

# Q2 2018 Earnings Presentation



June 30, 2018

# Safe Harbor

The company's guidance with respect to anticipated financial results for the third quarter ending September 30, 2018, potential future growth and profitability, our future business mix, expectations regarding future market trends and the company's future performance within specific markets (e.g., statements regarding anticipated semiconductor and industrial market growth) 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. Such risks and uncertainties include, but are not limited to: (a) the effects of global macroeconomic conditions upon demand for our products and services; (b) the volatility and cyclicality of the industries the company serves, particularly the semiconductor industry; (c) delays in capital spending by end-users in our served markets; (d) the accuracy of the company's estimates related to fulfilling solar inverter product warranty and post-warranty obligations; (e) the company's ability to realize its plan to avoid additional costs after the solar inverter wind-down; (f) the accuracy of the company's assumptions on which its financial statement projections are based; (g) the impact of product price changes, which may result from a variety of factors; (h) the timing of orders received from customers; (i) the company's ability to realize benefits from cost improvement efforts including avoided costs, restructuring plans and inorganic growth; (j) the company's ability to obtain in a timely manner the materials necessary to manufacture its products; (k) unanticipated changes to management's estimates, reserves or allowances; (l) changes and adjustments to the tax expense and benefits related to the recently enacted U.S. tax reform; and (m) the effects of recent U.S. government trade restrictions and other governmental action related to tariffs upon demand for our products and services and the U.S. economy. These and other risks are described in Advanced Energy's Form 10-K, Forms 10-Q and other reports and statements filed with the Securities and Exchange Commission (the "SEC"). These reports and statements are available on the SEC's website at [www.sec.gov](http://www.sec.gov). Copies may also be obtained from Advanced Energy's investor relations page at <http://ir.advanced-energy.com> or by contacting Advanced Energy's investor relations at 970-407-6555. Forward-looking statements are made and based on information available to the company on the date of this presentation. Aspirational goals and targets discussed on the conference call or in the presentation materials should not be interpreted in any respect as guidance. The company assumes no obligation to update the information in this presentation.

# Non-GAAP Measures

This presentation includes GAAP and non-GAAP income and per-share earnings data and other GAAP and non-GAAP financial information. 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 non-recurring items such as acquisition-related costs. Additionally, the first quarter non-GAAP results exclude estimated income tax expense associated with U.S. tax reform. For the third quarter ending September 30, 2018 guidance, the company expects stock based compensation of \$2.5 million and amortization of intangibles of \$1.3 million. 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. Advanced Energy believes that these non-GAAP measures provide useful information to management and investors to evaluate business performance without the impacts of certain non-cash charges and other charges which are not part of the company's usual operations. The company uses 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, the company believes that these non-GAAP measures, in combination with its financial results calculated in accordance with GAAP, provide investors with additional perspective. While some of the excluded items may be incurred and reflected in the company's GAAP financial results in the foreseeable future, the company believes that the items excluded from certain non-GAAP measures do not accurately reflect the underlying performance of its continuing operations for the period in which they are incurred. The use of non-GAAP measures has limitations in that such measures do not reflect all of the amounts associated with the company's results of operations as determined in accordance with GAAP, and these measures should only be used to evaluate the company's results of operations in conjunction with the corresponding GAAP measures. Please refer to the Form 8-K regarding this presentation furnished today to the Securities and Exchange Commission.

# Q2 2018 Earnings Presentation



Yuval Wasserman  
President & CEO

# Highlights

- Revenue of \$196.0M; +18.2% y/y
  - Against short-term push-outs by some semiconductor manufacturers
  - Strong growth momentum in Industrial business
  - Continued growth in Service business
- Signed agreement to acquire LumaSense Technologies
- Non-GAAP\* EPS from continuing ops \$1.25; +2.5% y/y
- Generated \$53.0 million cash from continuing operations
  - \$25.3 million on share repurchase program
- Key additions to Executive Leadership Team and Board
  - Paul Oldham as CFO
  - Isabel Yang as CTO
  - Neil Brinker as COO
  - Tina Donikowski as Board Member

*\*Non-GAAP measures exclude the impact of non-cash related charges such as stock based compensation, amortization of intangible assets, estimated income tax expenses associated with U.S. tax reform, and restructuring costs, as well as acquisition related costs and other non-recurring items.*

# Semiconductor Highlights

- Semiconductor revenue of \$127.3M, -6.4% q/q and +8.8% y/y
  - Change in near-term outlook by some end customers
  - Delay in memory expansion at a large semi manufacturers
  - Modest impact from announced delays at other semi manufacturers
- Multi-year industry trends intact
  - Long-term demand from AI, IoT and other data driven applications continues
  - Expected growth in wafer fab equipment, especially related to deposition and etch
  - Near-term delays in investment are largely timing related
    - Ongoing high utilization rates
    - Projects at other fabs remain on schedule
    - Expecting 2019 to be a growth year
- AE's leadership position across platforms should enable faster-than-market growth

# Semiconductor Design Wins

- Key to AE's success in winning the vast majority of targeted designs
  - Innovative and collaborative culture
  - Close relationships with customers
  - Ability to solve next-gen power-related technology challenges
- Leading, highly engineered, precision power solutions
  - Technology leadership
    - Increasing investment in R&D for new innovative programs
  - Unique strength in RF power delivery and tuning
    - Displacing key competitors in critical advanced RF applications among global OEMs
  - Enabling products could change the way plasma processes are performed
    - Resulting in accelerated growth across multiple applications

# Semiconductor Design Wins (cont.)

- Multiple design wins across platforms
  - Advanced memory in PEALD, CVD, and Etch
  - Retrofit opportunities
- Growing organically and inorganically
  - Recent addition of electrostatic offerings
    - E-chucks with three components of technology in processing, inspection and metrology tools
  - Increased capabilities with expanded portfolio
  - Positioned to grow significantly

# Industrial Highlights

- Total Industrial revenue of \$41.9M; +19.2% q/q and +59.7% y/y
  - Record revenue
  - Industrial business growth helps further diversify revenue

## Thin Film Industrial

- Growth across the board, expanding presence into adjacent markets
  - Industrial coating capacity ramping to meet increasing demand for consumer devices
  - RF reached largest quarter in recent history
    - Driven by ramp of LCD TV and Mobile OLED applications
  - Major glass coating projects and tech upgrades added to strong performance

# Industrial Highlights (cont.)

## Specialty Industrial Power

- Solid momentum in PCM across applications
  - Glass, metals, solar and thin-film battery
  - Especially in EMEA and Asia
- The three acquisitions in the last year are gaining traction
  - Excelsys, Trek and the purchase of the electrostatic product line from Monroe Electronics
- Important contributor to Industrial business
  - Revenue more than doubled in the last year

# Industrial Design Wins

## Thin Film Industrial

- Significant win with a large solar PV manufacturer
  - Mid-teen million dollar new revenue for 2018
  - Displaced a large competitor
  - Demonstrating strong company capability
- Expanded RF technology into industrial applications in China
  - Such as atmospheric plasma processes
- Increased adoption of Ascent product in advanced coating technologies
  - For consumer devices, industrial and glass applications

# Industrial Design Wins (cont.)

## Specialty Power

- Low Voltage
  - Multiple design wins displacing current competitors including an MRI scanner power system and a scanning electron microscope application
  - Expanding penetration into the medical equipment market
- High Voltage
  - Continuing to penetrate and gain share in Mass Spectrometry
    - Due to the stability and low ripple of AE's power solutions
- Thermal
  - Growing presence in Pyrometers and PCM
    - Due to high performance, global support, and close customer relationships

# Industrial Outlook

- Q3'18 ongoing strength in Industrial business
  - Across multiple thin film and specialty power applications
  - Expecting CAGR to be in mid-teens
- Acquisition of LumaSense Technologies
  - Expanding sales in core semiconductor and thin film markets
  - Broadening exposure to material processing and power management
  - Complementing existing solutions and applications
  - Enabling significant synergies across business
  - Aspiring to grow photonic based products to >\$100M/year over the next three years

# Service Highlights and Outlook

- Service revenue of \$26.8M; +9.8% q/q and +18.6% y/y
  - Record quarter
  - Contributed 13.7% of total revenue
- Expect continued service growth greater than 10%
  - Accelerated share gain
  - Growing installed base
  - Sales of non-break fix products

# Summary

- Near-term headwinds driven by temporary capex delays
- Long-term multiple semiconductor drivers remain intact
- Expecting resumption of growth in semi business in general
  - Plasma enabling products in particular
- Industrial and service businesses continue to thrive
  - Reaching new heights and penetrating new and existing applications and customers
- Industrial growth to help mitigate impact from semiconductor market pause in 2H'18
- Acquisition of LumaSense Technologies to bring meaningful growth and synergies

# Q2 2018 Earnings Presentation



**Paul Oldham**  
EVP & CFO

# Q2 2018 Financial Highlights

- Total revenue \$196.0M; +0.2% q/q and +18.2% y/y
  - Industrial and Service businesses reached new highs
  - 1H'18 revenue +24.2% vs. 1H'17
    - Semiconductor revenue +18.8%
    - Industrial revenue +52.9%
- GAAP EPS from continuing operations \$1.17
- Non-GAAP\* EPS from continuing operations \$1.25
- Non-GAAP\* operating margin from continuing operations 30.5%

*\*Non-GAAP measures exclude the impact of non-cash related charges such as stock based compensation, amortization of intangible assets, estimated income tax expenses associated with U.S. tax reform, and restructuring costs, as well as acquisition related costs and other non-recurring items.*

## Q2 2018 Revenue by Application

	Q2 2018		Q1 2018		Q2 2017	
<i>(in thousands)</i>	Actual	% of Sales	Actual	% of Sales	Actual	% of Sales
Semiconductors	\$ 127,291	64.9 %	\$ 136,010	69.5 %	\$ 117,020	70.5 %
Industrial	41,944	21.4 %	35,199	18.0 %	26,268	15.8 %
Service	26,797	13.7 %	24,408	12.5 %	22,584	13.7 %
<b>Total Revenue</b>	<b>\$196,032</b>		<b>\$195,617</b>		<b>\$165,872</b>	

# Q2 2018 Income Statement

<i>(\$ in Millions, except percentage &amp; EPS)</i>	<b>Q2'18</b>	<b>Q1'18</b>	<b>Q2'17</b>
Revenue	\$196.0	\$195.6	\$165.9
Gross Margin %	51.6%	53.0%	52.5%
GAAP operating expenses	\$45.2	\$47.5	\$39.4
GAAP operating margin from continuing ops %	28.6%	28.7%	28.8%
GAAP earnings from continuing ops	\$1.17	\$1.16	\$1.14
Non-GAAP* Gross Margin %	51.8%	53.2%	52.8%
Non-GAAP* operating expenses	\$41.9	\$41.3	\$34.8
Non-GAAP* operating margin from continuing ops %	30.5%	32.0%	31.8%
Non-GAAP* EPS from continuing ops	\$1.25	\$1.34	\$1.22

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# Q2 2018 Balance Sheet

- Generated \$53.0M in cash from continuing operations
- \$25.3M share repurchase in Q2'18
  - \$38.1M share repurchase YTD
  - \$118M/2.7M shares repurchased since program inception through Q2FY18
- DSO 49 days; DPO 55 days; Inventory 105 days
- Q3'18 inventory levels expected to decrease
- LumaSense pending close in late Q3
  - Cash payment of \$85 million on debt free basis
  - \$59.4 million revenue in 2017
  - Immediately accretive on Non-GAAP basis

<i>(\$ in Millions)</i>	<b>Q2'18</b>	<b>Q4'17</b>
Cash & Investments	\$436.1	\$410.4
Accounts Receivable	\$106.3	\$87.4
Inventory	\$109.8	\$78.5
<b>Total Assets</b>	<b>\$835.1</b>	<b>\$733.3</b>
Liabilities	\$239.6	\$212.7
Shareholders' Equity	\$595.5	\$520.6

# Q3 2018 Guidance\*

	Q3 2018		
Revenue	\$160M	-	\$170M
GAAP operating margins from continuing operations	25.2%	-	27.2%
GAAP EPS from continuing operations	\$0.86	-	\$1.00
Non-GAAP** operating margins from continuing operations	27.5%	-	29.5%
Non-GAAP** EPS from continuing operations	\$0.93	-	\$1.07

\*Estimates as of Q2'18 earnings conference call. The company assumes no obligation to update guidance.

\*\*Q3'18 non-GAAP measures exclude the impact of stock based compensation of \$2.5M, amortization of intangibles of \$1.3M, restructuring costs, and significant non-recurring items.

# Reconciliation of Q3 2018 Guidance\*

	Low End		High End
<b>Revenues</b>	<b>\$160M</b>	-	<b>\$170M</b>
<b>Reconciliation of Non-GAAP** operating margin</b>			
GAAP operating margin	25.2%	-	27.2%
Stock-based compensation	1.5%	-	1.6%
Amortization of intangible assets	0.8%	-	0.7%
<b>Non-GAAP** operating margin</b>	<b>27.5%</b>	-	<b>29.5%</b>
<b>Reconciliation of Non-GAAP** earnings per share</b>			
GAAP earnings per share	\$0.86	-	\$1.00
Stock-based compensation	0.06	-	0.06
Amortization of intangible assets	0.03	-	0.03
Tax effects of excluded items	(0.02)		(0.02)
<b>Non-GAAP** earnings per share</b>	<b>\$0.93</b>	-	<b>\$1.07</b>

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