



A Best-in-Class Industrial Growth Enterprise

July 2022

SAFE HARBOR

The company's guidance with respect to anticipated financial results, potential future growth and profitability, guidance on possible future results, future business mix, expectations regarding future market trends, future performance within specific markets and other statements herein or made on the above-announced conference call that are not historical information are forward-looking statements within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934. Forward-looking statements are subject to known and unknown risks and uncertainties that could cause actual results to differ materially from those expressed or implied by such statements. These risks are described in Advanced Energy's Form 10-K, Form 10-Q and other reports and statements filed with the Securities and Exchange Commission (SEC), which can be obtained from the SEC's website or from our Investors page at ir.advancedenergy.com. Forward-looking statements are made and based on information available to us as of May 4, 2022. Aspirational goals and targets should not be interpreted in any respect as guidance. We assume no obligation to update the information in this presentation.



PRECISION POWER LEADER FOR THE DIGITAL ECONOMY



PURE PLAY POWER LEADER

Strategic focus on precision power ensures sustainable advantage and scale



OUTPERFORMING MARKETS

Track record of broadening market reach, growing share and adding content



PROPIETARY SOLUTIONS

Lead with differentiated, highly-engineered, high value products and technologies



ACCELERATING EARNINGS

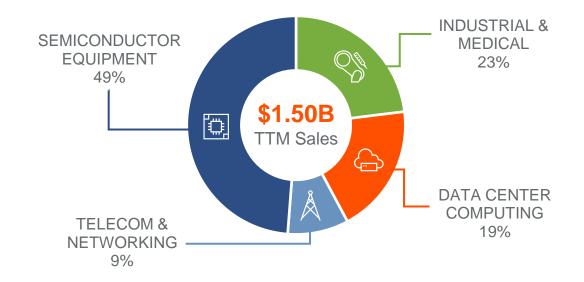
Capture long life-cycle revenues and optimize margins to grow EPS >2X faster than revenue



ADVANCED ENERGY AT A GLANCE

Headquartered in Denver Colorado,

Advanced Energy (NASDAQ: AEIS) is a global leader in design and manufacture of highly engineered precision power conversion, measurement and control solutions for mission-critical applications and processes.



BY THE NUMBERS













WE ARE THE PURE PLAY POWER LEADER

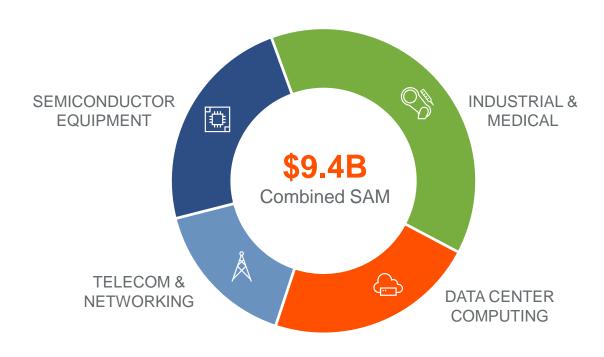
AE provides precision power conversion and control solutions for a wide range of high value **SEMICONDUCTOR TELECOM & INDUSTRIAL &** and long life-cycle **DATA CENTER EQUIPMENT NETWORKING MEDICAL** COMPUTING applications Grid **Power Process** Custom Server Radio Power Power Power Power **Facility Power**

>70% of Revenue Comes from Proprietary Products



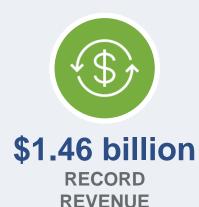
OUR LEADERSHIP ENABLES SOLID FINANCIAL PERFORMANCE

Large & Diversified Growing Market

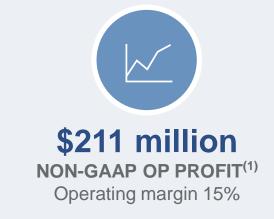


#1 or #2 in All Four Markets

2021 Reported Results





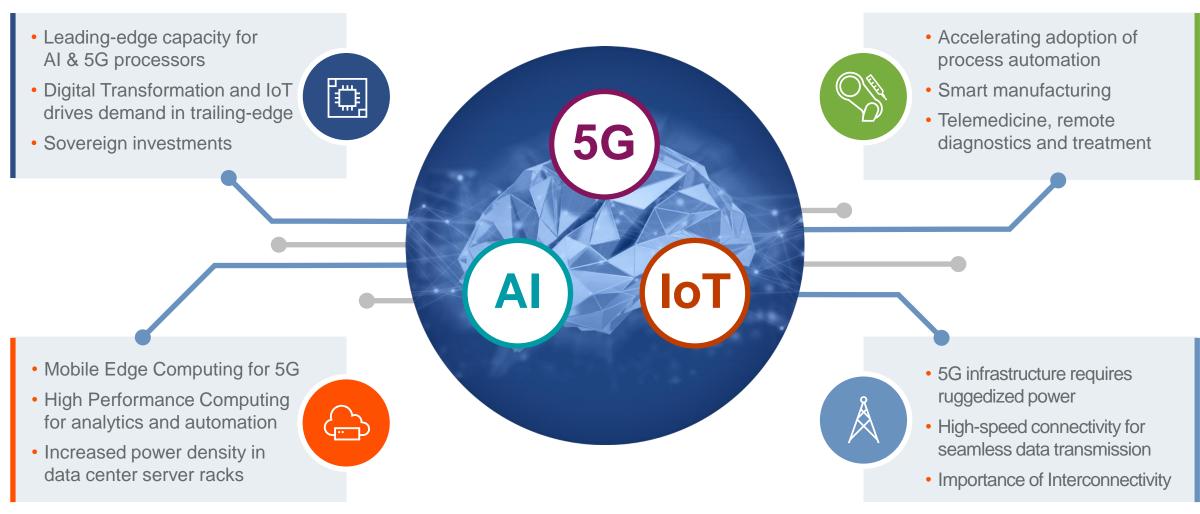




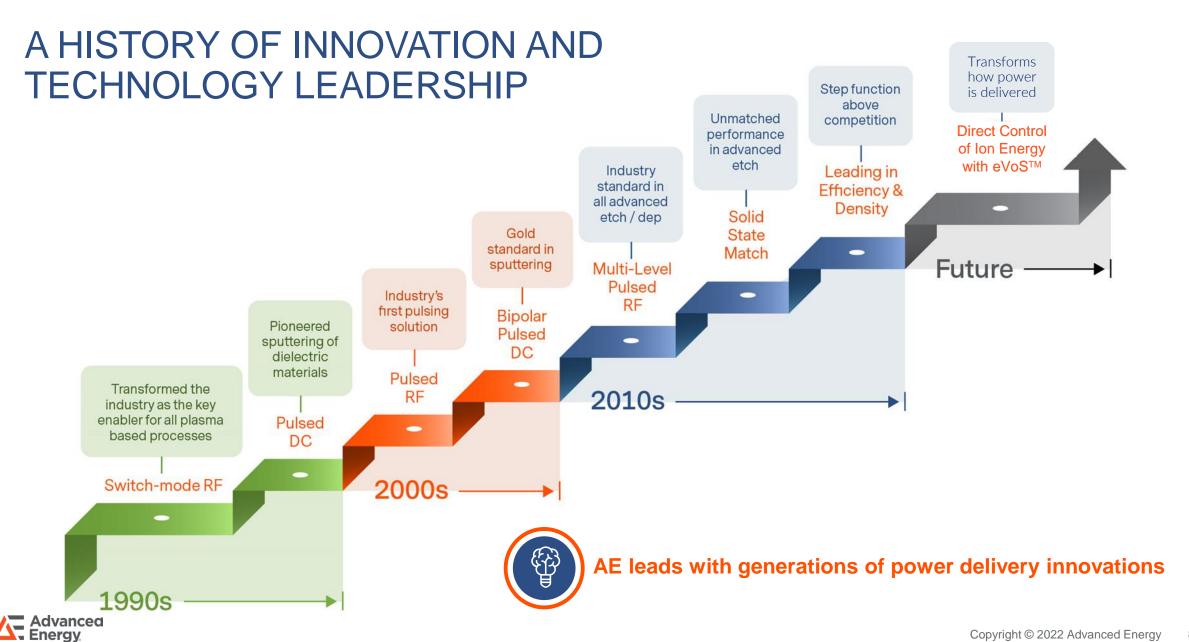


⁽¹⁾ Detailed explanations of non-GAAP financials and reconciliations of GAAP to non-GAAP financials can be found at the end of this presentation

DIGITAL ECONOMY DRIVES GROWTH ACROSS OUR 4 VERTICALS







FOCUS ON PROPRIETARY DESIGNS TO ACCELERATE GROWTH

AE TARGETED GROWTH STRATEGIES



GROW SHARE

Across Mission-Critical Precision Power Verticals



Invest in **INNOVATION** and Technology Leadership



Leverage Strong Financials and Increased Scale to Capitalize on NEW OPPORTUNITIES



Semiconductor:

Extending Our Leadership



Data Center Computing:

From Fast Follower to Technology Leader



Industrial & Medical:

Expanding Our Portfolio of Proprietary Solutions



Telecom & Networking:

Targeting 5G Infrastructure



SEMICONDUCTOR: EXTENDING OUR LEADERSHIP

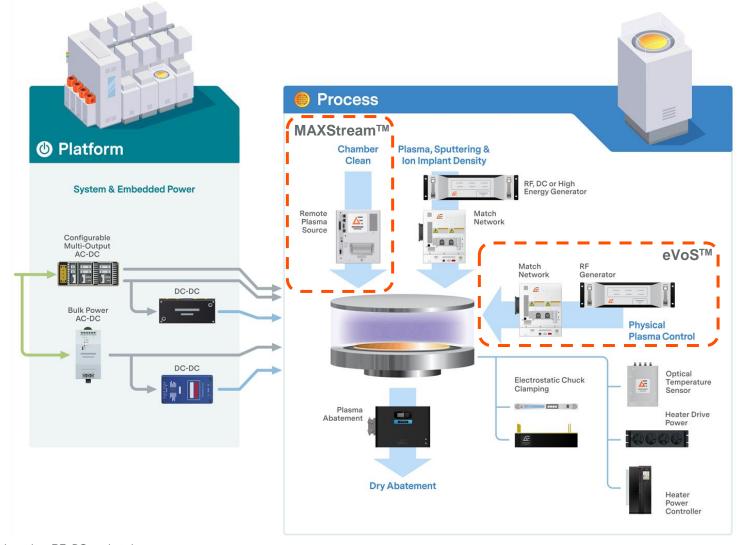
MARKET LEADER WITH PROVEN TRACK RECORD

Market share every year for over 10 years in Process Power and RF Power⁽¹⁾

16% 10-year Semi Product Revenue CAGR⁽²⁾

TARGET TO CONTINUE TO OUTGROW OUR MARKET

>1.2X AE targeted Semi revenue CAGR over WFE CAGR

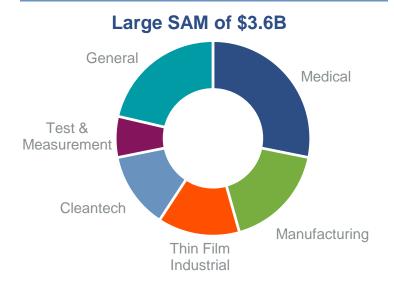




⁽¹⁾ AEIS market share per VLSI Research; Process Power is based on RF+DC market share

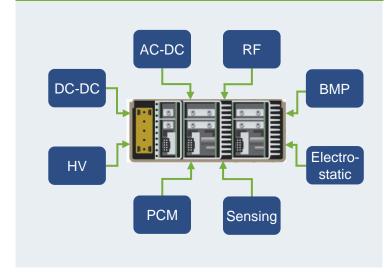
INDUSTRIAL & MEDICAL: EXPANDING OUR PORTFOLIO OF PROPRIETARY SOLUTIONS

LARGE MARKET WITH WIDE RANGE OF NICHE OPPORTUNITES



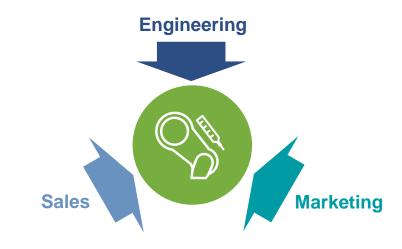
- Large SAM consists of many small and medium high-value opportunities
- Target long-life cycle and proprietary applications to capture sole-source positions

LEVERAGE BROAD PORTFOLIO OF STANDARD PRODUCTS TO DELIVER CUSTOM SOLUTIONS



- Most comprehensive portfolio of standard power products
- Develop modified standard or full custom solutions to solve customers' challenging power delivery problems

ACCELERATING INVESTMENTS TO DRIVE GROWTH

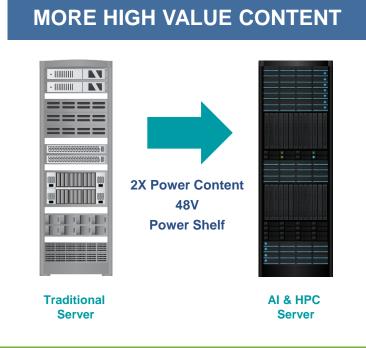


- Allocate more engineering, sales and marketing resources to I&M applications
- Grow design win funnel, accelerate cross selling and drive profitable revenue growth



DATA CENTER COMPUTING: FROM FAST FOLLOWER TO TECHNOLOGY LEADER

(\$ in billions) Hyperscale CAPEX⁽¹⁾ \$140 \$120 \$100 \$80 \$60 \$40 \$20 \$0 2017 2018 2019 2020 2021 2022 2023





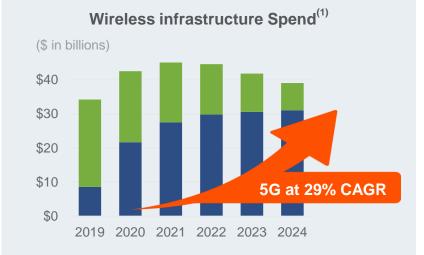
OUR WINNING STRATEGIES

- **Technologies** to address the most difficult power delivery problems
- Win high value applications at Tier-I and Tier-II hyperscale customers
- Capture additional opportunities with 48V transition
- Deliver **best-in-class** quality and performance



TELECOM & NETWORKING: TARGETING 5G INFRASTRUCTURE

5G INFRASTRUCTURE MARKET GROWTH TREND



- Growth returning to wireless infrastructure with
 5G launch
- Increased capacity demand driven by expanding use cases

GROWTH STRATEGY

- Win proprietary designs in 5G radio power for both macro and small cells
- Target high value opportunities in Data Center Networking

WHY WE WIN

- Industry-leading high density, rugged power supplies for outdoor radio
- Deep application knowledge necessary in 5G radio design
- 20+ years of customer intimacy with leading OEMs

Powering many of the largest wireless networks across the world



High reliability ruggedized power supply for the harshest environments

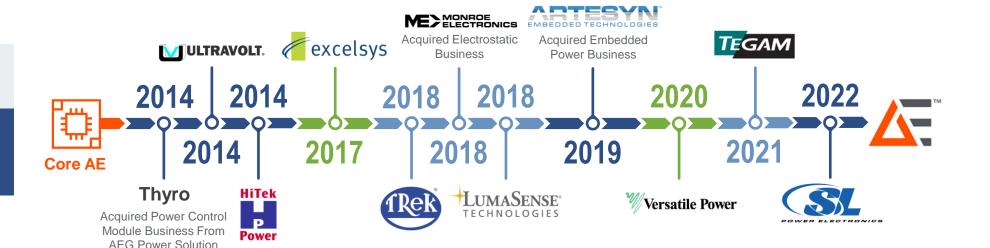




INORGANIC GROWTH: GROWING SCOPE AND LEVERAGING SCALE

Track Record

Deployed >\$700M
Across 11 Acquisitions
All Accretive



Well-Defined Acquisition Criteria

- Precision Power and Controls
- Expand SAM, portfolio & technology
- Synergistic with current organization

Solid Funnel

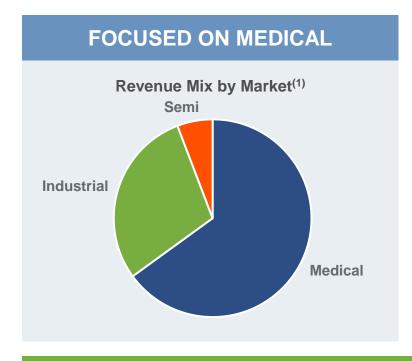
- · Large and fragmented power market
- Plenty of differentiated high-value targets
- Extend our leadership

Discipline and Value Creation

- Analytical and deliberate
- Accretive within first year
- Target ROIC > 10%



SL POWER ACQUISTION BRINGS MANY STRATEGIC BENEFITS



STRATEGIC BENEFITS

- Expands AE's addressable market in industrial and medical by > \$400 million
- Complements AE's medical portfolio with low operating power, low emission (EMI/EMC), medical-grade power supplies
- Broadens AE's reach in advanced industrial applications
- Delivers significant potential revenue and cost synergies by cross selling and integration into AE's operations
- Enhances AE's core competency in power conversion technologies
- Expected to be Non-GAAP earnings⁽²⁾ accretive in Year 1 and non-GAAP margin⁽²⁾ accretive after full integration

HIGHLIGHTS



TRANSACTION VALUE⁽³⁾ \$144.5M



REVENUE 2021 \$66M



YEARS IN BUSINESS 60



NUMBER OF SITES

EXPECTED COST SYNERGIES \$4M



Total purchase price of \$144.5 million is subjected to customary adjustments

Q1 2022 RESULTS SURPASSED HIGH END OF GUIDANCE



\$397 million

Up 0.1% Q/Q



\$1,012 million

Up 9% Q/Q



NON-GAAP GROSS MARGIN*

36.6%

Up 110 bps Q/Q



NON-GAAP OP MARGIN*

14.5%

Up 70 bps Q/Q



NON-GAAP EPS*

\$1.24

Down 9% Q/Q on tax



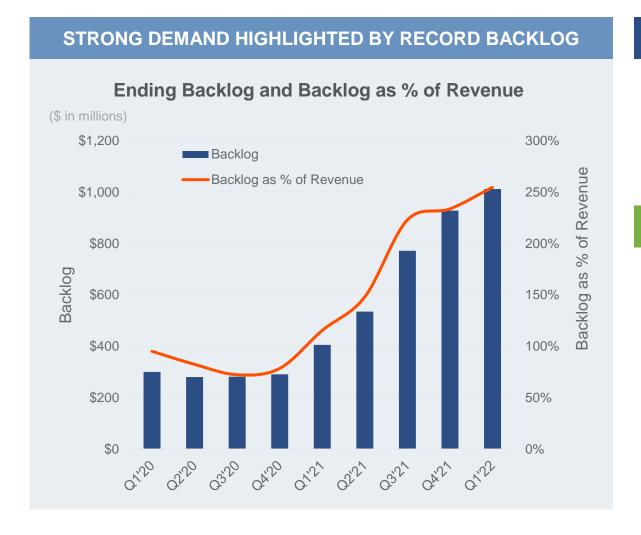
CASH & INVESTMENTS

\$524 million

Net Cash of \$136 million



STRONG DEMAND AND RECORD BACKLOG

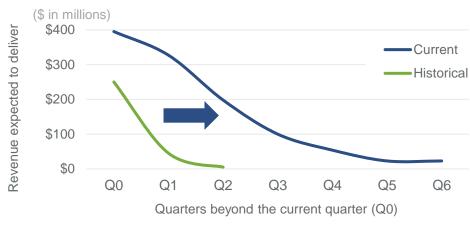


STRENGTH OF THE BACKLOG

- Vast majority of the backlog consists of proprietary designs
- ~ 60% is immediately shippable as soon as we can build
- Channel inventories of AE products well below normalized levels

FROM LIMITED VISIBILITY TO EXTENDED VISIBILITY

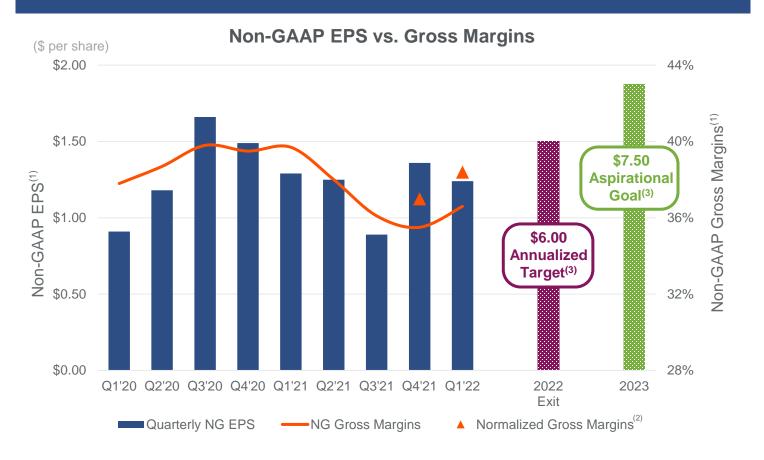






REACCELERATING EARNINGS GROWTH ON SUPPLY IMPROVEMENT

EARNINGS AND MARGINS TO ACCELERATE AS SUPPLY IMPROVES



COST & SUPPLY MITIGATION ACTIONS

- Recover a portion of high material premiums from customers, which temporary impacts margins
- Pass along structural inflation in material costs
- Expand strategic sourcing with key suppliers
- · Secure long-term agreements
- Requalify alternative ICs by partnering with customers
- Redesign boards when necessary



- (1) Detailed explanations of non-GAAP financials and reconciliations of GAAP to non-GAAP financials can be found at the end of this presentation
- 2) Normalized gross margins are estimates excluding the impact of premium recoveries
- (3) These figures represent our aspirational goals and should not be treated as guidance

PRE-SUPPLY CONSTRAINT FINANCIAL FRAMEWORK

Pov	/Or	nue	(Φ)	۱۸/
Kel	/er	iue	ושו	VI)

Non-GAAP
Operating Margins⁽¹⁾

Non-GAAP EPS⁽¹⁾ (\$/sh)

ROIC

3-YEAR ASPIRATIONAL GOALS

\$1,650

21%

\$7.50

23%

LONG-TERM
ORGANIC FINANCIAL
FRAMEWORK

5-6% Net CAGR

OPEX at ½ rev. CAGR 35-45% incr. margins

>2X revenue CAGR

Maintain >20%

INORGANIC GROWTH ASSUMPTIONS

Add ~\$500M

>10% acquired margins

Accretive in Year 1

Targeted ROIC at >10%

VISION (6-8 YEARS)

\$2,500

21%

\$12.00

>20%

CLEAR ROADMAP TO CREATE LONG-TERM SHAREHOLDER VALUE



CAPITAL ALLOCATION PLAN

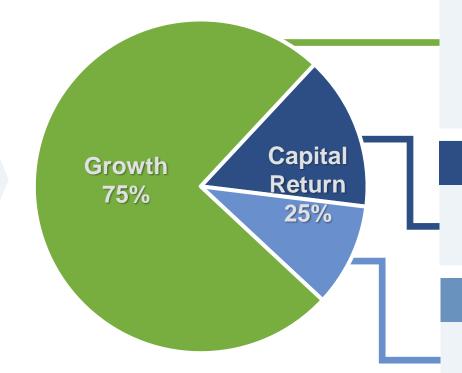
Capital Allocation Track Record

2014 to 2021 Total



32% of FCF

Allocation of Free Cash Flow



GROWTH: ~75%

- M&A Engine with a disciplined process
- Building a solid funnel
- Maintain gross debt leverage at 1.0-1.5x, and comfortable raising to 2.5X
- Ample liquidity with an unused LOC of \$150M and accordion of \$250M

SHARE REPURCHASE: ~15%

- Opportunistic program to take advantage of market volatility
- Repurchased \$78M in 2021

DIVIDEND PROGRAM: ~10%

- Quarterly dividend program at \$0.10/share
- Yield at ~0.5% with room to future increase
- Supported by financial strength, scale and cash flow





PRECISION POWER LEADER FOR THE DIGITAL ECONOMY



PURE PLAY POWER LEADER

Strategic focus on precision power ensures sustainable advantage and scale



OUTPERFORMING MARKETS

Track record of broadening market reach, growing share and adding content



PROPIETARY SOLUTIONS

Lead with differentiated, highly-engineered, high value products and technologies



ACCELERATING EARNINGS

Capture long life-cycle revenues and optimize margins to grow EPS >2X faster than revenue







GUIDANCE

	Q2 2022 Guidance
Revenue	\$395M +/- \$25M
GAAP EPS from continuing operations	\$0.65 +/- \$0.30
Non-GAAP EPS*	\$1.05 +/- \$0.30



QUARTERLY NON-GAAP FINANCIALS*

Quarterly Trend

All figures from Continuing Operations

(figures in \$ millions, except percentage and EPS)

	2020 Q1	2020 Q2	2020 Q3	2020 Q4	2021 Q1	2021 Q2	2021 Q3	2021 Q4	2022 Q1
Backlog	300.1	280.1	281.5	290.7	405.7	534.7	771.4	927.8	1,012.4
Revenue	315.5	339.9	389.5	371.0	351.6	361.3	346.1	396.9	397.5
Gross Profit	119.1	131.6	154.9	146.4	139.7	137.3	124.9	141.0	145.3
Gross Margin	37.8%	38.7%	39.8%	39.5%	39.7%	38.0%	36.1%	35.5%	36.6%
Total OPEX	74.7	77.8	78.9	76.9	79.5	82.6	83.6	86.1	87.6
OPEX%	23.7%	22.9%	20.3%	20.7%	22.6%	22.9%	24.2%	21.7%	22.0%
Operating Income	44.4	53.8	76.0	69.5	60.2	54.7	41.2	54.8	57.8
Operating Income %	14.1%	15.8%	19.5%	18.7%	17.1%	15.1%	11.9%	13.8%	14.5%
Depreciation	6.6	6.6	7.2	7.3	7.3	7.5	7.9	8.1	8.4
EBITDA	51.0	60.4	83.2	76.8	67.6	62.2	49.1	63.0	66.1
EBITDA %	16.2%	17.8%	21.4%	20.7%	19.2%	17.2%	14.2%	15.9%	16.6%
Other Income/(Expense)	(3.5)	(0.5)	(2.4)	(2.3)	(2.6)	(1.9)	(1.7)	(2.5)	(2.1)
Income Before Taxes	40.9	53.3	73.6	67.2	57.6	52.8	39.6	52.3	55.6
Tax Provision/(Benefit)	6.0	7.9	9.8	9.8	7.9	4.7	5.6	0.9	8.9
Tax Rate	14.6%	14.8%	13.3%	14.7%	13.7%	8.9%	14.0%	1.6%	16.0%
Non-GAAP Net Income	34.9	45.4	63.8	57.3	49.7	48.1	34.0	51.5	46.7
Net Income %	11.1%	13.4%	16.4%	15.4%	14.1%	13.3%	9.8%	13.0%	11.8%
Non-GAAP EPS	0.91	1.18	1.66	1.49	1.29	1.25	0.89	1.36	1.24
Average Shares Outstanding	38.6	38.5	38.5	38.5	38.6	38.6	38.4	37.9	37.8



^{*} Detailed explanations of non-GAAP financials and reconciliations of GAAP to non-GAAP financials can be found at the end of this presentation

NON-GAAP MEASURES

Advanced Energy's non-GAAP measures exclude the impact of non-cash related charges such as stock-based compensation and amortization of intangible assets, as well as discontinued operations, and non-recurring items such as acquisition-related costs and restructuring expenses. The non-GAAP measures included in this presentation are not in accordance with, or an alternative for, similar measures calculated under generally accepted accounting principles and may be different from non-GAAP measures used by other companies. In addition, these non-GAAP measures are not based on any comprehensive set of accounting rules or principles. We believe that these non-GAAP measures provide useful information to management and investors to evaluate business performance without the impacts of certain non-cash charges, non-economic foreign currency remeasurements, and other cash charges which are not part of our usual operations. We use these non-GAAP measures to assess performance against business objectives, make business decisions, develop budgets, forecast future periods, assess trends, and evaluate financial impacts of various scenarios. In addition, management's incentive plans include these non-GAAP measures as criteria for achievements. Additionally, we believe that these non-GAAP measures, in combination with its financial results calculated in accordance with GAAP, provide investors with additional perspective. To gain a complete picture of all effects on our financial results from any and all events, management does (and investors should) rely upon the GAAP measures as well, as the items excluded from non-GAAP measures may contribute to not accurately reflecting the underlying performance of the company's continuing operations for the period in which they are incurred. Furthermore, the use of non-GAAP measures has limitations in that such measures do not reflect all of the amounts associated with our results of operations as determined in accordance with GAAP, and these measures should only be used to evaluate our results of operations in conjunction with the corresponding GAAP measures.



NON-GAAP RECONCILIATION

Reconciliation of Non-GAAP measure - operating expenses and operating income, excluding certain items (in thousands)

(in thousands)						
	March 31,			December 31,		
	2022		2021		2021	
Gross profit from continuing operations, as reported Adjustments to gross profit:	\$ 144,316	\$	137,503	\$	139,747	
Stock-based compensation	231		350		(19)	
Facility expansion, relocation costs and other	1,284		1,838		997	
Acquisition-related costs	 (502)		8		234	
Non-GAAP gross profit	145,329		139,699		140,959	
Non-GAAP gross margin	 36.6%		39.7%		35.5%	
Operating expenses from continuing operations, as reported Adjustments:	99,659		93,321		97,537	
Amortization of intangible assets	(5,509)		(5,384)		(5,556)	
Stock-based compensation	(3,697)		(5,351)		(2,939)	
Acquisition-related costs	(1,668)		(2,028)		(679)	
Facility expansion, relocation costs and other	· —		(51)		(17)	
Restructuring charges	(1,218)		(1,038)		(2,231)	
Non-GAAP operating expenses	87,567		79,469		86,115	
Non-GAAP operating income	\$ 57,762	\$	60,230	\$	54,844	
Non-GAAP operating margin	14.5%		17.1%		13.8%	

Three Months Ended

Reconciliation of Non-GAAP measure - income
excluding certain items
(in thousands)

(March 3			
	2022				
Income from continuing operations, less non-controlling					
interest, net of income taxes	\$	36,876	\$		
Adjustments:					
Amortization of intangible assets		5,509			
Acquisition-related costs		1,166			
Facility expansion, relocation costs, and other		1,284			
Restructuring charges		1,218			
Unrealized foreign currency (gain) loss		(1,285)			
Acquisition-related costs and other included in other					
income (expense), net		_			
Tax effect of non-GAAP adjustments		(1,069)			
Non-GAAP income, net of income taxes, excluding stock-		<u>-</u>			
based compensation		43,699			
Stock-based compensation, net of taxes		3,025			
Non-GAAP income, net of income taxes	\$	46,724	\$		
·			÷		

Three Months Ended

	Marc	h 31,		December 31, 2021			
	2022		2021				
ng	\$ 36,876	\$	38,358	\$	39,753		
	5,509		5,384		5,556		
	1,166		2,036		913		
	1,284		1,889		1,014		
	1,218		1,038		2,231		
	(1,285)		(2,202)		(134)		
er							
	_		87		(3,093)		
	 (1,069)		(1,284)		3,017		
ock-							
	43,699		45,306		49,257		
	 3,025		4,362		2,233		
	\$ 46,724	\$	49,668	\$	51,490		

Reconciliation of non-GAAP measure - per share earnings excluding certain items (in thousands)

Diluted earnings per share from continuing operations, as
reported
Add back:
Per share impact of non-GAAP adjustments, net of tax
Non-GAAP per share earnings

Three Months Ended

	Marc	Dece	ember 31,			
2022		2021		2021		
\$	0.98	\$	0.99	\$	1.05	
\$	0.26 1.24	\$	0.30 1.29	\$	0.31 1.36	



RECONCILIATION OF GAAP TO NON-GAAP GUIDANCE

Reconciliation of Q2 2022 Guidance

	Lo	w End	High End	
Revenue	\$370	million	\$420) million
Reconciliation of non-GAAP earnings per share				
GAAP earnings per share	\$	0.35	\$	0.95
Stock-based compensation		0.15		0.15
Amortization of intangible assets		0.14		0.14
Restructuring and other		0.19		0.19
Tax effects of excluded items		(0.05)		(0.05)
Non-GAAP earnings per share	\$	0.75	\$	1.35

