ADVANCED ENERGY INDUSTRIES INC
Form 10-Q
October 29, 2018
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UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 10-Q

þ QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934.
For the quarterly period ended September 30, 2018
or
o TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934.
For the transition period from to .

Commission file number: 000-26966
ADVANCED ENERGY INDUSTRIES, INC.
(Exact name of registrant as specified in its charter)

Delaware	84-0846841
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)
1625 Sharp Point Drive, Fort Collins, CO	80525
(Address of principal executive offices)	(Zip Code)

Registrant’s telephone number, including area code: (970) 221-4670

Indicate by check mark whether the registrant: (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes þ No o

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes þ No o

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer þ	Accelerated filer o	Non-accelerated filer o (Do not check if a smaller reporting company)	Smaller reporting company o	Emerging growth company o

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. o
Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes o No þ

As of October 25, 2018 there were 38,489,055 shares of the registrant's Common Stock, par value $0.001 per share, outstanding.

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PART I FINANCIAL STATEMENTS
ITEM 1. UNAUDITED CONDENSED CONSOLIDATED FINANCIAL STATEMENTS
ADVANCED ENERGY INDUSTRIES, INC.
Unaudited Condensed Consolidated Balance Sheets
(In thousands, except per share amounts)

	September 30, 2018	December 31, 2017
ASSETS		
Current assets:		
Cash and cash equivalents	$338,673	$407,283
Marketable securities	3,058	3,104
Accounts and other receivable, net of allowances of $2,851 and $1,748 respectively	110,440	87,429
Inventories	110,327	78,450
Income taxes receivable	4,229	1,295
Other current assets	9,777	8,129
Current assets from discontinued operations	8,273	9,535
Total current assets	584,777	595,225
Property and equipment, net	30,174	17,795
Deposits and other assets	5,608	3,051
Goodwill	102,813	53,812
Intangible assets, net	55,071	33,499
Deferred income tax assets	44,112	18,841
Non-current assets from discontinued operations	11,077	11,085
TOTAL ASSETS	$833,632	$733,308
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	$45,620	$48,177
Income taxes payable	23,620	5,365
Accrued payroll and employee benefits	21,443	18,412
Other accrued expenses	20,248	19,913
Customer deposits and other	7,770	6,402
Current liabilities from discontinued operations	5,895	7,850
Total current liabilities	124,596	106,119
Deferred income tax liabilities	12,763	4,556
Uncertain tax positions	14,104	17,031
Long term deferred revenue	30,216	33,402
Other long-term liabilities	40,811	36,282
Non-current liabilities from discontinued operations	11,567	15,277
Total liabilities	234,057	212,667
Commitments and contingencies (Note 18)		
Stockholders' equity:		
Preferred stock, $0.001 par value, 1,000 shares authorized, none issued and outstanding	—	—
Common stock, $0.001 par value, 70,000 shares authorized; 38,716 and 39,604 issued and outstanding, respectively	39	40
Additional paid-in capital	120,628	184,843
Accumulated other comprehensive (loss) income	(2,155)	2,533
Retained earnings	480,550	333,225
Advanced Energy stockholders' equity	599,062	520,641

Noncontrolling interest	513	—
Total stockholders’ equity	599,575	520,641
TOTAL LIABILITIES AND STOCKHOLDERS' EQUITY	$833,632	$733,308

The accompanying notes are an integral part of these Unaudited Condensed Consolidated Financial Statements.

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ADVANCED ENERGY INDUSTRIES, INC.
Unaudited Condensed Consolidated Statements of Operations
(In thousands, except per share amounts)

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2017	2018	2017
Sales:				
Product	$144,843	$152,363	$485,287	$424,478
Services	28,239	24,212	79,444	67,320
Total sales	173,082	176,575	564,731	491,798
Cost of sales:				
Product	73,019	72,146	233,778	198,754
Services	14,524	12,195	40,534	34,838
Total cost of sales	87,543	84,341	274,312	233,592
Gross profit	85,539	92,234	290,419	258,206
Operating expenses:				
Research and development	18,451	14,629	55,283	41,742
Selling, general and administrative	25,386	24,692	78,792	70,580
Amortization of intangible assets	1,437	1,240	3,958	3,176
Restructuring expense	403	—	403	—
Total operating expenses	45,677	40,561	138,436	115,498
Operating income	39,862	51,673	151,983	142,708
Other income (expense), net	401	153	(58)	(3,138)
Income from continuing operations, before income taxes	40,263	51,826	151,925	139,570
Provision (benefit) for income taxes	5,106	(31,968)	23,998	(25,538)
Income from continuing operations	35,157	83,794	127,927	165,108
Income (loss) from discontinued operations, net of income taxes	(371)	70	(226)	2,343
Net income	$34,786	$83,864	$127,701	$167,451
Income from continuing operations attributable to noncontrolling interest	7	—	82	—
Net income attributable to Advanced Energy Industries, Inc.	$34,779	$83,864	$127,619	$167,451
Basic weighted-average common shares outstanding	38,970	39,786	39,309	39,787
Diluted weighted-average common shares outstanding	39,195	40,172	39,594	40,207
Earnings per share:				
Continuing operations:				
Basic earnings per share	$0.90	$2.11	$3.25	$4.15
Diluted earnings per share	$0.90	$2.09	$3.23	$4.11
Discontinued operations:				
Basic earnings per share	$(0.01)	$—	$(0.01)	$0.06
Diluted earnings per share	$(0.01)	$—	$(0.01)	$0.06
Net income:				
Basic earnings per share	$0.89	$2.11	$3.25	$4.21
Diluted earnings per share	$0.89	$2.09	$3.23	$4.16

The accompanying notes are an integral part of these Unaudited Condensed Consolidated Financial Statements.

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ADVANCED ENERGY INDUSTRIES, INC.
Unaudited Condensed Consolidated Statements of Comprehensive Income
(In thousands)

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2017	2018	2017
Net income	$34,786	$83,864	$127,701	$167,451
Other comprehensive income:				
Foreign currency translation	(735)	807	(4,679)	5,333
Unrealized loss on marketable securities	—	(1)	—	(22)
Minimum benefit retirement liability	27	(100)	(9)	(254)
Comprehensive income	34,078	84,570	123,013	172,508
Comprehensive income attributable to noncontrolling interest	7	—	82	—
Comprehensive income attributable to Advanced Energy Industries, Inc.	$34,071	$84,570	$122,931	$172,508

The accompanying notes are an integral part of these Unaudited Condensed Consolidated Financial Statements.

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ADVANCED ENERGY INDUSTRIES, INC.
Unaudited Condensed Consolidated Statements of Cash Flows
(In thousands)

	Nine Months Ended September 30,	
	2018	2017
CASH FLOWS FROM OPERATING ACTIVITIES:		
Net income	$127,701	$167,451
Income (loss) from discontinued operations, net of income taxes	(226)	2,343
Income from continuing operations, net of income taxes	127,927	165,108
Adjustments to reconcile net income to net cash provided by operating activities:		
Depreciation and amortization	9,488	6,792
Stock-based compensation expense	7,461	10,707
Provision for deferred income taxes	—	(26,185)
Loss on foreign exchange hedge	—	3,489
Net loss on disposal of assets	167	106
Changes in operating assets and liabilities, net of assets acquired:		
Accounts and other receivable, net	(6,739)	4,119
Inventories	(22,132)	(15,062)
Other current assets	717	(430)
Accounts payable	(8,553)	(5,725)
Other liabilities and accrued expenses	49	3,763
Income taxes	10,098	(6,375)
Net cash provided by operating activities from continuing operations	118,483	140,307
Net cash used in operating activities from discontinued operations	(4,550)	(7,293)
Net cash provided by operating activities	113,933	133,014
CASH FLOWS FROM INVESTING ACTIVITIES:		
Purchases of marketable securities	(93)	(86)
Proceeds from sale of marketable securities	6	1,883
Acquisitions, net of cash acquired	(93,801)	(17,347)
Purchase of foreign exchange hedge	—	(3,489)
Purchases of property and equipment	(16,586)	(5,646)
Net cash used in investing activities from continuing operations	(110,474)	(24,685)
Net cash used in investing activities from discontinued operations	—	—
Net cash used in investing activities	(110,474)	(24,685)
CASH FLOWS FROM FINANCING ACTIVITIES:		
Purchase and retirement of common stock	(69,021)	(24,998)
Net payments related to stock-based award activities	(2,636)	(1,902)
Net cash used in financing activities from continuing operations	(71,657)	(26,900)
Net cash used in financing activities from discontinued operations	—	—
Net cash used in financing activities	(71,657)	(26,900)
EFFECT OF CURRENCY TRANSLATION ON CASH	(722)	1,138
INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS	(68,920)	82,567
CASH AND CASH EQUIVALENTS, beginning of period	415,037	289,517
CASH AND CASH EQUIVALENTS, end of period	346,117	372,084
Less cash and cash equivalents from discontinued operations	7,444	5,512
CASH AND CASH EQUIVALENTS FROM CONTINUING OPERATIONS, end of period	$338,673	$366,572
SUPPLEMENTAL DISCLOSURE OF CASH FLOW INFORMATION:		
Cash paid for interest	$171	$27

Cash paid for income taxes	14,180	4,599
Cash received for refunds of income taxes	734	1,153
Cash held in banks outside the United States	269,276	271,777

The accompanying notes are an integral part of these Unaudited Condensed Consolidated Financial Statements.

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ADVANCED ENERGY INDUSTRIES, INC.
NOTES TO UNAUDITED CONDENSED CONSOLIDATED FINANCIAL STATEMENTS
(In thousands, except per share data)

NOTE 1. BASIS OF PRESENTATION

Advanced Energy Industries, Inc., a Delaware corporation, and its wholly-owned subsidiaries ("we," "us," "our," "Advanced Energy," or the "Company") design, manufacture, sell, and support power conversion products that transform electrical power into various usable forms. Our products enable manufacturing processes that use thin films for various products, such as semiconductor devices, flat panel displays, solar cells, architectural glass, optical coating and decorative and functional coating for consumer products. We also supply thermal instrumentation products for advanced temperature control in the thin film process for these same markets. Our power control modules provide power control solutions for industrial applications where heat treatment and processing are used such as glass manufacturing, metal fabrication and treatment, and material and chemical processing. Our high voltage power supplies and modules are used in applications such as semiconductor ion implantation, scanning electron microscopy, chemical analysis such as mass spectrometry and various applications using X-ray technology and electron guns for both analytical and processing applications. Our network of global service support centers provides a recurring revenue opportunity as we offer repair services, conversions, upgrades, and refurbishments and sales of used equipment to companies using our products. As of December 31, 2015, we discontinued the production, engineering, and sales of our solar inverter product line. As such, all solar inverter revenues, costs, assets and liabilities, with the exception of service related activities which we continue to perform, are reported in Discontinued Operations for all periods presented herein. See Note 4. Discontinued Operations.

In the opinion of management, the accompanying Unaudited Condensed Consolidated Financial Statements contain all adjustments, consisting of normal, recurring adjustments, necessary to present fairly the financial position of the Company as of September 30, 2018, and the results of our operations and cash flows for the three and nine months ended September 30, 2018 and 2017.

The Unaudited Condensed Consolidated Financial Statements included herein have been prepared pursuant to the rules and regulations of the Securities and Exchange Commission ("SEC"). Certain information and footnote disclosures normally included in financial statements prepared in accordance with accounting principles generally accepted in the United States of America ("U.S. GAAP") have been condensed or omitted pursuant to such rules and regulations. These Unaudited Condensed Consolidated Financial Statements should be read in conjunction with the audited Consolidated Financial Statements and Notes thereto contained in our Annual Report on Form 10-K for the fiscal year ended December 31, 2017 and other financial information filed with the SEC.

Estimates and Assumptions

The preparation of our Unaudited Condensed Consolidated Financial Statements in conformity with U.S. GAAP requires us to make estimates, assumptions and judgments that affect the reported amounts of assets and liabilities, and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenue and expenses during the reporting period. We believe that the significant estimates, assumptions, and judgments when accounting for items and matters such as allowances for doubtful accounts, excess and obsolete inventory, warranty reserves, acquisitions, asset valuations, goodwill, asset life, depreciation, amortization, recoverability of assets, impairments, deferred revenue, stock option and restricted stock grants, taxes, and other provisions are reasonable, based upon information available at the time they are made. Actual results may differ from these estimates.

Critical Accounting Policies

Our accounting policies are described in our audited Consolidated Financial Statements and Notes contained in our Annual Report on Form 10-K for the year ended December 31, 2017. See Note 3. Revenue for the updated revenue recognition policy in accordance with ASU 2014-09, "Revenue from Contracts with Customers".

New Accounting Standards

From time to time, the Financial Accounting Standards Board ("FASB") or other standards setting bodies issue new accounting pronouncements. Updates to the FASB Accounting Standards Codification ("ASC") are communicated through issuance of an Accounting Standards Update ("ASU"). Unless otherwise discussed, we believe that the impact of recently issued guidance, whether adopted or to be adopted in the future, is not expected to have a material impact on the Consolidated Financial Statements upon adoption.

Recently issued accounting pronouncements not yet adopted

In February 2016, the FASB issued ASU 2016-02, "Leases (Topic 842)," to increase transparency and comparability among organizations by recognizing lease assets and lease liabilities on the balance sheet and disclosing key information about

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leasing arrangements. ASU 2016-02 is effective for fiscal years beginning after December 15, 2018, including interim periods within the year of adoption. Early adoption is permitted.

Advanced Energy has established a cross-functional implementation team to analyze its current portfolio of lease contracts. We are currently in the process of aggregating lease agreements and completing the individual lease analysis in accordance with ASU 2016-02. The implementation team is also responsible for identifying and implementing changes to existing business processes, controls, and systems in order to support lease accounting and disclosure under the new standard. While Advanced Energy has not yet completed its evaluation we anticipate that the adoption of ASU 2016-02 will have a significant impact on our Balance Sheet values for right of use assets and the related lease liabilities, mainly driven by building and facility leases.

In February 2018, the FASB issued ASU 2018-02, "Income Statement—Reporting Comprehensive Income" to give companies the option to reclassify the income tax effects on items within accumulated other comprehensive income resulting from U.S. tax reform to retained earnings. ASU 2018-02 is effective for fiscal years beginning after December 15, 2018, including interim periods within those years. Early adoption is permitted. Advanced Energy is currently assessing and has not yet determined the impact ASU 2018-02 may have on its Consolidated Financial Statements.

In June 2018, the FASB issued ASU 2018-07, "Compensation-Stock Compensation (Topic 718)", Improvements to Nonemployee Share-based Payments (“ASU 2018-07”). This ASU expands the scope of Topic 718 to include share-based payment transactions for acquiring goods and services from nonemployees. ASU 2018-07 is effective for fiscal years beginning after December 15, 2018. Early adoption is permitted. The new guidance is required to be applied retrospectively with the cumulative effect recognized at the date of initial application. Advanced Energy is currently assessing and has not yet determined the impact ASU 2018-07 may have on its Consolidated Financial Statements.

In August 2018, the FASB issued ASU 2018-14, "Compensation—Retirement Benefits—Defined Benefit Plans—General (Subtopic 715-20)" ("ASU 2018-14"). ASU 2018-14 eliminates requirements for certain disclosures and requires additional disclosures under defined benefit pension plans and other postretirement plans. ASU 2018-14 is effective for fiscal years ending after December 15, 2020. Early adoption is permitted. Advanced Energy is currently assessing and has not yet determined the impact ASU 2018-14 may have on its Consolidated Financial Statements.

Recently adopted accounting pronouncements

In May 2014, the FASB issued ASU 2014-09, "Revenue from Contracts with Customers" and has subsequently issued several supplemental and/or clarifying ASUs (collectively known as "ASC 606"). ASC 606 implements a five-step model for how an entity should recognize revenue in order to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. ASC 606 is effective for fiscal periods beginning after December 15, 2017 and for the interim periods within that year. We adopted ASC 606 during the first quarter of fiscal year 2018 using the modified retrospective approach and recorded an adjustment to reflect the cumulative-effect of its adoption on all contracts with customers. See Note 3. Revenue for further details.

In October 2016, the FASB issued ASU 2016-16, "Accounting for Income Taxes: Intra-Entity Asset Transfers of Assets Other than Inventory." ASU 2016-16 changes the timing of income tax recognition for an intercompany sale of assets. ASU 2016-16 requires the seller’s tax effects and the buyer’s deferred taxes to be recognized immediately upon the sale instead of deferring accounting for the income tax implications until the assets are sold to a third party or recovered through use. ASU 2016-16 is effective for fiscal years beginning after December 15, 2017 including interim periods within the year of adoption. We adopted ASU 2016-16 during the first quarter of fiscal year 2018 using the modified retrospective approach and recorded an adjustment to reflect the cumulative-effect of its adoption.

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ADVANCED ENERGY INDUSTRIES, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)
(in thousands except per share data)

Cumulative-effect of recently adopted accounting pronouncements

The following table reflects the cumulative-effect of the adoption of ASC 606 and ASU 2016-16 using the modified retrospective approach for:

	December 31, 2017 as reported	Impact of ASC 606	Impact of ASU 2016-16	January 1, 2018 as adjusted
Accounts and other receivable, net	$ 87,429	$ 8,251	$ —	$ 95,680
Inventories	78,450	(3,561)	—	74,889
Total current assets	595,225	4,690	—	599,915
Deferred income tax assets	18,841	—	17,080	35,921
Total assets	733,308	4,690	17,080	755,078
Income taxes payable	5,365	—	921	6,286
Deferred income tax liabilities	4,556	1,143	—	5,699
Total liabilities	212,667	1,143	921	214,731
Retained earnings	333,225	3,547	16,159	352,931
Total stockholders’ equity	520,641	3,547	16,159	540,347
Total liabilities and stockholders' equity	733,308	4,690	17,080	755,078

NOTE 2. BUSINESS ACQUISITIONS

LumaSense Technologies Holdings, Inc.

In September 2018, Advanced Energy acquired LumaSense Technologies Holdings, Inc. ("LumaSense"), a privately held company with primary operations in Santa Clara, California, Frankfurt, Germany, and Ballerup, Denmark for a purchase price of $94.9 million in cash, net of working capital adjustments.

Electrostatic Technology and Product Line

In May 2018, Advanced Energy acquired the electrostatic technology and product line from Monroe Electronics, a privately held electronics manufacturer in Lyndonville, New York for $3.0 million in cash.

Trek Holding Co., LTD

In February 2018, Advanced Energy acquired Trek Holding Co., LTD ("Trek"), a privately held company with operations in Tokyo, Japan and Lockport, New York for $11.7 million in cash. Trek has a 95% ownership interest in its U.S. subsidiary which is also its primary operation.

The components of the fair value of the total consideration transferred for our acquisitions are as follows:

	Trek	Electrostatic Product Line	LumaSense
Cash paid for acquisition, net of working capital adjustments	$ 11,723	$ 3,000	$ 94,910
Cash acquired	(5,651)	—	(10,181)
Total fair value of consideration transferred	$ 6,072	$ 3,000	$ 84,729

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ADVANCED ENERGY INDUSTRIES, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)
(in thousands except per share data)

The following table summarizes estimated fair values of the assets acquired and liabilities assumed from our acquisitions:

	Trek	Electrostatic Product Line	LumaSense
Assets acquired and liabilities assumed, net	$5,284	$ 380	$ 12,133
Total amortizable intangible assets	788	1,400	24,000
Total identifiable net assets	6,072	1,780	36,133
Goodwill	—	1,220	48,596
Total fair value of consideration transferred	$6,072	$ 3,000	$ 84,729

A summary of the intangible assets acquired, amortization method and estimated useful lives are as follows:

	Trek	Electrostatic Product Line	LumaSense	Amortization Method	Useful Life
Technology	$671	$ 1,200	$ 16,000	Straight-line	10
Customer relationships	117	200	8,000	Straight-line	10
Total	$788	$ 1,400	$ 24,000		

Goodwill and intangible assets are recorded in the functional currency of the entity and are subject to changes due to translation at each balance sheet date. Advanced Energy is in the process of finalizing the assessment of fair value for the assets acquired and liabilities assumed.

NOTE 3. REVENUE

Adoption of ASC 606, "Revenue from Contract with Customers"

Advanced Energy adopted ASC 606 using the modified retrospective method by recognizing the cumulative effect of the adoption of ASC 606, for all contracts with customers, to the opening balance of equity at January 1, 2018. Therefore, our comparative financial information for the three and nine months ended September 30, 2017 has not been adjusted and continues to be reported under ASC Topic 605. The cumulative effect adjustment was based on the timing difference of revenue recognition between ASC Topic 605 and ASC 606 related to our inventory stocking agreements. Under ASC 606, revenue related to our inventory stocking agreements are recognized when inventory is shipped to our customers. Under ASC Topic 605, revenue was recognized when the inventory was consumed by our customers. The tables below show the quantitative impact of ASC 606 on our consolidated financial statements.

	September 30, 2018		
	As Reported	Adjustments	Balances without adoption of ASC 606
Accounts and other receivable, net	$110,440	$ (17,343)	$93,097
Inventories	110,327	7,137	117,464
Total current assets	584,777	(10,206)	574,571
TOTAL ASSETS	833,632	(10,206)	823,426
Income taxes payable	23,620	(1,249)	22,371
Total current liabilities	124,596	(1,249)	123,347
Deferred income tax liabilities	12,763	(1,143)	11,620

Total liabilities	234,057	(2,392	) 231,665
Retained earnings	480,550	(7,814	) 472,736
Advanced Energy stockholders’ equity	599,062	(7,814	) 591,248
Total stockholders’ equity	599,575	(7,814	) 591,761
TOTAL LIABILITIES AND STOCKHOLDERS' EQUITY	833,632	(10,206	) 823,426

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ADVANCED ENERGY INDUSTRIES, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)
(in thousands except per share data)

	Three Months Ended September 30, 2018		
	As Reported	Adjustments	Balances without adoption of ASC 606
Product sales	$144,843	$ (3,454)	$141,389
Total sales	173,082	(3,454)	169,628
Product cost of sales	73,019	(1,533)	71,486
Total cost of sales	87,543	(1,533)	86,010
Gross profit	85,539	(1,921)	83,618
Operating income	39,862	(1,921)	37,941
Income from continuing operations, before income taxes	40,263	(1,921)	38,342
Provision for income taxes	5,106	(442)	4,664
Income from continuing operations	35,157	(1,479)	33,678
Net income	34,786	(1,479)	33,307
Net income attributable to Advanced Energy Industries, Inc.	34,779	(1,479)	33,300

	Nine Months Ended September 30, 2018		
	As Reported	Adjustments	Balances without adoption of ASC 606
Product sales	$485,287	$ (9,093)	$476,194
Total sales	564,731	(9,093)	555,638
Product cost of sales	233,778	(3,577)	230,201
Total cost of sales	274,312	(3,577)	270,735
Gross profit	290,419	(5,516)	284,903
Operating income	151,983	(5,516)	146,467
Income from continuing operations, before income taxes	151,925	(5,516)	146,409
Provision (benefit) for income taxes	23,998	(1,249)	22,749
Income from continuing operations	127,927	(4,267)	123,660
Net income	127,701	(4,267)	123,434
Net income attributable to Advanced Energy Industries, Inc.	127,619	(4,267)	123,352

	Nine Months Ended September 30, 2018	
	Adjustments	Balances without adoption of ASC 606

	As Reported		
Net income	$127,701	$ (4,267)	$123,434
Income from continuing operations, net of income taxes	$127,927	$ (4,267)	$123,660
Changes in operating assets and liabilities, net of assets acquired:			
Accounts and other receivable, net	(6,739)	9,093	2,354
Inventories	(22,132)	(3,577)	(25,709)
Income taxes	10,098	(1,249)	8,849
Net cash provided by operating activities from continuing operations	118,483	—	118,483

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Revenue Recognition

We recognize revenue when we have satisfied our performance obligations which typically occurs when control of the products or services have been transferred to our customers. The transaction price is based upon the standalone selling price. In most transactions, we have no obligations to our customers after the date products are shipped, other than pursuant to warranty obligations. Shipping and handling fees billed to customers, if any, are recognized as revenue. The related shipping and handling costs are recognized in cost of sales. Support services include warranty and non-warranty repair services, upgrades, and refurbishments on the products we sell. Repairs that are covered under our standard warranty do not generate revenue.

Practical Expedients

We expense incremental costs of obtaining contracts when the amortization period of the costs is less than 1 year. These costs are included in selling, general, and administrative expenses.

Nature of goods and services

Products

Advanced Energy provides highly-engineered, mission-critical, precision power conversion, measurement and control solutions to our global customers. We design, manufacture, sell and support precision power products that transform electrical power into various usable forms. Our power conversion products refine, modify and control the raw electrical power from a utility and convert it into power that is predictable, repeatable and customizable. Our products enable thin film manufacturing processes such as plasma enhanced chemical and physical deposition and etch for various semiconductor and industrial products, industrial thermal applications for material and chemical processes, and specialty power for critical industrial technology applications. We also supply thermal instrumentation products for advanced temperature measurement and control in these markets.

Our products are designed to enable new process technologies, improve productivity, and lower the cost of ownership for our customers. We also provide repair and maintenance services for all of our products. We principally serve original equipment manufacturers ("OEM") and end customers in the semiconductor, flat panel display, high voltage, solar panel, and other industrial capital equipment markets. Our products are used in diverse markets, applications, and processes including the manufacture of capital equipment for semiconductor device manufacturing, thin film applications for thin film renewables and architectural glass, and for other thin film applications including flat panel displays, and industrial coatings.

Services

Our global support services group offers warranty and after-market repair services in the regions in which we operate, providing us with preventive maintenance opportunities. Our customers continue to pursue low cost of ownership of their capital equipment and are increasingly sensitive to the costs of system downtime. They expect that suppliers offer comprehensive local repair service and customer support. To meet these market requirements, we maintain a worldwide support organization comprising of both direct and indirect activities, through partnership with local distributors, primarily in the United States ("U.S."), the People’s Republic of China ("PRC"), Japan, South Korea, Taiwan, Germany, and United Kingdom.

As part of our ongoing service business, we satisfy our service obligations under preventative maintenance contracts and extended warranties which had previously been offered on our discontinued inverter products. Any up-front fees received for extended warranties or maintenance plans are deferred. Revenue under these arrangements is recognized ratably over the underlying terms as we do not have historical information which would allow us to project the estimated service usage pattern at this time. We have deferred revenue related to our extended warranties and service contracts totaling $33.3 million as of September 30, 2018 and $37.5 million as of December 31, 2017.

Disaggregation of Revenue

The following table presents our net sales by product line:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2017	2018	2017
Semiconductor capital market	$96,360	$116,468	$359,661	$338,136
Industrial technology capital market	48,483	35,895	125,626	86,342
Global support	28,239	24,212	79,444	67,320
Total	$173,082	$176,575	$564,731	$491,798

ADVANCED ENERGY INDUSTRIES, INC.
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The following table presents our net sales by geographic region:

	Three Months Ended September 30,			
	2018		2017	
Sales to external customers:				
United States	$108,239	62.5 %	$115,137	65.3 %
Canada	76	—	12	—
North America	108,315	62.5	115,149	65.3
People's Republic of China	13,510	7.8	9,944	5.6
Republic of Korea	10,906	6.3	16,922	9.6
Other Asian countries	13,447	7.8	10,477	5.9
Asia	37,863	21.9	37,343	21.1
Germany	20,765	12.0	15,980	9.0
Ireland	4,158	2.4	3,988	2.3
United Kingdom	1,544	0.9	4,115	2.3
Other European countries	437	0.3	—	—
Europe	26,904	15.6	24,083	13.6
Total	$173,082	100.0%	$176,575	100.0%

	Nine Months Ended September 30,			
	2018		2017	
Sales to external customers:				
United States	$361,512	64.2 %	$334,118	68.0 %
Canada	230	—	45	—
North America	361,742	64.2	334,163	68.0
People's Republic of China	35,729	6.3	26,447	5.4
Republic of Korea	42,545	7.5	42,809	8.7
Other Asian countries	45,392	8.0	31,650	6.4
Asia	123,666	21.8	100,906	20.5
Germany	61,713	10.9	42,662	8.7
Ireland	12,070	2.1	3,988	0.8
United Kingdom	5,103	0.9	10,079	2.0
Other European countries	437	0.1	—	—
Europe	79,323	14.0	56,729	11.5
Total	$564,731	100.0%	$491,798	100.0%

The following table presents our net sales by extended warranty and service contracts recognized over time and our product and service revenue recognized at a point in time:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2017	2018	2017
Product and service revenue recognized at point in time	$171,806	$175,668	$561,578	$489,200
Extended warranty and service contracts recognized over time	1,276	907	3,153	2,598

Total	$173,082	$176,575	$564,731	$491,798

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NOTE 4. DISCONTINUED OPERATIONS

In December 2015, we completed the wind down of engineering, manufacturing and sales of our solar inverter product line (the "inverter business"). Accordingly, the results of our inverter business have been reflected as "Income from discontinued operations, net of income taxes" on our Consolidated Statements of Operations for all periods presented herein.

The effect of our sales of extended inverter warranties to our customers continues to be reflected in deferred revenue in our Consolidated Balance Sheets. Deferred revenue for extended inverter warranties and the associated costs of warranty service will be reflected in Sales and Cost of goods sold, respectively, from continuing operations in future periods in our Consolidated Statement of Operations, as the deferred revenue, is earned and the associated services are rendered. Extended warranties related to the inverter product line are no longer offered.

The significant items included in "Income from discontinued operations, net of income taxes" are as follows:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2017	2018	2017
Sales	$—	$—	$—	$—
Cost of sales	—	944	(88)	47
Total operating expense (benefit)	—	(441)	31	(1,587)
Operating income (loss) from discontinued operations	—	(503)	57	1,540
Other income (expense)	(258)	(86)	(261)	291
Income (loss) from discontinued operations before income taxes	(258)	(589)	(204)	1,831
Provision (benefit) for income taxes	113	(659)	22	(512)
Income (loss) from discontinued operations, net of income taxes	$(371)	$70	$(226)	$2,343

Assets and Liabilities of discontinued operations within the Condensed Consolidated Balance Sheets are comprised of the following:

	September 30, 2018	December 31, 2017
Cash and cash equivalents	$ 7,444	$ 7,754
Accounts and other receivables, net	415	1,363
Inventories	414	418
Current assets of discontinued operations	$ 8,273	$ 9,535
Other assets	$ 64	$ 72
Deferred income tax assets	11,013	11,013
Non-current assets of discontinued operations	$ 11,077	$ 11,085
Accounts payable and other accrued expenses	$ 468	$ 545
Accrued warranty	5,427	7,305
Current liabilities of discontinued operations	$ 5,895	$ 7,850
Accrued warranty	$ 11,405	$ 15,112
Other liabilities	162	165

Non-current liabilities of discontinued operations	$ 11,567	$ 15,277

(in thousands except per share data)

NOTE 5. INCOME TAXES

The following table sets out the tax expense and the effective tax rate for our income from continuing operations:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2017	2018	2017
Income from continuing operations, before income taxes	$40,263	$51,826	$151,925	$139,570
Provision (benefit) for income taxes	5,106	(31,968)	23,998	(25,538)
Effective tax rate	12.7 %	(61.7)%	15.8 %	(18.3)%

On December 22, 2017, the U.S. enacted the 2017 Tax Cuts and Jobs Act (“Tax Act”), which contains several key tax provisions that affected our financial results for 2017, including a one-time mandatory transition tax on our accumulated foreign earnings and the reduction of the corporate income tax rate from 35% to 21%, effective January 1, 2018, which required a revaluation of our U.S. deferred tax assets and liabilities. The Tax Act also contains several key tax provisions that will affect our financial results for 2018, including reduction of the corporate income tax rate from 35% to 21% and application of the global intangible low-taxed income of foreign subsidiaries (“GILTI tax”), among others.

In December 2017, the SEC staff issued Staff Accounting Bulletin No. 118, Income Tax Accounting Implications of the Tax Cuts and Jobs Act (SAB 118), which allows us to record provisional amounts during a measurement period not to extend beyond one year of the enactment date. Since the Tax Act was passed late in the fourth quarter of 2017, and ongoing guidance and accounting interpretation is expected over the next 12 months, we consider the accounting for the transition tax, deferred tax re-measurements, and other items to be incomplete due to the forthcoming guidance and our ongoing analysis of final year-end data and tax positions. We expect to complete our analysis within the measurement period in accordance with SAB 118.

Our effective tax rates differ from the U.S. federal statutory rate of 21% for the three and nine months ended September 30, 2018, respectively, primarily due to the benefit of earnings in foreign jurisdictions which are subject to lower tax rates. Our effective tax rate for the three and nine months ended September 30, 2018 was also impacted by the effect of the recently enacted Tax Act, with the benefit from the corporate income tax rate reduction to 21% offset by additional GILTI tax. Finally, the Company changed its indefinite reinvestment assertion during the third quarter of 2018, but the associated tax expense for this discrete event was offset by the discrete recognition of tax benefits resulting from the lapse of statute of limitations on certain income tax reserves.

Our foreign subsidiaries generate earnings that are not subject to U.S. income taxes so long as they are permanently reinvested in our operations outside of the U.S. Pursuant to Accounting Standard Codification Topic No. 740-30, “Income Taxes - Other Considerations or Special Areas,” undistributed earnings of foreign subsidiaries that are no longer permanently reinvested would become subject to deferred income tax recognition. Prior to the third quarter of 2018, we asserted that the undistributed earnings of all our foreign subsidiaries were permanently reinvested.

In the third quarter of 2018, following a review of our operations, liquidity and funding, tax implications of cash repatriation, and investment opportunities, we determined that the ability to access certain amounts of foreign earnings would provide greater investment returns, treasury controls, and other working capital needs. Accordingly, in the third quarter of 2018, we withdrew the permanent reinvestment assertion on $487.4 million of earnings generated by our operations through December 2017. Resulting from this change in permanent reinvestment assertion, the Company recorded a deferred tax liability of $2.4 million related to withholding and state income taxes.

There is no certainty as to the timing of when such foreign earnings will be distributed to the United States in whole or in part.

We have not provided for U.S. federal or foreign income taxes on $106.1 million of our non-U.S. subsidiaries’ undistributed earnings as of December 31, 2017. The $106.1 million of undistributed foreign earnings continue to be reinvested in our foreign operations, as we have determined that these earnings are necessary to support our planned ongoing investments in our foreign operations, and as a result, these earnings remain indefinitely reinvested in those operations. In making this decision, we considered cash needs for investing in our existing businesses, currency controls, and the tax cost of cash repatriation.

Our effective tax rates differ from the U.S. federal statutory rate of 35% for the three and nine months ended September 30, 2017, respectively, due to the benefit of earnings in foreign jurisdictions which are subject to lower tax rates. In addition, after several attempts by the Company to sell its remaining solar businesses, we elected to liquidate our U.S. solar business during the three months ended September 30, 2017 and have accordingly recognized a tax benefit of $40.2 million for a worthless stock tax deduction.

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NOTE 6. EARNINGS PER SHARE
Basic earnings per share ("EPS") is computed by dividing income available to common stockholders by the weighted-average number of common shares outstanding during the period. The computation of our diluted EPS is similar to the computation of our basic EPS except that the denominator is increased to include the number of additional common shares that would have been outstanding (using the if-converted and treasury stock methods), if our outstanding stock options and restricted stock units had been converted to common shares, and if such assumed conversion is dilutive.
The following is a reconciliation of the weighted-average shares outstanding used in the calculation of basic and diluted EPS for the three and nine months ended September 30, 2018 and 2017:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2017	2018	2017
Income from continuing operations	$35,157	$83,794	$127,927	$165,108
Income from continuing operations attributable to noncontrolling interest	7	—	82	—
Income from continuing operations attributable to Advanced Energy Industries, Inc.	$35,150	$83,794	$127,845	$165,108
Basic weighted-average common shares outstanding	38,970	39,786	39,309	39,787
Assumed exercise of dilutive stock options and restricted stock units	225	386	285	420
Diluted weighted-average common shares outstanding	39,195	40,172	39,594	40,207
Continuing operations:				
Basic earnings per share	$0.90	$2.11	$3.25	$4.15
Diluted earnings per share	$0.90	$2.09	$3.23	$4.11

The following restricted stock units were excluded in the computation of diluted earnings per share because they were anti-dilutive:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2017	2018	2017
Restricted stock units	1	—	—	1

Stock Buyback
In September 2015, our Board of Directors authorized a program to repurchase up to $150.0 million of our stock over a thirty-month period. In November 2017, our Board of Directors approved an extension of the share repurchase program to December 2019 from its original maturity of March 2018. In May 2018 our Board of Directors approved a $50 million increase in its authorization to repurchase shares of Company common stock under this same program. As of September 30, 2018, we had $51.0 million remaining for the future repurchase of shares of our common stock.
In order to execute the repurchase of shares of our common stock, the company periodically enters into stock repurchase agreements. During the three and nine months ended September 30, 2018 and 2017 the company has repurchased the following shares of common stock:

	Three Months Ended September 30,	Nine Months Ended September 30,

	2018	2017	2018	2017
Amount paid to repurchase shares	$30,962	$24,983	$69,021	$24,983
Number of shares repurchased	533	351	1,121	351
Average repurchase price per share	$58.12	$71.12	$61.57	$71.12

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There were no shares repurchased from related parties. All shares repurchased were recognized as a reduction to Additional paid-in capital. Repurchased shares were retired and assumed the status of authorized and unissued shares. Subsequent to September 30, 2018, we repurchased in the open market an additional 227,344 shares of our common stock for $11.1 million at an average price of $48.84 per share.

NOTE 7. MARKETABLE SECURITIES AND ASSETS MEASURED AT FAIR VALUE

Our investments with original maturities of more than three months at the time of purchase and that are intended to be held for no more than 12 months, are considered marketable securities available for sale.

Our marketable securities consist of certificates of deposit as follows:

	September 30, 2018		December 31, 2017	
	Cost	Fair Value	Cost	Fair Value
Total marketable securities	$3,054	$3,058	$3,103	$3,104

The maturities of our marketable securities available for sale as of September 30, 2018 are as follows:

	Earliest		Latest
Certificates of deposit	10/10/2018	to	7/28/2019

The value and liquidity of the marketable securities we hold are affected by market conditions, as well as the ability of the issuers of such securities to make principal and interest payments when due, and the functioning of the markets in which these securities are traded. As of September 30, 2018, we do not believe any of the underlying issuers of our marketable securities are at risk of default.

The following tables present information about our marketable securities measured at fair value, on a recurring basis, as of September 30, 2018 and December 31, 2017. The tables indicate the fair value hierarchy of the valuation techniques utilized to determine fair value. We did not have any financial liabilities measured at fair value, on a recurring basis, as of September 30, 2018 and December 31, 2017.

September 30, 2018	Level 1	Level 2	Level 3	Total
Total marketable securities	$—	$3,058	$ —	$3,058

December 31, 2017	Level 1	Level 2	Level 3	Total
Total marketable securities	$—	$3,104	$ —	$3,104

There were no transfers in or out of Level 1, 2, or 3 fair value measurements during the three and nine months ended September 30, 2018.

NOTE 8. DERIVATIVE FINANCIAL INSTRUMENTS

We are impacted by changes in foreign currency exchange rates. We manage these risks through the use of derivative financial instruments, primarily forward contracts with banks. We did not enter into any new foreign currency exchange forward contracts during the three and nine months ended September 30, 2018. During the three and nine months ended September 30, 2017, we entered into foreign currency exchange forward contracts to manage the exchange rate risk associated with intercompany debt denominated in nonfunctional currencies. These derivative instruments are not designated as hedges; however, they do offset the fluctuations of our intercompany debt due to foreign exchange rate changes. These forward contracts are typically for one-month periods. We did not have any currency exchange rate contracts outstanding as of September 30, 2018. At December 31, 2017 we had outstanding Euro and Pound Sterling forward contracts.

The notional amount of foreign currency exchange contracts outstanding at December 31, 2017 was $16.3 million and the fair value of these contracts was not significant at December 31, 2017.

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During the three and nine months ended September 30, 2018 and 2017 the gains and losses recorded related to the foreign currency exchange contracts are as follows:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2017	2018	2017
Foreign currency loss from foreign currency exchange contracts	$ —	$ (469)	$ (750)	$ (1,096)

These gains and losses were offset by corresponding gains and losses on the revaluation of the underlying intercompany debt and both are included as a component of Other income (expense), net, in our Unaudited Condensed Consolidated Statements of Operations.

During the first quarter of 2017 we entered into a foreign currency exchange rate forward contract at a cost of $3.5 million, to mitigate the exchange rate risk associated with a planned offshore acquisition which was not consummated. The hedge expired upon maturity in the first quarter of 2017. The cost of the forward contract is recorded as a component of Other income (expense), net in our Condensed Consolidated Statement of Operations.

NOTE 9. ACCOUNTS AND OTHER RECEIVABLE

Accounts and other receivable are recorded at net realizable value. Components of accounts and other receivable, net of reserves, are as follows:

	September 30, 2018	December 31, 2017
Amounts billed, net	$ 93,097	$ 87,429
Unbilled receivables	17,343	—
Total receivables, net	$ 110,440	$ 87,429

Amounts billed, net consist of amounts that have been invoiced to our customers in accordance with our terms and conditions and are shown net of an allowance for doubtful accounts.

Unbilled receivables consist of amounts where we have satisfied our contractual obligations related to inventory stocking contracts with customers. Such amounts typically become billable to the customer upon their consumption of the inventory managed under the stocking contracts. We anticipate that substantially all unbilled receivables will be invoiced and collected over the next twelve months.

NOTE 10. INVENTORIES

Our inventories are valued at the lower of cost or net realizable value and computed on a first-in, first-out (FIFO) basis. Components of inventories, net of reserves, are as follows:

	September 30, 2018	December 31, 2017
Parts and raw materials	$ 81,383	$ 58,567
Work in process	10,622	7,986
Finished goods	18,322	11,897
Total	$ 110,327	$ 78,450

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NOTE 11. PROPERTY AND EQUIPMENT

Property and equipment, net is comprised of the following:

	September 30, 2018	December 31, 2017
Buildings and land	$ 1,753	$ 1,788
Machinery and equipment	41,891	36,579
Computer and communication equipment	26,542	26,819
Furniture and fixtures	1,751	1,568
Vehicles	280	341
Leasehold improvements	19,579	17,286
Construction in process	1,487	802
	93,283	85,183
Less: Accumulated depreciation	(63,109)	(67,388)
Property and equipment, net	$ 30,174	$ 17,795

Depreciation expense recorded in continuing operations and included in selling, general and administrative expense is as follows:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2017	2018	2017
Depreciation expense	$ 2,134	$ 1,333	$ 5,530	$ 3,616

NOTE 12. GOODWILL

The following summarizes the changes in goodwill during the nine months ended September 30, 2018:

	Beginning Balance	Additions	Effect of Changes in Exchange Rates	Ending Balance
September 30, 2018	$ 53,812	$ 49,816	$ (815)	$ 102,813

NOTE 13.INTANGIBLE ASSETS

Intangible assets consisted of the following as of September 30, 2018 and December 31, 2017:

September 30, 2018	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount
Customer relationships	$ 37,794	$ (12,767)	$ 25,027
Technology	36,111	(7,050)	29,061
Trademarks and other	2,545	(1,562)	983
Total	$ 76,450	$ (21,379)	$ 55,071
December 31, 2017	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount
Customer relationships	$ 30,034	$ (10,787)	$ 19,247
Technology	18,702	(5,559)	13,143
Trademarks and other	2,623	(1,514)	1,109

Total	$ 51,359	$ (17,860)	$ 33,499

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Amortization expense related to intangible assets is as follows:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2017	2018	2017
Amortization expense	$1,437	$1,240	$3,958	$3,176

Estimated amortization expense related to intangibles is as follows:

Year Ending December 31,	
2018 (remaining)	$2,448
2019	7,374
2020	6,706
2021	6,605
2022	6,344
Thereafter	25,594
Total	$55,071

NOTE 14.RESTRUCTURING COSTS

In September 2018, we recorded a total pre-tax charge of $0.4 million related to employee termination costs. The majority of this charge is expected to be paid in the fourth quarter of 2018.

NOTE 15. WARRANTIES

Provisions of our sales agreements include customary product warranties, ranging from 12 months to 24 months following installation. The estimated cost of our warranty obligation is recorded when revenue is recognized and is based upon our historical experience by product, configuration and geographic region.

Our estimated warranty obligation is included in Other accrued expenses in our Consolidated Balance Sheets. Changes in our product warranty obligation are as follows:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2017	2018	2017
Balances at beginning of period	$1,981	$3,933	$2,312	$2,329
Warranty liabilities acquired	213	—	305	—
Increases to accruals	436	333	920	2,722
Warranty expenditures	(590)	(439)	(1,492)	(1,236)
Effect of changes in exchange rates	(2)	6	(7)	18
Balances at end of period	$2,038	$3,833	$2,038	$3,833

NOTE 16. PENSION LIABILITY

In connection with the acquisition of HiTek Power Group, a privately-held provider of high voltage power solutions, in 2014, we acquired the HiTek Power Limited Pension Scheme (the "HiTek Plan"). The HiTek Plan has been closed to new participants since April 1, 2002 and to additional accruals since April 5, 2005. To measure the expense and related benefit obligation, various assumptions are made including discount rates used to value the obligation, expected return on plan assets used to fund these expenses and estimated future inflation rates. These assumptions are based on historical experience as well as facts and circumstances. An actuarial analysis is used to measure the expense and liability associated with pension benefits. We are committed to make annual fixed payments of $0.8 million into the HiTek Plan through April 30, 2024, and then $1.8 million from May 1, 2024 through November 30, 2033.

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The net pension liability is included in Other long-term liabilities in our balance sheet as follows:

	September 30, 2018	December 31, 2017
Pension liability	$ 18,938	$ 19,797

The following table sets forth the components of net periodic pension cost for the three and nine months ended September 30, 2018 and 2017:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2017	2018	2017
Interest cost	$205	$242	$637	$742
Expected return on plan assets	(151)	(128)	(470)	(394)
Amortization of actuarial gains and losses	64	64	333	197
Net periodic pension cost	$118	$178	$500	$545

NOTE 17. STOCK-BASED COMPENSATION

On May 4, 2017, the shareholders approved the Company's 2017 Omnibus Incentive Plan ("the 2017 Plan") and all shares that were then available for issuance under the 2008 Omnibus Incentive Plan are now available for issuance under the 2017 Plan. The 2017 Plan provides for the grant of stock options, stock appreciation rights, restricted stock, stock units (including deferred stock units), unrestricted stock, and dividend equivalent rights. Any of the awards issued under the 2017 Plan may be issued as performance-based awards to align compensation awards to the attainment of annual or long-term performance goals. As of September 30, 2018, there were 3.2 million shares reserved and 2.6 million shares available for grant under the 2017 Plan.

Restricted stock units ("RSU’s") are generally granted with a grant date fair value equal to the market price of our stock at the date of grant and with generally a three or four-year vesting schedule or performance-based vesting as determined at the time of grant.

Stock option awards are generally granted with an exercise price equal to the market price of our stock at the date of grant and with either a three or four-year vesting schedule or performance-based vesting as determined at the time of grant. Stock option awards generally have a term of 10 years.

We recognize stock-based compensation expense based on the fair value of the awards issued and the functional area of the employee receiving the award. Stock-based compensation for the three and nine months ended September 30, 2018 and 2017 was as follows:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2017	2018	2017
Stock-based compensation expense	$1,024	$3,453	$7,461	$10,707

Changes in the outstanding RSU awards during the three and nine months ended September 30, 2018 were as follows:

	Three Months Ended September 30, 2018	Nine Months Ended September 30, 2018

	Number of RSUs	Weighted-Average Grant Date Fair Value	Number of RSUs	Weighted-Average Grant Date Fair Value
RSUs outstanding at beginning of period	352	$ 59.25	386	$ 51.06
RSUs granted	18	$ 33.63	243	$ 64.60
RSUs vested	(3)	$ 41.92	(202)	$ 55.52
RSUs forfeited	(1)	$ 56.70	(61)	$ 47.73
RSUs outstanding at end of period	366	$ 58.16	366	$ 58.16

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Changes in the outstanding stock option awards during the three and nine months ended September 30, 2018 were as follows:

	Three Months Ended September 30, 2018		Nine Months Ended September 30, 2018	
	Number of Options	Weighted-Average Exercise Price per Share	Number of Options	Weighted-Average Exercise Price per Share
Options outstanding at beginning of period	238	$ 20.40	317	$ 18.97
Options exercised	(4)	$ 12.89	(81)	$ 14.55
Options expired	(1)	$ 14.02	(3)	$ 13.48
Options outstanding at end of period	233	$ 20.57	233	$ 20.57

NOTE 18. COMMITMENTS AND CONTINGENCIES

We have firm purchase commitments and agreements with various suppliers to ensure the availability of components. The obligation as of September 30, 2018 is approximately $126.8 million. Our policy with respect to all purchase commitments is to record losses, if any, when they are probable and reasonably estimable. We continuously monitor these commitments for exposure to potential losses and will record a provision for losses when it is deemed necessary.

We are involved in disputes and legal actions arising in the normal course of our business. There have been no material developments in legal proceedings in which we are involved during the three and nine months ended September 30, 2018.

NOTE 19. RELATED PARTY TRANSACTIONS

Members of our Board of Directors hold various executive positions and serve as directors at other companies, including companies that are our customers. During the three and nine months ended September 30, 2018, we engaged in the following transactions with companies related to members of our Board of Directors, as described below:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2017	2018	2017
Sales to related parties	$ —	$ 648	$ 389	$ 1,255
Number of related party customers	—	1	1	1

Our accounts receivable balance from related party customers with outstanding balances as of September 30, 2018 and December 31, 2017 is as follows:

	September 30, 2018	December 31, 2017
Accounts receivable from related parties	$ —	$ 27
Number of related party customers	—	1

NOTE 20. SIGNIFICANT CUSTOMER INFORMATION

The following table summarizes sales, and percentages of sales, by customers that individually accounted for 10% or more of our sales for the three and nine months ended September 30, 2018 and 2017:

Three Months Ended September 30,			
2018	% of Total	2017	% of Total

		Sales		Sales
Applied Materials, Inc.	$60,546	35.0%	$50,078	28.4%
LAM Research	19,878	11.5%	46,315	26.2%

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ADVANCED ENERGY INDUSTRIES, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)
(in thousands except per share data)

	Nine Months Ended September 30,			
	2018	% of Total Sales	2017	% of Total Sales
Applied Materials, Inc.	$198,159	35.1%	$165,239	33.6%
LAM Research	92,368	16.4%	114,325	23.2%

The following table summarizes the accounts receivable balances, and percentages of the total accounts receivable, for customers that individually accounted for 10% or more of accounts receivable as of September 30, 2018 and December 31, 2017:

	September 30, 2018		December 31, 2017	
Applied Materials, Inc.	$42,896	38.8%	$36,755	42.0%
LAM Research	11,707	10.6%	5,421	6.2 %

Our sales to Applied Materials, Inc. and LAM Research include precision power products used in semiconductor processing and solar and flat panel display. No other customer accounted for 10% or more of our sales or accounts receivable balances during these periods.

NOTE 21. CREDIT FACILITY

The Company is party to a Loan Agreement, as amended (the "Loan Agreement") with Bank of America N.A. ("BA") which provides a revolving line of credit of up to $150.0 million subject to certain funding conditions. The Loan Agreement expires in July 28, 2022. Interest on amounts drawn shall be paid quarterly based upon the LIBOR Daily Floating Rate then in effect, plus between one and one-quarter (1.25%) and one and three-quarters (1.75%) percentage points depending on the Funded Debt to EBITDA ratio. As of September 30, 2018, the interest rate was 3.51%. The Loan Agreement also requires the Company to pay the lender on a quarterly basis an unused commitment fee based on credit availability. The obligations under the Loan Agreement are unsecured until the Funded Debt to EBITDA ratio exceeds 2.0 to 1.0, at which time the Company and certain affiliates' tangible and intangible personal property will be subject to a first priority, perfected lien and security interest in favor of BA pursuant to a Security Agreement. As of September 30, 2018, the Company is in compliance with all covenants required under the Loan Agreement. At September 30, 2018 our credit availability under the Loan Agreement was $150.0 million.

Interest expense related to unused line of credit fees was as follows:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2017	2018	2017
Unused line of credit fees	$ 57	$ 27	$ 171	$ 27

ITEM 2. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

Special Note on Forward-Looking Statements

The following discussion contains, in addition to historical information, forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. Statements in this report that are not historical information are forward-looking statements. For example, statements relating to our beliefs, expectations and plans are forward-looking statements, as are statements that certain actions, conditions or circumstances will continue. The inclusion of words such as "anticipate," "expect," "estimate," "can," "may," "might," "continue," "enables," "plan," "intend," "should," "could," "would," "likely," "potential," or "believe," as well as statements that events or circumstances "will" occur or continue, indicate forward-looking statements. Forward-looking statements involve risks and uncertainties, which are difficult to predict and many of which are beyond our control. Therefore, actual results could differ materially and adversely from those expressed in any forward-looking statements. Neither we nor any other person assumes responsibility for the accuracy and completeness of such forward-looking statements and readers are cautioned not to place undue reliance on forward-looking statements.

For additional information regarding factors that may affect our actual financial condition, results of operations and accuracy of our forward-looking statements, see the information under the caption "Risk Factors" in Part II, Item 1A of this

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Quarterly Report on Form 10-Q and, in our Annual Report on Form 10-K for the year ended December 31, 2017. We undertake no obligation to revise or update any forward-looking statements for any reason.

BUSINESS OVERVIEW

We design, manufacture, sell and support precision power products that transform electrical power into various usable forms. Our power conversion products refine, modify and control the raw electrical power from a utility and convert it into power that is predictable, repeatable and customizable. Our products enable thin film manufacturing processes such as plasma enhanced chemical and physical deposition and etch for various semiconductor and industrial products, industrial thermal applications for material and chemical processes, and specialty power for critical industrial technology applications. We also supply thermal instrumentation products for advanced temperature control in these markets. Our network of global service support centers provides local repair and field service capability in key regions as well as provides upgrades and refurbishment services, and sales of used equipment to businesses that use our products. The markets we serve include:

- Semiconductor capital equipment market - Customers in the semiconductor capital equipment market incorporate our products into equipment that make integrated circuits. Our power conversion systems provide the energy to enable thin film processes, such as deposition and etch, and high voltage applications such as ion implant, wafer inspection and metrology. Our remote plasma sources deliver ionized gases for reactive chemical processes used in cleaning, surface treatment, and gas abatement.
- Industrial technology capital equipment market - Our industrial technology capital market is comprised of products for Thin Films Industrial Power and Specialty Power applications.

Thin Films Industrial Power applications include glass coating, glass manufacturing, flat panel displays, solar cell manufacturing, and similar thin film manufacturing, including data storage, hard and optical coating.

Specialty Power applications include power control modules for metal fabrication and treatment, and material and chemical processing. Our high voltage industrial applications include scanning electron microscopy, medical equipment, and instrumentation applications such as x-ray and mass spectroscopy, as well as general electron gun sources for scientific and industrial applications.

Our thermal instrumentation products measure the temperature of the processed substrate or the process chamber. Precise control over the energy delivered to plasma-based processes enables the production of integrated circuits with reduced feature sizes and increased speed and performance.

The Company saw strong growth, through-out its first and second quarter of 2018 in all the markets we serve. During the third quarter of 2018 we began to see a pause in the semiconductor capital equipment market as the impact of delays in memory expansion by large chipmakers negatively impacted sales. We expect additional declines in our revenue from our semiconductor products in the fourth quarter as equipment OEM's consume current inventory levels and reduce finished goods.

In February 2018, we acquired Trek Holding Co., LTD ("Trek"), a privately held company with operations in Tokyo, Japan and Lockport, New York. Trek has a 95% ownership interest in its U.S. subsidiary which is also its primary operation. Trek designs, manufactures and sells high-voltage amplifiers, power supplies and generators, high-performance electrostatic measurement instruments and electrostatic discharge (ESD) sensors and monitors to the global marketplace. Trek's standard and custom-OEM products are used in industry and research in aerospace, automotive, electronics, electrostatics, materials, medical, military, nanotechnology, photovoltaic/solar, physics, plasma, semiconductor and test and measurement applications. Trek’s comprehensive portfolio of power supply products strengthen and accelerate Advanced Energy’s growth in high voltage applications.

In May 2018, we acquired the electrostatic technology and product line from Monroe Electronics, Inc. located in Lyndonville, New York. The electrostatic detection and measurement instrumentation is a leader in technology and quality, serving specific areas of testing and ongoing monitoring of ionization systems across a variety of applications. In addition, the non-contact electrostatic voltmeters and field meters complement those of Trek. Production of these electrostatic products has been integrated into Trek's manufacturing facility in nearby Lockport, New York.

In September 2018, we acquired LumaSense Technologies Holdings, Inc., a privately held company with primary operations in Santa Clara, California, Frankfurt, Germany, and Ballerup, Denmark. LumaSense designs, manufactures and sells a line of photonic-based measurement and monitoring solutions that are synergistic with the Company's precision power control technologies in both semiconductor and industrial markets allowing customers' the ability to better control critical parameters of thermal and material processes. The acquisition of LumaSense expands our current electrostatic chuck solutions, including high

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voltage power supply and electrostatic metrology, complements our leading pyrometry solutions with additional fiber optic thermometry for an extended range of semiconductor applications in etch and deposition, provides integrated industrial temperature control and metrology applications for both thin films coating and thermal processing, and adds industrial pyrometry and gas sensing technologies.

The analysis presented below is organized to provide the information we believe will be helpful for understanding our historical performance and relevant trends going forward. This discussion should be read in conjunction with our Unaudited Condensed Consolidated Financial Statements in Part I, Item 1 of this report, including the notes thereto. Also included in the following analysis are measures that are not in accordance with U.S. GAAP. A reconciliation of the non-GAAP measures to U.S. GAAP is provided below.

Results of Continuing Operations

The following tables set forth certain data, and the percentage of sales each item reflects, derived from our Unaudited Condensed Consolidated Statements of Operations for the periods indicated:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2017	2018	2017
Sales	$173,082	$176,575	$564,731	$491,798
Gross profit	85,539	92,234	290,419	258,206
Operating expenses	45,677	40,561	138,436	115,498
Operating income from continuing operations	39,862	51,673	151,983	142,708
Other income (expense), net	401	153	(58)	(3,138)
Income from continuing operations before income taxes	40,263	51,826	151,925	139,570
Provision (benefit) for income taxes	5,106	(31,968)	23,998	(25,538)
Income from continuing operations, net of income taxes	$35,157	$83,794	$127,927	$165,108

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2017	2018	2017
Sales	100.0%	100.0 %	100.0%	100.0 %
Gross profit	49.4	52.2	51.4	52.5
Operating expenses	26.4	23.0	24.5	23.5
Operating income from continuing operations	23.0	29.2	26.9	29.0
Other income (expense), net	0.3	0.1	—	(0.6)
Income from continuing operations before income taxes	23.3	29.3	26.9	28.4
Provision (benefit) for income taxes	3.0	(18.2)	4.2	(5.2)
Income from continuing operations, net of income taxes	20.3 %	47.5 %	22.7 %	33.6 %

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SALES

The following tables summarize net sales and percentages of net sales, by product line, for the three and nine months ended September 30, 2018 and 2017:

	Three Months Ended September 30,		Change 2018 v. 2017	
	2018	2017	Dollar	Percent
Semiconductor capital market	$96,360	$116,468	$(20,108)	(17.3)%
Industrial technology capital market	48,483	35,895	12,588	35.1 %
Global support	28,239	24,212	4,027	16.6 %
Total	$173,082	$176,575	$(3,493)	(2.0)%

	Nine Months Ended September 30,		Change 2018 v. 2017	
	2018	2017	Dollar	Percent
Semiconductor capital market	$359,661	$338,136	$21,525	6.4 %
Industrial technology capital market	125,626	86,342	39,284	45.5 %
Global support	79,444	67,320	12,124	18.0 %
Total	$564,731	$491,798	$72,933	14.8 %

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2017	2018	2017
Semiconductor capital market	55.7 %	66.0 %	63.7 %	68.8 %
Industrial technology capital market	28.0	20.3	22.2	17.6
Global support	16.3	13.7	14.1	13.6
Total	100.0%	100.0%	100.0%	100.0%

Total Sales

Sales decreased $3.5 million, or 2.0%, to $173.1 million for the three months ended September 30, 2018 as compared to the three months ended September 30, 2017 and increased $72.9 million, or 14.8%, to $564.7 million for the nine months ended September 30, 2018 from $491.8 million for the nine months ended September 30, 2017. The decrease in third quarter sales is associated with a recent pause in the semiconductor capital equipment market which was partially offset by increased sales in our industrial markets. Sales for the three and nine months ended September 30, 2018 includes $11.3 million and $21.3 million, respectively, associated with our recently acquired LumaSense and Trek businesses.

Sales in the semiconductor market decreased $20.1 million, or 17.3%, for the three months ended September 30, 2018 and increased $21.5 million, or 6.4% for the nine months ended September 30, 2018, as compared to the same periods in 2017. Our year over year growth in the semiconductor market has been fueled by our leadership in etch applications, specifically related to advanced memory and the transition to 3DNAND, along with advances in logic technology. The decrease in sales during the third quarter, as compared to the prior year, is due to an overall pause in production and demand for semiconductor capital equipment and timing of new technology investment.

Sales in the industrial technology markets increased $12.6 million, or 35.1%, for the three months ended September 30, 2018 as compared to the three months ended September 30, 2017 and increased $39.3 million, or 45.5% for the nine months ended September 30, 2018, as compared to the same period in 2017. The thin film and specialty power industrial markets we serve include solar panel, flat panel display, architectural glass, consumer electronics, power control modules, data storage, high voltage and other industrial manufacturing markets. Our customers in these markets are primarily global and regional original equipment manufacturers.

Global service sales increased $4.0 million, or 16.6%, for the three months ended September 30, 2018 as compared to the three months ended September 30, 2017 and increased $12.1 million, or 18.0% for the nine months ended September 30, 2018,

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as compared to the same period in 2017. Increases in global service sales is due to continued share gains and growth in the installed base as well as timing and mix of projects during the periods.

Backlog

Our backlog was $91.5 million at September 30, 2018 as compared to $131.3 million at December 31, 2017. Backlog declined primarily due to slowing demand in the semiconductor market.

GROSS PROFIT

For the three months ended September 30, 2018, gross profit decreased $6.7 million to $85.5 million, or 49.4% of sales, as compared to gross profit of $92.2 million, or 52.2% of sales for the same period in 2017. Gross profit for the nine months ended September 30, 2018 was $290.4 million, or 51.4% of sales, as compared to gross profit of $258.2 million, or 52.5% of sales, for the same period in 2017. The change in gross profit as a percent of revenue is due to product mix, higher freight and customs costs, and lower overhead absorption due to volume declines primarily in our Asia manufacturing facility. Gross profit for the three and nine months ended September 30, 2018 includes $4.8 million and $9.6 million, respectively, from our recently acquired LumaSense and Trek businesses.

OPERATING EXPENSE

Operating expenses increased $5.1 million to $45.7 million, or 26.4% of sales, for the three months ended September 30, 2018 from $40.6 million, or 23.0% of sales, for the same period in 2017. Operating expenses increased $22.9 million to $138.4 million, or 24.5% of sales, for the nine months ended September 30, 2018, from $115.5 million, or 23.5% of sales, for the same period in 2017.

The following tables summarize our operating expenses as a percentage of sales for the periods indicated:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2017	2018	2017
Research and development	$18,451	$14,629	$55,283	$41,742
Selling, general, and administrative	25,386	24,692	78,792	70,580
Amortization of intangible assets	1,437	1,240	3,958	3,176
Restructuring charges	403	—	403	—
Total operating expenses	$45,677	$40,561	$138,436	$115,498

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2017	2018	2017
Research and development	10.7%	8.3 %	9.8 %	8.5 %
Selling, general, and administrative	14.7	14.0	13.9	14.4
Amortization of intangible assets	0.8	0.7	0.7	0.6
Restructuring charges	0.2	—	0.1 %	—
Total operating expenses	26.4%	23.0%	24.5%	23.5%

Research and Development

We perform research and development of products for new or emerging applications, technological changes to provide higher performance, lower cost, or other attributes that we may expect to advance our customers' products. We believe that continued development of technological applications, as well as enhancements to existing products to support customer requirements, are critical for us to compete in the markets we serve. Accordingly, we devote significant personnel and financial resources to the development of new products and the enhancement of existing products, and we expect these investments to continue.

Research and development expenses increased $3.8 million to $18.5 million, or 10.7% of sales, for the three months ended September 30, 2018 from $14.6 million, or 8.3% of sales, for the same period in 2017. Research and development expenses increased $13.5 million to $55.3 million, or 9.8% of sales, for the nine months ended September 30, 2018 from $41.7 million, or 8.5% of sales, for the same period in 2017. The increase in research and development expense is due to increased headcount and payroll costs and investment in new programs to maintain and increase our technological leadership and provide solutions to our customers' evolving needs. Research and development for the three and nine months ended September 30, 2018 includes $1.2 million and $1.8 million, respectively, from our recently acquired LumaSense and Trek businesses.

Selling, General and Administrative

Our selling expenses support domestic and international sales and marketing activities that include personnel, trade shows, advertising, third-party sales representative commissions, and other selling and marketing activities. Our general and administrative expenses support our worldwide corporate, legal, tax, financial, governance, administrative, information systems, and human resource functions in addition to our general management, including acquisition-related activities.

Selling, general and administrative expenses increased $0.7 million to $25.4 million, or 14.7%, of sales for the three months ended September 30, 2018 from $24.7 million, or 14.0% of sales, for the same period in 2017. Selling, general and administrative expenses increased $8.2 million to $78.8 million, or 13.9% of sales, for the nine months ended September 30, 2018 from $70.6 million, or 14.4% of sales, for the same period in 2017. The increase in selling, general and administrative expense is primarily driven by increased headcount and payroll, and costs associated with business development. Selling, general and administrative expenses for the three and nine months ended September 30, 2018 includes $2.7 million and $4.4 million, respectively, from our recently acquired Trek and Excelsys businesses.

Restructuring

In September 2018, we recorded a total pre-tax charge of $0.4 million related to employee termination costs. The majority of this charge is expected to be paid in the fourth quarter of 2018. Additionally, during the fourth quarter, we expect to recognize $3.0 - $6.0 million in additional restructuring costs as a result of actions management is putting in place related to optimizing our manufacturing footprint to lower-cost regions, improvements in operating efficiencies and synergies related to our recent acquisitions.

Other Income (Expense), net

Other income (expense), net consists primarily of interest income and expense, foreign exchange gains and losses, gains and losses on sales of fixed assets, and other miscellaneous items. Other income (expense), net was $0.4 million for the three months ended September 30, 2018, as compared to $0.2 million for the same period in 2017, with higher interest income partially offsetting foreign exchange losses. Other income (expense), net was $(0.1) million for the nine months ended September 30, 2018, as compared to $(3.1) million for the same period in 2017. The loss in 2017 was primarily the cost of a foreign currency exchange rate forward contract that we entered into for a potential offshore acquisition that we decided not to consummate. See Note 8. Derivative Financial Instruments in Part I, Item 1 "Unaudited Condensed Consolidated Financial Statements" contained herein.

Provision for Income Taxes

We recorded an income tax provision (benefit) for the three and nine months ended September 30, 2018 of $5.1 million and $24.0 million, respectively, compared to $(32.0) million and $(25.5) million for the same periods in 2017. Effective tax rates were 12.7% and 15.8% for the three and nine months ended September 30, 2018, respectively, and (61.7)% and (18.3)% for the same periods in 2017. The income tax provision for the three months ended September 31, 2018 includes a benefit of $3.4M for the release of a tax reserve, partially offset by a charge of $2.4M associated with planned cash repatriation. The income tax provision in the three months ended September 31, 2017 included a benefit of $40.2 million related to the recognition of the estimated worthless stock deduction for the liquidation of one of our wholly owned solar inverter entities.

The effective tax rates differ from the U.S. federal statutory rate of 21% and 35% for the 2018 and 2017 periods, respectively, primarily due to the benefit of the earnings in foreign jurisdictions which are subject to lower tax rates. Our effective tax rate for the three and nine months ended September 30, 2018 was also impacted by the effect of the recently enacted 2017 Tax Cuts and Jobs Act (“Tax Act”), with the benefit from the corporate income tax rate reduction to 21% offset by additional global intangible low-taxed income of foreign subsidiaries tax (“GILTI tax”), and entry into additional foreign taxable jurisdictions, among others.

Our future effective income tax rate depends on various factors, such as changes in tax laws, regulations, accounting principles, or interpretations thereof and the geographic composition of our pre-tax income. We carefully monitor these factors and adjust our effective income tax rate accordingly.

The Tax Act contains several key tax provisions that affected our financial results for 2017, including a one-time mandatory transition tax on our accumulated foreign earnings and the reduction of the corporate income tax rate from 35% to 21%, effective January 1, 2018, which required a revaluation of our U.S. deferred tax assets. The Tax Act also contains several key tax provisions that affect our financial results for 2018, including reduction of the corporate income tax rate from 35% to 21% and application of the GILTI tax.

In December 2017, the SEC staff issued Staff Accounting Bulletin No. 118, Income Tax Accounting Implications of the Tax Cuts and Jobs Act (SAB 118), which allows us to record provisional amounts during a measurement period not to extend

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beyond one year of the enactment date. Since the Tax Act was passed late in the fourth quarter of 2017, and ongoing guidance and accounting interpretation is expected over the next 12 months, we consider the accounting for the transition tax, deferred tax re-measurements, and other items to be incomplete due to the forthcoming guidance and our ongoing analysis of final year-end data and tax positions. We expect to complete our analysis within the measurement period in accordance with SAB 118.

Results of Discontinued Operations

We completed the wind down of our inverter engineering, manufacturing and sales product line in December 2015. Accordingly, the inverter product line is presented as a discontinued operation for all periods presented herein. Extended warranties previously sold for the inverter product line are reflected in deferred revenue from continuing operations on our Unaudited Condensed Consolidated Balance Sheets and will be reflected in continuing operations in future periods as the deferred revenue is earned and the associated services are rendered.

Income from discontinued operations, net of income taxes are as follows:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2017	2018	2017
Sales	$—	$—	$—	$—
Cost of sales	—	944	(88)	47
Total operating expense (benefit)	—	(441)	31	(1,587)
Operating income (loss) from discontinued operations	—	(503)	57	1,540
Other income (expense)	(258)	(86)	(261)	291
Income (loss) from discontinued operations before income taxes	(258)	(589)	(204)	1,831
Provision (benefit) for income taxes	113	(659)	22	(512)
Income (loss) from discontinued operations, net of income taxes	$(371)	$70	$(226)	$2,343

Operating income from discontinued operations for the three and nine months ended September 30, 2018 and 2017 includes the impacts of changes in our estimated product warranty liability, the recovery of accounts receivable and foreign exchange gain or (losses).

Non-GAAP Results

Management uses non-GAAP operating income and non-GAAP EPS to evaluate business performance without the impacts of certain non-cash charges and other charges which are not part of our usual operations. We use these non-GAAP measures to assess performance against business objectives, make business decisions, including developing budgets and forecasting future periods. In addition, management's incentive plans include these non-GAAP measures as criteria for achievements. These non-GAAP measures are not in accordance with U.S. GAAP and may differ from non-GAAP methods of accounting and reporting used by other companies. However, we believe these non-GAAP measures provide additional information that enables readers to evaluate our business from the perspective of management. The presentation of this additional information should not be considered a substitute for results prepared in accordance with U.S. GAAP.

The non-GAAP results presented below exclude the impact of non-cash related charges, such as the amortization of intangible assets, stock-based compensation, and restructuring charges, as well as acquisition-related costs and other nonrecurring costs, as they are not indicative of future performance. The tax effect of our non-GAAP adjustments represents the anticipated annual tax rate applied to each non-GAAP adjustment after consideration of their respective book and tax treatments.

Reconciliation of Non-GAAP measure - operating expenses and operating income from continuing operations, excluding certain items	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2017	2018	2017
Gross profit from continuing operations, as reported	$85,539	$92,234	$290,419	$258,206
Adjustments to gross profit:				
Stock-based compensation	76	334	576	1,048
Facility transition and relocation costs	725	—	974	—
Acquisition-related costs	158	—	158	—
Non-GAAP gross profit from continuing operations	86,498	92,568	292,127	259,254
Operating expenses from continuing operations, as reported	45,677	40,561	138,436	115,498
Adjustments:				
Amortization of intangible assets	(1,437)	(1,240)	(3,958)	(3,176)
Stock-based compensation	(948)	(3,119)	(6,885)	(9,659)
Acquisition-related costs	(705)	—	(1,310)	(150)
Facility expansion and relocation costs	(29)	—	(518)	—
Restructuring charges	(403)	—	(403)	—
Non-GAAP operating expenses from continuing operations	42,155	36,202	125,362	102,513
Non-GAAP operating income from continuing operations	$44,343	$56,366	$166,765	$156,741

Reconciliation of Non-GAAP measure - operating expenses and operating income from continuing operations, excluding certain items	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2017	2018	2017
Gross profit from continuing operations, as reported	49.4 %	52.2 %	51.4 %	52.5 %
Adjustments to gross profit:				
Stock-based compensation	—	0.2	0.1	0.2
Facility transition and relocation costs	0.5	—	0.2	—
Acquisition-related costs	0.1	—	—	—
Non-GAAP gross profit from continuing operations	50.0	52.4	51.7	