



# **AE** ADVANCED ENERGY<sup>®</sup>

*IGNITING AN ENERGY TRANSFORMATION*

**Investor Presentation** | 08-2008  
Larry Firestone, Chief Financial Officer

# Safe Harbor Statement

Certain statements in the following presentation relate to future results that are forward looking statements as defined in the Private Securities Litigation Reform Act of 1995.

Actual results may differ materially from those projected as a result of certain risks and uncertainties, including but not limited to those noted in our forms 10-K, 10-Q, and other filings with the SEC.

This presentation includes historical and forward-looking pro forma information. The Company assumes no responsibility to update the information contained in this presentation.



# Spanning Multiple Markets

Can you find **ADVANCED ENERGY** in these products?



# Enabling Technology Transformation



The equipment used in the manufacture of complex thin film applications requires specific power conversion and management systems.



# Thin Films = Advanced Energy



# Unique Investment Opportunity

- **A Leader** in Power Conversion Technology
- Growth in Diverse and **Dynamic** markets
- 15-20% Long-term CAGR
- Core Technology Extends to Emerging Markets
  - Solaron - solar inverter product

# Advanced Energy at a Glance

- 27 years of successful innovation in power conversion
- Global Presence
  - Headquarters in Colorado
  - Manufacturing in China, U.S. and Japan
  - Global Sales & Service throughout the world
- 1,700 employees worldwide
- Financial Strength
  - Diversified revenues of ~\$400M
  - Strong balance sheet - \$176M
  - Profitable
  - Cash flow positive

# Strategic Direction

- Leverage core technology into new markets/opportunities:
  - Expand presence in non-semi markets
  - Penetrate fast-growing solar markets
- Capitalize on existing market position
- Streamline operations and improve efficiencies
- Pursue strategic acquisitions



# Thin Film Deposition Markets

*THIN FILM DEPOSITION*  
99% of AE Business

FLAT PANEL 11%

INDUSTRIAL COATINGS 14%

ARCHITECTURAL GLASS 4%

SEMI-CONDUCTOR 52%

SOLAR EQUIPMENT 14%

DATA STORAGE 5%

# Best in Class for Thin Film Deposition

- Broad technology expertise
- Wide range of power sizes addressing multiple markets
- Unique solutions for customer applications
- Cost Effective Solutions
- Global service and application support



# Solar Photovoltaic & Inverter Markets

ALTERNATIVE ENERGY

SOLAR  
EQUIPMENT 14%



SOLAR  
INVERTER 1%

# Empowering Next Generation Solar

## Solar Panel MANUFACTURING

**Power Supply**  
AC-DC or AC-RF



*Poly-Silicon*

*Amorphous Silicon*

*C-Class  
(CIGs, Cadmium)*



**oerlikon**

**Q.CELLS**

## Grid Power CONVERSION

**Solaron™ Inverter**  
DC-AC

*All Solar Cells*



**SUNPOWER**

*Solar Array Power Generation*

*Power Grid ..... Consumption*



# Solar Inverter Market Share

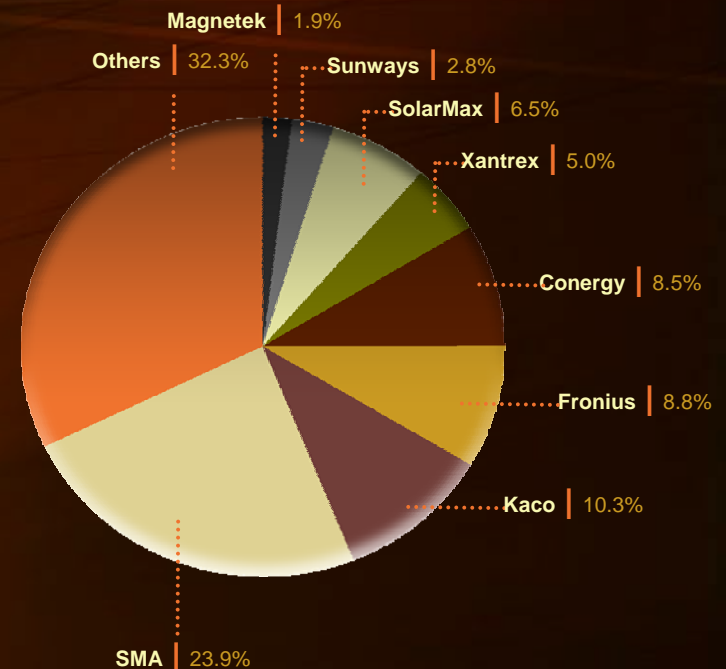
## ■ Commercial Inverter Landscape

- Target market: Large commercial >100kW
  - Commercial – 23 companies
  - Large Commercial – 3 companies

## ■ Types of Solar Inverter Competitors

- Solar focus: Independents SMA, Sunways, Sputnik/SolarMax, Kaco
- Mixed markets: Independents Xantrex, SatCon, Fronius, Magnetek

COMMERCIAL & RESIDENTIAL SOLAR  
WORLD ESTIMATED REVENUE SHARE | 2005

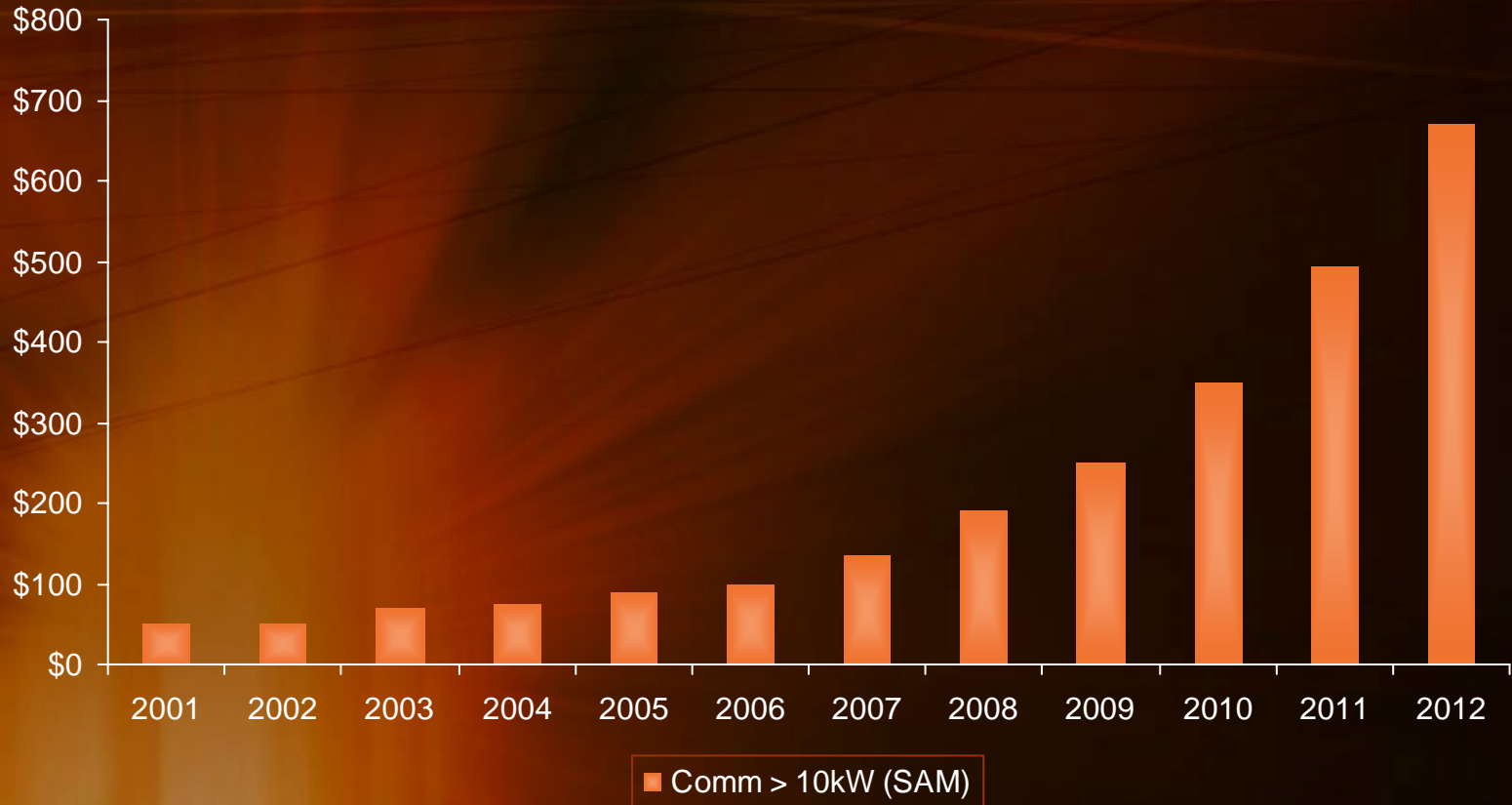


Base: 2005 market = \$719M

# Commercial Solar Inverter TAM

## Rapid Growth to 2012

Millions (\$)



Assumes 10GW of solar installations in 2010 (Munich "consensus", 2007)

Sources: Photon International, Frost & Sullivan, AE estimates



# Gateway to the Future | Solar Differentiators

## ■ Solaron Solar Inverter

- Highest efficiency in industry – 97%-98% CEC
- Transformer-less design limits power loss
- Integrated communications
- Smallest footprint in industry & lighter weight
- Easy implementation
- More efficient bipolar design offers low-voltage advantages using  $\frac{1}{2}$  current

## ■ Solar PV

- Product breadth
- Application expertise
- Product development alliances
- Leadership recognized by thin film equipment manufacturers



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**Financial Overview** | Nasdaq: AEIS  
[www.advanced-energy.com](http://www.advanced-energy.com)

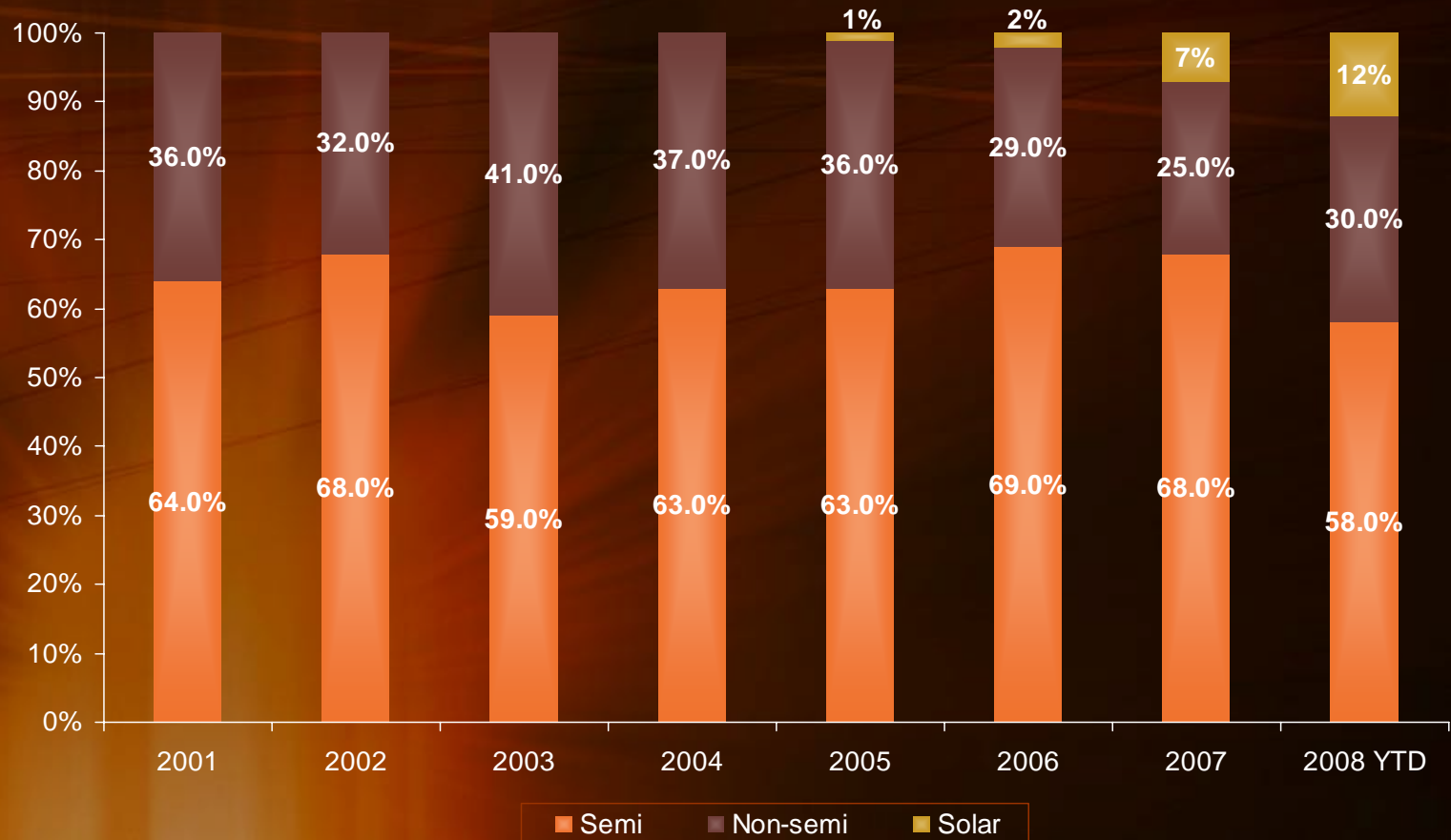


# Financial Highlights

- AE's balance of business is driving financial success in 2008
- Solar market drove revenue shift from semi to non-semi
- \$50M Share repurchase through Q2 2008
- Majority of cost reduction target achieved
- Sustained profitability through the first half of 2008



# AE Diversified Revenues



# Quarterly Revenue and Gross Margin



# Strong Balance Sheet

<i>(in millions)</i>	DECEMBER 2006	DECEMBER 2007	JUNE 2008
Cash and Equivalents	\$144.2	\$205.3	\$176.0
Total Assets	\$411.9	\$459.0	\$392.3
Total Liabilities	\$56.1	\$52.0	\$50.8
Equity	\$355.8	\$407.1	\$377.5
Diluted Shares Outstanding	45.3	45.7	42.9
Auction Rates Securities	\$40.8	\$50.5	\$36.6



# Target Financial Model

	2006	2007	1H08	TARGET
Gross Margin	42.7%	42.3%	40.2%	47%
R&D	11.0%	13.1%	15.2%	13%
SG&A (w/amort.)	15.3%	16.2%	16.1%	14%
Operating Margin	16.4%	11.9%	8.1%	20%

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