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, 2023

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

or

For the transition period from _____ to _____

Commission File Number: 000-26966

Advanced Energy

ADVANCED ENERGY INDUSTRIES, INC.

(Exact name of registrant as specified in its charter)

Delaware

(State or other jurisdiction of incorporation or organization)

84-0846841 (I.R.S. Employer Identification No.)

1595 Wynkoop Street, Suite 800, Denver, Colorado

(Address of principal executive offices)

80202 (Zip Code)

(970) 407-6626

(Registrant's telephone number, including area code)

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, \$0.001 par value	AEIS	Nasdaq Global Select Market

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 \square No \square

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T ($\S232.405$ of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes \square No \square

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

Large accelerated filer ☑ Accelerated filer □

Non-accelerated filer □ Small

Smaller reporting company \Box Emerging growth company \Box

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. \Box

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

As of October 27, 2023, there were 37,280,657 shares of the registrant's common stock, par value \$0.001 per share, outstanding.

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

PART I FINANCIAL INFORMATION

ITEM 1.	UNAUDITED CONSOLIDATED FINANCIAL STATEMENTS	
		3
	Consolidated Balance Sheets	3
	Consolidated Statements of Operations	4
	Consolidated Statements of Comprehensive Income	5
	Consolidated Statements of Stockholders' Equity	6
	Consolidated Statements of Cash Flows	7
	Notes to Consolidated Financial Statements	8
ITEM 2.	MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS	25
ITEM 3.	QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK	42
ITEM 4.	CONTROLS AND PROCEDURES	43
	PART II OTHER INFORMATION	
ITEM 1.	LEGAL PROCEEDINGS	44
ITEM 1A.	RISK FACTORS	44
ITEM 2.	UNREGISTERED SALES OF EQUITY SECURITIES AND USE OF PROCEEDS	45
ITEM 3.	DEFAULTS UPON SENIOR SECURITIES	46
ITEM 4.	MINE SAFETY DISCLOSURES	46
ITEM 5.	OTHER INFORMATION	46
ITEM 6.	<u>EXHIBITS</u>	47
	<u>SIGNATURES</u>	48

PART I FINANCIAL INFORMATION

ITEM 1. UNAUDITED CONSOLIDATED FINANCIAL STATEMENTS

ADVANCED ENERGY INDUSTRIES, INC. Unaudited Consolidated Balance Sheets

(In thousands, except per share amounts)

	September 30, 2023		De	cember 31, 2022
ASSETS				
Current assets:				
Cash and cash equivalents	\$	985,931	\$	458,818
Accounts and other receivables, net		270,348		300,683
Inventories		364,003		376,012
Other current assets		53,191		53,001
Total current assets		1,673,473		1,188,514
Property and equipment, net		161,671		148,462
Operating lease right-of-use assets		98,591		100,177
Other assets		110,027		84,056
Intangible assets, net		168,211		189,526
Goodwill		281,713		281,433
TOTAL ASSETS	\$	2,493,686	\$	1,992,168
LIABILITIES AND STOCKHOLDERS' EQUITY				
Current liabilities:				
Accounts payable	\$	140,320	\$	170,467
Accrued payroll and employee benefits	Ψ	68,937	Ψ	82,733
Other accrued expenses		50,937		76,750
Customer deposits and other		17,141		26,322
Current portion of long-term debt		20,000		20,000
Current portion of operating lease liabilities		17,477		16,771
Total current liabilities		314.812		393.043
Long-term debt, net		899,848		353,262
Operating lease liabilities		89,789		94,460
Pension benefits		44,289		44.031
Other long-term liabilities		44,077		41,105
Total liabilities		1,392,815		925,901
		1,392,013		925,901
Commitments and contingencies (Note 17)				
Stockholders' equity:				
Preferred stock, \$0.001 par value, 1,000 shares authorized, none issued and outstanding				—
Common stock, \$0.001 par value, 70,000 shares authorized; 37,280 and 37,429 issued and outstanding at				
September 30, 2023 and December 31, 2022, respectively		37		37
Additional paid-in capital		139,283		134,640
Accumulated other comprehensive income		5,390		16,320
Retained earnings		956,161		915,270
Total stockholders' equity		1,100,871		1,066,267
TOTAL LIABILITIES AND STOCKHOLDERS' EQUITY	\$	2,493,686	\$	1,992,168

The accompanying notes are an integral part of these unaudited consolidated financial statements.

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

	Three Months Ended September 30, 2023 2022			Nine Months Ended September 3 2023 2022				
Sales, net	\$	409,991	\$	516,274	\$	1,250,539	\$	1,354,682
Cost of sales	Ψ	262,650	Ψ	325,056	ψ	801,007	ψ	856,990
Gross profit		147,341		191,218	_	449,532		497,692
Gloss pion		147,541		171,210		++),552		477,072
Operating expenses:								
Research and development		50,391		49,760		153,414		141,383
Selling, general, and administrative		55,131		56,716		166,102		161,056
Amortization of intangible assets		7,049		7,049		21,186		19,081
Restructuring		4,709		121		8,906		1,178
Total operating expenses		117,280		113,646	-	349,608		322,698
Operating income		30,061		77,572		99,924		174,994
Other income (expense), net		4,464		8,940		6,339		11,347
Income from continuing operations, before income tax		34,525		86,512		106,263		186,341
Provision for income tax		874		11,639		13,405		29,795
Income from continuing operations	_	33,651		74,873		92,858		156,546
Loss from discontinued operations, net of income tax		(930)		(697)		(2,076)		(615)
Net income	\$	32,721	\$	74,176	\$	90,782	\$	155,931
Income from continuing operations attributable to								
noncontrolling interest		_		9		_		16
Net income attributable to Advanced Energy								
Industries, Inc.	\$	32,721	\$	74,167	\$	90,782	\$	155,915
Basic weighted-average common shares outstanding		37,575		37,379		37,541		37,482
Diluted weighted-average common shares outstanding		37,854		37,630		37,842		37,725
Earnings per share:								
Continuing operations:	¢	0.00	¢	2.00	¢	2.47	¢	4.18
Basic earnings per share	\$ \$	0.90 0.89	\$ \$	2.00	\$ ¢	2.47	\$ \$	4.18
Diluted earnings per share Discontinued operations:	\$	0.89	Э	1.99	\$	2.45	\$	4.15
Basic loss per share	\$	(0.02)	\$	(0.02)	\$	(0.06)	\$	(0.02)
Diluted loss per share	\$	(0.02)	\$	(0.02)	Տ	(0.00)	\$	(0.02)
Net income:	φ	(0.02)	φ	(0.02)	φ	(0.03)	φ	(0.02)
Basic earnings per share	\$	0.87	\$	1.98	\$	2.42	\$	4.16
Diluted earnings per share	\$	0.87	\$	1.98	\$	2.42	\$	4.10
Dirucca carnings per snare	φ	0.00	ψ	1.77	φ	2.70	φ	т.15

The accompanying notes are an integral part of these unaudited consolidated financial statements.

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

	Three Months Ended September 30,				Ni	ptember 30,			
		2023		2022		2023		2022	
Net income	\$	32,721	\$	74,176	\$	90,782	\$	155,931	
Other comprehensive income (loss), net of income tax									
Foreign currency translation		(5,069)		(11,671)		(6,798)		(24,442)	
Change in fair value of cash flow hedges		(1,822)		2,508		(3,840)		10,447	
Minimum pension benefit retirement liability		—				(292)		414	
Comprehensive income	\$	25,830	\$	65,013	\$	79,852	\$	142,350	
Comprehensive income attributable to noncontrolling									
interest				9				16	
Comprehensive income attributable to Advanced Energy									
Industries, Inc.	\$	25,830	\$	65,004	\$	79,852	\$	142,334	

The accompanying notes are an integral part of these unaudited consolidated financial statements.

ADVANCED ENERGY INDUSTRIES, INC. Unaudited Consolidated Statements of Stockholders' Equity (In thousands, except per share amounts)

	Advanced Energy Industries, Inc. Stockholders' Equity												
	<u>Comm</u> Shares		<u>Stock</u> Amount		Additional Paid-in Capital		Accumulated Other Comprehensive Income (Loss)		Retained Earnings	Non- controlling Interest		Sto	Total ockholders' Equity
Balances, December 31, 2021	37,589	\$	38	\$	115,706	\$	(1,216)	\$	756,323	\$	645	\$	871,496
Stock issued from equity plans	57,589	φ		φ	(2,430)	φ	(1,210)	φ	750,525	φ	045	φ	(2,430)
Stock-based compensation	52				3.906		_						3,906
Share repurchases	(82)				(254)				(6,340)				(6,594)
Dividends declared (\$0.10 per share)	(02)				(251)				(3,789)				(3,789)
Other comprehensive income							1,966		(5,707)				1,966
Net income (loss)									36,778		(14)		36,764
Balances, March 31, 2022	37,559		38	-	116.928		750	-	782,972	_	631	-	901,319
Stock issued from equity plans	63				763		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		102,712			-	763
Stock-based compensation	05				5,016								5.016
Share repurchases	(230)		(1)		(725)				(16,293)				(17.019)
Dividends declared (\$0.10 per share)	(250)		(1)		(125)				(3,806)				(3,806)
Other comprehensive loss							(6,384)		(3,800)				(6,384)
Net income							(0,504)		44,970		21		44,991
Balances, June 30, 2022	37,392		37		121,982		(5,634)		807,843		652		924,880
Stock issued from equity plans	35		51	-	256		(3,054)		007,045		052		256
Stock-based compensation	35		_		5.953						_		5,953
Share repurchases	(34)				(112)				(2,230)				(2,342)
Dividends declared (\$0.10 per share)	(54)				(112)		_		(3,812)				(3,812)
Other comprehensive loss							(9,163)		(5,012)				(9,163)
Net income							(),105)		74,167		9		74,176
Balances, September 30, 2022	37,393	\$	37	\$	128,079	\$	(14,797)	\$	875,968	\$	661	\$	989,948
Bulunees, September 56, 2622	51,575	Ψ	51	Ψ	120,077	Ψ	(11,77)	Ψ	075,700	Ψ	001	Ψ	707,710
Balances, December 31, 2022	37,429	\$	37	\$	134,640	\$	16,320	\$	915,270	\$	_	\$	1,066,267
Stock issued from equity plans	100				(1,991)								(1,991)
Stock-based compensation					6.543								6.543
Dividends declared (\$0.10 per share)									(3,814)				(3,814)
Other comprehensive loss							(2,013)						(2,013)
Net income	_								30,921				30,921
Balances, March 31, 2023	37,529		37		139,192		14,307	_	942,377			-	1,095,913
Stock issued from equity plans	121		1	_	606		—			-		_	607
Stock-based compensation					7,423								7,423
Dividends declared (\$0.10 per share)									(3,778)				(3,778)
Other comprehensive loss	_						(2,026)						(2,026)
Net income	_								27,140				27,140
Balances, June 30, 2023	37,650		38		147,221		12,281		965,739		_		1,125,279
Stock issued from equity plans	8		_		130			-		-	_	-	130
Stock-based compensation	_				7,506								7,506
Share repurchases	(378)		(1)		(1,530)				(38,469)				(40,000)
Dividends declared (\$0.10 per share)			_				_		(3,830)				(3,830)
Other comprehensive loss	_						(6,891)						(6,891)
Warrants and note hedges, net	_		_		(40,135)		·						(40,135)
Tax impact of convertible notes and					/								,
note hedges	_		_		26,091		_		_				26,091
Net income		_		_		_		_	32,721	_		_	32,721
Balances, September 30, 2023	37,280	\$	37	\$	139,283	\$	5,390	\$	956,161	\$		\$	1,100,871

The accompanying notes are an integral part of these unaudited consolidated financial statements.

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

	Nine M	Nine Months Ende		
	2)23		2022
CASH FLOWS FROM OPERATING ACTIVITIES:				
Net income	\$	90,782	\$	155,931
Less: loss from discontinued operations, net of income tax		(2,076)		(615
Income from continuing operations, net of income tax		92,858		156,546
Adjustments to reconcile net income to net cash from operating activities:				
Depreciation and amortization		49,764		44,433
Stock-based compensation		22,813		15,008
Benefit for deferred income tax		(996)		(2,496
Loss (gain) on disposal and sale of assets		394		(4,058
Changes in operating assets and liabilities, net of assets acquired				()
Accounts and other receivable, net		35,135		(68,591
Inventories		9.025		(70,407
Other assets		4,121		(11,858
Accounts payable		(26,203)		21.630
Other liabilities and accrued expenses		(58,671)		32,775
Net cash from operating activities from continuing operations	·	128.240		112,982
Net cash from operating activities from discontinued operations		(3,307)		(81
Net cash from operating activities		124.933		112,901
Net cash from operating activities		124,935		112,901
CASH FLOWS FROM INVESTING ACTIVITIES:				
Purchases of investments		(3,447)		
Purchases of property and equipment		(46, 782)		(39,507
Acquisitions, net of cash acquired				(145,779
Net cash from investing activities		(50,229)		(185,286
CASH FLOWS FROM FINANCING ACTIVITIES:				
Proceeds from long-term borrowings		575.000		
Payment of fees for long-term borrowings				
Payment of fees for long-term borrowings		(12,985)		(15.000
		(15,000)		(15,000
Dividend payments		(11,422)		(11,407
Payment for purchase of note hedges Proceeds from sale of warrants		(115,000)		
		74,865		
Purchase and retirement of common stock		(40,000)		(25,955
Net payments related to stock-based awards		(1,254)		(1,411
Net cash from financing activities		454,204		(53,773
EFFECT OF CURRENCY TRANSLATION ON CASH AND CASH EQUIVALENTS		(1,795)		(9,161
NET CHANGE IN CASH AND CASH EQUIVALENTS		527,113		(135,319
CASH AND CASH EQUIVALENTS, beginning of period		458,818		544,372
CASH AND CASH EQUIVALENTS, end of period	\$	985,931	\$	409.053
Subtraits choir 2 201 (telefitio) on a reperior	Ψ	,,	Ψ	107,055
SUPPLEMENTAL DISCLOSURE OF CASH FLOW INFORMATION:				
Cash paid for interest	\$	8,060	\$	4,303
Cash paid for income taxes	Š	45,040	Ŝ	5,393

The accompanying notes are an integral part of these unaudited consolidated financial statements.

NOTE 1. DESCRIPTION OF BUSINESS AND BASIS OF PRESENTATION

Advanced Energy Industries, Inc., a Delaware corporation, and its consolidated subsidiaries ("we," "us," "our," "Advanced Energy," or the "Company") design, manufacture, sell, and support precision power products that transform, refine, and modify the raw electrical power coming from either the utility or the building facility and convert this raw power into various types of highly controllable, usable power that is predictable, repeatable, and customizable to meet the necessary requirements for powering a wide range of complex equipment. Many of our products enable our original equipment manufacturer ("OEM") customers to optimize their energy consumption through increased power conversion efficiency, power density, power coupling, and process control across a wide range of applications.

Our plasma power solutions enable innovation in complex semiconductor and thin film plasma-based manufacturing processes such as dry etch and deposition. Our broad portfolio of high and low voltage power products is used in a wide range of applications, such as semiconductor equipment, industrial production, medical and life science equipment, data centers computing, networking, and telecommunications. We also supply related sensing, controls, and instrumentation products primarily for advanced measurement and calibration of power and temperature for multiple industrial markets. Our network of global service support centers provides repair services, calibration, conversions, upgrades, refurbishments, and used equipment to companies using our products.

In management's opinion, the accompanying unaudited consolidated financial statements contain all adjustments, consisting of normal, recurring adjustments, necessary to present fairly Advanced Energy's financial position as of September 30, 2023, and the results of our operations and cash flows for the three and nine months ended September 30, 2023 and 2022.

The unaudited 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 omitted pursuant to such rules and regulations. These unaudited 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 year ended December 31, 2022 and other financial information filed with the SEC.

Use of Estimates in the Preparation of the Consolidated Financial Statements

The preparation of our 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, the disclosure of contingent liabilities at the date of the financial statements, and the reported amounts of revenue and expenses during the reporting period. The significant estimates, assumptions, and judgments include, but are not limited to:

• excess and obsolete inventory;

- acquisitions and asset valuations; and
- income tax and other provisions.

Significant Accounting Policies

pension obligations;

Our accounting policies are described in Note 1 to our audited consolidated financial statements in our Annual Report on Form 10-K for the year ended December 31, 2022.

New Accounting Standards

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

New Accounting Standards Adopted

The FASB issued the following ASUs that we adopted in the current year:

Issuance Date	ASU	Title
March 2020	2020- 04	Reference Rate Reform (Topic 848): Facilitation of the Effects of Reference Rate Reform on Financial Reporting
January 2021	2021- 01	Reference Rate Reform (Topic 848): Scope
December 2022	2022- 06	Reference Rate Reform (Topic 848): Deferral of the Sunset Date of Topic 848

This collective guidance provides optional expedients and exceptions for applying U.S. GAAP to contract modifications and hedging relationships, subject to meeting certain criteria that reference LIBOR or another reference rate that is expected to be discontinued.

Our Credit Agreement (see *Note 18. Long-Term Debt*) and interest rate swap agreements (see *Note 7. Derivative Financial Instruments*) referenced the one-month USD LIBOR rate. On March 31, 2023, we executed agreements with our debt holders and the counterparties to our interest rate swap agreements to transition the benchmark interest rate from LIBOR to the one-month-USD Term Secured Overnight Financing Rate ("SOFR"). The impact of this transition and the adoption of the above guidance was not material to our consolidated financial statements.

NOTE 2. ACQUISITIONS

On April 25, 2022, we acquired 100% of the issued and outstanding shares of capital stock of SL Power Electronics Corporation ("SL Power"), which is based in Calabasas, California. We accounted for this transaction as a business combination. This acquisition added complementary products to Advanced Energy's medical power offerings and extended our presence in several advanced industrial markets.

The components of the fair value of the total consideration transferred were as follows:

Cash paid for acquisition	\$	145,693
Less cash acquired	_	(3,484)
Total fair value of purchase consideration	\$	142,209

We allocated the purchase price consideration to the assets acquired and liabilities assumed based on their estimated fair values as of the acquisition date, with the excess allocated to goodwill.

	Fair Value
Current assets and liabilities, net	\$ 12,329
Property and equipment	3,567
Operating lease right-of-use assets	4,640
Deferred tax and other liabilities	(2,326)
Intangible assets	57,600
Goodwill	71,039
Operating lease liability	(4,640)
Total fair value of net assets acquired	\$ 142,209

The following table summarizes the intangible assets acquired:

	Fair Value	Amortization Method	Useful Life (in years)
Customer relationships	\$ 50,500	Straight-line	10
Technology	7,100	Straight-line	5
Total	\$ 57,600		

To estimate the fair value of intangible assets, we used a multi-period excess earnings approach for the customer relationships and a relief from royalty approach for developed technology. Goodwill represents SL Power's assembled workforce and the expected operating synergies from combining operations. We expect virtually all of the goodwill to be deductible for tax purposes.

NOTE 3. REVENUE

Disaggregation of revenue

The following tables present additional information regarding our revenue:

Revenue by Market

	Three Months Ended September 30,				Nine Months Ended September 3			
		2023	2022		2023			2022
Semiconductor Equipment	\$	185,033	\$	266,600	\$	552,419	\$	698,354
Industrial and Medical		115,226		119,587		365,849		307,436
Data Center Computing		68,286		87,542		187,021		232,941
Telecom and Networking		41,446		42,545		145,250		115,951
Total	\$	409,991	\$	516,274	\$	1,250,539	\$	1,354,682

Revenue by Region

	Th	Three Months Ended September 30,				Nine Months Ended September 30,			
		2023		2022		2023		2022	
North America	\$	184,783	\$	238,115	\$	537,241	\$	626,953	
Asia		178,190		215,401		543,871		557,629	
Europe		46,088		61,456		164,867		157,972	
Other		930		1,302		4,560		12,128	
Total	\$	409,991	\$	516,274	\$	1,250,539	\$	1,354,682	

Revenue by Significant Countries

	Three Months Ended September 30,				Ν	Nine Months Ended September 30,			
	2023 2022			2023		2022			
United States	\$	156,710	\$	179,205	\$	457,325	\$	530,240	
China		41,391		53,522		132,039		139,652	
All others		211,890		283,547		661,175		684,790	
Total	\$	409,991	\$	516,274	\$	1,250,539	\$	1,354,682	

We attribute sales to individual countries and regions based on the customer's ship to location. Apart from the United States and China, no revenue attributable to any individual country exceeded 10% of our total consolidated revenues in the three and nine months ended September 30, 2023 and 2022.

Revenue by Category

	Three Months Ended September 30,			Ni	Nine Months Ended September 30,			
		2023		2022		2023		2022
Product	\$	369,129	\$	471,627	\$	1,118,284	\$	1,238,480
Services		40,862		44,647		132,255		116,202
Total	\$	409,991	\$	516,274	\$	1,250,539	\$	1,354,682

Remaining Performance Obligations

Our remaining performance obligations primarily relate to customer purchase orders for products we have not yet shipped. We expect to fulfill the majority of these performance obligations within one year.

NOTE 4. INCOME TAX

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

	Three Months Ended September 30,			Ni	ne Months End	Ended September 30,			
		2023	2022		_	2023		2022	
Income from continuing operations, before income tax	\$	34,525	\$	86,512	\$	106,263	\$	186,341	
Provision for income tax	\$	874	\$	11,639	\$	13,405	\$	29,795	
Effective tax rate		2.5%		13.5%		12.6%		16.0%	

Our effective tax rates differ from the U.S. federal statutory rate of 21% for the three and nine months ended September 30, 2023 and 2022, primarily due to the benefit of earnings in foreign jurisdictions which are subject to lower tax rates, as well as tax credits, partially offset by net U.S. tax on foreign operations. The effective tax rate for the three and nine months ended September 30, 2023 was lower than the same periods in 2022 primarily due to the greater impact of beneficial discrete items primarily related to tax strategies we implemented in the three months ended September 30, 2023 relative to the beneficial discrete items recorded in the three months ended September 30, 2023.

NOTE 5. EARNINGS PER SHARE

The following table summarizes our earnings per share ("EPS"):

	Th	ree Months En	ded Se	eptember 30,	Nine Months Ended Septeml			ptember 30,
		2023		2022		2023		2022
Income from continuing operations	\$	33,651	\$	74,873	\$	92,858	\$	156,546
Less: income from continuing operations								
attributable to noncontrolling interest				9				16
Income from continuing operations attributable to								
Advanced Energy Industries, Inc.	\$	33,651	\$	74,864	\$	92,858	\$	156,530
Basic weighted-average common shares outstanding		37,575		37,379		37,541		37,482
Dilutive effect of stock awards				· · · · · · · · · · · · · · · · · · ·		,		243
		279		251		301		-
Diluted weighted-average common shares outstanding		37,854		37,630		37,842		37,725
EPS from continuing operations								
Basic EPS	\$	0.90	\$	2.00	\$	2.47	\$	4.18
Diluted EPS	\$	0.89	\$	1.99	\$	2.45	\$	4.15
Anti-dilutive shares not included above								
Stock awards		27		121		84		58
Warrants		3,180		_		3,180		
Convertible Notes		1,448				1,448		
Total anti-dilutive shares		4,655	_	121	_	4,712	_	58
	_		-		-			

We compute basic earnings per share of common stock ("Basic EPS") by dividing income available to common stockholders by the weighted-average number of common shares outstanding during the period.

See *Note 18. Long-Term Debt* for information regarding our Convertible Notes, Note Hedges, and Warrants. For diluted earnings per share of common stock ("Diluted EPS"), we increase the weighted-average number of common shares outstanding during the period, as needed, to include the following:

- Dilutive impact associated with the Convertible Notes using the if-converted method. The Convertible Notes are repayable in cash up to par value and in cash or shares of common stock for the excess over par value. Prior to conversion, we do not consider the Note Hedges for purposes of Diluted EPS as their effect would be anti-dilutive. Upon conversion, we expect the Note Hedges to offset the dilutive effect of the Convertible Notes when the stock price is above \$137.46;
- Additional common shares that would have been outstanding if our outstanding stock awards had been converted to common shares using the treasury stock method. We exclude any stock awards that have an anti-dilutive effect; and
- Dilutive effect of the Warrants issued concurrently with the Convertible Notes using the treasury stock method. For all periods presented, the Warrants did not increase the weighted-average number of common shares outstanding because the exercise price of the Warrants exceeded the average market price of our common stock.

Share Repurchase

To repurchase shares of our common stock, we periodically enter into stock repurchase agreements. The following table summarizes these repurchases:

	Three Months Ended September 30,				Ni	ne Months Enc	nded September 30,			
(in thousands, except per share amounts)	2023 2022			2023		2022				
Amount paid or accrued to repurchase shares	\$	40,000	\$	2,342	\$	40,000	\$	25,955		
Number of shares repurchased		378		34		378		346		
Average repurchase price per share	\$	105.74	\$	69.39	\$	105.74	\$	75.07		

There were no shares repurchased from related parties. Repurchased shares were retired and assumed the status of authorized and unissued shares.

At September 30, 2023, the remaining amount authorized by the Board of Directors ("the Board") for future share repurchases was \$199.3 million with no time limitation.

NOTE 6. FAIR VALUE MEASUREMENTS

The following tables present information about our assets and liabilities measured at fair value on a recurring basis:

		September 30, 2023						
Description	Balance Sheet Classification	Level 1	Level 2	Level 3	Total Fair Value			
Certificates of deposit	Other current assets	\$	\$ 155	\$	\$ 155			
Foreign currency forward contracts	Other current assets		83		83			
Interest rate swaps	Other assets		10,273		10,273			
Net assets measured at fair value on a recurring basis		<u>\$ </u>	\$ 10,511	\$	\$ 10,511			
			Decembe	r 31, 2022				
Description Certificates of deposit	<u>Balance Sheet Classification</u> Other current assets	Level 1	Decembe Level 2 \$ 2,128	r 31, 2022 Level 3 \$ —	Total Fair Value \$ 2,128			
			Level 2	Level 3	Fair Value			

For all periods presented, there were no transfers into or out of Level 3.

NOTE 7. DERIVATIVE FINANCIAL INSTRUMENTS

Changes in foreign currency exchange rates impact our results of operations and cash flows. We may manage these risks through the use of derivative financial instruments, primarily forward contracts with banks. These forward contracts manage the exchange rate risk associated with assets and liabilities denominated in nonfunctional currencies. Typically, we execute these derivative instruments for one-month periods and do not designate them as hedges; however, they do partially offset the economic fluctuations of certain of our assets and liabilities due to foreign exchange rate changes.

The following table summarizes the notional amount of outstanding foreign currency forward contracts:

	Se	ptember 30, 2023	De	cember 31, 2022
Foreign currency forward contracts	\$	104,137	\$	—

Gains and losses related to foreign currency exchange contracts were offset by corresponding gains and losses on the revaluation of the underlying assets and liabilities. Both are included as a component of other income (expense), net in our Consolidated Statements of Operations.

In April 2020, we executed interest rate swap contracts with independent financial institutions to partially reduce the variability of cash flows in LIBOR indexed debt interest payments on our Term Loan Facility (under our existing Credit Agreement, see *Note 18. Long-Term Debt*). On March 31, 2023, we executed agreements with our debt holders and the counterparties to our interest rate swap agreements to transition the benchmark interest rate from LIBOR to SOFR. The interest rate swap contracts expire on September 10, 2024 and are accounted for as cash flow hedging instruments.

The interest rate swap contracts fix a portion of the outstanding principal balance on our Term Loan Facility to a total interest rate of 1.172%. This is comprised of a 0.322% average fixed rate per annum in exchange for a variable interest rate based on SOFR plus the credit spread in our existing Credit Agreement (see *Note 18. Long-Term Debt*), which is 75 basis points at current leverage ratios plus a LIBOR to SOFR transitional rate adjustment of 0.10%.

The following table summarizes the notional amount of our qualified hedging instruments:

	Se	ptember 30, 2023	De	cember 31, 2022
Interest rate swap contracts	\$	225,094	\$	238,219

The following table summarizes the amounts recorded in accumulated other comprehensive income on the Consolidated Balance Sheets for qualifying hedges.

	Sep	tember 30, 2023	Dee	cember 31, 2022
Interest rate swap contract gains	\$	7,885	\$	11,779

See Note 6. Fair Value Measurements for information regarding fair value of derivative instruments.

As a result of using derivative financial instruments, we are exposed to the risk that counterparties to contracts could fail to meet their contractual obligations. We manage this credit risk by reviewing counterparty creditworthiness on a regular basis and limiting exposure to any single counterparty.

NOTE 8. ACCOUNTS AND OTHER RECEIVABLES, NET

We record accounts and other receivables at net realizable value. The following table summarizes the changes in expected credit losses related to receivables:

December 31, 2022	\$ 1,814
Additions	220
Deductions - write-offs, net of recoveries	(297)
Foreign currency translation	(5)
September 30, 2023	\$ 1,732

NOTE 9. INVENTORIES

We value inventories at the lower of cost or net realizable value, computed on a first-in, first-out basis. Components of inventories were as follows:

	Sej	ptember 30, 2023	De	December 31, 2022		
Parts and raw materials	\$	273,941	\$	286,955		
Work in process		13,750		23,002		
Finished goods		76,312		66,055		
Total	\$	364,003	\$	376,012		

NOTE 10. PROPERTY AND EQUIPMENT, NET

Property and equipment, net is comprised of the following:

	Estimated Useful Life (in years)	Sep	otember 30, 2023	De	ecember 31, 2022
Buildings, machinery, and equipment	5 to 25	\$	183,673	\$	165,673
Computer equipment, furniture, fixtures, and vehicles	3 to 5		42,555		36,281
Leasehold improvements	2 to 10		75,308		63,103
Construction in process			19,525		18,226
			321,061		283,283
Less: Accumulated depreciation			(159,390)		(134,821)
Property and equipment, net		\$	161,671	\$	148,462

The following table summarizes depreciation expense. All depreciation expense is recorded in income from continuing operations:

	Thre	ee Months En	ded Sep	tember 30,	Nin	e Months End	led Sep	tember 30,
	2023 2022				2023	2022		
Depreciation expense	\$	9,749	\$	8,507	\$	28,578	\$	25,352

NOTE 11. GOODWILL

The following table summarizes the changes in goodwill:

December 31, 2022	\$ 281,433
Measurement period adjustments	353
Foreign currency translation	 (73)
September 30, 2023	\$ 281,713

NOTE 12. INTANGIBLE ASSETS

Intangible assets consisted of the following:

	 Se	pten	nber 30, 2023		
	s Carrying Amount	Accumulated Amortization		Ne	t Carrying Amount
Technology	\$ 97,171	\$	(56,574)	\$	40,597
Customer relationships	167,480		(54,570)		112,910
Trademarks and other	27,040		(12,336)		14,704
Total	\$ 291,691	\$	(123,480)	\$	168,211

		D	ecem	ber 31, 2022		
	167,631 (44,774			Net Carrying Amount		
Technology	\$	97,237	\$	(47,196)	\$	50,041
Customer relationships		167,631		(44,774)		122,857
Trademarks and other		27,036		(10,408)		16,628
Total	\$	291,904	\$	(102,378)	\$	189,526

At September 30, 2023, the weighted average remaining useful life of intangibles subject to amortization was approximately 8.7 years.

Amortization expense related to intangible assets is as follows:

	Thre	Three Months Ended September 30,				Nine Months Ended September				
	2023 2022				2023	2022				
Amortization expense	\$	7,049 \$ 7,049		\$	21,186	\$	19,081			

Estimated amortization expense related to intangibles is as follows:

Year Ending December 31,	
2023 (remaining)	\$ 7,054
2024	25,156
2025	20,953
2026	19,238
2027	17,339
Thereafter	78,471
Total	\$ 168,211

NOTE 13. RESTRUCTURING COSTS

In the fourth quarter of 2022, we approved a restructuring plan (the "2022 Plan"), which is expected to further improve our operating efficiencies and drive the realization of synergies from our business combinations by consolidating our operations, optimizing our factory footprint, including moving certain production into our higher volume factories, reducing redundancies, and lowering our cost structure. The majority of these actions impact our factory operations and should partially mitigate the impact of lower volumes on gross margins. Although we expect additional charges under this plan as we refine and execute our actions, we anticipate the 2022 Plan will be substantially completed, and associated expenses will be incurred, by the end of 2024.

In 2018, we committed to a restructuring plan (the "2018 Plan") to optimize our manufacturing footprint and to improve our operating efficiencies and synergies related to business combinations. We incurred severance costs primarily related to the transition and exit of our facility in Shenzhen, China and actions associated with synergies related to the acquisition of Artesyn Embedded Technologies, Inc.'s embedded power business. This plan is substantially complete with the closure of our Shenzhen facility in February 2023.

The tables below summarize the charges related to our restructuring plans:

	Three Months Ended September 30,					Nine Months Ended September 30,					
		2023		2022		2023	2022				
Severance and related charges	\$	4,709	\$	121	\$	8,906	\$	833			
Facility relocation and closure charges		—		—				345			
Total restructuring charges	\$	4,709	\$	121	\$	8,906	\$	1,178			

				ive Cost Thr mber 30, 202			
	2022 Plan 2018 Plan				 Total		
Severance and related charges	\$	14,792	\$	20,963	\$ 35,755		
Facility relocation and closure charges				7,160	7,160		
Total restructuring charges	\$	14,792	\$	28,123	\$ 42,915		

Our restructuring liabilities are included in other accrued expenses in our Consolidated Balance Sheets. Changes in restructuring liabilities were as follows:

	2022 Plan		2018 Plan		Total	
December 31, 2022	\$	5,788	\$	1,422	\$	7,210
Costs incurred and charged to expense		9,004		(98)		8,906
Costs paid or otherwise settled		(8,314)		(960)		(9,274)
September 30, 2023	\$	6,478	\$	364	\$	6,842

NOTE 14. WARRANTIES

Our sales agreements include customary product warranty provisions, which generally range from 12 to 24 months after shipment. We record the estimated warranty obligations cost when we recognize revenue. This estimate is based on historical experience by product and configuration.

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

December 31, 2022	\$ 5,702
Net increases to accruals	2,330
Warranty expenditures	(2,823)
Effect of changes in exchange rates	(35)
September 30, 2023	\$ 5,174

NOTE 15. LEASES

Components of total operating lease cost were as follows:

	Thr	ee Months En	tember 30,	Nine Months Ended September 30,					
		2023	2022			2023	2022		
Operating lease cost	\$	5,629	\$	5,613	\$	16,965	\$	17,061	
Short-term and variable lease cost		1,100		1,177		3,170		3,516	
Total operating lease cost	\$	6,729	\$	6,790	\$	20,135	\$	20,577	

Maturities of our operating lease liabilities are as follows:

Year Ending December 31,	
2023 (remaining)	\$ 5,681
2024	21,662
2025	18,451
2026	15,912
2027	12,994
Thereafter	63,639
Total lease payments	138,339
Less: Interest	(31,073)
Present value of lease liabilities	\$ 107,266

In addition to the above, we have lease agreements that commence in October 2023 with total payments of \$31.8 million through 2036.

The following tables present additional information about our lease agreements:

	September 30, 2023	December 31, 2022
Weighted average remaining lease term (in years)	8.3	8.9
Weighted average discount rate	5.0 %	4.6 %

	Thr	ee Months En	ded Sept	tember 30,	Nin	e Months End	led Sep	tember 30,
		2023		2022		2023		2022
Cash paid for operating leases	\$	5,683	\$	5,557	\$	17,290	\$	16,642
Right-of-use assets obtained in exchange for operating lease liabilities	\$	9,271	\$	2,222	\$	11,900	\$	14,433

NOTE 16. STOCK-BASED COMPENSATION

The Compensation Committee of our Board administers our stock plans. As of September 30, 2023, we have two active stock-based incentive compensation plans: the 2023 Omnibus Incentive Plan ("the 2023 Plan") and the Employee Stock Purchase Plan ("ESPP"). The 2023 Plan was approved on April 27, 2023. We issue all new equity compensation grants under these two plans; however, outstanding awards previously issued under inactive plans will continue to vest and remain exercisable in accordance with the terms of the respective plans.

The 2023 Plan provides for the grant of stock options, stock appreciation rights, restricted stock, stock units, unrestricted stock, and dividend equivalent rights. Any of the awards issued may be issued as performance-based awards to align stock compensation awards to the attainment of annual or long-term performance goals.

The following table summarizes information related to our stock-based incentive compensation plans:

	September 30, 2023
Shares available for future issuance under the 2023 Plan	2,318
Shares available for future issuance under the ESPP	598

Generally, we grant restricted stock units ("RSUs") with a three year time-based vesting schedule. Certain RSUs contain performance-based or market-based vesting conditions in addition to the time-based vesting requirements. RSUs are generally granted with a grant date fair value based on the market price of our stock on the date of grant.

Generally, we grant stock option awards with an exercise price equal to the market price of our stock at the date of grant and with either a three or four-year vesting schedule or performance-based vesting. Stock option awards generally have a term of ten years.

We recognize stock-based compensation expense based on the fair value of the awards issued and the functional area of the employee receiving the award. Stock-based compensation was as follows:

	Three Months Ended September 30,			Nine Months Ended September 30				
		2023		2022		2023		2022
Stock-based compensation expense	\$	8,075	\$	6,022	\$	22,813	\$	15,008

Changes in our RSUs were as follows:

	Nine Months Ended September 30, 20					
	Number of RSUs	G	Veighted- Average Frant Date Fair Value			
RSUs outstanding at beginning of period	803	\$	78.46			
RSUs granted	397	\$	100.15			
RSUs vested	(203)	\$	85.60			
RSUs forfeited	(51)	\$	78.35			
RSUs outstanding at end of period	946	\$	85.91			

Changes in our stock options were as follows:

	Nine Months Ende	Nine Months Ended September 30, 2					
	Number of Options	Exe	Veighted- Average ercise Price er Share				
Options outstanding at beginning of period	151	\$	55.48				
Options exercised	(62)	\$	24.67				
Options outstanding at end of period	89	\$	76.69				

NOTE 17. COMMITMENTS AND CONTINGENCIES

We are involved in disputes and legal actions arising in the normal course of our business. While we currently believe that the amount of any ultimate loss would not be material to our financial position, the outcome of these actions is inherently difficult to predict. In the event of an adverse outcome, the ultimate loss could have a material adverse effect on our financial position or reported results of operations. An unfavorable decision in intellectual property litigation also could require material changes in production processes and products or result in our inability to ship products or components found to have violated third-party intellectual property rights. We accrue loss contingencies in connection with our commitments and contingencies, including litigation, when it is probable that a loss has occurred, and the amount of such loss can be reasonably estimated. We are not currently a party to any legal action that we believe would reasonably have a material adverse impact on our business, financial condition, results of operations or cash flows.

NOTE 18. LONG-TERM DEBT

Long-term debt on our Consolidated Balance Sheets consists of the following:

	Sej	2023 ptember 30,	December 31, 2022		
Convertible Notes due 2028	\$	575,000	\$	—	
Term Loan Facility due 2026		360,000		375,000	
Gross long-term debt, including current maturities		935,000		375,000	
Less: debt discount		(15,152)		(1,738)	
Net long-term debt, including current maturities		919,848		373,262	
Less: current maturities		(20,000)		(20,000)	
Net long-term debt	\$	899,848	\$	353,262	

For all periods presented, we were in compliance with the covenants under all debt agreements. Contractual maturities of our gross long-term debt, including current maturities, are as follows:

Year Ending December 31,	
2023 (remaining)	\$ 5,000
2024	20,000
2025	20,000
2026	315,000
2027	
2028	575,000
Total	\$ 935,000

The following table summarizes our borrowings:

	Septer	September 30, 2023				
	Balance	Interest Rate	Unused Line Fee			
Convertible Notes	\$ 575,000	2.50%				
Term Loan Facility at fixed interest rate due to interest rate swap	225,094	1.17%	_			
Term Loan Facility at variable interest rate	134,906	6.17%				
Revolving Facility at variable interest rate	—	6.17%	0.10%			
Total borrowings	\$ 935,000					

The interest rate swap contracts expire on September 10, 2024. After that date, this portion of our Term Loan Facility will be subject to a variable interest rate. For more information, see *Note 7. Derivative Financial Instruments*. The Term Loan Facility and Revolving Facility bear interest, at our option, at a rate based on the Base Rate or SOFR, as defined in the Credit Agreement, plus an applicable margin.

We record interest expense and unused line of credit fees in other income (expense), net in our Consolidated Statements of Operations.

	Three Months Ended September 30,				Nine Months Ended September 30,			
	1	2023	_	2022		2023		2022
Interest expense	\$	3,528	\$	1,842	\$	8,818	\$	4,303
Amortization of debt issuance costs		245		136		509		413
Unused line of credit fees and other		52		51		152		152
Total interest expense	\$	3,825	\$	2,029	\$	9,479	\$	4,868

Convertible Senior Notes due 2028

On September 12, 2023, we completed a private, unregistered offering of \$575.0 million aggregate principal amount 2.50% convertible senior notes ("Convertible Notes") and received net proceeds of approximately \$562.1 million after the discount for the initial purchasers' fees. We used \$40.0 million of the net proceeds to repurchase approximately 0.4 million shares of common stock and \$40.1 million to fund the net cost of convertible note hedge transactions ("Note Hedges") (after such costs were offset by the proceeds from the sale of warrants to purchase our common stock ("Warrants").

The Convertible Notes mature on September 15, 2028, unless earlier repurchased, redeemed, or converted. Interest is payable semi-annually in arrears in March and September. We do not maintain a sinking fund.

We may redeem for cash all or any portion of the Convertible Notes, at our option, on or after September 20, 2026 if the last reported sale price of our common stock has been at least 130% of the conversion price then in effect for at least 20 trading days (whether or not consecutive) during any 30 consecutive trading-day period (including the last trading day of such period). The redemption price is 100% of the principal amount plus accrued and unpaid interest.

Prior to May 15, 2028, holders have the option to convert all or a portion of their Convertible Notes under the following circumstances:

- during any calendar quarter if the last reported sale price of our common stock, for at least 20 trading days (whether or not consecutive) during a period of 30 consecutive trading days is greater than or equal to 130% of the conversion price on each applicable trading day;
- during the five business day period immediately after any five consecutive trading day period in which the trading price per \$1,000 principal amount of the Convertible Notes for each trading day was less than 98% of the product of the last reported sale price of our common stock on each such trading day and the conversion rate on each such trading day;
- if Advanced Energy calls any or all of the Convertible Notes for redemption; or
- upon the occurrence of specified corporate transactions or events described in the indenture.

From May 15, 2028 through the maturity date, holders have the option to convert at any time regardless of circumstances.

The initial conversion rate is 7.2747 shares of common stock per \$1,000 principal amount, which is equivalent to an initial conversion price of approximately \$137.46 per share of common stock. The conversion rate is subject to adjustment upon the occurrence of certain specified events as set forth in the indenture.

Upon conversion, Advanced Energy will do the following:

- pay cash up to the aggregate principal amount to be converted; and
- pay or deliver cash, shares of our common stock, or a combination (at our election) with respect to the remainder, if any, of the conversion obligation in excess of the aggregate principal amount being converted.

Concurrent with the Convertible Notes issuance, we entered into the Note Hedges with respect to our common stock. We will exercise the Note Hedges simultaneously when the Convertible Notes are settled. The Note Hedges have a \$137.46 per share initial exercise price and cover, subject to customary anti-dilution adjustments, the number of shares of common stock that initially underlie the Convertible Notes and are expected to reduce the potential dilution to the common stock and/or offset potential cash payments in excess of the principal amount upon conversion of

the Convertible Notes. We paid approximately \$115.0 million in cash for the Note Hedges, which we recorded to additional paid-in capital in our Statements of Stockholders' Equity.

Also concurrent with the issuance of our Convertible Notes, we sold Warrants, which provide the counterparties the option to acquire approximately 4.2 million aggregate shares of our common stock (subject to customary anti-dilution adjustments), which is the same number of shares of our common stock covered by the Note Hedges at a \$179.76 per share initial exercise price, which represents a 70% premium over the \$105.74 closing price of our common stock on September 7, 2023. The Warrants expire on July 7, 2029. We received aggregate proceeds of \$74.9 million for the sale of Warrants, which we recorded to additional paid-in capital in our Statements of Stockholders' Equity.

If the market value per share of our common stock exceeds the exercise price of the Warrants during the measurement period at the maturity of such Warrants, the Warrants will have a dilutive effect on our earnings per share as we will owe the counterparties a number of shares of common stock in an amount based on the excess of such market price per share of the common stock over the Warrants' exercise price.

The Note Hedge and Warrants are separate from the Convertible Notes. The Convertible Notes holders have no rights with respect to the Note Hedges and Warrants. Counterparties in the Note Hedge and Warrants transactions have no rights with respect to the Convertible Notes. However, in combination, the Note Hedges and Warrants synthetically increase the initial conversion price on the Convertible Notes from \$137.46 to \$179.76, reducing the potential dilutive effect of the Convertible Notes.

We recorded a \$26.1 million deferred tax asset to reflect the impact of the Convertible Notes and Note Hedges.

Credit Agreement

Our credit agreement dated as of September 10, 2019, as amended (the "Credit Agreement") consists of a senior unsecured term loan facility ("Term Loan Facility") and a senior unsecured revolving facility ("Revolving Facility"). Both mature on September 9, 2026.

On March 31, 2023, we executed agreements pursuant to the Credit Agreement to transition the benchmark interest rate from LIBOR to SOFR. The impact of this transition was not material to our consolidated financial statements.

On September 7, 2023, we entered into an additional amendment to the Credit Agreement to amend certain definitions, covenants, and events of default to enable the issuance of the Convertible Notes and the entry into the Note Hedges and Warrants.

The following table summarizes our availability to withdraw on the Revolving Facility:

	September 30, 2023	December 31, 2022		
Available capacity on Revolving Facility	\$ 200,000	\$	200,000	

In addition to the available capacity on the Revolving Facility, prior to the maturity date of our Credit Agreement, we may also request an increase to the financing commitments in either the Term Loan Facility or Revolving Facility by an aggregate amount not to exceed \$115.0 million.

We use level 2 measurements to estimate the fair value of our debt. As of September 30, 2023, the outstanding principal balance on our Term Loan Facility approximates fair value, and we estimate the fair value of our Convertible Notes to be \$575.0 million.

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

This management discussion and analysis should be read in conjunction with our Annual Report on Form 10-K for the year ended December 31, 2022, which was filed with the Securities and Exchange Commission on February 17, 2023 ("the 2022 Form 10-K").

Special Note on Forward-Looking Statements

This Quarterly Report on Form 10-Q 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 (the "Exchange Act"). 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, events, or circumstances will continue. The inclusion of words such as "anticipate," "expect," "estimate," "can," "may," "might," "continue," "enable," "plan," "intend," "should," "could," "would," "will," "likely," "potential," "believe," and similar expressions and the negative versions thereof indicate forward-looking statements are based upon information available as of the date of this report and management's current estimates, forecasts, and assumptions. Although we believe that our expectations reflected in or suggested by these forward-looking statements are reasonable, we may not achieve the results, performance, plans, or objectives expressed or implied by such forward-looking statements involve risks and uncertainties, which are difficult to predict and many of which are beyond our control.

Risks and uncertainties to which our forward-looking statements are subject include:

- macroeconomic risks, including the length, severity, or nature of any market and demand deterioration; supply chain cost increases and other inflationary pressures; recession; economic volatility and cyclicality changes in financial markets; higher interest rates; labor shortages and expense; foreign currency fluctuations; and pricing controls;
- political and geographical risks, including trade and export controls, war, terrorism, international disputes and geopolitical tensions, natural disasters, public health issues, and industrial accidents;
- sufficiency and availability of components and materials;
- our level of and ability to manage backlog orders;
- our ability to develop new products expeditiously and be successful in the design win process with our customers;
- the ability to stay on the leading edge of innovation, and obtain and defend necessary intellectual property protections;
- the ability to protect our trade secrets and confidential information from misappropriation or infringement;
- our future sales;
- our future profitability;
- our competition;
- market acceptance of, and demand for, our products;
- the fair value of our assets and financial instruments;
- research and development expenses;
- selling, general, and administrative expenses;

Table of Contents

- sufficiency and availability of capital resources;
- ability to obtain equity or debt financing on favorable terms;
- capital expenditures;
- our production and operations strategy;
- our share repurchase program;
- our tax assets and liabilities;
- our other commitments and contingent liabilities;
- adequacy of our reserve for excess and obsolete inventory;
- unanticipated costs in fulfilling our warranty obligations (including our solar inverter product line and other discontinued businesses), and adequacy of our warranty reserves;
- adequacy of reserves for bad debt, sales returns, and other reserves or impairments;
- our estimates of the fair value of assets acquired;
- restructuring activities and expenses;
- our acquisition, divestiture, and joint venture activities;
- the integration of our acquisitions;
- the potential impact of dilution related to our convertible debt, hedge, and warrant transactions;
- the ability to repay all or a part of our debt obligations;
- industry and market trends; and
- cost fluctuations and pressures, including prices of components, commodities and raw materials, and costs of labor, transportation, energy, and insurance.

Actual results could differ materially and adversely from those expressed in any forward-looking statements, and readers are cautioned not to place undue reliance on forward-looking statements. Factors that could contribute to these differences or prove our forward-looking statements, by hindsight, to be overly optimistic or unachievable include the factors described in Part I, Item 1A in the 2022 Form 10-K. Other factors might also contribute to the differences between our forward-looking statements and our actual results. Other than as required by law, we assume no obligation to update any forward-looking statement or provide the reasons why our actual results might differ.

BUSINESS AND MARKET OVERVIEW

Advanced Energy provides highly engineered, mission-critical, precision power conversion, measurement, and control solutions to our global customers. We design, manufacture, sell and support precision power products that transform, refine, and modify the raw electrical power coming from either the utility or the building facility and convert this raw power into various types of highly controllable, usable power that is predictable, repeatable, and customizable to meet the exacting requirements for powering a wide range of complex equipment. Many of our products enable our original equipment manufacturer ("OEM") customers to optimize their energy consumption through increased power conversion efficiency, power density, power coupling, and process control across a wide range of applications.

Advanced Energy's precision power products and solutions are designed to enable new process technologies, improve productivity, lower the cost of ownership, and provide critical power capabilities for our customers. These products are designed to meet our customers' demanding requirements in efficiency, flexibility, performance, and reliability. The majority of Advanced Energy's products are designed to meet the unique requirements of each customer's equipment. We also provide repair and maintenance services for our products.

Our plasma power solutions enable innovation in complex semiconductor and thin film plasma-based manufacturing processes, such as dry etch and deposition. Our broad portfolio of high and low voltage power products is used in a wide range of applications, such as semiconductor equipment, industrial production, medical and life science equipment, data center computing, networking, and telecommunications. We also supply related sensing, controls, and instrumentation products primarily for advanced measurement and calibration of power and temperature for multiple industrial markets. Our network of global service support centers provides repair services, calibration, conversions, upgrades, refurbishments, and used equipment to companies using our products.

Advanced Energy is organized on a global, functional basis and operates in the single segment for power electronics conversion products. Within this segment, our products are sold into the Semiconductor Equipment, Industrial and Medical, Data Center Computing, and Telecom and Networking markets.

On September 12, 2023, we completed a private, unregistered offering of \$575.0 million aggregate principal amount 2.50% convertible senior notes ("Convertible Notes") and received net proceeds of approximately \$562.1 million after the discount for the initial purchasers' fees. We intend to use the net proceeds to fund future growth, which may include strategic acquisitions, opportunistically repay existing outstanding indebtedness, repurchase our common stock, or general corporate purposes. See *Note 18. Long-Term Debt* in Part I, Item 1 "Unaudited Consolidated Financial Statements" and Liquidity and Capital Resources below.

Concurrent with the Convertible Notes issuance, we repurchased 0.4 million shares of common stock for \$40.0 million and entered into hedge and warrant contracts with respect to our common stock (see *Note 5. Earnings Per Share* and *Note 18. Long-Term Debt* in Part I, Item 1 "Unaudited Consolidated Financial Statements").

On April 25, 2022, we acquired 100% of the issued and outstanding shares of capital stock of SL Power Electronics Corporation ("SL Power"), which is based in Calabasas, California. See *Note 2. Acquisitions* in Part I, Item 1 "Unaudited Consolidated Financial Statements." This acquisition added complementary products to Advanced Energy's medical power offerings and extends our presence in several advanced industrial markets.

Table of Contents

The demand environment in each of our markets is impacted by various market trends, customer buying patterns, design wins, macroeconomic conditions, and other factors. Since the fourth quarter of 2022, demand in some of our markets began to decline, most notably due to the semiconductor cyclical downturn and reduced investments in the Data Center Computing market. Subsequently, in the third quarter of 2023, demand in the Industrial and Medical market started to moderate due to macroeconomic conditions, and in this market, our ability to fulfill demand continues to be partially limited by ongoing supply constraints for some materials and components. We were constrained by supply chain shortages for critical integrated circuits, resulting in longer lead times for our products in 2022. Some of these supply constraints continued into 2023. We implemented measures to improve the supply of critical materials and components and to mitigate the impact of these higher input costs, and these actions have enabled us to better meet customer demand. Due to improved component supply, lead times for our products declined, which resulted in our 12-month backlog normalizing from \$875.3 million at the end of 2022 to \$514.5 million at the end of the third quarter of 2023.

Semiconductor Equipment Market

The Semiconductor Equipment market is driven by the long-term growing need for more semiconductor production capacity and new process technologies to meet increasing demand for integrated circuits that enable processing, storing, and transmitting a growing amount of data across many industries. To meet this demand, the chip industry continues to invest in production capacity for both leading-edge and trailing-edge nodes, logic devices, the latest memory devices, back-end test, and advanced wafer-level packaging. The industry's transition to advanced technology nodes and to increased layers in memory devices requires an increased number of plasma-based etch and deposition process tools and higher content of our advanced power solutions per tool. Advanced Energy is a critical technology leader in the industry and provides one of the industry's broadest portfolios of power conversion and related products, including plasma power, high-voltage power, and adjacent sensing solutions, to semiconductor capital equipment OEMs targeting a wide range of process technologies and device types. Our strategy in this market is to defend our proprietary positions in our core applications by capturing new design and product generations, grow our market position in applications where we have lower market share, such as remote plasma source and dielectric etch, and leverage our broad product portfolio in areas such as high and low voltage embedded power products to grow our market share and content at our OEM customers.

The Semiconductor Equipment market experienced demand growth driven by investments in both leading and trailing edge semiconductor capacity throughout the first three quarters of 2022. Starting in the fourth quarter of 2022, the market entered a downturn due to deteriorating macroeconomic conditions, overcapacity in the market for memory devices, prolonged weakness in demand for consumer electronics, such as smartphone, impacting leading-edge wafer capacity investments plans, general semiconductor equipment. During the first nine months of 2023, these factors continued to impact our revenue, and they are expected to continue in the fourth quarter of 2023 and into 2024. We believe long-term drivers for demand growth in this market will eventually resume, due to the need to invest in new fab capacity to support growing demand for semiconductor devices in a wide range of applications, the continued transition to next generation processing nodes, increased complexity of advanced processes requiring more complex and innovative power solutions, and the regionalization of some semiconductor capacity.

Industrial and Medical Market

Advanced Energy serves the Industrial and Medical market with mission-critical, precision power products and solutions that deliver precise and highly reliable, low noise or differentiated power to OEM equipment. We also supply sensing, control, and instrumentation products to complement our power solutions. Growth in the Industrial and Medical market is driven by investment in complex manufacturing processes or automation, increased adoption of smart power, sensing, and control solutions across many industrial applications, new investments in clean and sustainable technologies, and growing investment in medical devices and life science equipment. Our customers are primarily global and regional OEMs that incorporate our solutions into a wide variety of applications, such as advanced material fabrication, medical devices, analytical instrumentation, test and measurement equipment, robotics, industrial production, and large-scale connected light-emitting diode applications. We serve this diverse market through both our direct sales force and indirect sales channels including independent sales representatives, channel partners, and distributors. Our strategy in the market is to expand our product offerings and channel reach, leveraging common platforms, derivatives, and customizations to further penetrate a broader set of applications.

During 2022, we saw increased demand in the Industrial and Medical market as our customers increased investments in their production capacity and the medical technology industry recovered from the pandemic-related slowdown. Although overall customer demand increased, supply constraints on critical components limited our ability to fulfill product shipments at the level of customer demand and resulted in increased backlog. During the first nine months of 2023, we secured critical components, enabling us to deliver record revenues in the first nine months in this market. However, in the third quarter of 2023 we began to see lower demand in this market due largely to macroeconomic factors and normalization of backlog levels. It is unclear how the macroeconomic conditions, including higher interest rates impacting end customer's capital investment and potential recession, may affect customer demand and our revenue in the remainder of 2023 and into 2024. In addition, although the supply of critical components has improved, we continue to see some shortages and product delivery, and revenue levels in this market will continue to be partially dependent on our ability to secure supplies of critical components. Long-term, we continue to believe the diverse Industrial and Medical market offers many growth opportunities, and we plan to continue our investments to grow revenue in this market.

Data Center Computing Market

Advanced Energy serves the Data Center Computing market with industry-leading power conversion products and technologies, which we sell to OEMs and original design manufacturers of data center server and storage systems, as well as cloud service providers and their partners. Driven by the growing adoption of cloud computing and increasing demand for edge applications, the server and storage market is shifting from traditional enterprise on-premises computing to the data center. In addition, the rapid growth and adoption of artificial intelligence and machine learning are driving increased demand for substantially higher power server racks requiring increased power density and higher efficiency in server power supplies and accelerating the transition from 12 Volt to 48 Volt infrastructure in data center server racks. Advanced Energy benefits from these trends as an industry leader in providing high-efficiency, high-density, 48 Volt server power solutions to data center infrastructure customers. Our strategy in the market is to penetrate selected customers and applications based on our differentiated capabilities and competitive strengths in power density, efficiency, and controls.

In the first half of 2023, we saw reduced revenues due to slowing demand in the enterprise server and storage market as customers delayed investments. In addition, ongoing supply constraints limited our ability to meet the full demand. However, improved supply of critical components and demand for high end computing applications from some customers led to increased revenue in the third quarter of 2023 from the lower levels in first half of 2023. It is not clear how quickly our enterprise server and storage customers will return to their historical level of investments.

Telecom and Networking Market

Advanced Energy's customers in the Telecom and Networking market include many leading OEMs of wireless infrastructure equipment, telecommunication equipment and computer networking equipment. Growth in the market is driven by adoption of more advanced mobile standards, including 5G technologies which enable new advanced applications such as autonomous vehicles and virtual/augmented reality. In datacom, demand is driven by networking investments by telecom service providers and enterprises upgrading their networks, as well as cloud service providers and data centers investing in their networks for increased bandwidth. Our strategy in the market is to optimize our portfolio of power conversion products to more differentiated applications, and to focus on 5G infrastructure applications.

During the first nine months of 2023, substantially improved supply of critical components allowed us to largely fulfill outstanding demand from the prior year and drive strong revenue growth in the Telecom and Networking market as compared to the first nine months of 2022. However, leading companies in this market have reported end user weakness, and we do not expect to sustain the revenue levels of the first nine months of 2023 in the fourth quarter of 2023 and into 2024.

Results of Continuing Operations

The analysis presented below is organized to provide the information we believe will be helpful for understanding of our historical performance and relevant trends going forward and should be read in conjunction with our "Unaudited 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 accounting principles generally accepted in the United States of America ("U.S. GAAP"). A reconciliation of the non-GAAP measures to U.S. GAAP is provided below.

The following table sets forth certain data derived from our Consolidated Statements of Operations (in thousands):

	Th	ree Months En	ded Se	ptember 30,	Ni	ne Months En	led September 30,		
		2023		2022	2023		_	2022	
Sales	\$	409,991	\$	516,274	\$	1,250,539	\$	1,354,682	
Gross profit		147,341		191,218		449,532		497,692	
Operating expenses		117,280		113,646		349,608		322,698	
Operating income from continuing operations		30,061		77,572		99,924		174,994	
Other income (expense), net		4,464		8,940		6,339		11,347	
Income from continuing operations, before income tax		34,525		86,512		106,263		186,341	
Provision for income tax		874		11,639		13,405		29,795	
Income from continuing operations	\$	33,651	\$	74,873	\$	92,858	\$	156,546	

	Three Months Ended	September 30,	Nine Months Endeo	l September 30,
	2023	2022	2023	2022
Sales	100.0 %	100.0 %	100.0 %	100.0 %
Gross profit	35.9	37.0	35.9	36.7
Operating expenses	28.6	22.0	28.0	23.8
Operating income from continuing operations	7.3	15.0	8.0	12.9
Other income (expense), net	1.1	1.7	0.5	0.8
Income from continuing operations, before income tax	8.4	16.8	8.5	13.8
Provision for income tax	0.2	2.3	1.1	2.2
Income from continuing operations	8.2 %	14.5 %	<u>7.4</u> %	11.6 %

SALES, NET

The following tables summarize net sales and percentages of net sales, by markets (in thousands):

	Three Months Ended September 30, 2023 2022					Change 2023 v. 2022 Dollar Percent			
Semiconductor Equipment	\$	185,033	\$	266,600	\$	(81,567)	(30.6)%		
Industrial and Medical		115,226		119,587		(4,361)	(3.6)%		
Data Center Computing		68,286		87,542		(19,256)	(22.0)%		
Telecom and Networking		41,446		42,545		(1,099)	(2.6)%		
Total	\$	409,991	\$	516,274	\$	(106,283)	(20.6)%		
					_				
	Nine Months Ended September 30,				Change 2023 v. 2022				
		2023		2022	_	Dollar	Percent		
Semiconductor Equipment	\$	552,419	\$	698,354	\$	(145,935)	(20.9)%		
Industrial and Medical		365,849		307,436		58,413	19.0 %		
Data Center Computing		187,021		232,941		(45,920)	(19.7)%		
Telecom and Networking		145,250		115,951		29,299	25.3 %		
Total	\$	1,250,539	\$	1,354,682	\$	(104,143)	(7.7)%		

	Three Months Ende	d September 30,	Nine Months Ended	September 30,
	2023	2022	2023	2022
Semiconductor Equipment	45.1 %	51.6 %	44.2 %	51.6 %
Industrial and Medical	28.1	23.2	29.3	22.7
Data Center Computing	16.7	17.0	15.0	17.2
Telecom and Networking	10.1	8.2	11.5	8.5
Total	100.0 %	100.0 %	100.0 %	100.0 %

OPERATING EXPENSES

The following tables summarize our operating expenses (in thousands) and as a percentage of sales:

	Three	Three Months Ended September 30,							
	2023		2022						
Research and development	\$ 50,391	12.3 % \$	49,760	9.6 %					
Selling, general, and administrative	55,131	13.4	56,716	11.0					
Amortization of intangible assets	7,049	1.7	7,049	1.4					
Restructuring charges	4,709	1.1	121	-					
Total operating expenses	\$ 117,280	28.6 % \$	113,646	22.0 %					

	Nine Months	Nine Months Ended September 30,							
	2023	2022							
Research and development	\$ 153,414 12.3	% \$ 141,383 10.4 %							
Selling, general, and administrative	166,102 13.3	161,056 11.9							
Amortization of intangible assets	21,186 1.7	19,081 1.4							
Restructuring charges	8,906 0.7	1,178 0.1							
Total operating expenses	\$ 349,608 28.0	% \$ 322,698 23.8 %							

SALES AND BACKLOG

Total Sales

Sales decreased \$106.3 million, or 20.6%, to \$410.0 million for the three months ended September 30, 2023 and decreased \$104.1 million, or 7.7%, to \$1,250.5 million for the nine months ended September 30, 2023 as compared to the same periods in the prior year.

Revenues in three months ended September 30, 2023 declined from the same period in the prior year mainly due to the impact of market downturns in all of our markets, particularly the Semiconductor Equipment and Data Center Computing markets. Revenues in the first nine months of 2023 were also impacted by Semiconductor Equipment and Data Center Computing market downturns, but revenues in the Industrial and Medical and the Telecom and Networking markets increased as compared to the same periods in the prior year due to improved supply of certain components.

Backlog

The following table summarizes our backlog (in thousands):

	Sej	ptember 30,	December 31,			Change from Year End				
	-	2023		2022	_	Dollar	Percent			
Backlog	\$	514,471	\$	875,346	\$	(360,875)	(41.2)%			

Backlog represents outstanding orders for products we expect to deliver within the next 12 months. Backlog at September 30, 2023 decreased from the end of 2022 due primarily to lower demand in some of our markets and improved lead times, which allowed our customers to reduce placing new orders for products with targeted deliveries in the later part of the 12-month backlog period.

We believe the current backlog levels provide some level of revenue protection should demand continue to decrease due to macroeconomic factors. We continue to expect backlog to return to a more normalized range of \$400 million to \$500 million.

Backlog at any particular date is not necessarily indicative of actual sales which may be generated for any succeeding period and may be adversely impacted by factors such as decreased demand, cancellations, or export controls. Our customers can typically cancel, change, or delay product purchase commitments with little or no notice.

Sales by Market

Sales in the Semiconductor Equipment market decreased \$81.6 million, or 30.6%, to \$185.0 million for the three months ended September 30, 2023 and \$145.9 million, or 20.9%, to \$552.4 million for the nine months ended September 30, 2023 as compared to the same periods in the prior year. The decrease in sales compared to the same periods in the prior year was primarily due to a cyclical downturn in the semiconductor industry and the U.S. export controls restricting shipments of equipment to Chinese semiconductor customers. The revenue decline in the first nine months was partially mitigated by strong service revenues and growth in certain applications, such as high voltage power supplies.

Sales in the Industrial and Medical market decreased \$4.4 million, or 3.6%, to \$115.2 million for the three months ended September 30, 2023 as compared to same period in the prior year. Sales increased \$58.4 million, or 19.0%, to \$365.8 million for the nine months ended September 30, 2023 as compared to the same period in the prior year. The decrease in sales for the three month period was primarily related to softer macroeconomic conditions in the third quarter of 2023. The increase in sales for the nine month period was primarily due to relatively stable demand for our portfolio of products across several industrial and medical applications and improved material availability.

Sales in the Data Center Computing market decreased \$19.3 million, or 22.0%, to \$68.3 million for the three months ended September 30, 2023 and \$45.9 million, or 19.7%, to \$187.0 million for the nine months ended September 30, 2023 as compared to the same periods in the prior year. The decrease in Data Center Computing market sales was due to the cyclical downturn in the data center server and storage market, partially offset by increased demand for advanced computing applications by some customers.

Sales in the Telecom and Networking market decreased \$1.1 million, or 2.6%, to \$41.4 million for the three months ended September 30, 2023 and increased \$29.3 million, or 25.3%, to \$145.3 million for the nine months ended September 30, 2023 as compared to the same periods in the prior year. The decrease in sales during the three month period was due to slowing market demand. The increase in sales for the nine month period was primarily due to substantially improved material availability, allowing us to largely fulfill outstanding demand from the prior year.

GROSS PROFIT

For the three months ended September 30, 2023, gross profit decreased \$43.9 million to \$147.3 million, or 35.9% of revenue, as compared to \$191.2 million, or 37.0% of revenue, in the same period in the prior year. For the nine months ended September 30, 2023, gross profit decreased \$48.2 million to \$449.5 million, or 35.9% of revenue, as compared to \$497.7 million, or 36.7% of revenue, in the same period in the prior year.

The decrease in gross profit as a percentage of revenue for the three and nine months ended September 30, 2023 was largely due to the decline in sales, unfavorable product mix, and higher operating costs based on investments made in 2022, partially offset by lower premiums and related recoveries for securing critical parts.

OPERATING EXPENSES

Research and Development

We perform research and development ("R&D") to develop new or emerging applications, technological advances to provide higher performance, lower cost, or other attributes that we may expect to advance our customers' products. We believe that continued development of technological applications, as well as enhancements to existing products and related software 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.

R&D expenses increased \$0.6 million to \$50.4 million for the three months ended September 30, 2023 and increased \$12.0 million to \$153.4 million for the nine months ended September 30, 2023 as compared to the same periods in the prior year. The increase in R&D expense for the three months ended September 30, 2023 was primarily driven by increased headcount and compensation costs. The increase for the nine months ended September 30, 2023 was primarily driven by increased headcount and compensation costs of \$8.3 million, which was partially due to the SL Power acquisition. In addition, during the nine months ended September 2023, we incurred \$3.8 million in higher program and material costs as we invested in new programs to maintain and increase our technological leadership and provide solutions to our customers' evolving needs.

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, corporate development, and human resource functions.

Selling, general and administrative ("SG&A") expenses decreased \$1.6 million to \$55.1 million for the three months ended September 30, 2023 and increased \$5.0 million to \$166.1 million for the nine months ended September 30, 2023 as compared to the same periods in the prior year. The decrease in SG&A during the three month period was primarily due to lower employee variable compensation expense, partially offset by higher stock-based compensation cost. The increase in SG&A for the nine month period was primarily related to higher stock-based compensation cost and the addition of SL Power, partially offset by lower employee variable compensation expense.

Table of Contents

Amortization of Intangibles

Amortization expense remained the same at \$7.0 million during the three months ended September 30, 2023 and increased \$2.1 million to \$21.2 million for the nine months ended September 30, 2023 as compared to the same periods in the prior year. The increase was primarily driven by incremental amortization of acquired intangible assets from the SL Power acquisition. For additional information, see *Note 2. Acquisitions* and *Note 12. Intangible Assets* in Part I, Item 1 "Unaudited Consolidated Financial Statements."

Restructuring

In the fourth quarter of 2022, we approved a restructuring plan (the "2022 Plan"), which is expected to further improve our operating efficiencies and drive the realization of synergies from our business combinations by consolidating our operations, optimizing our factory footprint, including moving certain production into our higher volume factories, reducing redundancies, and lowering our cost structure. The majority of these actions impact our factory operations and should partially mitigate the impact of lower volumes on gross margins. Although we expect additional charges under this plan as we refine and execute our actions, we anticipate the 2022 Plan will be substantially completed, and associated expenses will be incurred, by the end of 2024.

In 2018, we committed to a restructuring plan (the "2018 Plan") to optimize our manufacturing footprint and to improve our operating efficiencies and synergies related to business combinations. We incurred severance costs primarily related to the transition and exit of our facility in Shenzhen, China and actions associated with synergies related to the acquisition of Artesyn Embedded Technologies, Inc.'s embedded power business. This plan is substantially complete with the closure of our Shenzhen facility in February 2023.

For additional information, see Note 13. Restructuring Costs in Part I, Item 1 "Unaudited Consolidated Financial Statements."

OTHER INCOME (EXPENSE), NET

Other income (expense), net consists primarily of interest income and expense, foreign exchange gains and losses, gains and losses on sales of fixed assets, and other miscellaneous items.

Other income (expense), net decreased \$4.4 million to \$4.5 million for the three months ended September 30, 2023, and decreased \$5.0 million to \$6.3 million for the nine months ended September 30, 2023 as compared to the same periods in the prior year.

The decrease in income between periods was primarily a result of lower unrealized foreign exchange gains and a one-time gain in 2022 from the sale of intellectual property from a previous acquisition that did not recur in 2023. In addition, we experienced an increase in interest expense due to a higher interest rate on the portion of our Term Loan Facility subject to a variable interest rate and the issuance of our Convertible Notes. This was partially offset by higher interest income on our cash due to higher interest rates and additional cash on hand in the last month of the quarter as a result of the Convertible Notes issuance.

See Note 18. Long-Term Debt in Part I, Item 1 "Unaudited Consolidated Financial Statements" for information regarding our Convertible Notes.

PROVISION FOR INCOME TAX

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

	Three Months Ended September 30,					Nine Months Ended Septen				
		2023		2022	_	2023	2022			
Income from continuing operations, before income tax	\$	34,525	\$	86,512	\$	106,263	\$	186,341		
Provision for income tax	\$	874	\$	11,639	\$	13,405	\$	29,795		
Effective tax rate		2.5%		13.5%		12.6%		16.0%		

Our effective tax rates differ from the U.S. federal statutory rate of 21% for the three and nine months ended September 30, 2023 and 2022, primarily due to the benefit of earnings in foreign jurisdictions which are subject to lower tax rates, as well as tax credits, partially offset by net U.S. tax on foreign operations. The effective tax rate for the three and nine months ended September 30, 2023 was lower than the same periods in 2022 primarily due to the greater impact of beneficial discrete items primarily related to tax strategies we implemented in the three months ended September 30, 2023 relative to the beneficial discrete items recorded in the three months ended September 30, 2023.

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.

Non-GAAP Results

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

The non-GAAP results presented below exclude the impact of non-cash related charges, such as stock-based compensation, amortization of intangible assets, and long-term unrealized foreign exchange gains and losses. In addition, we exclude discontinued operations and other non-recurring items such as acquisition-related costs, facility expansion and related costs, and restructuring expenses, as they are not indicative of future performance. The tax effect of our non-GAAP adjustments represents the anticipated annual tax rate applied to each non-GAAP adjustment after consideration of their respective book and tax treatments.

Reconciliation of non-GAAP measure Operating expenses and operating income from continuing	Th	ree Months End	led Se	eptember 30,	Niı	ie Months End	ded September 30,		
operations, excluding certain items (in thousands)		2023		2022		2023		2022	
Gross profit from continuing operations, as reported	\$	147,341	\$	191,218	\$	449,532	\$	497,692	
Adjustments to gross profit:									
Stock-based compensation		615		454		1,587		1,087	
Facility expansion, relocation costs and other		171		1,662		1,188		4,133	
Acquisition-related costs		44		66		194		(372)	
Non-GAAP gross profit		148,171		193,400		452,501		502,540	
Non-GAAP gross margin		36.1%		37.5%		36.2%		37.1%	
Operating expenses from continuing operations, as									
reported		117,280		113,646		349,608		322,698	
Adjustments:									
Amortization of intangible assets		(7,049)		(7,049)		(21,186)		(19,081)	
Stock-based compensation		(7,460)		(5,568)		(21,226)		(13,921)	
Acquisition-related costs		(611)		(1,150)		(2,654)		(6,977)	
Restructuring and other		(4,898)		(121)		(9,095)		(1, 178)	
Non-GAAP operating expenses		97,262		99,758		295,447	_	281,541	
Non-GAAP operating income	\$	50,909	\$	93,642	\$	157,054	\$	220,999	
Non-GAAP operating margin		12.4%		18.1%		12.6%		16.3%	

Reconciliation of non-GAAP measure Income from continuing operations, excluding certain items	Thr	ee Months End	led Se	ptember 30,	Nir	e Months End	led Sej	otember 30,
(in thousands, except per share amounts)		2023		2022		2023		2022
Income from continuing operations, less non-controlling								
interest, net of income tax	\$	33,651	\$	74,864	\$	92,858	\$	156,530
Adjustments:								
Amortization of intangible assets		7,049		7,049		21,186		19,081
Acquisition-related costs		655		1,216		2,848		6,605
Facility expansion, relocation costs, and other		171		1,662		1,188		4,133
Restructuring and other		4,898		121		9,095		1,178
Unrealized foreign currency gain		(1,604)		(6,169)		(2,817)		(13,023)
Acquisition-related costs and other included in other								
income (expense), net		(1,516)		(4,685)		(1,516)		(4,600)
Tax effect of non-GAAP adjustments		(1,101)		855		(3,273)		(966)
Non-GAAP income, net of income tax, excluding								
stock-based compensation		42,203		74,913		119,569		168,938
Stock-based compensation, net of tax		6,299		4,697		17,794		11,668
Non-GAAP income, net of income tax	\$	48,502	\$	79,610	\$	137,363	\$	180,606
Non-GAAP diluted earnings per share	\$	1.28	\$	2.12	\$	3.63	\$	4.79

Reconciliation of non-GAAP measure	Three Months Ended September 30, N			Ni	Nine Months Ended September 30,			
Per share earnings excluding certain items		2023		2022		2023		2022
Diluted earnings per share from continuing operations,								
as reported	\$	0.89	\$	1.99	\$	2.45	\$	4.15
Add back:								
Per share impact of non-GAAP adjustments, net of								
tax		0.39		0.13		1.18		0.64
Non-GAAP earnings per share	\$	1.28	\$	2.12	\$	3.63	\$	4.79

Impact of Inflation

In previous years, inflation did not have a material impact on our operations. However, more recently, we have experienced inflationary pressure from price increases in select components driven by factors such as higher global demand, supply chain disruptions, higher labor expenses, and increased freight costs. In this environment, we are actively working with our customers to adjust pricing that helps offset the inflationary pressure on the cost of our components. We have also been able to recover some premiums on pricing related to securing scarce materials with our customers, thus limiting the financial impact of inflationary pressures.

Liquidity and Capital Resources

Liquidity

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, cash generated from current operations, and available borrowing capacity under the Revolving Facility (defined in *Note 18. Long-Term Debt* in Part I, Item 1 "Unaudited Consolidated Financial Statements").

The following table summarizes our cash, cash equivalents, and marketable securities (in thousands):

	Septem	1ber 30, 2023
Cash and cash equivalents	\$	985,931
Marketable securities		155
Total cash, cash equivalents, and marketable securities	\$	986,086

We believe the above sources of liquidity will be adequate to meet anticipated working capital needs, anticipated levels of capital expenditures, contractual obligations, debt service, share repurchase programs, and dividends for the next 12 months and on a long-term basis. In addition, we may, depending upon the number or size of additional acquisitions, seek additional debt or equity financing from time to time; however, such additional financing may not be available on acceptable terms, if at all.

Debt

On September 12, 2023, we completed a private, unregistered offering of \$575.0 million Convertible Notes and received net proceeds of approximately \$562.1 million after the discount for the initial purchasers' fees. We intend to use the net proceeds to fund future growth, which may include strategic acquisitions, opportunistically repay existing outstanding indebtedness, repurchase our common stock, or general corporate purposes.

The following table summarizes our borrowings (in thousands, except for interest rates).

	Septer	September 30, 2023				
	Balance	Interest Rate	Unused Line Fee			
Convertible Notes	\$ 575,000	2.50%	—			
Term Loan Facility at fixed interest rate due to interest rate swap	225,094	1.17%	_			
Term Loan Facility at variable interest rate	134,906	6.17%	—			
Revolving Facility at variable interest rate		6.17%	0.10%			
Total borrowings	\$ 935,000					

As of September 30, 2023, we had \$200.0 million in available funding under the Revolving Facility. The Term Loan Facility requires quarterly repayments of \$5.0 million plus accrued interest, with the remaining balance due in September 2026.

In addition to the available capacity on the Revolving Facility, prior to the maturity date of our Credit Agreement, we may also request an increase to the financing commitments in either the Term Loan Facility or Revolving Facility by an aggregate amount not to exceed \$115.0 million.

For more information see *Note 18 Long-Term Debt* in Part I, Item 1 "Unaudited Consolidated Financial Statements." For more information on the interest rate swap that fixes the interest rate for a portion of our Term Loan Facility, see *Note 7*. *Derivative Financial Instruments* in Part I, Item 1 "Unaudited Consolidated Financial Statements."

Dividends

During the three months ended September 30, 2023, we paid a quarterly cash dividend of \$0.10 per share, totaling \$3.8 million. We currently anticipate that a cash dividend of \$0.10 per share will continue to be paid on a quarterly basis, although the declaration of any future cash dividend is at the discretion of the Board of Directors ("the Board") and will depend on our financial condition, results of operations, capital requirements, business conditions, and other factors.

Share Repurchase

To repurchase shares of our common stock, we periodically enter into stock repurchase agreements. The following table summarizes these repurchases:

	Three Months Ended September 30,				Nine Months Ended September 30,			
(in thousands, except per share amounts)	2023 2022		2022	2023		2023		
Amount paid or accrued to repurchase shares	\$	40,000	\$	2,342	\$	40,000	\$	25,955
Number of shares repurchased		378		34		378		346
Average repurchase price per share	\$	105.74	\$	69.39	\$	105.74	\$	75.07

The above table reflects a \$40.0 million repurchase of our common stock that was concurrent with the Convertible Notes issuance. See *Note 18. Long-Term Debt* in Part I, Item 1 "Unaudited Consolidated Financial Statements." At September 30, 2023, the remaining amount authorized by the Board for future share repurchases was \$199.3 million with no time limitation.

Cash Flows

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

	Nine Months Ended September 30,				
		2023		2022	
Net cash from operating activities from continuing operations	\$	128,240	\$	112,982	
Net cash from operating activities from discontinued operations		(3,307)		(81)	
Net cash from operating activities		124,933		112,901	
Net cash from investing activities		(50,229)		(185,286)	
Net cash from financing activities		454,204		(53,773)	
Effect of currency translation on cash and cash equivalents		(1,795)		(9,161)	
Net change in cash and cash equivalents		527,113		(135,319)	
Cash and cash equivalents, beginning of period		458,818		544,372	
Cash and cash equivalents, end of period	\$	985,931	\$	409,053	

Net Cash From Operating Activities

Net cash from operating activities from continuing operations for the nine months ended September 30, 2023, was \$128.2 million, as compared to \$113.0 million for the same period in the prior year. The increase of \$15.2 million in net cash flows from operating activities as compared to the same period in the prior year was primarily due to a favorable decrease in net operating assets driven primarily by a decrease in accounts receivable and inventories. This was partially offset by a decrease in accounts payable and accrued expenses and lower net income from continuing operations.

Net Cash From Investing Activities

Net cash from investing activities for the nine months ended September 30, 2023 was (\$50.2) million, primarily driven by the following:

- (\$46.8) million in purchases of property and equipment largely driven by investments in our manufacturing footprint and capacity; and
- (\$3.4) million in purchases of investments.

Net cash from investing for the nine months ended September 30, 2022 was (\$185.3) million, primarily driven by the following:

- (\$39.5) million in purchases of property and equipment largely driven by investments in our manufacturing footprint and capacity; and
- (\$145.8) million for business combinations.

Net Cash From Financing Activities

Net cash from financing activities for the nine months ended September 30, 2023 was \$454.2 million and included the following:

- \$562.1 million net proceeds from issuance of long-term debt;
- \$74.9 million proceeds from the sale of Warrants;
- (\$115.0) million for purchase of Note Hedges;
- (\$40.0) million for repurchase of common stock;
- (\$15.0) million for repayment of long-term debt;
- (\$11.4) million for dividend payments; and
- (\$1.3) million in net payments related to stock-based award activities.

Net cash from financing activities for the nine months ended September 30, 2022 was (\$53.8) million and included the following:

- (\$26.0) million related to repurchases of our common stock;
- (\$15.0) million for repayment of long-term debt;
- (\$11.4) million for dividend payments; and
- (\$1.4) million in net payments related to stock-based award activities.

Effect of Currency Translation on Cash

During the nine months ended September 30, 2023, foreign currency translation had a minimal impact on cash. See "Foreign Currency Exchange Rate Risk" in Part I, Item 3 of this Form 10-Q for more information.

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 consolidated financial statements and accompanying notes. *Note 1. Summary of Operations and Significant Accounting Policies and Estimates* to the consolidated financial statements in the 2022 Form 10-K 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 the 2022 Form 10-K, include:

- estimates for the valuation of assets and liabilities acquired in business combinations;
- accounting for income taxes;
- inputs to actuarial models that measure our pension obligations; and
- assessing excess and obsolete inventories.

Such accounting policies and estimates require significant judgments and assumptions to be used in the preparation of the consolidated financial statements and actual results could differ materially from the amounts reported based on variability in factors affecting these estimates.

ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Market Risk and Risk Management

In the normal course of business, we have exposure to interest rate risk from our investments and Credit Agreement. We also have exposure to foreign exchange rate risk related to our foreign operations and foreign currency transactions.

See "Risk Factors" set forth in Part I, Item 1A of the 2022 Form 10-K and Part II of this Form 10-Q, 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, 2022.

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 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 substantially all 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 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.

The functional currencies of our worldwide facilities primarily include the United States Dollar (USD), Euro, South Korean Won, New Taiwan Dollar, Japanese Yen, Pound Sterling, and Chinese Yuan. Our purchasing and sales activities are primarily denominated in the USD, Japanese Yen, Euro, and Chinese Yuan.

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.

As currencies fluctuate against each other we are exposed to foreign currency exchange rate risk on sales, purchasing transactions, and labor. Exchange rate fluctuations could require us to increase prices to foreign customers, which could result in lower net sales. Alternatively, if we do not adjust the prices for our products in response to unfavorable currency fluctuations, our results of operations could be adversely impacted. Changes in the relative buying power of our customers may impact sales volumes.

Acquisitions are a large component of our capital deployment strategy. A significant number of acquisition target opportunities are located outside the U.S., and their value may be denominated in foreign currency. Changes in exchange rates therefore may have a material impact on their valuation in USD and may impact our view of their attractiveness.

From time to time, we may 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, including foreign currency, which may be required for a potential foreign acquisition. 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 may enter into foreign currency forward contracts to manage the exchange rate risk associated with intercompany debt denominated in nonfunctional currencies. 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.

Interest Rate Risk

Our market risk exposure relates primarily to changes in interest rates on our debt. The following table summarizes our borrowings (in thousands).

	September 30, 2023				
	Balance	Interest Rate	Unused Line Fee		
Convertible Notes	\$ 575,000	2.50%	—		
Term Loan Facility at fixed interest rate due to interest rate swap	225,094	1.17%	_		
Term Loan Facility at variable interest rate	134,906	6.17%			
Revolving Facility at variable interest rate	—	6.17%	0.10%		
Total borrowings	\$ 935,000				

For more information see *Note 18 Long-Term Debt* in Part I, Item 1 "Unaudited Consolidated Financial Statements." For more information on the interest rate swap that fixes the interest rate for a portion of our Term Loan Facility, see *Note 7*. *Derivative Financial Instruments* in Part I, Item 1 "Unaudited Consolidated Financial Statements."

The Term Loan Facility and Revolving Facility bear interest, at our option, at a rate based on the Base Rate or SOFR, as defined in the Credit Agreement, plus an applicable margin. The interest rate swap contracts expire on September 10, 2024. After that date, this portion of our Term Loan Facility will be subject to a variable interest rate.

Our interest payments are impacted by interest rate fluctuations. With respect to the portion of our Credit Agreement that is subject to a variable interest rate, a hypothetical increase of 100 basis points (1%) in interest rates would have a \$1.4 million annual impact on our interest expense. A change in interest rates does not have a material impact upon our future earnings and cash flow for fixed rate debt. However, increases in interest rates could impact our ability to refinance existing maturities and acquire additional debt on favorable terms.

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 Exchange Act is recorded, processed, summarized, and reported, within the time periods specified in the SECs 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 Exchange Act is accumulated and communicated to management, including our Principal Executive Officer (Stephen D. Kelley, President and Chief Executive Officer) and Principal Financial Officer (Paul Oldham, Executive Vice President and 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, our Chief Executive Officer and Chief Financial Officer concluded that our disclosure controls and procedures were effective as of September 30, 2023. The conclusions of the Chief Executive Officer and Chief Financial Officer from this evaluation were communicated to the Audit and Finance Committee. Management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving their objectives and management necessarily applies its judgment in evaluating the cost-benefit relationship of possible controls and procedures. We intend to continue to review and document our disclosure controls and procedures, including our internal controls over 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 that occurred during the quarter covered by this Form 10-Q that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

PART II OTHER INFORMATION

ITEM 1. LEGAL PROCEEDINGS

We are involved in disputes and legal actions arising in the normal course of our business. Although it is not possible to predict the outcome of these matters, we believe that the results of these proceedings will not have a material adverse effect on our financial condition, results of operations, or liquidity.

ITEM 1A. RISK FACTORS

Information concerning our risk factors is contained in Part I, Item 1A, "Risk Factors" in the 2022 Form 10-K. The risks described in our Annual Report on Form 10-K are not the only risks that we face; additional risks and uncertainties not currently known to us or that we currently deem to be immaterial also may materially adversely affect our business, financial condition, or operating results. Aside from the risk factors below, there have been no material changes to the risk factors previously disclosed in the 2022 Form 10-K.

The conditional conversion feature of the Convertible Notes, if triggered, may adversely affect our financial condition and operating results.

In the event the conditional conversion feature of the Convertible Notes is triggered, holders will be entitled to convert at any time during specified periods at their option. If one or more holders elect to convert, we would be required to settle any converted principal amount of such notes through payment of cash, which could adversely affect our liquidity. In addition, even if holders do not elect to convert, we could be required under applicable accounting rules to reclassify all or a portion of the outstanding principal of the Convertible Notes as current rather than long-term liability, which would result in a material reduction of our net working capital.

Conversion of the Convertible Notes may dilute the ownership interest of our stockholders and the existence of the Convertible Notes may depress the price of our common stock.

The conversion of some or all of the Convertible Notes may dilute the ownership interests of our stockholders. Upon conversion, we have the option to pay or deliver, as the case may be, cash, shares of our common stock, or a combination of cash and shares of our common stock with respect to the remainder, if any, of our conversion obligation in excess of the aggregate principal amount of the Convertible Notes being converted. If we elect to settle the remainder, if any, of our conversion obligation in excess of the aggregate principal amount of the Convertible Notes being converted. If we elect to settle the remainder, if any, of our common stock or a combination of cash and shares of our common stock, that action will dilute the ownership interest of our stockholders. Additionally, any sales in the public market of our common stock issuable upon such conversion could adversely affect prevailing market prices of our common stock.

In addition, the existence of the Convertible Notes may encourage short selling by market participants because the conversion could be used to satisfy short positions, and the anticipated conversion into shares of our common stock could depress the price of our common stock.

The hedges and warrants in our own common stock may adversely affect the common stock's trading price.

In September 2023, we entered into hedge and warrant transactions on our own common stock. These contracts are expected to reduce the potential dilution to our common stock upon any conversion of the Convertible Notes and/or offset any cash payments we are required to make in excess of the principal amount. The warrants could separately have a dilutive effect on our common stock to the extent that the market price per share of our common stock exceeds the exercise price.

In addition, the counterparties or their affiliates may modify their hedge positions by entering into or unwinding various derivatives with respect to our common stock and sell our common stock prior to the maturity of the Convertible Notes (and are likely to do in connection with any conversion or redemption). This activity could cause fluctuations in the market price of our common stock.

We are subject to counterparty default risk with respect to the Note Hedges.

The counterparties are financial institutions, and we will be subject to the risk that any or all of them might default. Our exposure is not secured by any collateral. If a counterparty becomes subject to insolvency proceedings, we will become an unsecured creditor. Our exposure will depend on many factors but, generally, an increase in our exposure will correlate to an increase in the market price and in the volatility of our common stock. In addition, upon a default by a counterparty, we may suffer adverse tax consequences and more dilution than we currently anticipate with respect to our common stock. We can provide no assurances as to the financial stability or viability of the counterparties.

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

To repurchase shares of our common stock, we periodically enter into stock repurchase agreements, open market transactions, and/or other transactions in accordance applicable federal securities laws. Before repurchasing our shares, we consider the market price of our common stock, the nature of other investment opportunities, available liquidity, cash flows from operations, general business and economic conditions, and other relevant factors.

The following table summarizes these repurchases:

Month	Total Number of Shares <u>Purchased</u>	Pr Pe	verage ice Paid er Share in thousan	Total Number of Shares Purchased as Part of Publicly Announced <u>Plans or Programs</u> ds, except price per share data)	Maximum Dollar Value of Shares that May Yet be Purchased Under the Plans or Programs
January		\$		_	\$ 199,320
February		\$		—	\$ 199,320
March		\$			\$ 199,320
First quarter		\$	_		
April	—	\$	—	—	\$ 199,320
May		\$		—	\$ 199,320
June		\$	—	—	\$ 199,320
Second quarter		\$			
July		\$		—	\$ 199,320
August		\$		—	\$ 199,320
September	378	\$	105.74	378	\$ 199,320
Third quarter	378	\$	105.74	378	
Total	378	\$	105.74	378	\$ 199,320

The following table summarizes actions by our Board of Directors in relation to the stock repurchase program:

Date	Action
September 2015	Authorized a program to repurchase up to \$150.0 million of our common stock
May 2018	Approved a \$50.0 million increase in the repurchase program
December 2019	Authorized the removal of the expiration date and increased the balance available for the repurchase program by \$25.1 million
July 2021	Approved an increase to the repurchase program, which authorized Advanced Energy Industries, Inc. to repurchase up to \$200.0 million with no time limitation
July 2022	Approved an increase to the repurchase program from its remaining authorization of \$102.4 million, to repurchase up to \$200.0 million with no time limitation
September 2023	Concurrent with the September 12, 2023 issuance of the Convertible Notes, approved a \$40.0 million increase to the repurchase program specifically for the repurchase of our common stock in the same amount on that date

ITEM 3. DEFAULTS UPON SENIOR SECURITIES

None

ITEM 4. MINE SAFETY DISCLOSURES

None

ITEM 5. OTHER INFORMATION

During the three months ended September 30, 2023, no director or officer adopted or terminated a "Rule 10b5-1 trading arrangement" or a "Non-Rule 10b5-1 trading arrangement" (as defined in Item 408 of Regulation S-K).

ITEM 6. EXHIBITS

The exhibits listed in the following index are filed as part of this Quarterly Report on Form 10-Q.

Exhibit <u>Number</u>	Description	<u>Form</u>	<u>Incorpora</u> <u>File No.</u>	<u>ted by Reference</u> <u>Exhibit</u>	<u>Filing Date</u>
4.1	Indenture, dated as of September 12, 2023, between Advanced Energy Industries, Inc. and U.S. Bank Trust Company, National Association, as trustee (with the form of Global 2.50% Convertible Senior Note due 2028)	8-K	000-26966	4.1	Sep. 13, 2023
10.1	Form of Confirmation for Convertible Note Hedges (Certain personally identifiable information has been omitted from this exhibit pursuant to Item 601(a)(6) of Regulation S-K)	8-K	000-26966	10.1	Sep. 13, 2023
10.2	Form of Confirmation for Warrants (Certain personally identifiable information has been omitted from this exhibit pursuant to Item 601(a)(6) of Regulation S-K)	8-K	000-26966	10.2	Sep. 13, 2023
10.3	Amendment No. 3 to Credit Agreement, dated as of September 7, 2023, among Advanced Energy Industries, Inc., the guarantors party thereto, Bank of America, N.A., as Administrative Agent, and the Lenders party thereto	8-K	000-26966	10.3	Sep. 13, 2023
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.				Filed herewith
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.				Filed herewith
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.				Filed herewith
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.				Filed herewith
101.INS	Inline XBRL Instance Document (The instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document)				Filed herewith
101.SCH	Inline XBRL Taxonomy Extension Schema Document.				Filed herewith
101.CAL	Inline XBRL Taxonomy Extension Calculation Link base Document.				Filed herewith
101.DEF	Inline XBRL Taxonomy Extension Definition Link base Document.				Filed herewith
101.LAB	Inline XBRL Taxonomy Extension Label Link base Document.				Filed herewith
101.PRE	Inline XBRL Taxonomy Extension Presentation Link base Document.				Filed herewith
104	Cover Page Interactive Data File (Formatted in Inline XBRL and contained in Exhibit 101)				Filed herewith

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: October 31, 2023

/s/ Paul Oldham Paul Oldham Chief Financial Officer and Executive Vice President

I, Stephen D. Kelley, certify that:

- 1. I have reviewed this Quarterly Report on Form 10-Q for the period ended September 30, 2023 of Advanced Energy Industries, Inc.;
- 2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
- 3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
- 4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a. Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b. Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c. Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d. Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
- 5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - a. All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b. Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: October 31, 2023

/s/ Stephen D. Kelley Stephen D. Kelley Chief Executive Officer

I, Paul Oldham, certify that:

- 1. I have reviewed this Quarterly Report on Form 10-Q for the period ended September 30, 2023 of Advanced Energy Industries, Inc.;
- 2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
- 3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
- 4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a. Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b. Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c. Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d. Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
- 5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - a. All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b. Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: October 31, 2023

/s/ Paul Oldham Paul Oldham Chief Financial Officer and Executive Vice President 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

I hereby certify, pursuant to 18 U.S.C. Section 1350, that the accompanying Quarterly Report on Form 10-Q for the period ended September 30, 2023, of Advanced Energy Industries, Inc., fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 and that information contained in the Quarterly Report on Form 10-Q fairly presents, in all material respects, the financial condition and results of operations of Advanced Energy Industries, Inc.

Date: October 31, 2023

/s/ Stephen D. Kelley Stephen D. Kelley Chief Executive Officer

A signed original of this written statement required by Section 906 has been provided to the Company and will be retained by the Company and furnished to the Securities and Exchange Commission or its staff upon request.

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

I hereby certify, pursuant to 18 U.S.C. Section 1350, that the accompanying Quarterly Report on Form 10-Q for the period ended September 30, 2023, of Advanced Energy Industries, Inc., fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 and that information contained in the Quarterly Report on Form 10-Q fairly presents, in all material respects, the financial condition and results of operations of Advanced Energy Industries, Inc.

Date: October 31, 2023

/s/ Paul Oldham Paul Oldham Chief Financial Officer & Executive Vice President

A signed original of this written statement required by Section 906 has been provided to the Company and will be retained by the Company and furnished to the Securities and Exchange Commission or its staff upon request.