

ADVANCED ENERGY INDUSTRIES INC  
Form 10-Q  
November 08, 2013  
Table Of Contents

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

---

FORM 10-Q

---

QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934.

For the quarterly period ended September 30, 2013

or

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  No

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  No

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 <input type="checkbox"/>	Accelerated filer <input checked="" type="checkbox"/>	Non-accelerated filer <input type="checkbox"/>	Smaller reporting company <input type="checkbox"/>
(Do not check if a smaller reporting company)			

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes  No

Edgar Filing: ADVANCED ENERGY INDUSTRIES INC - Form 10-Q

As of October 31, 2013 there were 39,984,269 shares of the registrant's Common Stock, par value \$0.001 per share, outstanding.

---

ADVANCED ENERGY INDUSTRIES, INC.  
FORM 10-Q  
TABLE OF CONTENTS

	Page
<u>PART I FINANCIAL STATEMENTS</u>	<u>3</u>
<u>ITEM 1. UNAUDITED CONDENSED CONSOLIDATED FINANCIAL STATEMENTS</u>	<u>3</u>
<u>Condensed Consolidated Balance Sheets</u>	<u>3</u>
<u>Condensed Consolidated Statements of Operations</u>	<u>4</u>
<u>Condensed Consolidated Statements of Comprehensive Income</u>	<u>5</u>
<u>Condensed Consolidated Statements of Cash Flows</u>	<u>6</u>
<u>Notes to Condensed Consolidated Financial Statements</u>	<u>7</u>
<u>ITEM 2. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS</u>	<u>25</u>
<u>ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK</u>	<u>34</u>
<u>ITEM 4. CONTROLS AND PROCEDURES</u>	<u>34</u>
<u>PART II OTHER INFORMATION</u>	<u>36</u>
<u>ITEM 1. LEGAL PROCEEDINGS</u>	<u>36</u>
<u>ITEM 1A. RISK FACTORS</u>	<u>36</u>
<u>ITEM 2. UNREGISTERED SALES OF EQUITY SECURITIES AND USE OF PROCEEDS</u>	<u>37</u>
<u>ITEM 3. DEFAULTS UPON SENIOR SECURITIES</u>	<u>38</u>
<u>ITEM 4. MINE SAFETY DISCLOSURES</u>	<u>38</u>
<u>ITEM 5. OTHER INFORMATION</u>	<u>38</u>
<u>ITEM 6. EXHIBITS</u>	<u>39</u>
<u>SIGNATURES</u>	<u>40</u>
EX-10.1	
EX-10.2	
EX-31.1	
EX-31.2	
EX-32.1	
EX-32.2	



Table Of Contents

## PART I FINANCIAL STATEMENTS

## ITEM 1. UNAUDITED CONDENSED CONSOLIDATED FINANCIAL STATEMENTS

## ADVANCED ENERGY INDUSTRIES, INC.

## Condensed Consolidated Balance Sheets \*

(In thousands, except per share amounts)

	September 30, 2013	December 31, 2012
<b>ASSETS</b>		
<b>CURRENT ASSETS:</b>		
Cash and cash equivalents	\$92,449	\$146,564
Marketable securities	12,277	25,683
Accounts receivable, net of allowances of \$4,372 and \$4,589, respectively	130,311	83,914
Inventories, net of reserves of \$16,341 and \$14,629, respectively	123,152	81,482
Deferred income tax assets	19,465	19,477
Income taxes receivable	9,249	4,315
Other current assets	13,908	9,075
Total current assets	400,811	370,510
Property and equipment, net	36,348	39,523
<b>OTHER ASSETS:</b>		
Deposits and other	7,641	7,529
Goodwill	148,432	60,391
Other intangible assets, net	20,494	46,209
Deferred income tax assets	13,953	13,998
Total assets	\$627,679	\$538,160
<b>LIABILITIES AND STOCKHOLDERS' EQUITY</b>		
<b>CURRENT LIABILITIES:</b>		
Accounts payable	\$67,563	\$41,044
Income taxes payable	2,017	11,029
Accrued payroll and employee benefits	11,713	11,675
Accrued warranty expense	11,710	7,419
Other accrued expenses	21,946	15,399
Customer deposits	3,849	2,080
Notes payable to banks	11,436	—
Total current liabilities	130,234	88,646
<b>LONG-TERM LIABILITIES:</b>		
Deferred income tax liabilities	18,095	16,832
Uncertain tax positions	13,669	13,669
Accrued warranty expense	6,426	7,378
Other long-term liabilities	44,414	24,004
Total liabilities	212,838	150,529
<b>STOCKHOLDERS' EQUITY:</b>		
Preferred stock, \$0.001 par value, 1,000 shares authorized, none issued and outstanding	—	—
Common stock, \$0.001 par value, 70,000 shares authorized; 39,959 and 37,991 issued and outstanding, respectively	40	38
Additional paid-in capital	240,157	212,520
Retained earnings	143,079	145,348
Accumulated other comprehensive income	31,565	29,725

Edgar Filing: ADVANCED ENERGY INDUSTRIES INC - Form 10-Q

Total stockholders' equity	414,841	387,631
Total liabilities and stockholders' equity	\$627,679	\$538,160

\* Amounts as of September 30, 2013 are unaudited. Amounts as of December 31, 2012 are derived from the December 31, 2012 audited Consolidated Financial Statements.

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

3

---

Table Of Contents

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

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2013	2012	2013	2012
SALES	\$142,899	\$117,515	\$394,424	\$338,960
COST OF SALES	86,688	71,788	243,115	209,760
GROSS PROFIT	56,211	45,727	151,309	129,200
OPERATING EXPENSES:				
Research and development	15,105	14,564	45,098	44,181
Selling, general and administrative	22,138	16,806	62,702	53,571
Amortization of intangible assets	626	1,416	4,814	4,139
Restructuring charges and asset impairment	19,884	3,003	44,090	5,434
Total operating expenses	57,753	35,789	156,704	107,325
OPERATING INCOME (LOSS)	(1,542 )	9,938	(5,395 )	21,875
OTHER INCOME (EXPENSE), NET	164	65	(369 )	2,251
Income (loss) from continuing operations before income taxes	(1,378 )	10,003	(5,764 )	24,126
Provision (benefit) for income taxes	(2,065 )	4,268	(3,495 )	8,824
INCOME (LOSS) FROM CONTINUING OPERATIONS, NET OF INCOME TAXES	687	5,735	(2,269 )	15,302
Income from discontinued operations, net of income taxes	—	—	—	430
NET INCOME (LOSS)	\$687	\$5,735	\$(2,269 )	\$15,732
Basic weighted-average common shares outstanding	39,878	37,807	39,365	39,148
Diluted weighted-average common shares outstanding	40,577	38,330	40,150	39,720
EARNINGS PER SHARE:				
CONTINUING OPERATIONS:				
BASIC EARNINGS (LOSS) PER SHARE	\$0.02	\$0.15	\$(0.06 )	\$0.39
DILUTED EARNINGS (LOSS) PER SHARE	\$0.02	\$0.15	\$(0.06 )	\$0.39
DISCONTINUED OPERATIONS				
BASIC EARNINGS PER SHARE	\$0.00	\$0.00	\$0.00	\$0.01
DILUTED EARNINGS PER SHARE	\$0.00	\$0.00	\$0.00	\$0.01
NET INCOME:				
BASIC EARNINGS (LOSS) PER SHARE	\$0.02	\$0.15	\$(0.06 )	\$0.40
DILUTED EARNINGS (LOSS) PER SHARE	\$0.02	\$0.15	\$(0.06 )	\$0.40

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

Table Of Contents

## ADVANCED ENERGY INDUSTRIES, INC.

## Condensed Consolidated Statements of Comprehensive Income (Unaudited)

(In thousands)

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2013	2012	2013	2012
Net income (loss)	\$687	\$5,735	\$(2,269 )	\$15,732
Other comprehensive income (loss), net of tax:				
Foreign currency translation adjustment	5,376	1,095	1,851	226
Unrealized gains (losses) on marketable securities	(5 )	2	(12 )	16
Comprehensive income (loss)	\$6,058	\$6,832	\$(430 )	\$15,974

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



Table Of Contents

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

	Nine Months Ended September	
	30,	2012
	2013	2012
<b>CASH FLOWS FROM OPERATING ACTIVITIES:</b>		
Net income (loss)	\$(2,269	) \$15,732
Adjustments to reconcile net income (loss) to net cash provided by (used in) operating activities:		
Depreciation and amortization	14,487	13,109
Stock-based compensation expense	9,310	10,072
Benefit for deferred income taxes	(13	) (54
Restructuring charges and asset impairment	44,090	5,434
Net gain (loss) on sale or disposal of assets	421	(557
Changes in operating assets and liabilities:		
Accounts receivable	(35,711	) 31,130
Inventories	(23,453	) (6,995
Other current assets	(727	) 4,086
Accounts payable	8,356	7,673
Other current liabilities and accrued expenses	(5,665	) 4,344
Income taxes	(13,472	) 8,276
Net cash provided by (used in) operating activities	(4,646	) 92,250
<b>CASH FLOWS FROM INVESTING ACTIVITIES:</b>		
Purchases of marketable securities	(16,137	) (20,522
Proceeds from sale of marketable securities	29,493	23,476
Proceeds from the sale of assets	—	2,200
Purchases of property and equipment	(6,589	) (6,676
Acquisitions, net of cash acquired	(75,374	) —
Net cash used in investing activities	(68,607	) (1,522
<b>CASH FLOWS FROM FINANCING ACTIVITIES:</b>		
Borrowings from lines of credit	(916	) —
Purchase and retirement of common stock	—	(57,117
Proceeds from exercise of stock options	20,026	2,669
Excess tax from stock-based compensation deduction	(604	) (634
Other financing activities	(69	) (71
Net cash provided by (used in) financing activities	18,437	(55,153
EFFECT OF CURRENCY TRANSLATION ON CASH	701	(2,180
INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS	(54,115	) 33,395
CASH AND CASH EQUIVALENTS, beginning of period	146,564	117,639
CASH AND CASH EQUIVALENTS, end of period	\$92,449	\$151,034
<b>SUPPLEMENTAL DISCLOSURE OF CASH FLOW INFORMATION:</b>		
Cash paid for interest	\$70	\$14
Cash paid for income taxes	14,888	3,343
Cash received for refunds of income taxes	2,945	7,345
Cash held in banks outside the United States of America	29,068	37,543

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



Table Of Contents

ADVANCED ENERGY INDUSTRIES, INC.  
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS

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 power into various usable forms. Our products enable manufacturing processes that use thin film deposition for various products, such as semiconductor devices, flat panel displays, thin film renewables, and architectural glass. We also supply thermal instrumentation products for advanced temperature control in the thin film process for these same markets. Our solar inverter products support renewable power generation solutions for primarily commercial, and utility-scale solar projects and installations. Our network of global service support centers provides a recurring revenue opportunity as we offer repair services, conversions, upgrades, and refurbishments to companies using our products. We also offer a wide variety of operations and maintenance service plans that can be tailored for individual photovoltaic ("PV") sites of all sizes.

We are organized into two strategic business units ("SBU") based on the products and services provided.

Thin Films Processing Power Conversion and Thermal Instrumentation ("Thin Films") SBU offers products for direct current ("DC"), pulsed DC mid frequency, and radio frequency ("RF") power supplies, matching networks and RF instrumentation as well as thermal instrumentation products.

Solar Energy SBU offers both a transformer-based or transformerless advanced grid-tied PV inverter solution for commercial and utility-scale system installations. Our PV inverters are designed to convert renewable solar power, drawn from large and small scale solar arrays, into high-quality, reliable electrical power.

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 at September 30, 2013, and the results of our operations and cash flows for the three and nine months ended September 30, 2013 and 2012.

The 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, 2012 and other financial information filed with the SEC.

ESTIMATES AND ASSUMPTIONS

The preparation of our 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, making it possible that a change in these estimates could occur in the near term.

REVENUE RECOGNITION

Our accounting policies are described in our audited Consolidated Financial Statements and Notes thereto contained in our Annual Report on Form 10-K for the year ended December 31, 2012.

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,

7

---

Table of Contents

ADVANCED ENERGY INDUSTRIES, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

whether adopted or to be adopted in the future, is not expected to have a material impact on the Condensed Consolidated Financial Statements upon adoption.

## NOTE 2. BUSINESS ACQUISITION &amp; DISPOSITION

## Acquisition

## Solvix SA

On November 8, 2012, we acquired Solvix SA ("Solvix"), a privately-held Switzerland based company, pursuant to a stock purchase agreement dated November 8, 2012 between AEI International Holdings, CV ("AEI CV"), a wholly-owned subsidiary of Advanced Energy incorporated in the Netherlands, and CPA Group SA ("CPA Group"), a privately held Switzerland company. Pursuant to the stock purchase agreement, AEI CV purchased 100% of the outstanding stock of Solvix.

We acquired all of the outstanding Solvix common stock for total consideration with a fair value of approximately \$21.2 million consisting of cash payments totaling \$16.0 million, net of cash acquired, and contingent consideration payable to the former shareholders of Solvix. The additional cash consideration of up to \$7.9 million is payable to CPA Group if certain milestone targets are met during the year ending December 31, 2013 and certain financial targets are met in the three years ended December 31, 2015. The estimated fair value of this contingent consideration is approximately \$5.3 million as of November 8, 2012, of which the remaining balance of \$0.9 million is included in Other accrued expenses and \$2.3 million is included in Other long-term liabilities on the Condensed Consolidated Balance Sheet.

Solvix is a manufacturer of power supplies for the surface treatment and thin films industry. Solvix manufactures products that bring plasma-based sputtering and cathodic arc deposition applications to Advanced Energy's existing product portfolio and is included in our Thin Film business unit. Solvix has approximately 10 employees and had revenues of \$5.2 million in its fiscal year ended September 30, 2012.

During 2013, we initiated the move of the Solvix product line from a contract manufacturer in Switzerland to our Shenzhen facility. The move will be completed by the end of the fourth quarter of 2013.

The components of the fair value of the total consideration transferred for the Solvix acquisition are as follows (in thousands):

Cash paid to owners	\$16,673	
Contingent consideration	5,253	
Cash acquired	(680	)
Total fair value of consideration transferred	\$21,246	

Table of Contents

ADVANCED ENERGY INDUSTRIES, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

The following table summarizes estimated fair values of the assets acquired and liabilities assumed as of November 8, 2012 (in thousands):

Cash	\$680	
Accounts receivable	1,074	
Inventories	57	
Other receivables	32	
Other current assets	46	
Property and equipment	43	
Accounts payable	(390)	)
Accrued payroll and employee benefits	(186)	)
Other accrued expenses	(159)	)
Customer deposits	(38)	)
Deferred tax liabilities	(1,628)	)
	(469)	)
Amortizable intangible assets:		
Trademarks	106	
Technology	2,723	
Customer relationships	5,398	
Total amortizable intangible assets	8,227	
Total identifiable net assets	7,758	
Goodwill	13,488	
Total fair value of consideration transferred	\$21,246	

A summary of the intangible assets acquired, amortization method and estimated useful lives as of November 8, 2012 follows (in thousands, except useful life):

	Amount	Amortization Method	Useful Life
Trademarks	\$106	Straight-line	3
Technology	2,723	Straight-line	9
Customer relationships - other	755	Straight-line	7
Customer relationships - design	4,643	Straight-line	12
	\$8,227		

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.

The cost of the acquisition may increase or decrease based on the final amount payable to the former owner of Solvix related to the financial targets to be met during the three years ending December 31, 2015. Advanced Energy is in the process of finalizing valuations of other intangibles, estimates of the fair value of liabilities associated with the acquisition and deferred taxes and expects to complete the acquisition accounting and required disclosures prior to December 31, 2013.

Refusol Holding

On April 8, 2013, we acquired all the outstanding shares of Refusol Holding GmbH pursuant to a Sale and Purchase Agreement (the "Agreement") between AEI Holdings, GmbH (formerly Blitz S13-103, GmbH) ("AEI Holdings"), an indirect wholly-owned subsidiary of Advanced Energy Industries, Inc. and Jolaos Verwaltungs GmbH ("Jolaos") and Prettl Beteiligungs Holding GmbH. Refusol Holding GmbH ("Refusol Holding") owns all of the shares of Refusol GmbH and its subsidiaries (collectively and together with Refusol Holding, "Refusol"). Refusol develops, manufactures, distributes and services photovoltaic inverters.

All of the outstanding shares of Refusol Holding were acquired for total consideration of approximately \$87.2 million, consisting of a cash payment of \$75.4 million, net of cash acquired and a working capital reduction and assumption of debt totaling \$11.9 million. The agreement calls for additional cash consideration if certain stretch financial targets are

met by our Solar Energy

9

---

Table of Contents

ADVANCED ENERGY INDUSTRIES, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

business unit and Refusol, on a combined basis, at the end of the twelve (12) calendar months following April 1, 2013. The contingent consideration has no estimated fair value as of April 8, 2013 based on management's estimates of operating income for the Solar Energy business unit for the specified period. The preliminary base price is subject to a post-closing adjustment based on confirmation of the financial statements of Refusol effective as of the closing date. Refusol develops three-phase string inverters for commercial customers across Europe and Asia. Its three-phase string inverter offerings range in size from 8kW to 24kW broadening the range of solar inverter products offered by Advanced Energy. Refusol is included in our Solar Energy business unit. Refusol had revenues of \$170.5 million in its fiscal year ended December 31, 2012.

The components of the fair value of the total consideration transferred for the Refusol acquisition are as follows (in thousands):

Cash paid to owners	\$79,550	
Debt assumed	11,873	
Working capital adjustment	(2,340)	)
Cash acquired	(1,836)	)
Total fair value of consideration transferred	\$87,247	

The following table summarizes estimated fair values of the assets acquired and liabilities assumed as of April 8, 2013 (in thousands):

Accounts receivable	10,705	
Inventories	17,477	
Other current assets	7,028	
Property and equipment	5,165	
Other long-term assets	130	
Current liabilities	(21,257)	)
Long-term liabilities	(23,664)	)
Deferred tax liabilities	(2,985)	)
	(7,401)	)

Amortizable intangible assets:

Trademarks	1,300
Technology	5,700
Customer relationships	3,500
Total amortizable intangible assets	10,500
Total identifiable net assets	3,099
Goodwill	84,148
Total fair value of consideration transferred	\$87,247

A summary of the intangible assets acquired, amortization method and estimated useful lives as of April 8, 2013 follows (in thousands, except useful life):

	Amount	Amortization Method	Useful Life
Trademarks	\$1,300	Straight-line	1.5
Technology	5,700	Straight-line	5
Customer relationships	3,500	Straight-line	5
	\$10,500		

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. The goodwill associated with the acquisition is the result of expected synergies and expansion of the technology into additional markets that we already serve.



Table of Contents

ADVANCED ENERGY INDUSTRIES, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

The cost of the acquisition may increase or decrease based on the final amount payable to the former owner of Refusol related to the financial targets to be met during the twelve month period subsequent to April 1, 2013 and a post-closing working capital adjustment based on confirmation of the financial statements of Refusol effective as of the closing date. Advanced Energy is in the process of finalizing valuations of accounts receivable, inventory, other intangibles, property, plant and equipment, estimates of the fair value of liabilities associated with the acquisition and deferred taxes.

The results of Refusol operations are included in our Condensed Consolidated Statements of Operations beginning April 8, 2013. For the period ended September 30, 2013, net sales of approximately \$43.8 million and operating loss of \$3.1 million attributable to Refusol were included in the Condensed Consolidated Statements of Operations.

Refusol's results of operations included restructuring charges of \$3.7 million and amortization of purchased intangible assets of \$1.4 million.

Pro Forma Results for Refusol Acquisition

The following unaudited pro forma financial information presents the combined results of operations of Advanced Energy and Refusol as if the acquisition had occurred as of January 1, 2012. The pro forma financial information is presented for informational purposes and is not indicative of the results of operations that would have been achieved if the acquisition had taken place at January 1, 2012. The unaudited pro forma financial information for the three and nine months ended September 30, 2012 includes the historical results of Advanced Energy for the three and nine months ended September 30, 2012 and the historical results of Refusol for the same periods.

The unaudited pro forma results for all periods presented include amortization charges for acquired intangible assets and related tax effects. These pro forma results consider the sale of the gas flow control business and related product lines as discontinued operations. The unaudited pro forma results follow (in thousands, except per share data):

	(Unaudited)			
	Three Months Ended September 30, 2013	Three Months Ended September 30, 2012	Nine Months Ended September 30, 2013	Nine Months Ended September 30, 2012
Sales	\$ 142,899	\$ 175,874	\$ 414,507	\$ 295,015
Net income (loss)	687	5,679	(6,975	) 9,433
Earnings (loss) per share:				
Basic	\$0.02	\$0.15	\$(0.18	) \$0.24
Diluted	\$0.02	\$0.14	\$(0.17	) \$0.24

Disposition

On October 15, 2010, we completed the sale of our gas flow control business, which included the Aera<sup>®</sup> mass flow control and related product lines to Hitachi Metals, Ltd. ("Hitachi"), for approximately \$43.3 million. Assets and liabilities sold included, without limitation, inventories, real property in Hachioji, Japan, equipment, certain contracts, intellectual property rights related to the gas flow control business and certain warranty liability obligations.

In connection with the closing of this asset disposition, we entered into a Master Services Agreement and a Supplemental Transition Services Agreement pursuant to which we provided certain transition services until October 2011 and we became an authorized service provider for Hitachi in all countries other than Japan. In March 2012, we entered into an agreement to sell certain fixed assets to Hitachi and cease providing contract manufacturing services. As of May 31, 2012, we ceased providing contract manufacturing services to Hitachi and completed the sale of certain fixed assets related to that manufacturing. The sale of these assets resulted in a \$1.9 million gain, which is recorded in Other income (expense), net in our Condensed Consolidated Statements of Operations. As of June 30, 2012, all manufacturing activities and relationships with Hitachi related to the previously owned gas flow control business have ended. We do not anticipate any additional activity with Hitachi in respect of these assets that would materially impact our financial statements in the future.

In accordance with authoritative accounting guidance for reporting discontinued operations, for the periods reported in this Form 10-Q, the results of continuing operations were reduced by the revenue and costs associated with the gas flow control business, which are included in the Income from discontinued operations, net of income taxes, in our Condensed Consolidated Statements of Operations.

Table of Contents

ADVANCED ENERGY INDUSTRIES, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

Operating results of discontinued operations are as follows (in thousands):

	Nine Months Ended September 30, 2012	
Sales	\$8,959	
Cost of sales	9,189	
Gross profit (loss)	(230	)
Operating expenses:		
Research and development	—	
Selling, general, and administrative	88	
Total operating expenses	88	
Operating income (loss) from discontinued operations	(318	)
Other income	881	
Income from discontinued operations before income taxes	563	
Provision for income taxes	133	
Income from discontinued operations, net of income taxes	\$430	

## NOTE 3. INCOME TAXES

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

	Three Months Ended September 30,		Nine Months Ended September 30,		
	2013	2012	2013	2012	
Income (loss) from continuing operations before income taxes	\$(1,378	) \$10,003	\$(5,764	) \$24,126	
Provision (benefit) for income taxes	(2,065	) 4,268	(3,495	) 8,824	
Effective tax rate	149.9	% 42.7	% 60.6	% 36.6	%

The effective tax rates for the three and nine months ended September 30, 2013 differ from the federal statutory rate of 35% primarily due to the effect of changes in foreign earnings coupled with the impact of the restructuring charges in the period. The effective tax rate is also impacted by discrete items recorded in the period.

For the three months ended September 30, 2013, the company recognized \$4.9 million in net discrete tax benefits related to unrecognized tax benefits including the expiration of the statutes of limitations for multiple tax years. As of September 30, 2013, the total amount of gross unrecognized tax benefits was \$4.7 million, all of which, if recognized, would impact the effective tax rate.

Our policy is to classify accrued interest and penalties related to unrecognized tax benefits in our income tax provision. For the three and nine months ended September 30, 2013 and 2012, the amount of interest and penalties accrued related to our unrecognized tax benefits was not significant.

## NOTE 4. EARNINGS PER SHARE FOR CONTINUING OPERATIONS

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 diluted EPS is similar to the computation of basic EPS except that the numerator is increased to exclude charges that would not have been incurred, and 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 securities containing potentially dilutive common shares (e.g., stock options and restricted stock units) had been converted to common shares, and if such assumed conversion is dilutive.

Table of Contents

ADVANCED ENERGY INDUSTRIES, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

The following is a reconciliation of the weighted-average shares outstanding used in the calculation of basic and diluted EPS (in thousands, except per share data):

	Three Months Ended		Nine Months Ended	
	September 30,		September 30,	
	2013	2012	2013	2012
Income (loss) from continuing operations, net of income taxes	\$687	\$5,735	\$(2,269)	\$15,302
Basic weighted-average common shares outstanding	39,878	37,807	39,365	39,148
Assumed exercise of dilutive stock options and restricted stock units	699	523	785	572
Diluted weighted-average common shares outstanding	40,577	38,330	40,150	39,720
Income from continuing operations:				
Basic earnings (loss) per share	\$0.02	\$0.15	\$(0.06)	\$0.39
Diluted earnings (loss) per share	\$0.02	\$0.15	\$(0.06)	\$0.39

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

	Three Months Ended		Nine Months Ended	
	September 30,		September 30,	
	2013	2012	2013	2012
Stock options	382	4,042	609	5,118
Share Repurchases				

In October 2012, our Board of Directors authorized a program to repurchase up to \$25.0 million of our stock over a twelve-month period. Under this program, during the three and nine months ended September 30, 2013, we have not yet repurchased any shares.

**NOTE 5. MARKETABLE SECURITIES**

Our investments with original maturities of more than three months at time of purchase are considered marketable securities available for sale.

The composition of our marketable securities is as follows (in thousands):

	September 30,		December 31,	
	2013		2012	
	Cost	Fair Value	Cost	Fair Value
Commercial paper	\$—	\$—	\$749	\$749
Certificates of deposit	12,277	12,277	12,498	12,498
Corporate bonds/notes	—	—	11,274	11,253
Municipal bonds/notes	—	—	285	285
Agency bonds/notes	—	—	900	898
Total marketable securities	\$12,277	\$12,277	\$25,706	\$25,683

The maturities of our marketable securities available for sale as of September 30, 2013 are as follows:

	Earliest	Latest
Certificates of deposit	10/8/2013	to 8/17/2015

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. Our current investments in marketable securities are expected to be liquidated during the next twelve months.

Table of Contents

ADVANCED ENERGY INDUSTRIES, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

As of September 30, 2013, we do not believe any of the underlying issuers of our marketable securities are presently at risk of default.

NOTE 6. 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. During the three and nine months ended September 30, 2013 and 2012, 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. At September 30, 2013 and December 31, 2012 we had outstanding Euro, Swiss Franc, and Canadian Dollar forward contracts. At September 30, 2013, we also had outstanding Japanese Yen forward contracts.

The notional amount of foreign currency exchange contracts at September 30, 2013 and 2012 was \$36.0 million and \$31.2 million, respectively, and the fair value of these contracts was not significant at September 30, 2013 and 2012. During the three months ended September 30, 2013 and 2012, we recognized losses of \$1.3 million and \$0.9 million, respectively, on our foreign currency exchange contracts. During the nine months ended September 30, 2013 and 2012, we recognized losses of \$0.6 million and \$0.3 million, respectively. These losses were offset by corresponding gains on the related intercompany debt and both are included as a component of Other income (expense), net, in our Condensed Consolidated Statements of Operations.

NOTE 7. ASSETS MEASURED AT FAIR VALUE

The following tables present information about our financial assets measured at fair value, on a recurring basis, as of September 30, 2013, and December 31, 2012. The tables indicate the fair value hierarchy of the valuation techniques utilized to determine such fair value. We did not have any financial liabilities measured at fair value, on a recurring basis, as of September 30, 2013, and December 31, 2012.

September 30, 2013	Level 1	Level 2	Level 3	Total
	(In thousands)			
Certificates of deposit	\$—	\$12,277	\$—	\$12,277
Total marketable securities	\$—	\$12,277	\$—	\$12,277

December 31, 2012	Level 1	Level 2	Level 3	Total
	(In thousands)			
Commercial paper	\$—	\$749	\$—	\$749
Certificates of deposit	—	12,498	—	12,498
Corporate bonds/notes	—	11,253	—	11,253
Municipal bonds/notes	—	285	—	285
Agency bonds/notes	898	—	—	898
Total marketable securities	\$898	\$24,785	\$—	\$25,683

There were no transfers in or out of Level 1, 2, or 3 fair value measurements during the three or nine months ended September 30, 2013.

NOTE 8. INVENTORIES

Our inventories are valued at the lower of cost or market and computed on a first-in, first-out (FIFO) basis.

Components of inventories are as follows (in thousands):

	September 30, 2013	December 31, 2012
Parts and raw materials	\$85,789	\$59,484
Work in process	6,017	3,728
Finished goods	31,346	18,270

Inventories, net of reserves	\$123,152	\$81,482
------------------------------	-----------	----------

14

---

Table of Contents

ADVANCED ENERGY INDUSTRIES, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

## NOTE 9. PROPERTY AND EQUIPMENT

Details of property and equipment are as follows (in thousands):

	September 30, 2013	December 31, 2012
Buildings and land	\$1,776	\$1,794
Machinery and equipment	42,681	40,993
Computer and communication equipment	24,169	22,895
Furniture and fixtures	4,370	1,845
Vehicles	370	359
Leasehold improvements	23,472	27,976
Construction in process	4,719	3,362
	101,557	99,224
Less: Accumulated depreciation	(65,209)	(59,701)
Property and equipment, net	\$36,348	\$39,523

Depreciation expense recorded in continuing operations is as follows (in thousands):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2013	2012	2013	2012
Depreciation expense	\$3,269	\$3,075	\$9,673	\$8,970

## NOTE 10. GOODWILL

The following summarizes the changes in goodwill during the nine months ended September 30, 2013 (in thousands):

Gross carrying amount, beginning of period	\$60,391
Additions	84,148
Translation adjustments	3,893
Gross carrying amount, end of period	\$148,432

## NOTE 11. INTANGIBLE ASSETS

Other intangible assets consisted of the following as of September 30, 2013 (in thousands, except weighted-average useful life):

	Gross Carrying Amount	Effect of Changes in Exchange Rates	Impairment	Accumulated Amortization	Net Carrying Amount	Weighted-Average Useful Life in Years
Amortizable intangibles:						
Technology-based	\$50,368	\$323	\$(26,167)	\$(14,006)	\$10,518	4
Trademarks and other	18,515	386	(5,705)	(3,220)	9,976	7
Total amortizable intangibles	\$68,883	\$709	\$(31,872)	\$(17,226)	\$20,494	

Table of Contents

ADVANCED ENERGY INDUSTRIES, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

Other intangible assets consisted of the following as of December 31, 2012 (in thousands, except weighted-average useful life):

	Gross Carrying Amount	Effect of Changes in Exchange Rates	Accumulated Amortization	Net Carrying Amount	Weighted-Average Useful Life in Years
Amortizable intangibles:					
Technology-based	\$44,668	\$83	\$(10,775)	\$33,976	7
Trademarks and other	13,703	167	(1,637)	12,233	9
Total amortizable intangibles	\$58,371	\$250	\$(12,412)	\$46,209	

Amortization expense relating to other intangible assets included in our income (loss) from continuing operations is as follows (in thousands):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2013	2012	2013	2012
Amortization expense	\$626	\$1,416	\$4,814	\$4,139
Amortization expense related to intangibles for each of the five years 2013 through 2017 and thereafter is as follows (in thousands):				
Year Ending December 31,				
2013 (remaining)				\$1,322
2014				5,062
2015				3,979
2016				2,744
2017				2,744
Thereafter				4,643
				\$20,494

## NOTE 12. OTHER ACCRUED EXPENSES

Other accrued expenses consisted of the following (in thousands):

	September 30, 2013	December 31, 2012
Other accrued expenses:		
Current deferred tax liability	\$4,139	\$4,137
Accrued restructuring costs	3,445	1,853
Current contingent consideration	851	2,773
Accrued sales and use tax	3,597	1,010
Other*	9,914	5,626
Total Other accrued expenses	\$21,946	\$15,399

\*Other accrued expenses consisted of items that are individually less than 5% of total current liabilities.



Table of Contents

ADVANCED ENERGY INDUSTRIES, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

## NOTE 13. RESTRUCTURING COSTS

In April 2013, we committed to a restructuring plan to take advantage of additional cost saving opportunities in connection with our acquisition of Refusol. The plan called for consolidating certain facilities, further centralizing our manufacturing and rationalizing certain products to most effectively meet customer needs. Collectively, these steps will enable us to more efficiently use our resources to achieve strategic goals.

As a part of the product rationalization initiated under the restructuring plan, we determined that the intangible assets associated with certain technology should be tested for recoverability. To test the intangible assets for recoverability, we compared the carrying value of the assets with their fair value which resulted in an impairment of \$36.2 million which is recorded in restructuring charges and asset impairment in the Condensed Consolidated Statement of Operations for the three and nine months ended September 30, 2013.

Over the next three months, we will continue to consolidate facilities; transfer the remaining supply chain activities of our Thin Films business unit to the Shenzhen, China manufacturing facility; and rationalize the inverter product line to most effectively meet the needs of its customers. As a result, we anticipate additional charges of approximately \$0.5 million, all of which are expected to be cash expenditures. Estimated total expenses to be incurred under the plan are approximately \$44.6 million to \$44.9 million. Of this total, approximately \$6.5 million to \$6.8 million relates to severance costs, \$6.2 million to \$6.5 million for space consolidation, and \$31.9 million for product rationalization and impairments of the intangible assets associated with the technology around those products.

The following table summarizes the components of our restructuring costs incurred under the 2013 plan (in thousands):

	Three Months Ended September 30, 2013	Nine Months Ended September 30, 2013	Cumulative costs through September 30, 2013
Severance and related costs	\$1,590	\$6,010	\$6,010
Property and equipment and intangible asset impairments	18,475	36,219	36,219
Facility closure costs	(181)	) 1,861	1,861
Total restructuring charges	\$19,884	\$44,090	\$44,090

The following table summarizes our restructuring liabilities under the 2013 plan (in thousands):

	Balances at December 31, 2012	Costs incurred and charged to expense	Cost paid or otherwise settled	Effect of change in exchange rates	Balances at September 30, 2013
Severance and related costs	\$—	\$6,011	\$(3,417)	) \$(100)	) \$2,494
Property and equipment and intangible asset impairments	—	36,219	(36,219)	) —	—
Facility closure costs	—	1,860	(1,518)	) 19	361
Total restructuring liabilities	\$—	\$44,090	\$(41,154)	) \$(81)	) \$2,855

Table of Contents

ADVANCED ENERGY INDUSTRIES, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

In September 2011, we approved and committed to several initiatives to realign our manufacturing and research and development activities in order to foster growth and enhance profitability. These initiatives are designed to align research and development activities with the location of our customers and reduce production costs. Under this plan, we reduced our global headcount, consolidated our facilities by terminating or exiting several leases, and recorded impairments for assets no longer in use due to the restructuring of our business. All activities under this restructuring plan were completed prior to December 31, 2012. The following table summarizes our restructuring liabilities under this plan (in thousands):

	Balances at December 31, 2012	Costs incurred and charged to expense	Cost paid or otherwise settled	Effect of change in exchange rates	Balances at September 30, 2013
Severance and related costs	\$1,345	\$—	\$(1,137)	) \$—	\$208
Facility closure costs	508	—	(126)	) —	382
Total restructuring liabilities	\$1,853	\$—	\$(1,263)	) \$—	\$590

Table of Contents

ADVANCED ENERGY INDUSTRIES, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

## NOTE 14. WARRANTIES

Provisions of our sales agreements include product warranties customary to these types of agreements, ranging from 18 months to 24 months following installation for Thin Films products and 5 years to 10 years following installation for Solar Energy products. Our provision for the estimated cost of warranties is recorded when revenue is recognized. The warranty provision is based on historical experience by product, configuration and geographic region. We establish accruals for warranty issues that are probable to result in future costs. Changes in product warranty accruals are as follows (in thousands):

	Three Months Ended		Nine Months Ended	
	September 30,		September 30,	
	2013	2012	2013	2012
Balances at beginning of period	\$20,419	\$14,057	\$14,797	\$14,719
Warranty liabilities acquired	—	—	10,678	—
Increases to accruals related to sales during the period	2,404	2,650	8,108	6,350
Warranty expenditures	(4,687 )	(1,832 )	(15,447 )	(6,194 )
Balances at end of period	\$18,136	\$14,875	\$18,136	\$14,875

We also offer our Solar Energy customers the option to purchase additional warranty coverage up to 20 years after the base warranty period expires. Deferred revenue related to such extended warranty contracts was \$24.9 million as of September 30, 2013 and is all classified in Other long-term liabilities in the Condensed Consolidated Balance Sheet. As of December 31, 2012, deferred revenue related to extended warranty contracts was \$20.5 million, of which \$0.4 million is classified in Customer deposits and \$20.1 million is classified in Other long-term liabilities.

NOTE 15. STOCK-BASED  
COMPENSATION

We recognize stock-based compensation expense based on the fair value of the awards issued. Stock-based compensation for the three and nine months ended September 30, 2013 and 2012 is as follows (in thousands):

	Three Months Ended		Nine Months Ended	
	September 30,		September 30,	
	2013	2012	2013	2012
Stock-based compensation expense	\$4,106	\$2,835	\$9,310	\$10,072

## Stock Options

Stock option awards, other than awards under our 2012-2014 Long Term Incentive Plan ("LTI Plan"), are generally granted with an exercise price equal to the market price of our common stock at the date of grant, a four-year vesting schedule, and a term of 10 years.

Under the LTI Plan, we made grants of performance based options and awards during the first quarter of 2012, which will vest annually over a three-year period based on the Company's achievement of return on net assets targets established by our Board of Directors at the beginning of each year. These awards are granted with an exercise price equal to the market price of our common stock at the date of grant and have a term of 10 years. The fair value of each grant was estimated on the date of grant using the Black-Scholes-Merton option pricing model utilizing an expected volatility of 61.5%, a risk-free rate of 1.2%, a dividend yield of zero, and an expected term of 5.6 years. The weighted-average grant date fair value of the options is \$6.19 per share. The weighted average grant date fair value of the awards is \$11.03 per share.

In the second quarter of 2013, we granted additional options and awards under the LTI plan to our chief executive officer who was not previously a participant in the plan. The fair value of these shares was estimated using the Black-Scholes-Merton option pricing model utilizing an expected volatility of 68.9%, a risk free rate of 0.74%, a dividend yield of zero, and an expected term of 5.6 years. The weighted-average grant date fair value of the options is \$10.55 and the weighted-average grant date fair value of the awards is \$17.92.



Table of Contents

ADVANCED ENERGY INDUSTRIES, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

Also in the second quarter of 2013, we awarded restricted stock units to our chief executive officer which vest one-third on the grant date and one-third each on September 30, 2013 and December 31, 2013. The grant-date fair value of the awards is \$17.92.

A summary of our stock option activity for the nine months ended September 30, 2013 is as follows (in thousands):

	Shares	
Options outstanding at December 31, 2012	5,659	
Options granted	43	
Options exercised	(1,624	)
Options forfeited	(728	)
Options expired	(122	)
Options outstanding at September 30, 2013	3,228	

## Restricted Stock Units

Restricted Stock Units ("RSU") are generally granted with a four-year vesting schedule.

A summary of our non-vested RSU activity for the nine months ended September 30, 2013 is as follows (in thousands):

	Shares	
Balance at December 31, 2012	2,073	
RSUs granted	379	
RSUs vested	(434	)
RSUs forfeited	(290	)
Balance at September 30, 2013	1,728	

## NOTE 16. ACCUMULATED OTHER COMPREHENSIVE INCOME

Accumulated other comprehensive income consisted of the following (in thousands):

	Foreign Currency Adjustments	Unrealized Losses on Marketable Securities	Total Accumulated Other Comprehensive Income
Balances at December 31, 2012	\$29,730	\$(5	) \$29,725
Current period other comprehensive income (loss)	1,852	(12	) 1,840
Balances at September 30, 2013	\$31,582	\$(17	) \$31,565

## NOTE 17. 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, 2013 is approximately \$59.4 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, 2013.

Table of Contents

ADVANCED ENERGY INDUSTRIES, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

## NOTE 18. RELATED PARTY TRANSACTIONS

During the three and nine months ended September 30, 2013 and 2012, we engaged in the following transactions with companies related to members of our Board of Directors, as described below (in thousands):

	Three Months Ended		Nine Months Ended	
	September 30,		September 30,	
	2013	2012	2013	2012
Sales - related parties	\$20	\$102	\$635	\$579
Rent expense - related parties	465	466	1,407	1,403

## Sales - Related Parties

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, 2013, we had sales to two such customers as noted above and accounts receivable from one such customers totaled \$3,800 at September 30, 2013. During the three and nine months ended September 30, 2012, we had sales to two such customers as noted above and no aggregate accounts receivable from these customers at December 31, 2012.

## Rent Expense - Related Parties

We lease our executive offices, research and development, and manufacturing facilities in Fort Collins, Colorado from a limited liability partnership in which Douglas Schatz, our Chairman of the Board and former Chief Executive Officer, holds an interest. The leases relating to these spaces expire during 2021 and obligate us to total annual payments of approximately \$2.0 million, which includes facilities rent and common area maintenance costs.

## NOTE 19. SEGMENT INFORMATION

Our Thin Films SBU offers power conversion products for direct current, pulsed DC mid frequency, and radio frequency power supplies, matching networks, and RF instrumentation, as well as thermal instrumentation products. Our power conversion systems refine, modify, and control the raw electrical power from a utility and convert it into power that may be customized and is predictable and repeatable. Our thermal instrumentation products provide temperature measurement solutions for applications in which time-temperature cycles affect material properties, productivity, and yield. These products are used in rapid thermal processing, chemical vapor deposition, and other semiconductor and solar applications requiring non-contact temperature measurement. Our network of global service support centers offer repair services, conversions, upgrades, and refurbishments to companies using our products. Our Thin Films SBU principally serves original equipment manufacturers ("OEMs") and end customers in the semiconductor, flat panel display, solar panel, and other capital equipment markets.

Our Solar Energy SBU offers both a transformer-based and a transformerless advanced grid-tied PV inverter solution primarily for commercial and utility-scale system installations. Our PV inverters are designed to convert renewable solar power, drawn from large and small scale solar arrays, into high-quality, reliable electrical power. Our Solar Energy SBU focuses on commercial and utility-scale solar projects and installations, selling primarily to distributors, engineering, procurement, and construction contractors, developers, and utility companies. Our Solar Energy revenue has seasonal variations. Installations of inverters are normally lowest during the first quarter as a result of typically poor weather and installation scheduling by our customers.

Our chief operating decision maker, who is our Chief Executive Officer, and other management personnel regularly review our performance and make resource allocation decisions by reviewing the results of our two business segments separately. Revenue and operating profit is reviewed by our chief operating decision maker. We have also divided inventory and property and equipment based on business segment.

Table of Contents

ADVANCED ENERGY INDUSTRIES, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

Sales with respect to our operating segments is as follows (in thousands):

	Three Months Ended		Nine Months Ended	
	September 30,		September 30,	
	2013	2012	2013	2012
Thin Films	\$75,409	\$56,780	\$208,888	\$182,013
Solar Energy	67,490	60,735	185,536	156,947
Total	\$142,899	\$117,515	\$394,424	\$338,960

Income from continuing operations before income taxes by operating segment is as follows (in thousands):

	Three Months Ended		Nine Months Ended	
	September 30,		September 30,	
	2013	2012	2013	2012
Thin Films	\$18,150	\$6,065	\$40,067	\$18,113
Solar Energy	192	7,410	(1,372 )	10,643
Total segment operating income	18,342	13,475	38,695	28,756
Corporate expenses	—	(534 )	—	(1,447 )
Restructuring charges	(19,884 )	(3,003 )	(44,090 )	(5,434 )
Other income (expense), net	164	65	(369 )	2,251
Income (loss) from continuing operations before income taxes	\$(1,378 )	\$10,003	\$(5,764 )	\$24,126

Corporate expenses in 2012 consist of intangible amortization that is now being allocated to the business units.

Segment assets consist of inventories, net and property and equipment, net. A summary of consolidated total assets by segment follows (in thousands):

	September 30, 2013	December 31, 2012
Thin Films	\$42,513	\$40,965
Solar Energy	115,383	76,393
Total segment assets	157,896	117,358
Unallocated corporate property and equipment	1,603	3,647
Unallocated corporate assets	468,180	417,155
Consolidated total assets	\$627,679	\$538,160

"Corporate" is a non-operating business segment with the main purpose of supporting operations. Unallocated corporate assets include accounts receivable, deferred income taxes, other current assets and intangible assets.

During the three and nine months ended September 30, 2013, we had one customer accounting for 10% or more of our sales. Sales to Applied Materials, Inc. were \$23.5 million or 16.9% of total sales for the three month period and \$65.0 million or 16.5% of total sales for the nine month period. During the three and nine months ended September 30, 2012, we had one customer accounting for 10% or more of our sales. Sales to Applied Materials, Inc. were \$14.1 million or 12.0% of total sales during the three month period and \$49.8 million or 14.7% of total sales during the nine month period. Our sales to Applied Materials, Inc. include thin film products used in semiconductor processing and solar, flat panel display, and architectural glass applications. No other customer accounted for 10% or more of our sales during these periods.

**NOTE 20. CREDIT FACILITIES**

In October 2012, we, along with two of our wholly-owned subsidiaries, AE Solar Energy, Inc. and Sekidenko, Inc., entered into a Credit Agreement, subsequently amended in November 2012 and August 2013, (the "Credit Agreement") with Wells Fargo Bank, National Association ("Wells Fargo"), as agent for and on behalf of certain lenders (each a "Lender"), which provides for a

Table Of Contents

new secured revolving credit facility of up to \$50.0 million (the "Credit Facility"). The Credit Facility provides us with the ability to borrow up to \$50.0 million, although the amount of the Credit Facility may be increased by an additional \$25.0 million up to a total of \$75.0 million subject to receipt of lender commitments and other conditions. Borrowings under the Credit Facility are subject to a borrowing base based upon our domestic accounts receivable and inventory and are available for various corporate purposes, including general working capital, capital expenditures, and certain permitted acquisitions. The Credit Agreement also permits us to issue letters of credit. The maturity date of the Credit Facility is October 12, 2017.

At our election, the loans comprising each borrowing will bear interest at a rate per annum equal to either: (a) a "base rate" plus between one-half (0.5%) and one (1.0%) full percentage point depending on the amount available for additional draws under the Credit Facility ("Base Rate Loan"); or (b) the LIBOR rate then in effect plus between one and one-half (1.5%) and two (2%) percentage points depending on the amount available for additional draws under the Credit Facility. The "base rate" for any Base Rate Loan will be the greatest of the federal funds rate plus one-half (0.5%) percentage point; the one-month LIBOR rate plus one (1.0%) percentage point; and Wells Fargo's "prime rate" then in effect. As of September 30, 2013, the rate in effect was 4.25%.

The Credit Agreement requires us to pay certain fees to the Lenders and contains affirmative and negative covenants, which, among other things, require us to deliver to the Lenders specified quarterly and annual financial information, and limit us and our Guarantors (as defined below), subject to various exceptions and thresholds, from, among other things: (i) creating liens on our assets; (ii) merging with other companies or engaging in other extraordinary corporate transactions; (iii) selling certain assets or properties; (iv) entering into transactions with affiliates; (v) making certain types of investments; (vi) changing the nature of our business; and (vii) paying certain distributions or certain other payments to affiliates. Additionally, there are the following financial covenants: (i) during any period in which \$12.5 million or less is available to us under the Credit Facility and for sixty (60) days thereafter, the Credit Agreement requires the maintenance of a defined consolidated fixed charge coverage ratio; and (ii) if there is any indebtedness under any issued and outstanding convertible notes, we are required to maintain a specified level of liquidity.

The Credit Agreement requires us to pay certain fees to the Lenders, including a \$2,500 collateral management fee for each month that the Credit Facility is in place, and a fee based on the unused amount of the Credit Facility. During the nine months ended September 30, 2013, we expensed \$0.2 million in interest and fees related to unused line of credit fees and amortization of debt issuance costs. We did not borrow against the Credit Facility in the three and nine month periods of 2013.

Pursuant to a Guaranty and Security Agreement (the "GS Agreement"), borrowings under the Credit Facility are guaranteed by our wholly-owned subsidiaries Aera Corporation and AEI US Subsidiary, Inc., (collectively the "Guarantors"). Under the GS Agreement, we and the Guarantors granted the Lenders a security interest in certain, but not all, of our and the Guarantors' assets.

As part of the acquisition of Refusol described in Note 2. Business Acquisitions and Disposition, we assumed the outstanding debt of Refusol as of the acquisition date. There were three outstanding loans with banks related to this debt, of which one was repaid and cancelled during the third quarter of 2013.

Refusol, GmbH has an outstanding loan agreement with Commerzbank Aktiengesellschaft ("Commerzbank") for up to 8.0 million Euros ("Commerzbank Loan Agreement"). The agreement allows Refusol to borrow up to 8.0 million Euros through various types of instruments including an overdraft (revolving) facilities, money market (term) loans, surety loans, or guarantees. There is no maturity date. Borrowings under the revolving credit facility bear interest at 5.32%. Surety and guarantee loans bear interest at 1.5%. Money market loans are granted by separate agreement when requested and must meet certain Euro thresholds related to the value depending on the maturity date chosen. The Commerzbank Loan Agreement requires the payment of a credit commission of 0.5% of the total loan amount. The agreement contains a various covenants including a financial covenant requiring a specified level of equity.

Refusol, GmbH also had an outstanding loan agreement with Bayerische Landesbank ("Bayern") which allowed it to borrow up to 4.0 million Euros either as overdraft facilities, term loans, or guarantees with repayment occurring one lump sum at the maturity date of the individual transaction with respect to term loans, or maturity of the loan agreement which was July 31, 2013 (the "Bayern Loan Agreement"). The overdraft facility bore interest at 4.5%.

Term loans bore interest at the money market rate established by Bayern at the time of the loan plus a margin of 1.9%.



Guarantees bore interest at 1.25% and had an issuing fee per guarantee. Loan commitment fees were 0.25% on the unused portion of the total loan amount. The Bayern Loan Agreement contained certain reporting requirements and a financial covenant requiring a specified level of equity.

Upon expiration of this agreement, Refusol, GmbH entered into a new loan agreement with Bayerische Landesbank ("Bayern") under which it has the ability to borrow up to 4.0 million Euros as either bank overdrafts, term loans, guarantees, or letters of credit. The overdraft facility bears interest at 3.9%, guarantees bears a rate of 1.64% and interest on term loans is a fixed rate set for each term loan period based on money market rates. Loan commitment fees are 0.25%. The loan matures on July 31,

Table Of Contents

2014.

Refusol, Inc., a wholly-owned subsidiary of Refusol, GmbH located in the United States, has a revolving line of credit with Wells Fargo with an aggregate principal amount of \$1.5 million and a maturity date of July 1, 2013. Borrowings under the line of credit are secured by all of Refusol, Inc.'s accounts receivable, inventory, and property, plant, and equipment and a letter of credit issued under the Commerzbank Loan Agreement. The line of credit bears interest at either (a) a fluctuating rate per annum one quarter of one percent (0.25%) above the Prime Rate or (b) the LIBOR rate then in effect plus two percent (2.0%). Refusol, Inc. has the option to select the method of interest each month. A commitment fee of 0.125% is payable by Refusol, Inc. on the unused portion of the line of credit. The line of credit contains certain affirmative and negative covenants limiting Refusol, Inc.'s ability to borrow additional funds or guarantee the debt of others. This line of credit was paid down and cancelled on its maturity date of July 1, 2013.

24

---

Table Of Contents

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," "continue," "enables," "plan," "intend," 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.

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 Quarterly Report on Form 10-Q and, in our Annual Report on Form 10-K for the year ended December 31, 2012. We undertake no obligation to revise or update any forward-looking statements for any reason.

BUSINESS OVERVIEW

We design, manufacture, sell and support power conversion products that transform power into various usable forms. Our products enable manufacturing processes that use thin film and plasma enhanced chemical and physical processing for various products as well as grid-tied power conversion. We also supply thermal instrumentation products for advanced temperature control in the thin film process for these markets. Our network of global service support centers provides local repair and field service capability in key regions.

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 power conversion products are primarily used by semiconductor, solar panel and similar thin-film manufacturers including flat panel display, data storage, hard and optical coating, and architectural glass manufacturers.

Our thermal instrumentation products, used primarily in the semiconductor industry, provide temperature measurement and control solutions for applications in which time-temperature cycles affect productivity and yield. These products are used in rapid thermal processing, chemical vapor deposition, and other semiconductor and solar applications requiring non-contact temperature measurement.

Our grid-tied power conversion products offer advanced transformer-based or transformerless grid-tied PV solutions for commercial and utility-scale system installations. Our PV inverters are designed to convert renewable solar power, drawn from large and small scale solar arrays, into high-quality, reliable electrical power. These products are used for commercial and utility-scale solar projects and installations, and are sold primarily to distributors; engineering, procurement, and construction contractors; developers; and utility companies. These product revenues have seasonal variations. Installations of inverters are normally lowest during the first quarter of the year due to less favorable weather conditions and installation scheduling by our customers.

Our network of global service support centers offer repair services, upgrades and refurbishments to businesses that use our products.

On October 15, 2010, we sold our gas flow control business, which includes the Aera® mass flow control and related product lines, to Hitachi Metals, Ltd. Consequently, the results of operations from our gas flow control business have been excluded from our discussions relating to continuing operations.

On November 8, 2012, we acquired Solvix SA ("Solvix"), a privately held company based in Villaz-Saint-Pierre, Switzerland. The financial results discussed below include the financial results of Solvix for the three and nine months ended September 30, 2013. Note 2. Business Acquisition & Disposition in Part I Item 1 of this Form 10-Q describes the acquisition of Solvix.

As also noted in Note 2. Business Acquisitions and Disposition in Part I Item 1 of this Form 10-Q, we acquired Refusol Holdings GmbH ("Refusol") on April 8, 2013. The financial results discussed below include the financial results of Refusol for the period April 8, 2013 through September 30, 2013.



Table Of Contents

Our 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 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 also provided.

## Results of Operations

The following table sets forth, for the periods indicated, certain data derived from our Condensed Consolidated Statements of Operations (in thousands):

	Three Months Ended		Nine Months Ended	
	September 30,		September 30,	
	2013	2012	2013	2012
Sales	\$142,899	\$117,515	\$394,424	\$338,960
Gross profit	56,211	45,727	151,309	129,200
Operating expenses	57,753	35,789	156,704	107,325
Operating income (loss)	(1,542 )	9,938	(5,395 )	21,875
Other income (expenses), net	164	65	(369 )	2,251
Income (loss) from continuing operations before income taxes	(1,378 )	10,003	(5,764 )	24,126
Provision (benefit) for income taxes	(2,065 )	4,268	(3,495 )	8,824
Income (loss) from continuing operations, net of income taxes	\$687	\$5,735	\$(2,269 )	\$15,302

The following table sets forth, for the periods indicated, the percentage of sales represented by certain items reflected in our Condensed Consolidated Statements of Operations:

	Three Months Ended		Nine Months Ended		
	September 30,		September 30,		
	2013	2012	2013	2012	
Sales	100.0	% 100.0	% 100.0	% 100.0	%
Gross profit	39.3	% 38.9	% 38.4	% 38.1	%
Operating expenses	40.4	% 30.5	% 39.7	% 31.6	%
Operating income (loss)	(1.1 )	% 8.4	% (1.3 )	% 6.5	%
Other income (expenses), net	0.1	% 0.1	% (0.1 )	% 0.7	%
Income (loss) from continuing operations before income taxes	(1.0 )	% 8.5	% (1.4 )	% 7.2	%
Provision (benefit) for income taxes	(1.4 )	% 3.6	% (0.9 )	% 2.6	%
Income (loss) from continuing operations, net of income taxes	0.4	% 4.9	% (0.5 )	% 4.6	%

Table Of Contents

## SALES

The following tables summarize sales, and percentages of sales, by segment for the three and nine months ended September 30, 2013 and 2012 (in thousands):

	Three Months Ended September 30,						Percent Change
	2013	% of Total Sales	2012	% of Total Sales	Increase/ (Decrease)		
Thin Films:							
Semiconductor capital equipment	\$43,100	30.2	% \$29,716	25.3	% \$13,384	45.0	
Non-semiconductor capital equipment	19,495	13.6	% 13,510	11.5	% 5,985	44.3	
Global support	12,814	9.0	% 13,554	11.5	% (740)	(5.5)	
Total Thin Films	75,409	52.8	% 56,780	48.3	% 18,629	32.8	
Solar Energy	67,490	47.2	% 60,735	51.7	% 6,755	11.1	
Total sales	\$142,899	100.0	% \$117,515	100.0	% \$25,384	21.6	
	Nine Months Ended September 30,						
	2013	% of Total Sales	2012	% of Total Sales	Increase/ (Decrease)	Percent Change	
Thin Films:							
Semiconductor capital equipment	\$116,867	29.6	% \$104,705	30.9	% \$12,162	11.6	
Non-semiconductor capital equipment	54,599	13.8	% 38,870	11.5	% 15,729	40.5	
Global support	37,422	9.5	% 38,438	11.3	% (1,016)	(2.6)	
Total Thin Films	208,888	52.9	% 182,013	53.7	% 26,875	14.8	
Solar Energy	185,536	47.1	% 156,947	46.3	% 28,589	18.2	
Total sales	\$394,424	100.0	% \$338,960	100.0	% \$55,464	16.4	

## Total Sales

Overall, our sales increased \$25.4 million, or 21.6%, to \$142.9 million for the three months ended September 30, 2013 from \$117.5 million for the three months ended September 30, 2012. A majority of this increase was attributable to the continued growth in capital investment in the semiconductor market for our Thin Films business unit.

Additionally, gains in the non-semiconductor markets such as flat panel display and architectural glass drove greater demand for our products when compared to the same period in 2012. To a smaller extent, the acquisition of the three-phase string inverter product line has resulted in sales growth in our Solar Energy business unit.

For the nine months ended September 30, 2013, sales increased \$55.5 million, or 16.4%, to \$394.4 million from \$339.0 million for the nine months ended September 30, 2012. The majority of this increase was a result of large capital investment for technology changes in the Thin Film flat panel display market made during the early part of 2013 and, to a lesser extent, demand for our products in the semiconductor market. Additionally, the acquisition of the three-phase string inverter product line drove higher sales in our Solar Energy business.

## Thin Films

Results for our Thin Films SBU for the three and nine months ended September 30, 2013 and 2012 were as follows (in thousands):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2013	2012	2013	2012
Sales	\$75,409	\$56,780	\$208,888	\$182,013
Operating Income	18,150	6,065	40,067	18,113

Thin Films sales increased 32.8% to \$75.4 million, or 52.8% of sales, for the three months ended September 30, 2013 versus \$56.8 million, or 48.3% of sales, for the three months ended September 30, 2012. For the nine months ended September 30,



Table Of Contents

2013 sales were \$208.9 million, an increase of \$26.9 million, or 14.8%, from the same period of 2012. The increase for both periods reflects the market improvements noted above.

In the three months ended September 30, 2013, sales in the thin film semiconductor market increased 45.0% to \$43.1 million, or 30.2% of sales, from \$29.7 million, or 25.3% of sales for the three months ended September 30, 2012. For the nine months ended September 30, 2013, sales in the thin film semiconductor market were relatively flat at \$116.9 million, or 29.6% of sales, compared to \$104.7 million, or 30.9% of sales for the nine months ended September 30, 2012. As market conditions improve across the semiconductor market and we realize gains from design wins and entry into new applications, our sales have continued to grow in comparison to 2012. We expect stronger end user capital spending through the remainder of the year and into 2014, resulting in an increase in sales in the fourth quarter of 2013 and into 2014.

Sales in the thin film non-semiconductor capital equipment markets increased 44.3% to \$19.5 million, or 13.6% of sales, for the three months ended September 30, 2013 compared to \$13.5 million, or 11.5% of sales, for the three months ended September 30, 2012. Sales in the thin film non-semiconductor capital equipment markets increased 40.5% to \$54.6 million, or 13.8% of sales, for the nine months ended September 30, 2013 compared to \$38.9 million, or 11.5% of sales, for the nine months ended September 30, 2012. The markets that comprise the thin film non-semiconductor capital equipment markets include solar panel, flat panel display, data storage, architectural glass and other industrial thin film manufacturing equipment markets. Our customers in these markets are primarily global OEMs.

The flat panel display and architectural glass markets are the primary drivers of the increase in the non-semiconductor market. Investments in active-matrix light-emitting diode ("AMOLED") technology has resulted in stronger sales through the first nine months of 2013 in the flat panel display market. As capacity levels have begun to match demand for this technology, we expect this investment cycle to end and capital investments to shift to the next generation technology resulting in lower sales in the fourth quarter of 2013. As China continues to invest in infrastructure, we are experiencing growth in the architectural glass coating market which is expected to continue into 2014.

Our global support revenue decreased to \$12.8 million, or 9.0% of total sales, for the three months ended September 30, 2013, compared to \$13.6 million, representing 11.5% of sales, for the three months ended September 30, 2012. Global support revenue for the nine months ended September 30, 2013 was down \$1.0 million compared to the nine months ended September 30, 2012, mainly driven lower utilization rates and old fabrication closures coupled with a declining average failure rate enabled by more robust products which resulted in less repair spend for the period. Although revenues have declined slightly from prior year, interest in upgrades and refurbishment programs coupled with our preventative maintenance offering is expected to result in stable to higher revenues for our global support business with a slight seasonal slow-down expected in the fourth quarter of 2013.

Operating income for Thin Films was \$18.2 million for the three months ended September 30, 2013, an increase of \$12.1 million from the same period of 2012. For the nine months ended September 30, 2013, operating income for Thin Films was \$40.1 million compared to \$18.1 million for the same period of 2012. Significantly higher sales and improved manufacturing efficiencies on higher volumes resulted in the increase in operating income.

**Solar Energy**

Results for our Solar Energy SBU for the three and nine months ended September 30, 2013 and 2012 are as follows (in thousands):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2013	2012	2013	2012
Sales	\$67,490	\$60,735	\$185,536	\$156,947
Operating income	192	7,410	(1,372)	10,643

Solar Energy sales were \$67.5 million, or 47.2% of sales, for the three months ended September 30, 2013 as compared to \$60.7 million, or 51.7% of sales, for the three months ended September 30, 2012. For the nine months ended September 30, 2013, Solar Energy sales were \$185.5 million, or 47.1% of sales, as compared to \$156.9 million, or 46.3% of sales, for the three months ended September 30, 2012. The acquisition of the three-phase string inverter



product line discussed in Note 2. Business Acquisition and Disposition in Part I Item I of this Form 10-Q drove higher sales in both periods of 2013.

Table Of Contents

Operating income for Solar Energy was \$0.2 million for the three months ended September 30, 2013 as compared to \$7.4 million for the three months ended September 30, 2012. For the nine months ended September 30, 2013, we had an operating loss of \$1.4 million compared to operating income of \$10.6 million for the same period of 2012. The decrease in operating income for both the three months and nine months ended September 30, 2013 as compared to the same periods in 2012 is due to a product mix shift from higher-margin utility scale applications to commercial applications, which yield a lower gross margin. We expect sales into utility applications to increase in the following three to six months as we begin shipping our one megawatt offering into utility projects.

**Backlog**

Our overall backlog was \$135.4 million at September 30, 2013 as compared to \$92.7 million at December 31, 2012. The increase is primarily the result of utility-scale contracts in our solar business unit.

**GROSS PROFIT**

Our gross profit was \$56.2 million, or 39.3% of sales, for the three months ended September 30, 2013, as compared to \$45.7 million, or 38.9% of sales for the three months ended September 30, 2012. Gross profit for the nine months ended September 30, 2013 was \$151.3 million, or 38.4% of sales as compared to \$129.2 million, or 38.1% of sales for the nine months ended September 30, 2012. The year-over-year increase in terms of absolute dollars was a result of higher sales in the Thin Film business unit as demand increased in all of the markets we serve, as well as the addition of the string inverter product line acquired by the Solar Energy business in April of 2013. The slight increase in gross margin as a percentage of sales for the quarter-to-date period is due to the overall revenue mix shift between our Thin Films business, which yields a higher gross margin, and lower-margin Solar Energy sales.

**OPERATING EXPENSE**

The following table summarizes our operating expenses as a percentage of sales for the three and nine months ended September 30, 2013 and 2012 (in thousands):

	Three Months Ended September 30, 2013			2012			Nine Months Ended September 30, 2013			2012		
Research and development	\$15,105	10.6	%	\$14,564	12.4	%	\$45,098	11.4	%	\$44,181	13.0	%
Selling, general, and administrative	22,138	15.5	%	16,806	14.3	%	62,702	15.9	%	53,571	15.8	%
Amortization of intangible assets	626	0.4	%	1,416	1.2	%	4,814	1.2	%	4,139	1.2	%
Restructuring charges and asset impairment	19,884	13.9	%	3,003	2.6	%	44,090	11.2	%	5,434	1.6	%
Total operating expenses	\$57,753	40.4	%	\$35,789	30.5	%	\$156,704	39.7	%	\$107,325	31.6	%

As a result of declines in certain markets that we serve, we initiated a plan in September 2011 to re-align our manufacturing and research and development activities to be closer to our customers and reduce production costs. These initiatives included headcount reductions, facilities closures, and asset impairments and were completed in the fourth quarter of 2012.

In April 2013, in connection with our acquisition of Refusol Holdings GmbH ("Refusol") described in Note 2. Business Acquisitions and Disposition in Part I Item I of this Form 10-Q, we committed to a restructuring plan to take advantage of additional cost saving opportunities. During the three months ended September 30, 2013, we incurred restructuring charges of \$19.9 million related to reductions in headcount, facility closures, and intangible asset impairments. Over the next three months, we will continue our efforts to consolidate facilities including moving the remaining manufacturing in Bend, Oregon to our Fort Collins, Colorado facility; transfer the remaining supply chain activities of our Thin Films business unit to the Shenzhen, China manufacturing facility; and rationalize the inverter product line. As a result, we anticipate additional charges of approximately \$0.5 million, all of which are expected to be cash expenditures. Estimated total expenses to be incurred under the plan are approximately \$44.6 million to \$44.9 million. Of this total, approximately \$6.5 million to \$6.8 million relates to severance costs, \$6.2 million to \$6.5 million for space consolidation, and \$31.9 million for product rationalization and impairments of the intangible assets associated with the technology related to those products. The actions taken under this restructuring plan as well as those underway and already taken are expected to deliver annual savings of approximately \$70.0 to \$75.0 million.

Research and Development

29

---

## Table Of Contents

The markets we serve constantly present opportunities to develop products for new or emerging applications and require technological changes driving for higher performance, lower cost, and other attributes that we expect may advance our customers' products. We believe that continued and timely development of new and differentiated products, 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. All of our research and development costs have been expensed as incurred, except those incurred as a result of a business acquisition.

Research and development expenses for the three months ended September 30, 2013 were \$15.1 million, or 10.6% of sales, as compared to \$14.6 million, or 12.4% of sales, for the three months ended September 30, 2012. Research and development costs for the nine months ended September 30, 2013 increased \$0.9 million as compared to the same period of 2012. Research and development costs increased in the three and nine months ended September 30, 2013 as compared to the same periods in 2012 primarily due to the addition of the three phase string inverter product line and the research and development activities related to that product. These expenses were mostly offset by cost savings experienced from restructuring efforts under the 2011 restructuring plan as 2013 reflects the full year benefits.

### 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 ("SG&A") expenses increased \$5.3 million and \$9.1 million in the three months and nine months ended September 30, 2013 as compared to the same periods in 2012. The increases are primarily due to the acquisition of the three-phase string inverter product line coupled with higher incentive compensation accruals based on current year performance expectations.

### Amortization Expense

Amortization of intangible assets expense was \$0.6 million and \$4.8 million for the three months and nine months ended September 30, 2013, compared to \$1.4 million and \$4.1 million for the same periods ending September 30, 2012. During the second and third quarters of 2013, we recorded an impairment of intangible assets acquired from PV Powered in May 2010. Our initial estimate of the impairment was recorded in the second quarter with the final value determined during the third quarter. As a result of the acquisition of the three-phase string inverter product line, we assessed the overall Solar product line for product optimization, resulting in an impairment to the technology purchased from PV Powered. This reduced amortization related to these products which was offset by amortization related to the intangible assets acquired with Refusol and Solvix.

### Other Income (Expenses), net

Other income (expenses), 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 (expenses), net was a \$0.2 million gain for the three months ended September 30, 2013 as compared to a \$0.1 million gain in the same period of 2012. For the nine month period ended September 30, 2013, other income (expenses), net was a loss of \$0.4 million compared to income of \$2.3 million in the prior year. The current year loss is primarily due to foreign exchange losses while the prior year gain resulted from the sale of fixed assets for the year-to-date period.

### Provision for Income Taxes

We recorded an income tax benefit from continuing operations for the three months ended September 30, 2013 of \$2.1 million compared to expense of \$4.3 million for the three months ended September 30, 2012, resulting in effective tax rates of 149.9% and 42.7%, respectively. For the nine months ended September 30, 2013, we recorded an income tax benefit of \$3.5 million compared to an expense of \$8.8 million for the same period of 2012, resulting in effective tax rates of 60.6% and 36.6%, respectively. Our tax rate is lower than the federal statutory rate primarily due to the benefit of earnings in foreign jurisdictions which are subject to lower tax rates. In addition, during the nine months ended September 30, 2013, we recognized net discrete tax benefits of \$6.1 million primarily related to the reinstatement of

the 2012 U.S. research and development tax credit and the statute of limitations for multiple tax years.

30

---

Table Of Contents

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.

**Discontinued Operations**

On October 15, 2010, we completed the sale of our gas flow control business, which includes the Aera® mass flow control and related product lines to Hitachi, for \$43.3 million. Assets and liabilities sold include, without limitation, inventory, real property in Hachioji, Japan, equipment, certain contracts, intellectual property rights related to the gas flow control business, and certain warranty liability obligations. Results of continuing operations for 2012 were reduced by the revenue and costs associated with the gas flow control business which are included in Income from discontinued operations, net of income taxes, in our Condensed Consolidated Statements of Operations.

**Non-GAAP Results**

To evaluate business performance against business objectives and for planning purposes, management uses non-GAAP results. We believe these measures will enhance investors' ability to review our business from the same perspective as management and facilitate comparisons of this period's results with prior periods. 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. 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 restructuring charges, stock-based compensation, amortization of intangible assets, acquisition-related costs, and nonrecurring tax release items (in thousands):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2013	2012	2013	2012
Income (loss) from continuing operations, net of tax, as reported	\$687	\$5,735	\$(2,269	) \$15,302
Adjustments, net of tax				
Restructuring charges	22,441	1,849	42,020	3,408
Non-GAAP income from continuing operations, net of tax, excluding restructuring charges	23,128	7,584	39,751	18,710
Adjustments, net of tax				
One-time gain on sale of flow assets	—	—	—	(1,452
Acquisition-related costs	—	—	993	—
Stock-based compensation	3,601	1,806	7,972	6,416
Amortization of intangible assets	549	902	4,132	2,637
Non-recurring tax release items	(5,608	) —	(5,608	) —
Non-GAAP income from continuing operations, net of tax	\$21,670	\$10,292	\$47,240	\$26,311
Diluted weighted-average common shares outstanding	40,577	38,330	40,150	39,720
Non-GAAP Earnings Per Share excluding restructuring charges	\$0.57	\$0.20	\$0.99	\$0.47
Non-GAAP Earnings Per Share	\$0.53	\$0.27	\$1.18	\$0.66

**Impact of Inflation**

In recent years, inflation has not had a significant impact on our operations. However, we continuously monitor operating price increases, particularly in connection with the supply of component parts used in our manufacturing process. To the extent permitted by competition, we pass increased costs on to our customers by increasing sales prices over time. From time to time, we may also receive pressure from customers to decrease sales prices due to reductions in the cost structure of our products from cost improvement initiatives and decreases in component part

prices. Sales price increases and decreases, however, were not significant in any of the periods presented herein.

31

---

Table Of Contents

## Liquidity and Capital Resources

## LIQUIDITY

We believe that adequate liquidity and cash generation is important to the execution of our strategic initiatives. Our ability to fund our operations, acquisitions, capital expenditures, and product development efforts may depend on our ability to generate cash from operating activities which is subject to future operating performance, as well as general economic, financial, competitive, legislative, regulatory, and other conditions, some of which may be beyond our control. Our primary sources of liquidity are our available cash, investments, and cash generated from current operations as well as our credit facilities discussed in Note 20. Credit Facilities in Part I Item 1 of this Form 10-Q. At September 30, 2013, we had \$104.7 million in cash, cash equivalents, and marketable securities. We believe that our current cash levels and our cash flows from future operations will be adequate to meet anticipated working capital needs, anticipated levels of capital expenditures, and contractual obligations for the next twelve months. We may seek additional financing from time to time.

On October 12, 2012, we entered into an agreement with Wells Fargo Bank, National Association which provides for a secured revolving credit facility ("Credit Facility") of up to \$50.0 million. Borrowings under the Credit Facility are subject to a borrowing base based upon our accounts receivable and inventory and are available for various corporate purposes. The Credit Facility provides us further flexibility for execution of our strategic plans including acquisitions. With the acquisition of Refusol, we assumed the outstanding balances under their existing lines of credit. Refusol has two outstanding notes with various banks that provide up to 12.0 million Euros of borrowing. As of September 30, 2013 there was \$11.4 million outstanding on these notes. For more information on these Credit Facilities see Note 20. Credit Facilities of our Consolidated Financial Statements.

On October 30, 2012, we announced a \$25.0 million share repurchase program authorized by our Board of Directors. The repurchase program is authorized through October 2013, requires no minimum number of shares to be repurchased, and may be discontinued at any time. No repurchases have been made under this program.

## CASH FLOWS

A summary of our cash provided by and used in operating, investing and financing, activities is as follows (in thousands):

	Nine Months Ended September 30,	
	2013	2012
Net cash provided by (used in) operating activities	\$ (4,646	) \$ 92,250
Net cash used in investing activities	(68,607	) (1,522 )
Net cash provided by (used in) financing activities	18,437	(55,153 )
Effect of currency translation on cash	701	(2,180 )
Increase (decrease) in cash and cash equivalents	(54,115	) 33,395
Cash and cash equivalents, beginning of the period	146,564	117,639
Cash and cash equivalents, end of the period	\$ 92,449	\$ 151,034

## 2013 CASH FLOWS COMPARED TO 2012

Net cash provided by (used in) operating activities

Net cash used in operating activities for the nine months ended September 30, 2013 was \$4.6 million, compared to cash provided by operating activities of \$92.3 million for the same period ended September 30, 2012. The decrease of \$96.9 million in net cash flows from operating activities is the result of increases in accounts receivable and inventory and reductions in other accrued expenses. The increase in sales noted above has resulted in growth in our accounts receivable balances. Inventory has increase in anticipation of higher sales in the fourth quarter and the initial shipments of the new one megawatt solar product. The current year restructuring activities have also resulted in cash payments for severance and facility consolidation costs that have negatively impacted cash from operating activities. In addition, there were increases in cash paid for taxes resulting from the improved operating results in the nine months ended September 30, 2013.





Table Of Contents

## Net cash used in investing activities

Net cash used in investing activities for the nine months ended September 30, 2013 was \$68.6 million, an increase of \$67.1 million from the same period ended September 30, 2012. The increase in cash used is due to the cash payment of \$77.2 million for the acquisition of Refusol. Capital expenditures for the three and nine months ended September 30, 2013 were down \$0.1 million compared to the same period in 2012. We expect to fund future capital expenditures with cash generated from operations.

## Net cash provided by (used in) financing activities

Net cash provided by financing activities in the nine months ended September 30, 2013 was \$18.4 million, a \$73.6 million change from the cash used in financing activities of \$55.2 million in the same period of 2012. The exercise of stock options provided \$20.0 million of cash in 2013 as compared to \$2.7 million in 2012. The nine months ended September 30, 2012 included stock repurchases of \$57.1 million while no repurchases have been made in 2013.

## Effect of currency translation on cash

During the nine months ended September 30, 2013, currency translation had a positive \$0.7 million impact on cash compared to a negative impact of \$2.2 million in the same period of 2012. The functional currencies of our worldwide operations primarily include U.S. dollar ("USD"), Japanese Yen ("JPY"), Chinese Yuan ("CNY"), New Taiwan Dollar ("TWD"), South Korean Won ("KRW"), British Pound ("GBP"), Swiss Franc ("CHF"), Canadian Dollar ("CAD"), Euro ("EUR"), and Indian Rupee ("INR"). Our purchasing and sales activities are primarily denominated in USD, JPY, CNY, and EUR. The change in these key currency rates during the nine months ended September 30, 2013 and 2012 are as follows:

From	To	Nine Months Ended September 30,		
		2013	2012	
CNY	USD	1.8	% 0.3	%
EUR	USD	2.5	% (0.6)	)%
JPY	USD	(11.8)	)% (0.7)	)%
KRW	USD	(1.0)	)% 4.4	%
TWD	USD	(2.0)	)% 3.6	%
GBP	USD	(0.4)	)% 4.3	%
CAD	USD	(3.8)	)% 3.9	%
CHF	USD	1.1	% (0.1)	)%
INR	USD	(12.5)	)% 0.4	%

## Off Balance Sheet Arrangements

We have no off-balance sheet arrangements or variable interest entities.

## Critical Accounting Policies and Estimates

The preparation of financial statements and related disclosures in conformity with U.S. GAAP requires us to make judgments, assumptions and estimates that affect the amounts reported in the Condensed Consolidated Financial Statements and accompanying notes. Note 1 to the Consolidated Financial Statements in our Annual Report on Form 10-K for the year ended December 31, 2012 describes the significant accounting policies and methods used in the preparation of our Consolidated Financial Statements. Our critical accounting estimates, discussed in the Management's Discussion and Analysis of Financial Condition and Results of Operations in Part II, Item 7 of our Annual Report on Form 10-K for the year ended December 31, 2012, include estimates for allowances for doubtful accounts, determining useful lives for depreciation and amortization, the valuation of assets and liabilities acquired in business combinations, assessing the need for impairment charges for identifiable intangible assets and goodwill, establishing warranty reserves, accounting for income taxes, and assessing excess and obsolete inventories. Such accounting policies and estimates require significant judgments and assumptions to be used in the preparation of the Condensed Consolidated Financial Statements and actual results could differ materially from the amounts reported based on variability in factors affecting these estimates.



Table Of Contents

Our management discusses the development and selection of our critical accounting policies and estimates with the Audit Committee of our Board of Directors at least annually. Our management also internally discusses the adoption of new accounting policies or changes to existing policies at interim dates, as it deems necessary or appropriate.

**ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK**

**Interest Rate Risk**

Our market risk exposure relates to changes in interest rates in our investment portfolio and credit facility. We generally place our investments with high-credit quality issuers and by policy are averse to principal loss and seek to protect and preserve our invested funds by limiting default risk, market risk, and reinvestment risk.

As of September 30, 2013, our investments consisted primarily of certificates of deposit and institutional money markets, all with maturity of less than 2 years. As a measurement of the sensitivity of our portfolio and assuming that our investment portfolio balances remain constant, a hypothetical decrease of 100 basis points (1%) in interest rates would decrease annual pre-tax earnings by approximately \$0.1 million.

We had \$11.4 million of debt outstanding as of September 30, 2013 under various debt instruments, some with variable interest rates and principal payments. Assuming a full drawdown on all outstanding loan agreements subject to variable interest rates, and holding other variables constant, a hypothetical immediate one percentage point change in interest rates would be expected to have an impact on pre-tax earnings and cash flows of approximately \$0.5 million over the course of 12 months.

**Foreign Currency Exchange Rate Risk**

We are impacted by changes in foreign currency exchange rates through sales and purchasing transactions when we sell products and purchase materials in currencies different from the currency in which product and manufacturing costs were incurred. Our purchasing and sales activities are primarily denominated in the USD, JPY, CNY and EUR. As these currencies fluctuate against each other, and other currencies, we are exposed to foreign currency exchange rate risk on sales, purchasing transactions and labor.

Our reported financial results of operations, including the reported value of our assets and liabilities, are also impacted by changes in foreign currency exchange rates. Assets and liabilities of many of our subsidiaries outside the U.S. are translated at period end rates of exchange for each reporting period. Operating results and cash flow statements are translated at weighted-average rates of exchange during each reporting period. Although these translation changes have no immediate cash impact, the translation changes may impact future borrowing capacity, and overall value of our net assets.

From time to time, we enter into foreign currency exchange rate contracts to hedge against changes in foreign currency exchange rates on assets and liabilities expected to be settled at a future date. Market risk arises from the potential adverse effects on the value of derivative instruments that result from a change in foreign currency exchange rates. We minimize our market risk applicable to foreign currency exchange rate contracts by establishing and monitoring parameters that limit the types and degree of our derivative contract instruments. We enter into derivative contract instruments for risk management purposes only. We do not enter into or issue derivatives for trading or speculative purposes.

Currency exchange rates vary daily and often one currency strengthens against the USD while another currency weakens. Because of the complex interrelationship of the worldwide supply chains and distribution channels, it is difficult to quantify the impact of a change in one or more particular exchange rates.

See the "Risk Factors" set forth in Part I, Item 1A of our Annual Report on Form 10-K for more information about the market risks to which we are exposed. There have been no material changes in our exposure to market risk from December 31, 2012.

**ITEM 4. CONTROLS AND PROCEDURES**

**Evaluation of Disclosure Controls and Procedures**

We have established disclosure controls and procedures, which are designed to ensure that information required to be disclosed in reports filed or submitted under the Securities Exchange Act of 1934 is recorded, processed, summarized, and reported, within the time periods specified in the Securities and Exchange Commission's rules and forms. These disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed in the reports that we file or submit under the Act is accumulated and

communicated to management, including our Principal Executive

34

---

Table Of Contents

Officer (Garry Rogerson, Chief Executive Officer) and Principal Financial Officer (Danny C. Herron, Executive Vice President & Chief Financial Officer), as appropriate, to allow timely decisions regarding required disclosures.

As of the end of the period covered by this report, we conducted an evaluation, with the participation of management, including our Chief Executive Officer and Chief Financial Officer, of the effectiveness of the design and operation of the disclosure controls and procedures pursuant to the Exchange Act Rule 13a-15(b). Based upon this evaluation, the Chief Executive Officer and Chief Financial Officer concluded that our disclosure controls and procedures were effective as of September 30, 2013. The conclusions of the Chief Executive Officer and Chief Financial Officer from this evaluation were communicated to the Audit Committee. We intend to continue to review and document our disclosure controls and procedures, including our internal controls and procedures for financial reporting, and may from time to time make changes aimed at enhancing their effectiveness and to ensure that our systems evolve with our business.

**Changes in Internal Control over Financial Reporting**

There was no change in our internal control over financial reporting, except as discussed below, that occurred during the fiscal quarter covered by this Form 10-Q that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

As discussed in Note 2, Business Acquisition and Disposition, to our Condensed Consolidated Financial Statements, on April 8, 2013, we acquired Refusol. We considered the results of our pre-acquisition due diligence activities, the continuation by Refusol of their established internal control over financial reporting, and our implementation of additional internal control over financial reporting activities as part of our overall evaluation of disclosure controls and procedures as of September 30, 2013. We believe the design of Refusol's established internal control over financial reporting is sufficiently different from our overall design and the controls implemented to integrate Refusol's financial operations into our existing operations constitute a change in internal controls. We are in the process of completing a more complete review of Refusol's internal control over financial reporting and will be implementing changes to better align its reporting and controls with the rest of Advanced Energy. As a result of the timing of the acquisition and the changes that are anticipated to be made, we currently intend to exclude Refusol from the December 31, 2013 assessment of our internal control over financial reporting.

Table Of Contents

PART II OTHER INFORMATION

ITEM 1. LEGAL PROCEEDINGS

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 quarter ended September 30, 2013. For a description of previously reported legal proceedings refer to Part I, Item 3, "Legal Proceedings" of our Annual Report on Form 10-K for the year ended December 31, 2012.

ITEM 1A. RISK FACTORS

Item 1A, "Risk Factors," of our Annual Report on Form 10-K for the year ended December 31, 2012 describes some of the risks and uncertainties associated with our business. The risk factors set forth below update such disclosures. Other factors may also exist that we cannot anticipate or that we currently do not consider to be significant based on information that is currently available. These risks and uncertainties have the potential to materially affect our business, financial condition, results of operations, cash flows and future results. Such risks and uncertainties also may impact the accuracy of forward-looking statements included in this Form 10-Q and other reports we file with the Securities and Exchange Commission.

Activities necessary to integrate acquisitions may result in costs in excess of current expectations or be less successful than anticipated.

As noted in Note 2. Business Acquisitions and Disposition in Part I Item 1 of this Form 10-Q, we recently acquired Refusol Holding GmbH, and we may acquire other businesses in the future. The success of such transactions will depend on, among other things, our ability to integrate assets and personnel acquired in these transactions and to apply our internal controls process to these acquired businesses. The integration of acquisitions may require significant attention from our management, and the diversion of management's attention and resources could have a material adverse effect on our ability to manage our business. Furthermore, we may not realize the degree or timing of benefits we anticipated when we first entered into the acquisition transaction, or the acquired business may cause us to incur unanticipated costs or liabilities. If actual integration costs are higher than amounts originally anticipated, if we are unable to integrate the assets and personnel acquired in an acquisition as anticipated, if we are unable to benefit from anticipated sales, or if we are unable to fully benefit from anticipated synergies, our business, financial condition, results of operations and cash flows could be materially adversely affected.

There are increased risks associated with restructuring plans and transferring further activities to our Shenzhen, China and Pune, India facilities.

As part of our April 2013 restructuring plan, we are taking steps to reduce operating costs across the company. These steps include transferring even more of our various operating activities, such as supply chain management, manufacturing, engineering and other activities, to our Shenzhen, China facility. This means that we will be even more highly dependent on our China-based operations. Given our recent acquisition of Refusol, we are also looking at ways to reduce our operating costs by transferring activities to their Pune, India facility. Such concentration exposes us to political, labor, culture, currency, tax, customs and other various risks unique to those regions. These risks may have a material adverse effect on our operations, business, results of operations, and financial condition.

We must continually design and introduce new products into the markets we serve to respond to competition and rapid technological changes.

As we operate in a highly competitive environment where innovation is critical, our future success depends on many factors, including the effective commercialization and customer acceptance of our products and services. The development, introduction and support of a broadening set of products (such as the recent introduction of our 1 megawatt solar inverter) is critical to our continued success. Our results of operations could be adversely affected if we do not continue to develop new products, improve and develop new applications for existing products, and

differentiate our products from those of competitors resulting in their adoption by customers.



Table Of Contents

The performance of our solar inverters is highly dependent on the customer meeting product specification, installation and maintenance requirements.

Our commercial and utility-grade solar inverters have product specification, installation and maintenance requirements that if not followed could result in product failure or downtime. For example, if a customer fails to properly design and build the solar site consistent with our product specification and installation requirements (e.g., exceeding input DC voltage, improper grounding, cabling errors, etc.), the inverter's performance could be adversely affected and, in some cases, the inverter may be damaged. Customers are responsible for their solar site design and build. Although we conduct testing on our products, our solar inverters cannot be tested in an environment simulating the various solar site conditions that may exist. We may expend considerable time and resources in diagnosing alleged product issues in the field that are actually attributable to a customer's failure to follow such product specification, installation and maintenance requirements. To the extent we experience such increased costs associated with investigating such claims, we may not be able to recover such costs from the customer, resulting in decreased profitability.

Our products may suffer from defects or errors leading to damage or warranty claims.

Our products use complex system designs and components that may contain errors or defects, particularly when we incorporate new technology into our products or release new versions. If any of our products are defective or fail because of their design, we might be required to repair, redesign or recall those products, pay damages (including liquidated damages) or warranty claims, and we could suffer significant harm to our reputation. We accrue a warranty reserve for estimated costs to provide warranty services including the cost of technical support, product repairs, and product replacement for units that cannot be repaired. Our estimate of costs to fulfill our warranty obligations is based on historical experience and expectation of future conditions. To the extent we experience increased warranty claim activity or increased costs associated with servicing those claims, our warranty accrual will increase, resulting in decreased gross profit.

Unfavorable currency exchange rate fluctuations may lead to lower operating margins, or may cause us to raise prices, which could result in reduced sales.

Currency exchange rate fluctuations could have an adverse effect on our sales and results of operations and we could experience losses with respect to forward exchange contracts into which we may enter. Unfavorable currency fluctuations could require us to increase prices to foreign customers, which could result in lower net sales by us to such customers. Alternatively, if we do not adjust the prices for our products in response to unfavorable currency fluctuations, our results of operations could be materially and adversely affected. In addition, most sales made by our foreign subsidiaries are denominated in the currency of the country in which these products are sold and the currency they receive in payment for such sales could be less valuable at the time of receipt as a result of exchange rate fluctuations. Given recent acquisitions in Europe, our exposure to fluctuations in the value of the Euro is becoming more significant. From time to time, we enter into forward exchange contracts and local currency purchased options to reduce currency exposure arising from intercompany sales of inventory. However, we cannot be certain that our efforts will be adequate to protect us against significant currency fluctuations or that such efforts will not expose us to additional exchange rate risks, which could materially and adversely affect our results of operations.

**ITEM 2.UNREGISTERED SALES OF EQUITY SECURITIES AND USE OF PROCEEDS**

None.

Table Of Contents

ITEM 3. DEFAULTS UPON SENIOR SECURITIES

None.

ITEM 4. MINE SAFETY DISCLOSURES

None.

ITEM 5. OTHER INFORMATION

None.

38

---

Table Of Contents

ITEM 6. EXHIBITS

- 10.1 Relocation Agreement, dated August 5, 2013, by and among Advanced Energy Industries, Inc. and Yuval Wasserman.
- 10.2 Master Loan Agreement dated July 31, 2013 among Bayerische Landesbank and Refusol GmbH.
- 31.1 Certification of the Chief Executive Officer Pursuant to Rule 13a-14(a) under the Securities Exchange Act of 1934, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
- 31.2 Certification of the Chief Financial Officer Pursuant to Rule 13a-14(a) under the Securities Exchange Act of 1934, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
- 32.1 Certification of the Chief Executive Officer Pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
- 32.2 Certification of the Chief Financial Officer Pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.

Table Of Contents

SIGNATURES

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

ADVANCED ENERGY INDUSTRIES, INC.

Dated: November 8, 2013

/s/ Danny C. Herron  
Danny C. Herron  
Executive Vice President and Chief Financial  
Officer

Table Of Contents

INDEX TO EXHIBITS

- 10.1 Relocation Agreement, dated August 5, 2013, by and among Advanced Energy Industries, Inc. and Yuval Wasserman.
- 10.2 Master Loan Agreement dated July 31, 2013 among Bayerische Landesbank and Refusol GmbH.
- 31.1 Certification of the Chief Executive Officer Pursuant to Rule 13a-14(a) under the Securities Exchange Act of 1934, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
- 31.2 Certification of the Chief Financial Officer Pursuant to Rule 13a-14(a) under the Securities Exchange Act of 1934, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
- 32.1 Certification of the Chief Executive Officer Pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
- 32.2 Certification of the Chief Financial Officer Pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.