# GE Energy Management Global Industrials & EU Autos Conference

Mark Begor, CEO March 19, 2015 Bank of America Merrill Lynch



#### Forward-Looking Statements:

This document contains "forward-looking statements" - that is, statements related to future, not past, events. In this context, forward-looking statements often address our expected future business and financial performance and financial condition, and often contain words such as "expect," "anticipate," "intend," "plan," "believe," "seek," "see," "will," "would," or "target." Forward-looking statements by their nature address matters that are, to different degrees, uncertain, such as statements about expected income; earnings per share; revenues; organic growth; margins; cost structure; restructuring charges; cash flows; return on capital; capital expenditures, capital allocation or capital structure; dividends; and the split between Industrial and GE Capital earnings. For us, particular uncertainties that could cause our actual results to be materially different than those expressed in our forward-looking statements include: economic and financial conditions, including interest and exchange rate volatility, commodity and equity prices and the value of financial assets; the impact of conditions in the financial and credit markets on the availability and cost of General Electric Capital Corporation's (GECC) funding, GECC's exposure to counterparties and our ability to reduce GECC's asset levels as planned; the impact of conditions in the housing market and unemployment rates on the level of commercial and consumer credit defaults; pending and future mortgage loan repurchase claims and other litigation claims in connection with WMC, which may affect our estimates of liability, including possible loss estimates; our ability to maintain our current credit rating and the impact on our funding costs and competitive position if we do not do so; the adequacy of our cash flows and earnings and other conditions which may affect our ability to pay our quarterly dividend at the planned level or to repurchase shares at planned levels; GECC's ability to pay dividends to GE at the planned level, which may be affected by GECC's cash flows and earnings, financial services regulation and oversight, and other factors; our ability to convert pre-order commitments/wins into orders; the price we realize on orders since commitments/wins are stated at list prices; customer actions or developments such as early aircraft retirements or reduced energy demand and other factors that may affect the level of demand and financial performance of the major industries and customers we serve: the effectiveness of our risk management framework; the impact of regulation and regulatory, investigative and legal proceedings and legal compliance risks, including the impact of financial services regulation and litigation; adverse market conditions, timing of and ability to obtain required bank regulatory approvals, or other factors relating to us or Synchrony Financial that could prevent us from completing the Synchrony split-off as planned; our capital allocation plans, as such plans may change including with respect to the timing and size of share repurchases, acquisitions, joint ventures, dispositions and other strategic actions; our success in completing, including obtaining regulatory approvals for, announced transactions, such as the proposed transactions and alliances with Alstom and Appliances, and our ability to realize anticipated earnings and savings; our success in integrating acquired businesses and operating joint ventures; the impact of potential information technology or data security breaches; and the other factors that are described in "Risk Factors" in our Annual Report on Form 10-K for the year ended December 31, 2014. These uncertainties may cause our actual future results to be materially different than those expressed in our forward-looking statements. We do not undertake to update our forward-looking statements.

This document includes certain forward-looking projected financial information that is based on current estimates and forecasts. Actual results could differ materially.

This document also contains non-GAAP financial information. Management uses this information in its internal analysis of results and believes that this information may be informative to investors in gauging the quality of our financial performance, identifying trends in our results and providing meaningful period-to-period comparisons. For a reconciliation of non-GAAP measures presented in this document, see the accompanying supplemental information posted to the investor relations section of our website at www.ge.com.

In this document, "GE" refers to the Industrial businesses of the Company including GECC on an equity basis. "GE (ex-GECC)" and/or "Industrial" refer to GE excluding Financial Services.

GE's Investor Relations website at www.ge.com/investor and our corporate blog at www.gereports.com, as well as GE's Facebook page and Twitter accounts, contain a significant amount of information about GE, including financial and other information for investors. GE encourages investors to visit these websites from time to time, as information is updated and new information is posted.

#### Imagination at work.

# **GE'S MISSION:**

# TO INVENT THE NEXT INDUSTRIAL ERA, AND BUILD, MOVE, POWER AND CURE THE WORLD

Imagining the things others don't / Building the things others can't / Delivering outcomes that make the world work better

















**ENERGY MANAGEMENT** 5% | \$7.3B

OIL & GAS 12% | \$18.7B

POWER & WATER 18% | \$27.6B

**HEALTHCARE** 12% | \$18.3B

AVIATION 16% | \$24B **TRANSPORTATION** 4% | \$5.7B

CAPITAL 28% | \$42.7B **APPLIANCES &** LIGHTING 6% | \$8.4B

~\$149B Revenue in 2014 \$17B Operating Earnings



# **GE Energy Management**

GE's roots in electrification go back 130 years, beginning with our first transformer and electric motor. Today Energy Management is built upon the same legacy and innovation culture that Thomas Edison founded in 1890.

More than ever, we enable utilities and industry to efficiently manage electricity from the point of generation to the point of consumption.

2014 Revenue (\$B)

\$7.3 Utility \$1.4







\$0.7



\$0.7





\$0.2

Generate

Protect

Transmit

\$0.7

- Automate
- Distribute
- Control

- Convert
- Optimize



# Solutions that span the energy value chain

What we do

**Grid Modernization** 

Electrical Distribution, Protection & Control

**Electric Transformation** 



2014 Revenue (\$B)

Digital Energy \$1.4 Industrial Solutions \$3.9 Power Conversion \$2.1

How we do it

World class products

**Integrated systems** 

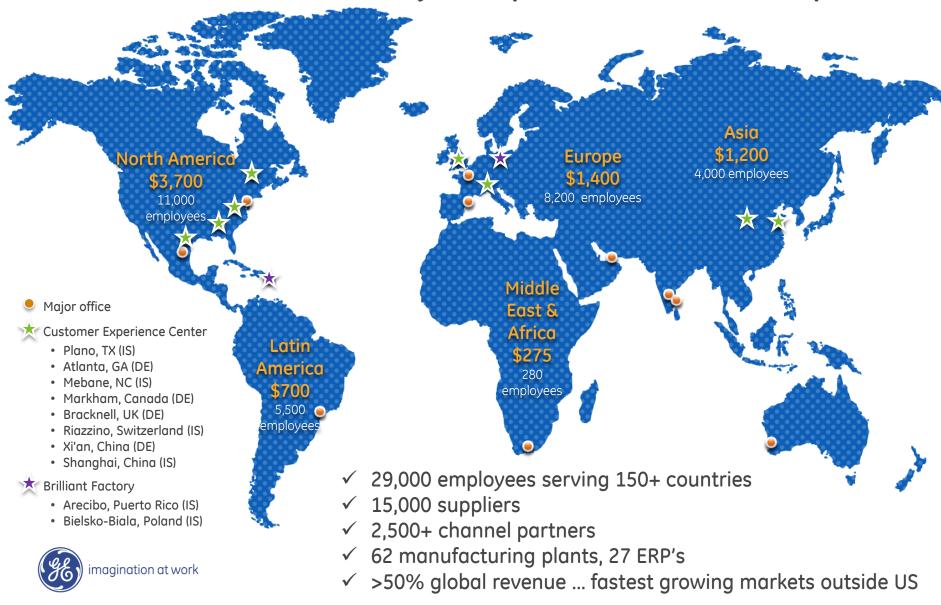
**Flawless Delivery** 



Broad electrical domain expertise & technology leadership



# Global scale matched by deep local domain expertise



The world needs reliable, efficient energy

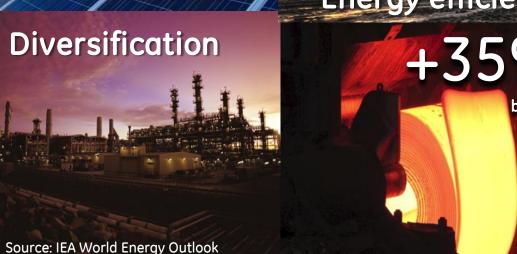
+78% **Electricity demand** by 2040



85% of global electricity growth is in

emerging markets

Aging infrastructure in many markets ... 40+ years sources + micro-grid growth

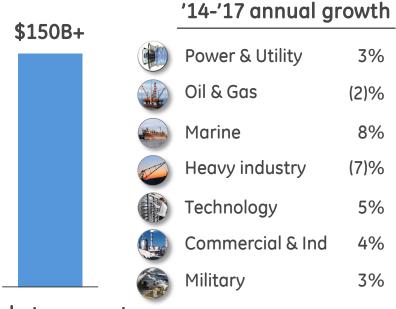


Grid market growing \$50B from 2014 to \$220B in 2020

**Energy efficiency** 

+35% by 2040

### **Environment**



#### Market segment

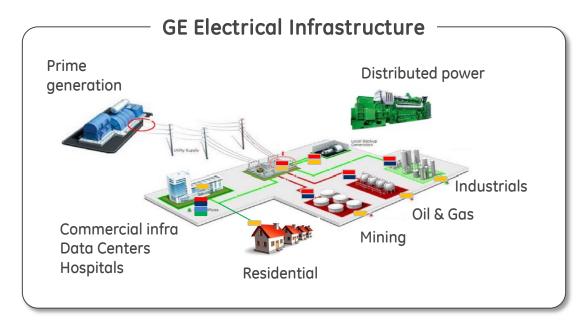
#### Long-term growth drivers

- ✓ Oil and gas demand
- ✓ Global data processing boom
- Renewable and distributed generation growth
- √ Aging infrastructure

# Selected competitors

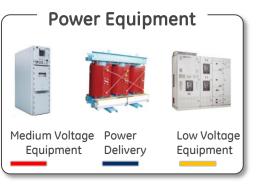
	Est. Segment Revenue (\$B)	Est. Margin%
ABB	~\$30	
SIEMENS	~30	
Schneider	~20	~10-20%
FATON	~7	
Rockwel Automation	~6	
Energy Managen	nent ~7	~3%+

### **Industrial Solutions**



#### Industrial Solutions value prop

- ✓ Low/Medium Voltage equipment
  - Standardized products
  - Distribution and OEM's
- ✓ Controls
  - Advanced computing & comm's
  - Configured for OEM and process applications
- ✓ Critical Power products
  - Reliable efficient power ... AC & DC
  - Off grid, off site solutions
- ✓ Services
  - Life cycle opportunities









### \$4B orders & revenue ... investing in world-class products



### **Power Conversion**

#### **Motion into Electricity**

Mechanical energy transformed into electrical energy by a generator

- Wind turbines
- Turbo generators
- Hydropower
- Wet renewables

#### Wind farm



#### **Electricity into Electricity**

Adjusting frequency and current through a converter or an inverter

- Wind/solar PV
- Railway substations
- Pulse power supply
- Soft starters

#### Railway substation



#### **Electricity into Motion**

Electrical energy transformed into mechanical energy by a motor

- Compressors
- Hoists
- · Rolling mills
- Pumps

#### Ship propulsion



Complete Solution Offering



Electrical grid



Electrical machines



Variable speed drives



Automation and control



Mechanical equipment

\$3B orders, \$3B backlog, \$2B revenue ... global growth business

# **Digital Energy**

#### **Power Delivery**

Enable delivery of electricity from generation station to end user

- Transformers & capacitors
- Instrumented transformers
- Projects
- XD Primary equipment



#### **Grid Automation**

Electrical grid monitoring and control

- Protection & Control
- Industrial communications
- Monitoring & diagnostic
- Meters



#### **Software Solutions**

Utility asset management and control

- Asset Management
- Asset Control
- Grid IQ™ Insight
- Software as a Service



Complete Solution Offering



#### Projects & System Solutions COE ... EBoP

- System solutions & services
- Enhancing multi-product line system capabilities
- Power systems economic consulting

\$1.5B orders, \$1.4B revenue ... strategic growth business



# Diverse customer portfolio



Power & Utility

Oil & gas

Marine

Heavy industry **Technology** 

Commercial & Industrial

Military & Aero

#### **Customers**































verizon











#### **GE** connection

Power & Utility

Oil & Gas

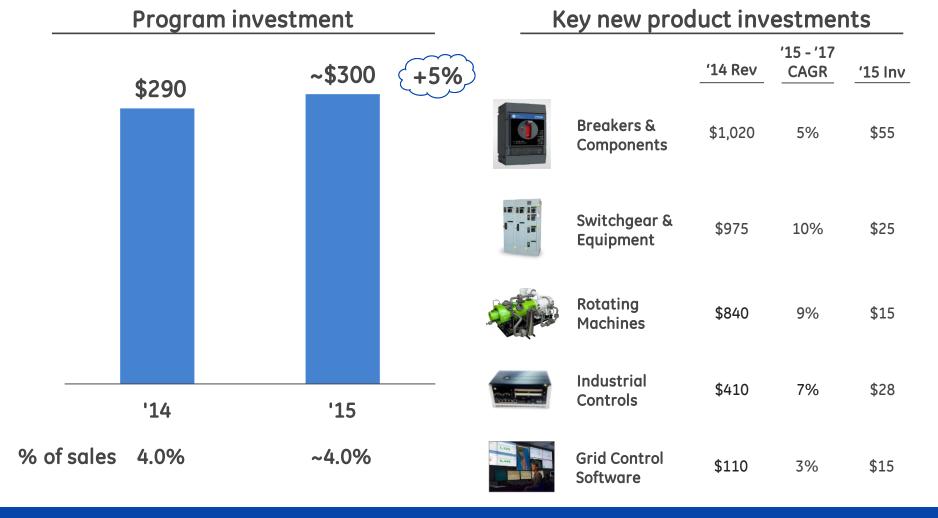
**Transportation** and Aviation

Mining and **Transportation**  Lighting and Healthcare

### Domain expertise across verticals

# Investing in new products

(\$ in millions)



### Investing in superior products



# FastWorks example: GuardEon breakers NPI

(\$ in millions)





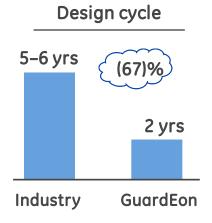


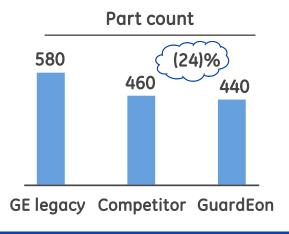
Current breaker

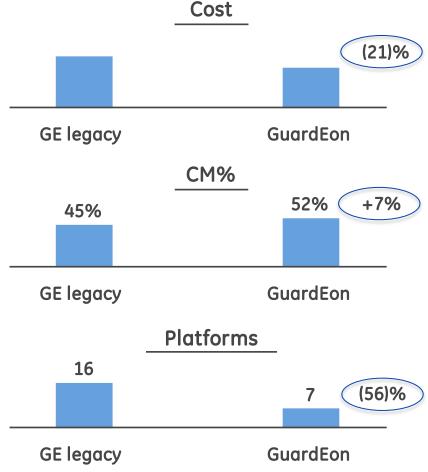
**GuardEon breaker** 

"Big Room"

- Co-located team ... design, manufacturing, commercial, finance
- ✓ Deep customer involvement







Fewer platforms, simpler design, best in class technology ... CM up 7 pts



## Benefits of the "GE Store"





Advanced materials & manufacturing, & engineering productivity



#### **HEALTHCARE**

Diagnostics technology, is a firstmover & anchor in growth markets GLOBAL RESEARCH CENTER

**SOFTWARE** 

**CENTER OF** 

**EXCELLENCE** 

**CULTURE & SIMPLIFICATION** 

**GLOBAL** 

**GROWTH** 

**ORGANIZATION** 



#### ENERGY MANAGEMENT

Electrification, controls & power conversion technology



#### OIL & GAS

Services & technology and is a first-mover in growth regions

# Energy Management

GE2GE

#### **Electrical Components**

- ✓ Controls
- ✓ Motors/generators
- ✓ Drive controls
- ✓ Switchgear

**GE4GE** 

#### E-Balance of Plant

- ✓ Power plants
- ✓ Wind
- √ Solar
- ✓ Oil & Gas

### **Brilliant Factory**

- ✓ Controls
- ✓ Software



APPLIANCES & LIGHTING

LED is gateway to energy efficiency



#### **TRANSPORTATION**

Engine technology & localization in growth regions

The "GE Store"

#### **CONTRIBUTE**..

CROWD SOURCE ...
COLLABORATE



### GE4GE ... EBoP with GE businesses

(\$ in millions)





- Motor controls, drives
- HV switchyard
- ✓ Electrical & control room

- Partner with GE businesses to deliver Electrical Balance of Plant
- Components insourced from EM: electrification, Controls, Power Conversion technology (motors and generators)
- ✓ Increased scale & factory utilization ... opportunity doubles with addition of Alstom Grid

#### **Distributed Power**

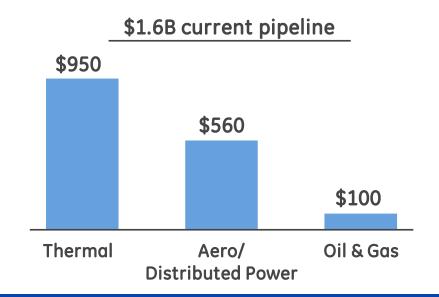


- ✓ Power train controls
- HV substation, x-formers
- ✓ Electrical & control room

#### Oil & Gas



- ✓ Helper & pump motors
- ✓ Motors & generators
- ✓ Electrical & control room

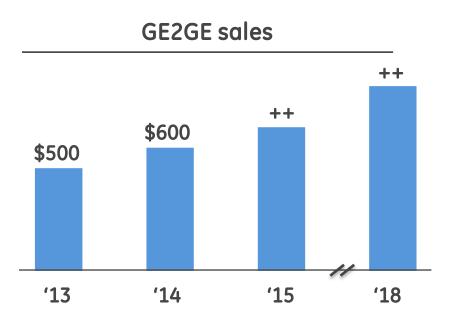


Big growth play for EM to partner with GE Power & Water, Wind, Oil & Gas ...



# GE2GE ... expanding EM content across GE

(\$ in millions)



Controls



### Medium Voltage Drives



#### **Motors & Generators**

- ✓ Replace competing products in GE offerings
- ✓ Capture economics for GE
- ✓ Scale & factory utilization
- ✓ Additional benefit from parts/services stream

#### Services



### Big growth potential from GE make/buy

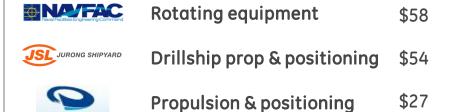


# Growing a global Marine business

(\$ in millions)



#### **Recent wins**



Jurong Shipyard Drillship prop & positioning \$26

### Key products

#### Merchant



Electrical propulsion
Efficient electric
solutions with optimized
cargo capability

#### Offshore



Broad portfolio

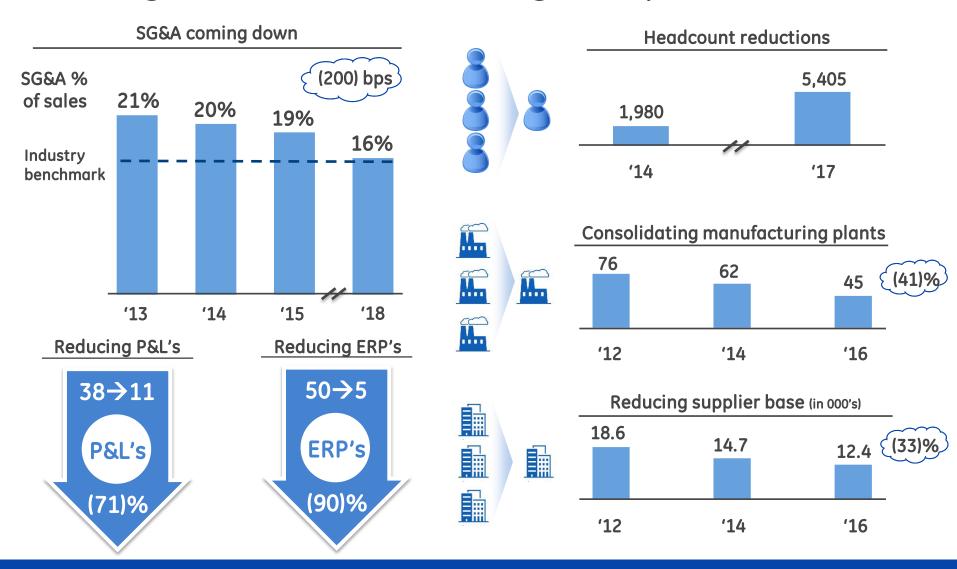
High operational efficiency and availability

#### Naval



Differentiated technology
Integrated low-noise
full-electric solutions

# Driving structural cost through simplification



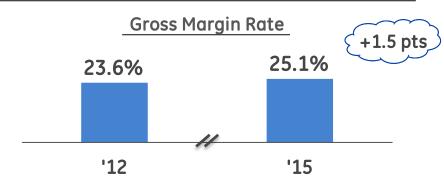
Margin rate +2.5 pts, simplification paying off ... more to do

# Driving gross margin performance

### Lean process improvements

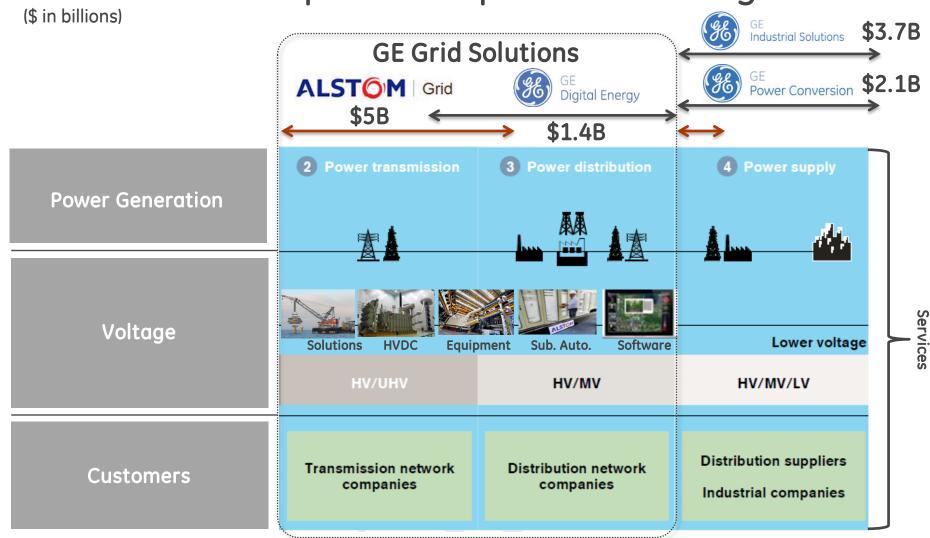
### Before After Output Rugby, 2x UK Ft. Ed → 2x Clearwater. **USA** Pittsburgh, 3x **USA** Berlin. 2x Germany Plainville. 2x **USA** Campinas, 3x **Brazil**

### Driving product cost improvements



- Sourcing execution ... proven track record to deliver deflation commitments
- Restructuring efforts ... delivered \$170 of incremental savings in '14, \$175 in '15
- Mfg. labor & OVC VCP ... projects to drive labor/Other Variable Cost efficiency ... "lean within plant"
- 4 Gaining momentum on new tools ... should cost, brilliant factory, analytics, etc.
- 5 Non SG&A Base Cost discipline ...
  Prioritized program spend ... continued
  Readiness-to-serve rigor

Alstom Grid completes EM product offerings

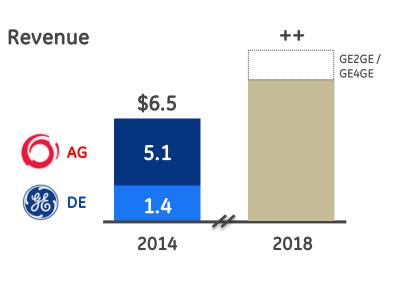


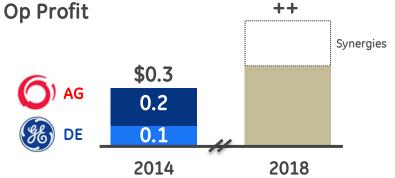
### Alstom Grid delivers scale, adds full EM product offerings



GE Digital Energy + Alstom Grid ... GE Grid Solutions







#### What we like

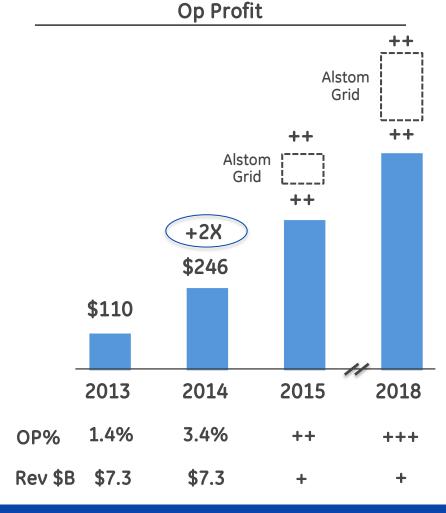
- 1 Complete T&D offering ...
  - ✓ AG in UHV/HV
  - ✓ DE in HV/MV
  - ✓ IS in LV/MV
- 2 Business Scale
  - ✓ \$2B projects
  - √ \$500M Software business
  - √ \$800M Grid Automation business
  - √ \$500M to \$1B in GE opportunities
- 3 Strong global footprint
  - ✓ AG global position
  - ✓ DE North America scale
  - ✓ Connection to GE ... P&W, O&G
- 4 AG adds global project capabilities ...
  - √ \$7B+ backlog
  - ✓ 2,000 resources
  - ✓ Product pull through
- Cost synergies
  - ✓ Sourcing/MFG Savings
  - ✓ Cost rationalization
- 6 Growth synergies
  - ✓ GE2GE, GE4GE/BoP

### Great combination ... completes GE HV/UHV footprint



# **Energy Management growth**

(\$ in millions)



- ✓ Market trends positive
  - + Electricity demand
  - + Grid investments
  - + Efficiency
- ✓ Margins improving ... more to do
  - + RTS ... headcount reduction
  - + Plant consolidations
  - + IT investments/ERP
  - Better execution
  - New incentive compensation program
- ✓ Product investments
- ✓ GE4GE/GE2GE growth
- ✓ Alstom Grid
  - + Global footprint, product line
  - + Projects
  - + Cost and growth synergies

Strong progress ... and potential ... driving towards double-digit operating profit



