expense.

A tabular reconciliation of the total amounts of unrecognized tax benefits for the years presented is as follows (in thousands):

	Year Ended December 31,		
	2017	2016	2015
Unrecognized tax benefits—at beginning of year	\$6,016	\$5,482	\$4,426
Increases in balances related to tax positions taken in prior years	—	—	14
Decreases in balances related to tax positions taken in prior years	(135 )	—	—
Increases in balances related to tax positions taken in current year	306	571	1,053
Lapses in statutes of limitations	(81 )	(37 )	(11 )
Unrecognized tax benefits—at end of year	\$6,106	\$6,016	\$5,482

The Company’s tax returns continue to remain subject to examination by U.S. federal authorities for the years 2006 through 2017 and by California state authorities for the years 2006 through 2017 due to the use of net operating losses and credits.

## 15. CONCENTRATION OF CREDIT RISK AND MAJOR CUSTOMERS

The Company is potentially subject to financial instrument concentration of credit risk through its cash and cash equivalents and accounts receivable. The Company places its cash and cash equivalents with high quality institutions and performs periodic evaluations of their relative credit standing. Accounts receivable can be potentially exposed to a concentration of credit risk with its major customers. As of December 31, 2017, amounts due from one customer represented approximately 22% of the total accounts receivable balance. As of December 31, 2016, amounts due from one customer represented 25% of the total accounts receivable balance. In 2017, two customers accounted for approximately 15% and 11% of total net revenues. In 2016, one customer accounted for approximately 18% of total net revenues. In 2015, two customers accounted for approximately 17% and 12% of total net revenues.

## 16. NET LOSS PER SHARE

Basic net loss per share is calculated by dividing net loss by the weighted average number of shares outstanding for the period. Diluted net loss per share is calculated by dividing net loss by the weighted average number of common shares and potential dilutive common share equivalents outstanding during the period if the effect is dilutive. The Company's potentially dilutive common shares include outstanding stock options and warrants and non-vested restricted stock units.

81

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Table of Contents

The following table presents the potential common shares outstanding that were excluded from the computation of diluted net loss per share attributable to common stockholders for the periods presented because including them would have been anti-dilutive (in thousands):

	Years Ended		
	December 31,		
	2017	2016	2015
Stock options to purchase common stock	8,433	8,981	8,646
Unvested restricted stock units	3,029	906	1,506
Warrants to purchase common stock	1,083	—	111
Total	12,545	9,887	10,263

## 17 SEGMENT AND GEOGRAPHIC INFORMATION

The Company's chief operating decision maker is the Chief Executive Officer. The Chief Executive Officer reviews financial information presented on a consolidated basis. The Company has one business activity, which entails the design, development, manufacture and sale of microinverter systems for the solar photovoltaic industry. There are no segment managers who are held accountable for operations, operating results or plans for levels or components below the consolidated unit level. Accordingly, management has determined that the Company has a single operating and reportable segment.

The following tables present net revenues (based on the destination of shipments) and long-lived assets by geographic region as of and for the periods presented (in thousands):

## Net Revenues

	Years Ended December 31,		
	2017	2016	2015
United States	\$199,565	\$259,080	\$303,195
International	86,601	63,511	54,054
Total	\$286,166	\$322,591	\$357,249

## Long-Lived Assets

	As of December 31,		
	2017	2016	2015
United States	\$16,899	\$22,634	\$21,913
China	7,164	5,727	7,950
Other	2,420	3,079	2,255
Total	\$26,483	\$31,440	\$32,118

Table of Contents

## 18. QUARTERLY FINANCIAL INFORMATION (UNAUDITED)

The following tables show a summary of the Company's quarterly financial information for each of the four quarters of 2017 and 2016 (in thousands, except per share data):

	Year Ended December 31, 2017			
	March 31	June 30	September 30	December 31
Net revenues	\$54,751	\$74,704	\$ 77,038	\$ 79,674
Cost of revenues	47,703	61,157	60,577	60,685
Gross profit	7,048	13,547	16,461	18,989
Operating expenses:				
Research and development	9,605	7,947	7,397	8,208
Sales and marketing	6,458	6,274	5,453	4,940
General and administrative	5,833	4,964	5,441	5,983
Restructuring charges	7,247	3,609	4,071	1,991
Total operating expenses	29,143	22,794	22,362	21,122
Loss from operations	(22,095 )	(9,247 )	(5,901 )	(2,133 )
Other income expense, net	(1,079 )	(1,992 )	(1,137 )	(1,755 )
Loss before income taxes	(23,174 )	(11,239 )	(7,038 )	(3,888 )
Income tax benefit (provision)	(131 )	(854 )	184	948
Net loss	\$(23,305)	\$(12,093)	\$ (6,854)	\$ (2,940)
Net loss per share, basic and diluted	\$(0.30 )	\$(0.14 )	\$ (0.08)	\$ (0.03)

	Year Ended December 31, 2016			
	March 31	June 30	September 30	December 31
Net revenues	\$64,121	\$79,185	\$ 88,684	\$ 90,601
Cost of revenues	52,361	65,049	72,805	74,367
Gross profit	11,760	14,136	15,879	16,234
Operating expenses:				
Research and development	13,066	13,091	13,169	11,378
Sales and marketing	10,215	9,987	11,016	7,592
General and administrative	7,567	6,846	6,708	6,296
Restructuring charges	—	—	2,717	1,060
Total operating expenses	30,848	29,924	33,610	26,326
Loss from operations	(19,088 )	(15,788 )	(17,731 )	(10,092 )
Other income expense, net	529	(591 )	(881 )	(2,345 )
Loss before income taxes	(18,559 )	(16,379 )	(18,612 )	(12,437 )
Income tax provision	(236 )	(344 )	(144 )	(751 )
Net loss	\$(18,795)	\$(16,723)	\$ (18,756)	\$ (13,188)
Net loss per share, basic and diluted	\$(0.41 )	\$(0.36 )	\$ (0.40)	\$ (0.21)

Table of Contents

19. SUBSEQUENT EVENTS

On February 4, 2018, the Company entered into a securities purchase agreement with an investor pursuant to which the Company, in a private placement, agreed to issue and sell to the investor 9,523,809 shares of the Company's common stock, at a price per share of \$2.10, for gross proceeds of \$20.0 million. The Company intends to use the net proceeds from the Private Placement for general corporate purposes.

On February 28, 2018, the Company entered into a Second Amendment to the Term Loans. The Amendment decreases by 50% the amount of principal repayments required under the Loan Agreement for the period from March 1, 2018 through December 31, 2018 and provides that the Company shall not prepay any part of the Term Loan during that same period without the Collateral Agent's prior written consent.

Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure

None.

Item 9A. Controls and Procedures

Evaluation of Disclosure Controls and Procedures

We carried out an evaluation required by the Exchange Act, under the supervision and with the participation of our principal executive officer and principal financial officer, of the effectiveness of the design and operation of our disclosure controls and procedures, as defined in Rule 13a-15(e) of the Exchange Act, as of the end of the period covered by this report. Based on this evaluation, our principal executive officer and principal financial officer concluded that our disclosure controls and procedures were effective to provide reasonable assurance that information required to be disclosed by us in the reports that we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the Securities and Exchange Commission's rules and forms and to provide reasonable assurance that such information is accumulated and communicated to our management, including our principal executive officer and principal financial officer, as appropriate to allow timely decisions regarding required disclosures.

Management's Report on Internal Control over Financial Reporting

Management is responsible for establishing and maintaining adequate internal control over financial reporting in providing reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles, as defined in Rule 13a-15(f) of the Exchange Act. Management has assessed the effectiveness of our internal control over financial reporting as of December 31, 2017 based on criteria set forth in Internal Control – Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013). As a result of this assessment, management concluded that, as of December 31, 2017, our internal control over financial reporting was effective. We are a "smaller reporting company" as defined in Rule 12b-2 of the Exchange Act. As a result, we are exempt from the auditor attestation requirements related to internal controls over financial reporting pursuant to Section 404 of the Sarbanes-Oxley Act for this annual report for the year ended December 31, 2017.

Changes in Internal Control over Financial Reporting

There were no changes in our internal control over financial reporting that occurred during the most recent quarter ended December 31, 2017 that materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Limitations on Controls

Our disclosure controls and procedures and internal control over financial reporting are designed to provide reasonable assurance of achieving their objectives as specified above. Management does not expect, however, that our disclosure controls and procedures or our internal control over financial reporting will prevent or detect all errors and fraud. Any control system, no matter how well designed and operated, is based upon certain assumptions and can provide only reasonable, not absolute, assurance that its objectives will be met. Further, no evaluation of controls can provide absolute assurance that misstatements due to error or fraud will not occur or that all control issues and instances of fraud, if any, within the Company have been detected.



Table of Contents

Item 9B. Other Information

None.

85

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Table of Contents

PART III

Item 10. Directors and Executive Officers and Corporate Governance

The information required regarding our directors is incorporated herein by reference from the information contained in the section entitled “Proposal 1-Election of Directors” in our definitive Proxy Statement for the 2018 Annual Meeting of Stockholders (our “Proxy Statement”), a copy of which will be filed with the Securities and Exchange Commission on or before April 30, 2018.

The information required regarding our executive officers is incorporated herein by reference from the information contained in the section entitled “Management” in our Proxy Statement.

The information required regarding Section 16(a) beneficial ownership reporting compliance is incorporated by reference from the information contained in the section entitled “Section 16(a) Beneficial Ownership Reporting Compliance” in our Proxy Statement.

The information required with respect to procedures by which security holders may recommend nominees to our board of directors, and the composition of our Audit Committee, and whether we have an “audit committee financial expert,” is incorporated by reference from the information contained in the section entitled “Information Regarding the Board of Directors and Corporate Governance” in our Proxy Statement.

Code of Conduct

We have a written code of conduct that applies to all our executive officers, directors and employees. Our Code of Conduct is available on our website at <http://investor.enphase.com/corporate-governance.cfm>. A copy of our Code of Conduct may also be obtained free of charge by writing to our Secretary, Enphase Energy, Inc., 1420 N. McDowell Blvd., Petaluma, CA 94954. If we make any substantive amendments to our Code of Conduct or grant any waiver from a provision of the Code of Conduct to any executive officer or director, we intend to promptly disclose the nature of the amendment or waiver on our website.

Item 11. Executive Compensation

The information required regarding the compensation of our directors and executive officers is incorporated herein by reference from the information contained in the sections entitled “Executive Compensation,” “Director Compensation” and “Compensation Committee Interlocks and Insider Participation” in our Proxy Statement.

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters

The information required regarding security ownership of our 5% or greater stockholders and of our directors and executive officers is incorporated herein by reference from the information contained in the section entitled “Security Ownership of Certain Beneficial Owners and Management” in our Proxy Statement.

Equity Compensation Plan Information

The information required regarding securities authorized for issuance under our equity compensation plans is incorporated herein by reference from the information contained in the section entitled “Employee Benefit Plans” in our Proxy Statement.

Item 13. Certain Relationships and Related Transactions, and Director Independence

The information required regarding related transactions is incorporated herein by reference from the information contained in the section entitled “Transactions With Related Persons” and, with respect to director independence, the section entitled “Proposal 1-Election of Directors” in our Proxy Statement.

Item 14. Principal Accounting Fees and Services

The information required is incorporated herein by reference from the information contained in the sections



Table of Contents

entitled “Principal Accountant Fees and Services” and “Pre-Approval Policies and Procedures” in the section entitled “Proposal 5-Ratification of Selection of Independent Registered Public Accounting Firm” in our Proxy Statement.

87

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Table of Contents

PART IV

Item 15. Exhibits, Financial Statement Schedules

Consolidated Financial Statements

The information concerning our consolidated financial statements, and Report of Independent Registered Public Accounting Firm required by this Item is incorporated by reference herein to the section of this Annual Report on Form 10-K in Item 8, Consolidated Financial Statements and Supplementary Data.

No schedules are provided because they are not applicable, not required under the instructions, or the requested information is shown in the financial statements or related notes thereto.

Exhibits

The exhibits listed in the accompanying index to exhibits are filed or incorporated by reference as part of this Annual Report on Form 10-K.

88

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Table of Contents

Item 16. Form 10-K Summary

Not Applicable

## SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized on April 2, 2018.

Enphase Energy, Inc.

By: /s/ BADRINARAYANAN KOTHANDARAMAN

Badrinarayanan Kothandaraman

## POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Badrinarayanan Kothandaraman and Humberto Garcia, jointly and severally, as his true and lawful attorneys-in-fact and agents, with full power of substitution and resubstitution, for him and in his name, place and stead, in any and all capacities, to sign any and all amendments to this Annual Report on Form 10-K and to file the same, with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents full power and authority to do and perform each and every act and thing requisite or necessary to be done in and about the premises hereby ratifying and confirming all that said attorneys-in-fact and agents, or his substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities on the dates indicated.

Signature	Title	Date
/s/ BADRINARAYANAN KOTHANDARAMAN Badrinarayanan Kothandaraman	President and Chief Executive Officer (Principal Executive Officer)	April 2, 2018
/s/ HUMBERTO GARCIA Humberto Garcia	Vice President and Chief Financial Officer (Principal Financial and Accounting Officer)	April 2, 2018
/s/ STEVEN J. GOMO Steven J. Gomo	Director	April 2, 2018
/s/ BENJAMIN KORTLANG Benjamin Kortlang	Director	April 2, 2018
/s/ RICHARD MORA Richard Mora	Director	April 2, 2018
/s/ THURMAN JOHN RODGERS Thurman John Rodgers	Director	April 2, 2018
/s/ JOHN H. WEBER John H. Weber	Director	April 2, 2018

Explanation of Responses:



Table of Contents

## EXHIBIT INDEX

Exhibit Number	Exhibit Description	Incorporation by Reference			Filed Herewith
		Form	SEC File No.	Exhibit Filing Date	
3.1	<u>Certificate of Amendment of the Amended and Restated Certificate of Incorporation of Enphase Energy, Inc.</u>	10-Q	001-35480	10.1	8/9/2017
3.2	<u>Amended and Restated Bylaws of Enphase Energy, Inc.</u>	S-1/A	333-174925	3.5	3/12/2012
4.1	<u>Specimen Common Stock Certificate of Enphase Energy, Inc.</u>	S-1/A	333-174925	4.1	3/12/2012
10.1+	<u>Form of Indemnification Agreement by and between Enphase Energy, Inc. and each of its directors and officers.</u>	S-1/A	333-174925	10.1	8/24/2011
10.2+	<u>2006 Equity Incentive Plan, as amended, and related documents.</u>	S-8	333-181382	99.1	5/14/2012
10.3+	<u>2011 Equity Incentive Plan, as amended, and forms of agreement thereunder.</u>	S-8	333-181382	99.2	5/14/2012
10.4+	<u>2011 Employee Stock Purchase Plan.</u>	S-8	333-181382	99.3	5/14/2012
10.5+	<u>Offer Letter by and between Enphase Energy, Inc. and Paul B. Nahi, dated January 1, 2007, as amended.</u>	S-1	333-174925	10.5	6/15/2011
10.6	<u>Redwood Business Park NNN Lease by and between Enphase Energy, Inc. and Sequoia Center LLC, dated June 3, 2011 (1400 North McDowell Boulevard), as amended.</u>	S-1	333-174925	10.14	6/15/2011
10.7	<u>First Amendment to Redwood Business Park NNN Lease (1400 North McDowell Blvd), between Enphase Energy, Inc. &amp; Sequoia Center LLC dated January 12, 2012.</u>	10-K	001-35480	10.8	3/4/2015
10.8	<u>Second Amendment to Redwood Business Park NNN Lease (1400 North McDowell Blvd), between Enphase Energy, Inc. &amp; Sequoia Center LLC dated January 13, 2014.</u>	10-K	001-35480	10.9	3/4/2015
10.9	<u>Third Amendment to Redwood Business Park NNN Lease (1400 North McDowell Blvd), between Enphase Energy, Inc. &amp; Sequoia Center LLC dated</u>	10-K	001-35480	10.10	3/4/2015

Explanation of Responses:

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September 25, 2014.

10.10	<u>Fourth Amendment to Redwood Business Park NNN Lease (1400 North McDowell Blvd), between Enphase Energy, Inc. &amp; Sequoia Center LLC dated December 30, 2014.</u>	10-K	001-35480	10.11	3/4/2015
10.11	<u>Redwood Business Park NNN Lease by and between Enphase Energy, Inc. and Sequoia Center LLC, dated June 3, 2011 (1420 North McDowell Boulevard), as amended.</u>	S-1	333-174925	10.15	6/15/2011
10.12	<u>First Amendment to Redwood Business Park NNN Lease (1420 North McDowell Blvd), between Enphase Energy, Inc. &amp; Sequoia Center LLC dated January 12, 2012.</u>	10-K	001-35480	10.13	3/4/2015
10.13	<u>Second Amendment to Redwood Business Park NNN Lease (1420 North McDowell Blvd), between Enphase Energy, Inc. &amp; Sequoia Center LLC, dated July 3, 2012.</u>	10-Q	001-35480	10.4	11/13/2012
10.14	<u>Third Amendment to Redwood Business Park NNN Lease (1420 North McDowell Blvd), between Enphase Energy, Inc. &amp; Sequoia Center LLC dated May 14, 2014.</u>	10-K	001-35480	10.15	3/4/2015
10.15†	<u>Cooperation Agreement “AC cabling system for solar micro-inverter” by and among Enphase Energy, Inc., and Phoenix Contact GmbH &amp; Co. KG and Phoenix Contact USA, Inc., dated December 7, 2010.</u>	S-1	333-174925	10.16	6/15/2011
10.16	<u>Amendment No. 2 to the Cooperation Agreement and Amendment No. 1 by and among Enphase Energy, Inc., Phoenix Contact GmbH &amp; Co. KG and Phoenix Contact USA, Inc., dated September 1, 2016.</u>	10-Q	001-35480	10.3	11/2/2016
10.17	<u>Flextronics Logistics Services Agreement by and between Enphase Energy, Inc. and Flextronics America, LLC, dated May 1, 2009.</u>	S-1	333-174925	10.17	6/15/2011
10.18	<u>Amendment #1 to the Flextronics Logistics Services Agreement, by and between Enphase Energy, Inc. and Flextronics America, LLC, dated July 28, 2016.</u>	10-Q	001-35480	10.4	11/2/2016
10.19	<u>Flextronics Manufacturing Services Agreement by and between Enphase Energy, Inc. and Flextronics Industrial, Ltd., dated March 1, 2009, as amended.</u>	S-1	333-174925	10.18	6/15/2011
10.20	<u>Master Development and Production Agreement by and between Enphase Energy, Inc. and Fujitsu</u>	10-Q	001-35480	10.1	5/6/2015

Explanation of Responses:

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	<u>Microelectronics America, Inc., dated August 19, 2009.</u>				
10.21	<u>License and Technology Transfer Agreement by and between Enphase Energy, Inc. and Ariane Controls, Inc., dated December 21, 2007.</u>	S-1	333-174925	10.20	6/15/2011
10.22	<u>Software License Agreement by and between PVI Solutions, Inc. (subsequently known as Enphase Energy, Inc.) and DCD, Digital Core Design, dated May 8, 2007, as amended.</u>	S-1	333-174925	10.21	6/15/2011
10.23	<u>Master License Agreement between Enphase Energy, Inc. and Flextronics Industrial, Ltd., dated June 9, 2017</u>	10-Q	001-35480	10.1	8/9/2017
10.24+	<u>Non-employee Director Compensation Policy.</u>	10-Q	001-35480	10.28	5/8/2013
10.25	<u>Offer Letter by and between Enphase Energy, Inc. and David Ranhoff, dated December 1, 2017.</u>	8-K	001-35480	10.1	12/2/2017
10.26	<u>Amended and Restated Credit Agreement by and among the lenders identified on the signature pages thereof, Wells Fargo Bank, National Association, as agent for the lenders, and Enphase Energy, Inc., dated December 18, 2015.</u>	10-K	001-35480	10.24	3/1/2016
10.27	<u>Amendment No. 1 to Amended and Restated Credit Agreement and Amended and Restated Guaranty and Security Agreement, by and among Enphase Energy, Inc., the lenders identified on the signature pages thereto and Wells Fargo Bank, National Association, as agent, dated July 8, 2016.</u>	10-Q	001-35480	10.1	11/2/2016
10.28	<u>Waiver and Second Amendment to Amended and Restated Credit Agreement, by and among Enphase Energy, Inc. and Wells Fargo Bank, National Association, as agent, dated December 21, 2016.</u>	10-K	001-35480	10.27	3/16/2017
10.29	<u>Consent and Third Amendment to Amended and Restated Credit Agreement, by and among Enphase Energy, Inc., the lenders identified on the signature pages thereto and Wells Fargo Bank, National Association, as agent, dated December 30, 2016.</u>	10-K	001-35480	10.28	3/16/2017
10.30+	<u>2018 Performance Bonus Program Summary.</u>	8-K	001-35480	10.1	3/9/2018
10.31+	<u>Severance and Change in Control Benefit Plan.</u>	10-Q	001-35480	10.50	5/8/2013
10.32†		10-Q	001-35480	10.2	8/5/2015

Explanation of Responses:

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	<u>Supply Agreement, by and between Enphase Energy, Inc. and Dow Corning Corporation, dated April 22, 2014.</u>				
10.33†	<u>First Amendment to the Supply Agreement, by and between Enphase Energy, Inc. and Dow Corning Corporation, dated August 1, 2014.</u>	10-Q	001-35480	10.3	8/5/2015
10.34†	<u>Second Amendment to the Supply Agreement, by and between Enphase Energy, Inc. and Dow Corning Corporation, dated August 1, 2014.</u>	10-Q	001-35480	10.4	8/5/2015
10.35	<u>At Market Issuance Sales Agreement, by and between Enphase Energy, Inc. and FBR Capital Markets &amp; Co., dated December 23, 2016.</u>	8-K	001-35480	10.1	12/23/2016
10.36	<u>Loan and Security Agreement by and among Enphase Energy, Inc., Tennenbaum Special Situations Fund IX, LLC, the lenders identified on the signature pages thereto and Obsidian Agency Services, Inc., as administrative agent and collateral agent for the lenders, dated July 8, 2016.</u>	10-Q	001-35480	10.2	11/2/2016
10.37	<u>First Amendment to Loan and Security Agreement, by and among Enphase Energy, Inc., Tennenbaum Special Situations Fund IX, LLC, the lenders identified on the signature pages thereto and Obsidian Agency Services, Inc., as administrative agent and collateral agent for the lenders, dated December 30, 2016.</u>	10-K	001-35480	10.37	3/16/2017
10.38	<u>Amended and Restated Loan and Security Agreement, by and among Enphase Energy, Inc., the lenders party thereto, Cortland Capital Market Services LLC, as administrative agent, and Obsidian Agency Services, Inc., as collateral agent, dated February 10, 2017.</u>	10-K	001-35480	10.38	3/16/2017
10.39	<u>Form of Warrant under Amended and Restated Loan and Security Agreement, by and among Enphase Energy, Inc., the lenders party thereto, Cortland Capital Market Services LLC, as administrative agent, and Obsidian Agency Services, Inc., as collateral agent, dated February 10, 2017.</u>	10-K	001-35480	10.39	3/16/2017
10.40	<u>Securities Purchase Agreement, by and among Enphase Energy, Inc. and the purchasers identified on Exhibit A thereto, dated January 9, 2017.</u>	8-K	001-35480	10.1	1/10/2017
10.41	<u>Second Amendment to Amended and Restated Loan and Security Agreement by and among Enphase Energy Inc., each Lender identified, and Obsidian</u>	8-K	001-35480	10.1	3/5/2018

Explanation of Responses:

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Agency Services, Inc., as collateral agent for Lenders and Cortland Capital Market Services LLC, dated February 28, 2018

10.42	<u>Security Agreement by and among Enphase Energy, Inc. and Flextronics Industrial, LTD and Flextronics Americas, LLC, dated December 30, 2016.</u>	10-K	001-35480	10.41	3/16/2017	
10.43	<u>Securities Purchase Agreement by and among Enphase Energy Inc., and the purchasers identified on Exhibit A thereto, dated February 4, 2018</u>	8-K	001-35480	10.1	2/5/2018	
12.1	<u>Statement of Computation of Ratio Earnings to Fixed Charges</u>					X
21.1	<u>List of subsidiaries of the Registrant</u>					X
23.1	<u>Consent of Deloitte &amp; Touche LLP, Independent Registered Public Accounting Firm</u>					X
24.1	<u>Power of Attorney (incorporated by reference to the signature page of this Annual Report on Form 10-K).</u>					X
31.1	<u>Certification of Chief Executive Officer pursuant to Rule 13a-14(a)/15d-14(a).</u>					X
31.2	<u>Certification of Chief Financial Officer pursuant to Rule 13a-14(a)/15d-14(a).</u>					X
32.1*	<u>Certification of Chief Executive Officer and Chief Financial Officer pursuant to 18 U.S.C. Section 1350 as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.</u>					X
101.INS	XBRL Instance Document.					X
101.SCH	XBRL Taxonomy Extension Schema Document.					X
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document.					X
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document.					X
101.LAB	XBRL Taxonomy Extension Label Linkbase Document.					X
101.PRE	XBRL Taxonomy Extension Presentation Document.					X

+Management compensatory plan or arrangement.

†

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Confidential treatment has been granted for certain portions of this exhibit. Omitted information has been filed separately with the Securities and Exchange Commission.

The certifications attached as Exhibit 32.1 accompany this quarterly report on Form 10-K pursuant to 18 U.S.C. \*Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, and shall not be deemed “filed” by Enphase Energy, Inc. for purposes of Section 18 of the Securities Exchange Act of 1934, as amended.

90