

# "Powering the Future Everywhere for Everyone." SEPTEMBER 2019

At EnerSys, we pursue perfection to deliver Power to innovate and inspire.

Power delivered simply, safely and sustainably.

Power that creates superior value for our customers and shareholders.

We are proud to be **EnerSys**.



### **Forward-Looking Information**

This presentation includes forward-looking statements and/or information, which are based on the Company's current expectations and assumptions, and are subject to a number of risks and uncertainties that could cause actual results to materially differ from those anticipated. Such risks include, among others, risks associated with competitive actions, technology development and implementation, intellectual property infringement, failure to execute acquisition strategy, penetration of existing markets, expansion into new markets, hiring and retaining high quality management and key employees and general economic conditions including the risks described in the Company's most recent annual report on Form 10-K dated and filed with the SEC on May 29, 2019 along with other unforeseen risks. The statements in this presentation and accompanying commentary are made as of the date of this presentation, even if subsequently made available by the Company on its website or otherwise. The Company does not undertake any obligation to update or revise these statements to reflect events or circumstances occurring after the date of this presentation.



### **EnerSys Acquires Alpha Group**

A Compelling Combination, Providing a Full Suite of Power Solutions



### A Uniquely Compelling Acquisition

- North American leader in commercial-grade energy solutions for the broadband, telecom, and industrial markets, with strongly recognized brands
- Provides immediate material market share to attractive secular megatrends AND establishes an additional long-term growth platform
- Enables EnerSys to become the sole fully-integrated power and energy storage solution provider
- **Complementary financial profile accretive to near term growth and margins**
- **Compelling value creation through more than \$25mm of annual run-rate synergies**
- Immediately accretive to earnings; EnerSys retains strong balance sheet



### **Key Transaction Terms**

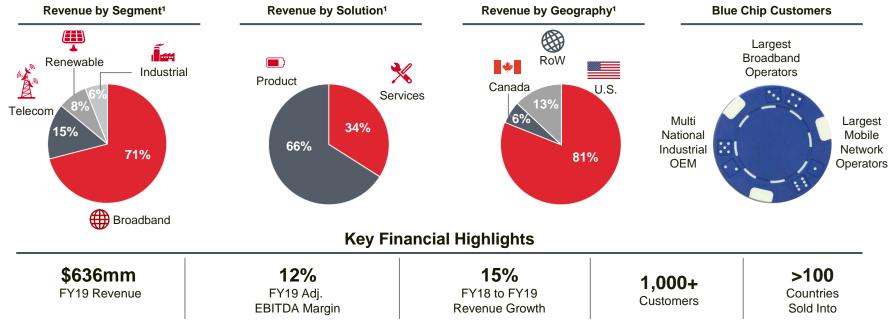
Structure & Consideration	<ul> <li>EnerSys acquires Alpha Group ("Alpha") from its founders in a cash and stock transaction</li> <li>\$750mm<sup>1</sup> total consideration, or 11x LTM EBITDA pre-synergies (8x including run-rate synergies<sup>2</sup>)</li> <li>\$650mm in cash consideration, funded with existing cash and credit facilities and new debt</li> <li>\$100mm in stock consideration, issued to Fred Kaiser, founder of Alpha</li> </ul>
Management	<ul><li>Drew Zogby to lead the division as President, post transaction</li><li>Key Alpha management to remain with the business on retention plans</li></ul>
Expected Transaction Benefits	<ul> <li>Accelerates revenue growth, and establishes additional platform for long-term growth</li> <li>Combined LTM revenue of over \$3.2 billion and adjusted EBITDA of ~\$422 mm<sup>2</sup>, or ~13% margin</li> <li>Over \$25mm of identified run-rate cost and revenue synergies</li> <li>Transaction immediately accretive to earnings (before one-time acquisition costs)</li> </ul>



### Alpha at a Glance

#### **Alpha's Value Proposition**

- Provider of highly integrated power solutions and services to Broadband, Telecom, Renewable and Industrial customers
- Industry leading reputation and brand with end-to-end power solutions
- U.S. market leader with global blue-chip customer base across diverse, global and growing end markets
- Consistent growth, profitability and cash flow generation





#### **Strong Position in Broadband and Telecom**



#### Broadband (71% of Revenue)<sup>1</sup>

- Serving Broadband and Internet Providers Globally
- Providing products and services to support Outside Plant, Facility and Fiber Network Equipment





Telecom (15% of Revenue)<sup>1</sup>

- Serving all major Telecommunication providers Nationwide in the U.S.
- Supporting Line Power, Central Offices, Small Cell and Base Station Power needs





Renewable (8% of Revenue)<sup>1</sup>

- Serving residential and nonresidential renewable energy providers
- Supporting energy production, storage, engineered systems and management





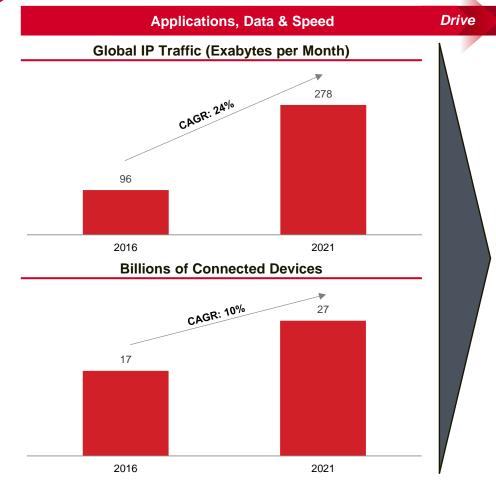
Industrial (6% of Revenue)<sup>1</sup>

- Serving indoor and outdoor private and public industrial customers
- Providing key backup solutions for Smart City and Internet-of-Things enabled infrastructure





#### **Alpha Benefits from Favorable End Markets**



 Headend and Outside Plant infrastructure upgrades to support DOCSIS3.1 expected to take 5+ years and require billions in spending

**Changes in Infrastructure** 

- FTTx will continue to grow at a 14% CAGR through 2027 for a total market size of \$37BN
- Small cells in U.S. and Canada expected to reach >5mm by 2021
- Global 5G rollout expected to last until 2040 for a cumulative spend of \$225bn

All Initiatives that Require More Power Solutions & Services



### **Two Highly Complementary Businesses**

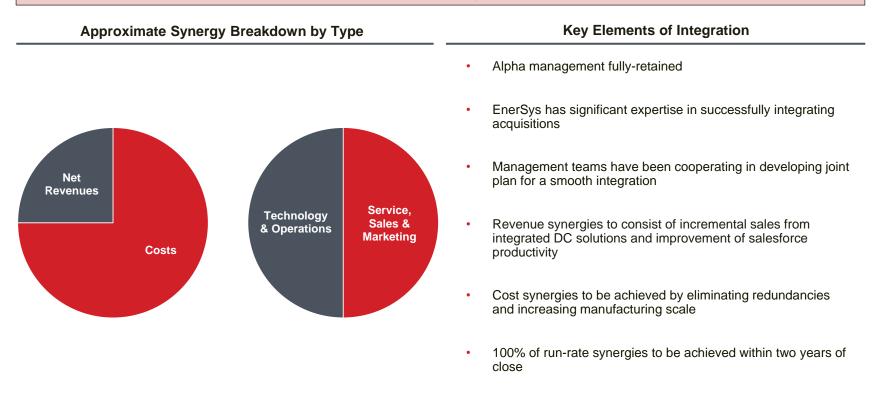
	EnerSys: Power/Full Schulons-	नी-िन्न
Mission	<ul> <li>Powering the Future – Everywhere for Everyone</li> <li>The global leader in stored energy solutions for industry</li> </ul>	<ul> <li>Keep the world working by delivering solutions that meet today's and future power challenges</li> </ul>
FY 2019	\$2,647mm	\$636mm
Adjusted LTM EBITDA / Margin	\$328mm / 12%	\$78mm / 12% (\$101mm, 16% incl. synergies <sup>1</sup> )
Distinctive Capabilities	Advanced lead-acid battery capabilities, global manufacturing capabilities, global services and support capabilities	Platform designs for inverters, rectifiers and gateway devices
Key End Markets	Industrial Forklifts, Telecom, UPS, Fleet, Medical, Utility, Transportation, Government, Aerospace, Defense and other	Broadband, Telecom & Wireless, Renewable Energy, Industrial
Customers	Diversified dealers / OEMs End users	Broadband operators and wireless tower and small cell operators
Employees	~9,700	~1,400

#### Two highly complementary platforms poised for synergy and growth acceleration



#### Attractive Synergy Opportunity FYE-March

#### Estimated Annual Run-rate Synergies of \$25mm+ by 2021+



#### Builds on EnerSys' Existing \$25mm Annual Savings Programs



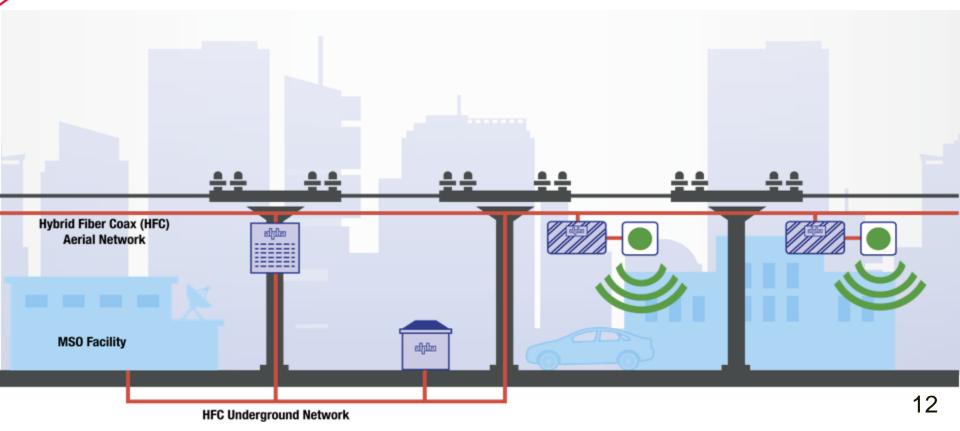
### **Summary of Transaction Benefits**

- North American leader in commercial-grade energy solutions for the broadband, telecom, and industrial markets, with strongly recognized brands
- Provides immediate material market share to attractive secular megatrends AND establishes an additional longterm growth platform
- Enables EnerSys to become the sole fully-integrated power and energy storage solution provider
- Complementary financial profile accretive to near term growth and margins
- Compelling value creation through more than \$25mm of annual run-rate synergies
- Immediately accretive to earnings; EnerSys retains strong balance sheet

A uniquely attractive platform for growth for ENS

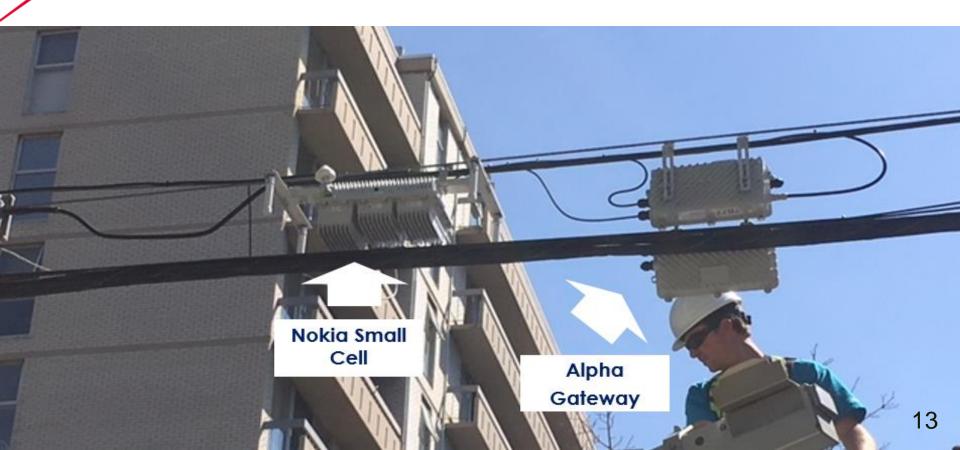


### Small Cells Powered Over HFC Network



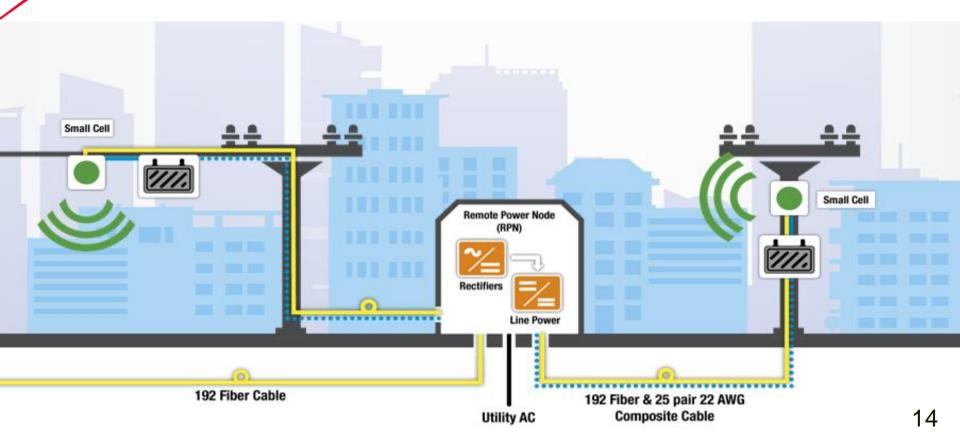


### Gateway Powered Over HFC Network



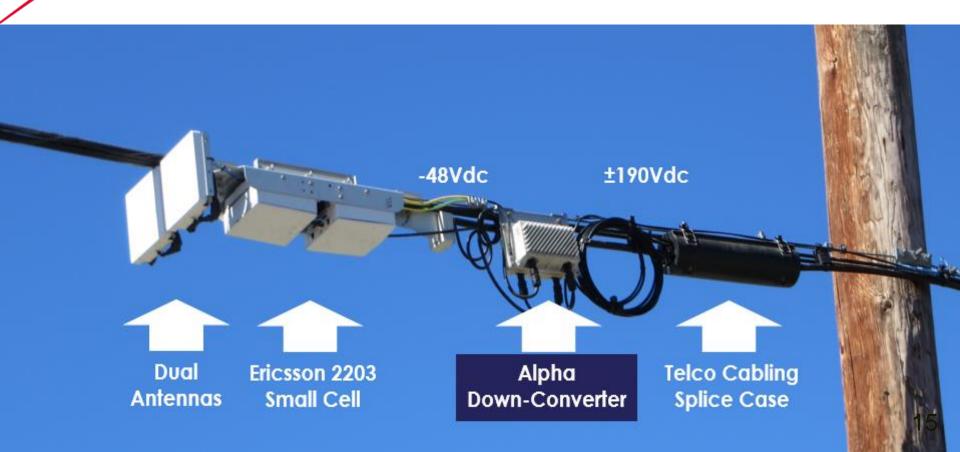


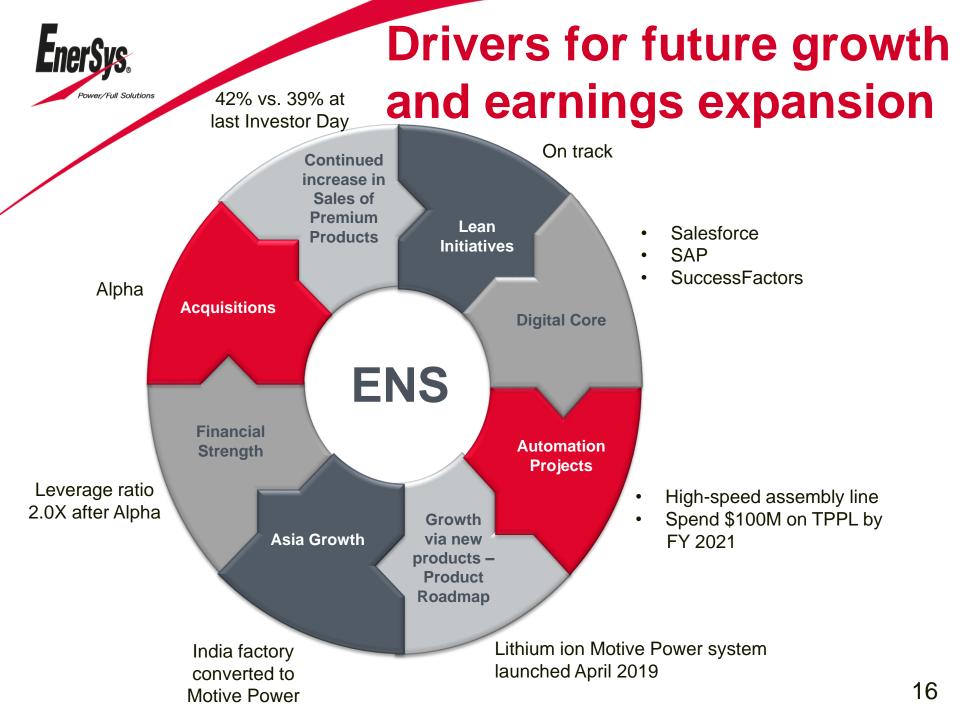
### Small Cells Powered Over Twisted Pair





### Small Cells Powered Over Twisted Pair



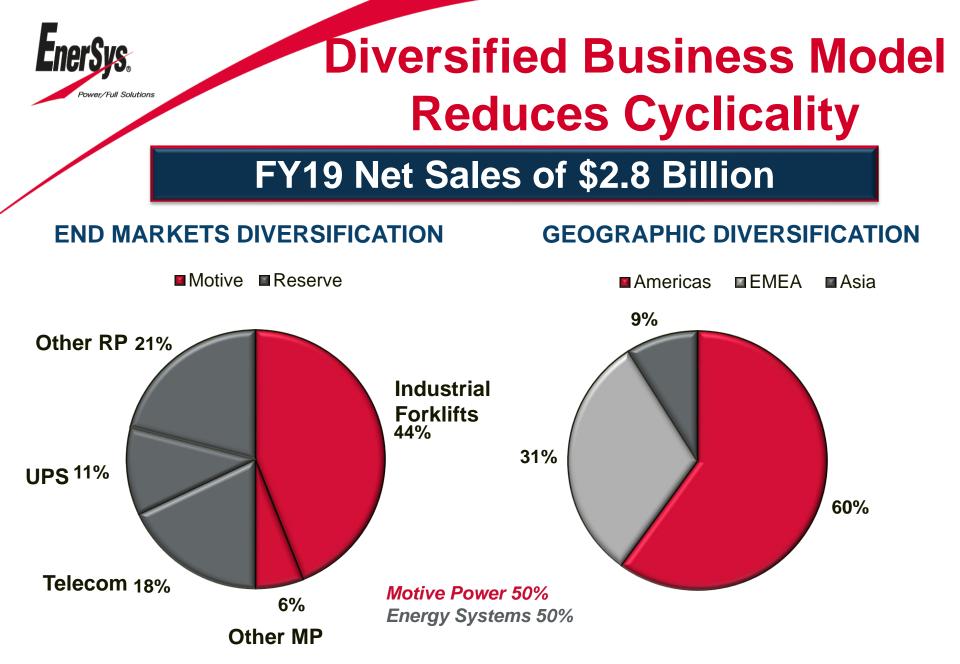




The Global Leader in stored energy solutions for industrial applications

- Markets: Reserve Power, Motive Power, Aerospace & Defense
- Sales: \$2.8 billion in fiscal year 2019
- Global leader: 21% market share in CY 2018
- Customers: Over 10,000 in more than 100 countries
- Global manufacturing facilities
- Employees: 11,200 worldwide
- Sustainability: 99% recycle rate on Lead-Acid batteries

Source: BCI, Eurobat industry reports and management estimates based on the markets where EnerSys participates. Market size and share are for batteries and chargers only. It excludes power solution and services to broadband, telecom and other markets, and the aerospace & defense and cabinet enclosures markets (each estimated at \$1 to \$2 billion).



Note: Other reserve power includes power solutions and services to broadband, telecom and other markets, aerospace & defense, cabinet enclosures, utilities, emergency lighting, security systems and specialty products. Other motive power is primarily ground handling and mining equipment.



### Motive Power – Power on the move Electric forklift trucks



- Low maintenance battery
- Longer topping up intervals (4/8/13/20 weeks)



- More power, longer lifetime
- Ideal for very heavy duty applications
- Opportunity charges\*



- TPPL (thin plate pure lead) technology
- Extra fast charges
- Opportunity charges\*

\*Charging when convenient: shift change, lunch breaks, down time versus consistent 6 hour charge.



### **EnerSys at ProMat 2019**

- Historic level of customer attendance
- Maintenancefree was main topic





### Reserve Power - Mission-critical power on standby



#### **Datacenters**

- Cloud
- IT Systems
- Banking & Finance
- Process Industries
- Healthcare



#### **Industrial UPS\***

- Oil & Gas
- Switchgear
- Distribution Substations
- Industrial Substations
- Process Industries
- Railways & Metros
- Air Transport



#### **Standard UPS\***

- Datacenters
- Power Quality
- IT Systems
- Banking & Finance
- Process Industries
- Healthcare

\*UPS: Uninterrupted Power Supply



### **EnerSys keeps you talking**

Backbone

**FTTX Broadband** 

Small Cells

Macro BTS

5G enables a 100x increase in data volume

**Central Office** 

EnerSys will provide power reliability through the whole network



Higher data volume will require more backup power

Typical telecom infrastructure



### **Reserve Power – Key segments**



#### Telecom

EnerSys provides optimized solutions to reduce your energy consumption and promote the longest battery life.



#### **Fleet/Vehicles**

Today's vehicles are loaded with more electronics. EnerSys' battery:

- Ability to keep up with changes
- Lasts twice as long
- Handles vibrations much better

US Market – \$1 B, ENS opportunity \$300M EMEA Market - \$0.5+B, ENS opportunity \$150M



### **Aerospace & Defense - Lines of business**



# Air: Civil and military aviation

 Lead-Acid & Ni-Cd technologies, OEM, MOD and aftermarket



## Land: Storage and management

- Thin Plate Pure Lead (TPPL) technology and management systems
- OEM and replacement
- Dominant supplier



## Sea: Submarine batteries

- Flooded Lead Acid, TPPL, OEM and replacement
- Next generation
   product development
- Dominant Supplier







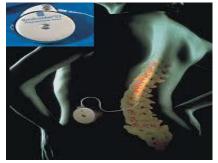


### **Lithium ion Applications**

#### Space



#### **Medical**



Defense











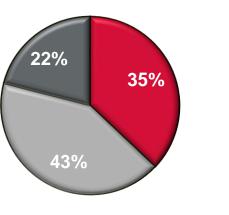
#### Global Industrial Lead Acid Battery Market \$10.4 Billion CY 2018

#### **GEOGRAPHIC**

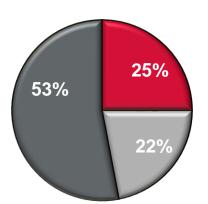
Americas EMEA Asia

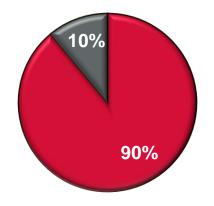
#### **END MARKETS**

■Industrial Forklifts ■Other

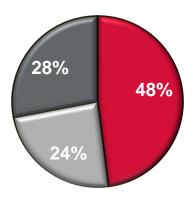


Americas EMEA Asia





■Telecom ■UPS ■Other



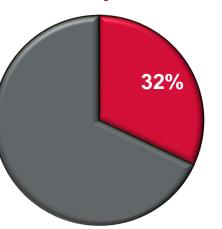
Note: Market size includes only the markets where EnerSys participates. Market size includes only batteries and chargers. It excludes power solutions and services to broadband, telecom and other markets, the aerospace & defense and cabinet enclosures markets (each estimated at \$1 to \$2 billion) and service revenue.

MOTIVE \$4.1 Billion



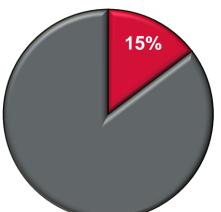
### **Leading Market Positions** #1 Worldwide Market Share 21%

EnerSys #1



Motive - Major Competitors				
Exide	East Penn			
Hoppecke	<b>Crown Batteries</b>			

EnerSys #1

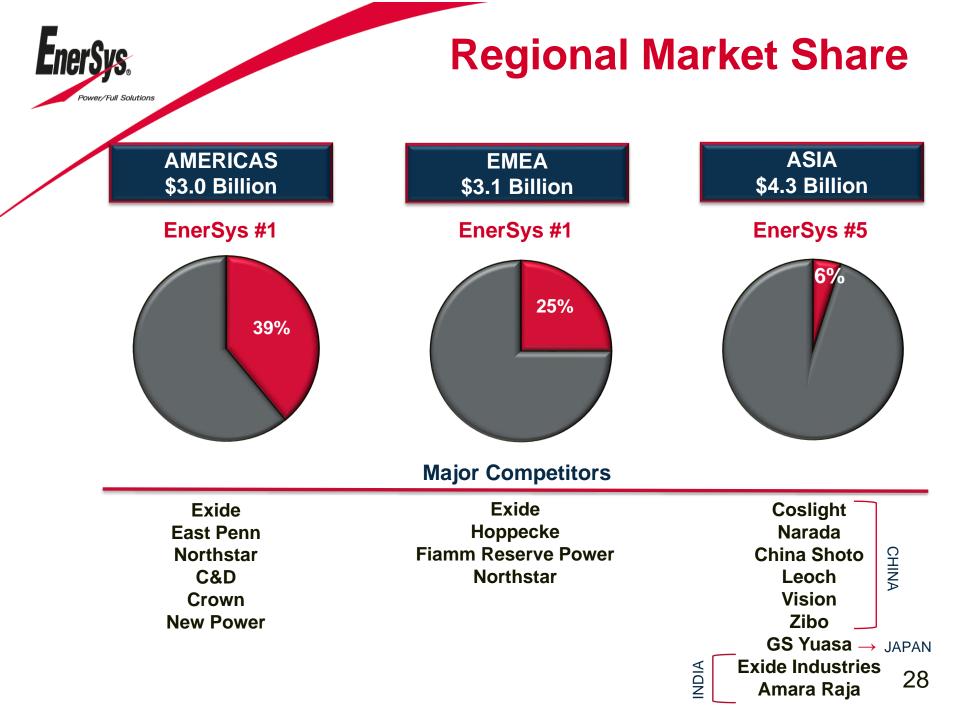


Reserve - Major Competitors				
Exide	Saft			
GS Yuasa	East Penn			
Northstar	New Power			
Narada	C&D			
Coslight	Amara Raja			
Exide Industries (India)				

27 Source: BCI, Eurobat industry reports and management estimates based on the markets where EnerSys participates. Market size and share are for batteries and chargers only. It excludes power solutions and services to broadband, telecom and other markets, the aerospace & defense and cabinet enclosures markets (each estimated at \$1 to \$2 billion) and service revenue.

S6.3 Billion

MOTIVE \$4.1 Billion





### Trends expanding energy storage needs



#### Backup Power Systems

 Regulation requiring renewable energy storage

#### **Electric Grid**

 Electric grid infrastructure having trouble keeping up with ever increasing demand

#### **Datacenters**

- Data usage increases Streaming/Facetime/ Videos
- UPS architectural change to faster backup – Premium Product



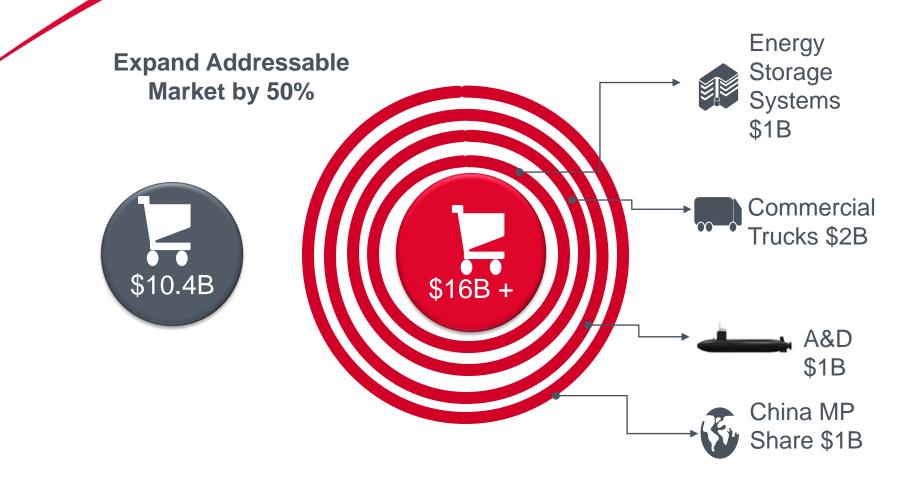
#### Vehicles

Trucks | Buses | Fire Engines | Police Cruisers

 Commercial fleet heavier electric loads

 Truck, Emergency Response, Refrigeration, APU

### **Targeted opportunities**



**Current Market** 

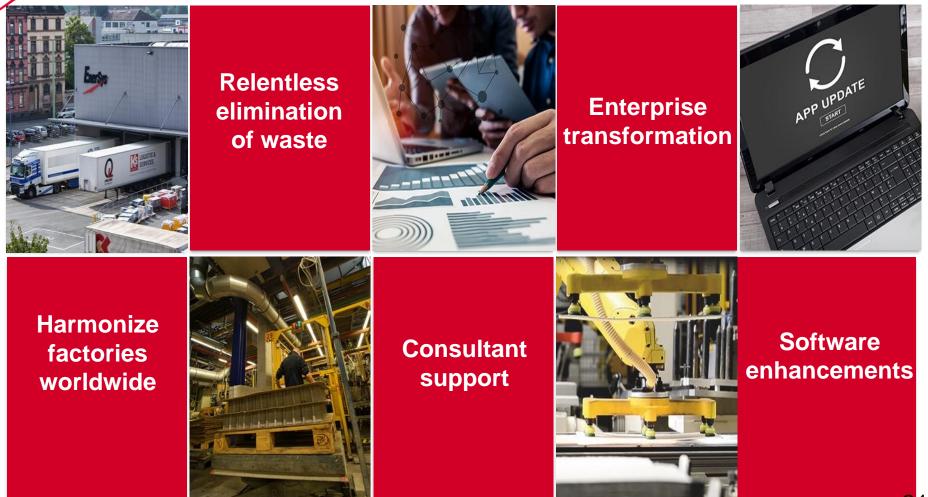
EnerSys.

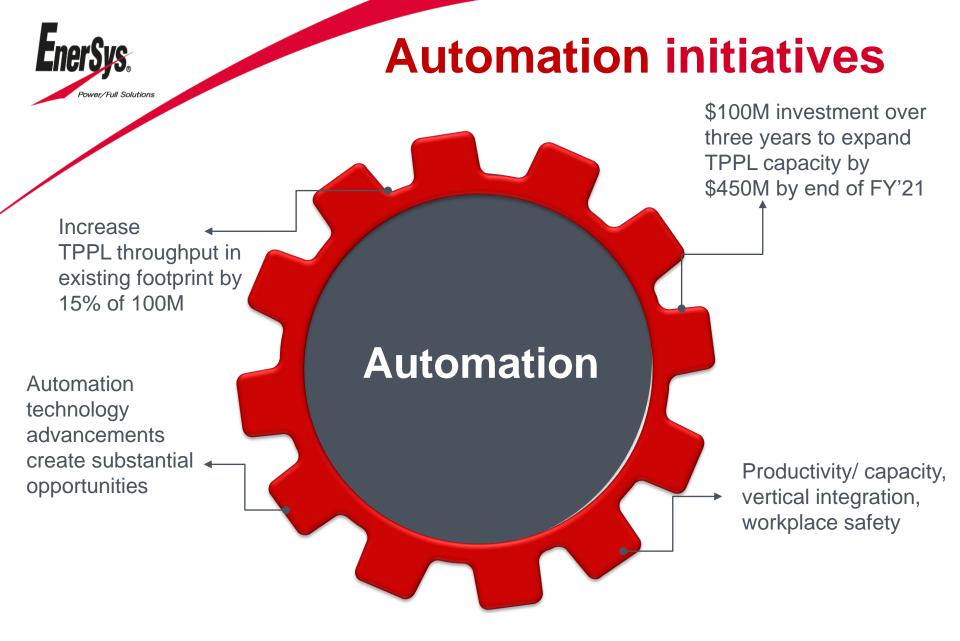
ower/Full Solution

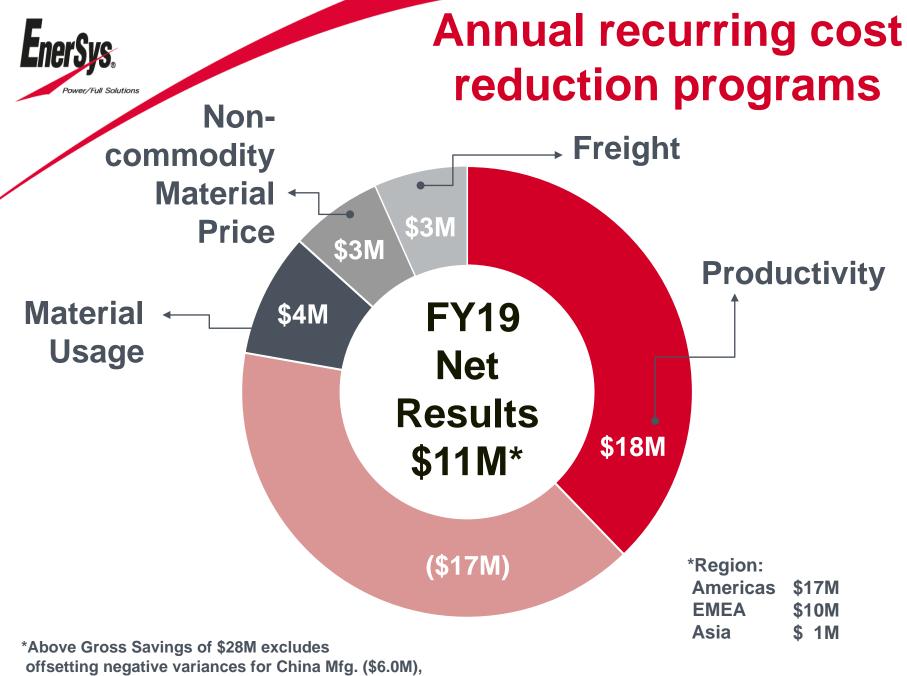
**Future Market** 



### Lean initiatives







Americas Motive Power Mfg. (\$4.0M), Direct Labor (\$4.0M), Other (\$3.0M)



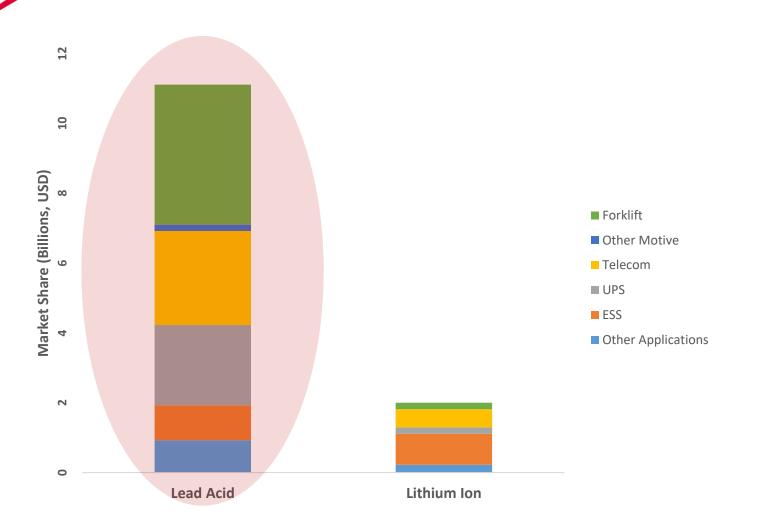
### **Product roadmap overview**

- Continued advancement of lead technologies
- Expand lithium from A&D into broader Industrial markets
- Enhancing product portfolio for new markets including Energy Storage Systems (ESS)
- Larger emphasis on system engineering and modular kit development





### **Industrial Battery Market 2016**

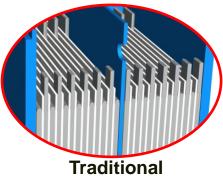


Worldwide Secondary Battery Market in 2015 was \$65B – Lead Acid had 90% Market Share, but Lithium had 10 Year CAGR at 22%

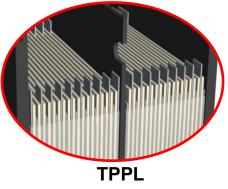
#### Source: Avicenne Energy 2016



### What is Thin Plate Pure Lead (TPPL)?



- 13 Plates per Section
- 0.5m<sup>2</sup>
- 550Wpc

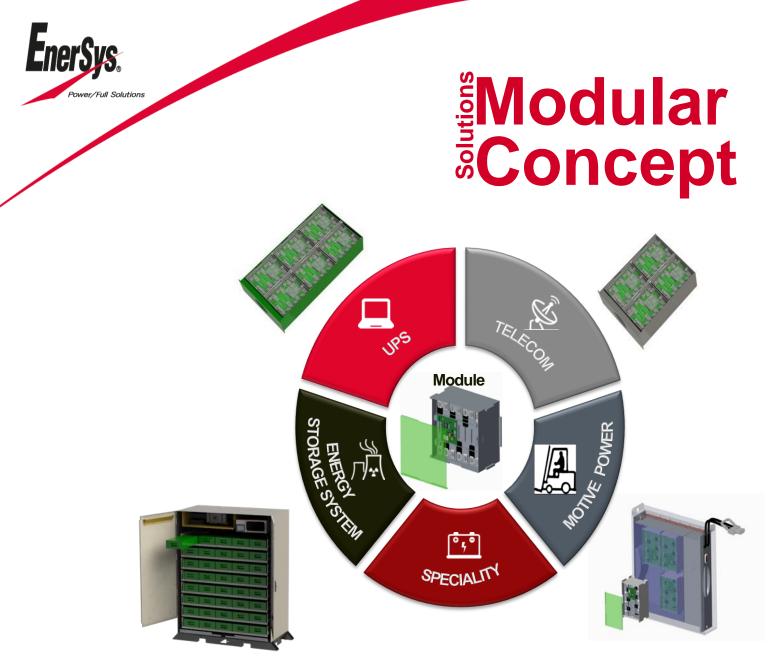


- 21 Plates per Section
- 0.8m<sup>2</sup>
- 706Wpc

### **TPPL – Pure Lead Crystallography**

- Thinner grids allow for a higher energy density within the same footprint
- Very fine grain structure makes the grid far more resistant to corrosion
- Promotes surface area reaction
- Dramatically lowers resistance







### ESS 100KW/400KWh System

#### **Next Generation TPPL**

If the application requires

- Limited to daily partial cycling (peak shaving, demand charges)
- Space is somewhat confined
- No maintenance
- Restrictions (e.g. fire code)
- Remote monitoring



Parameter	Value
Price (USD/Wh/L)	1.13
Cycle Life (80% BoL with 80% DoD)	800
Relative Price	52%
TCO (Cents/Wh/L/Cycle)	0.14



### ESS 100KW/400KWh System

#### **Li-Ion System**

If the application requires

- Significant cycling (PV, demand charges, high load profile)
- Space is very confined
- No maintenance
- No restrictions (e.g. fire code)
- Remote monitoring



Parameter	Value
Price (USD/Wh/L)	2.56
Cycle Life (80% BoL @ 100% DoD)	6000
Relative Price	118%
TCO (Cents/Wh/L/Cycle)	0.04

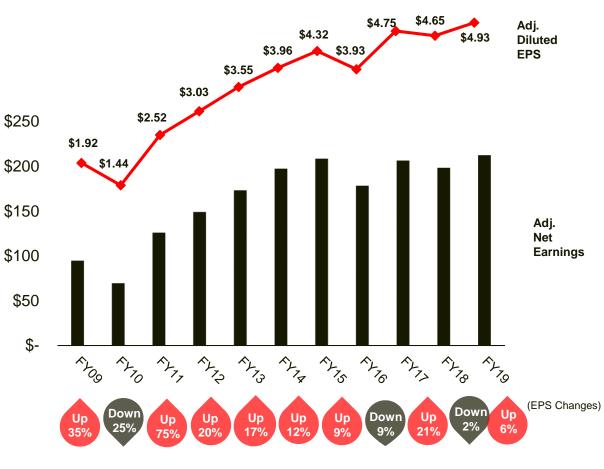


### **Historical earnings improvements**

Adj. Net Earnings / Diluted EPS (\$ in Millions, except per share information

Earnings drivers

- Increased sales mix of premium products
- Restructuring cost savings
- Market leadership

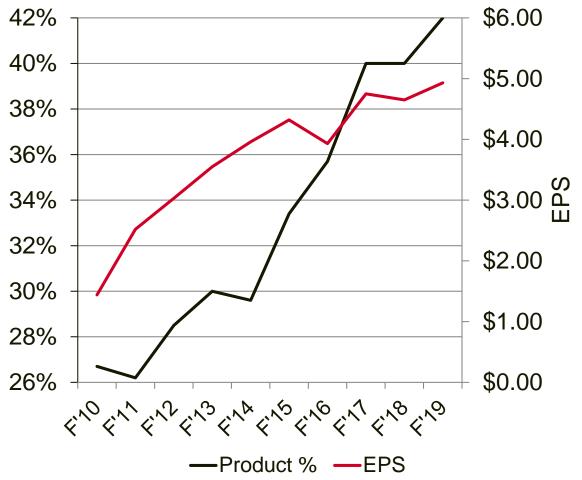


Note - Adjusted earnings results exclude highlighted items. FY19 includes Alpha.



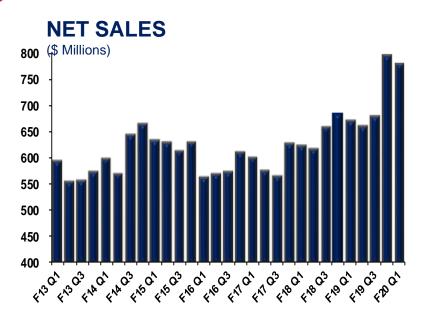
### Increasing premium products mix

- Thin Plate Pure Lead Telecom, UPS, A&D, Motive Power
- Premium Motive Power Ironclad
- Modular Chargers
- Battery Management Systems
- Lithium A&D



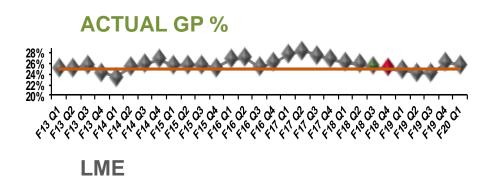


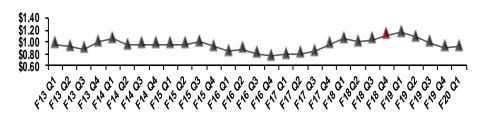
# Net sales & gross profit margin



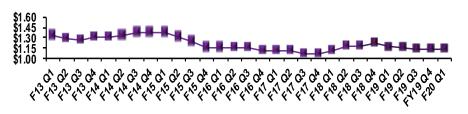
#### Notes:

- LME and Euro are set to our P&L basis.
- \$ amounts are in average actual rates

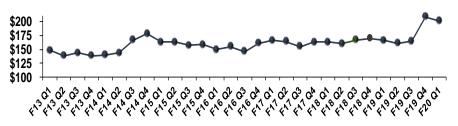


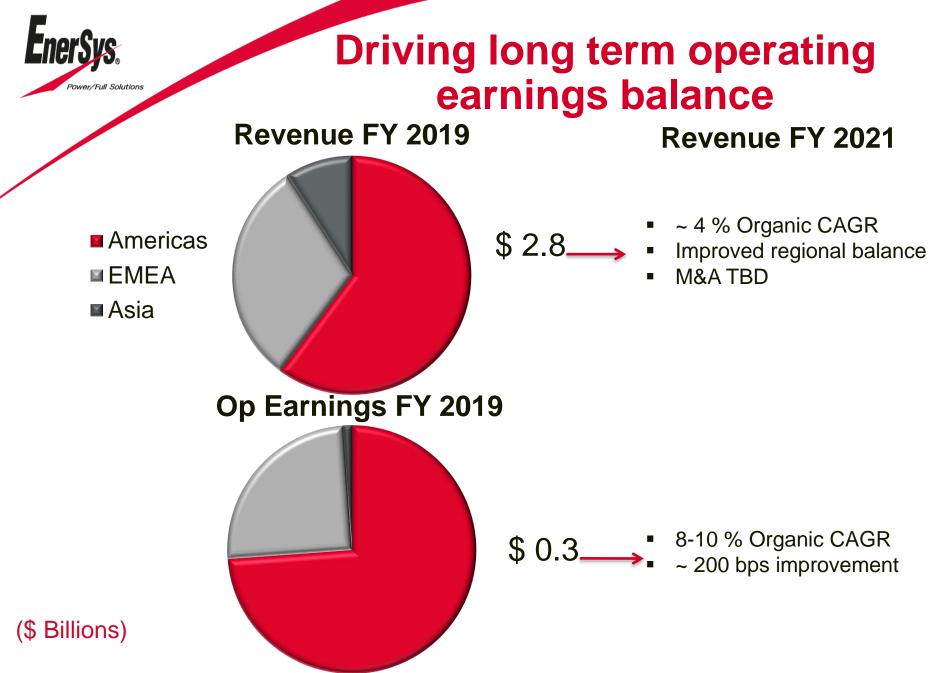


#### EURO



GP\$







### **Operating margin expansion**

**FY21** 

**FY17** 

# 12.3%

# 200+ bps

- Organic Growth
- Premium Mix
- Lean Initiatives
- New Products

Note: Adjusted operating earnings results exclude highlighted items.