

Amtech Systems, Inc.

Solar & Semiconductor Solutions

Nasdaq: ASYS



J.S. Whang
Chairman & CEO

Brad Anderson
Executive Vice President & CFO

September 2011



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Solar & Semiconductor Solutions

Forward-Looking Statements

Certain statements in the following presentation relate to future results that are forward looking statements. Actual results may differ materially from those projected as a result of certain risks and uncertainties, including but not limited to, changes in the technologies used by Amtech's customers, change and volatility in the demand for its equipment, the effect of changing worldwide political and economic conditions on government-funded solar initiatives, capital expenditures, production levels, including those in Europe and Asia, the effect of overall market conditions, market acceptance, risks associated with dependence on suppliers, the impact of competitive products and pricing, technological and product development risks (including the risks inherent in launching new products) and other risk factors 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.

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Investment Highlights

- ✓ **The Market Leader in Solar Diffusion Processing Systems**
- ✓ **Enable High Efficiency, Low Cost Solar Cell Manufacturing Process**
- ✓ **Technology Roadmap for Continued Differentiation**
- ✓ **Superior Revenue Growth and Financial Returns**
- ✓ **Track Record of Successful Acquisition Integration**
- ✓ **Strong Management Team that Builds Value Through Product Innovation and Market Execution**



Amtech at a Glance

- **Founded in 1981, entered the solar market in 2006**
 - Headquartered in Tempe, AZ
 - 450 employees worldwide
 - Global presence with 6 locations worldwide
 - Technical expertise: 12 Ph.D.'s
- **Global supplier of solar & semiconductor process equipment and automation systems**
- **Leading supplier of solar diffusion furnaces**
- **Leading edge technology platform driven by acquisition and innovation**
 - Successful deployment of next generation cell N-Type
 - Successfully completed 6 acquisitions, most recent acquisition of Kingstone provides roadmap for the future
- **Strong June 2011 quarterly results**
 - Record \$72 million in revenue (up 67% YoY); EPS of \$0.74
 - Solid quarter end backlog of \$140 million



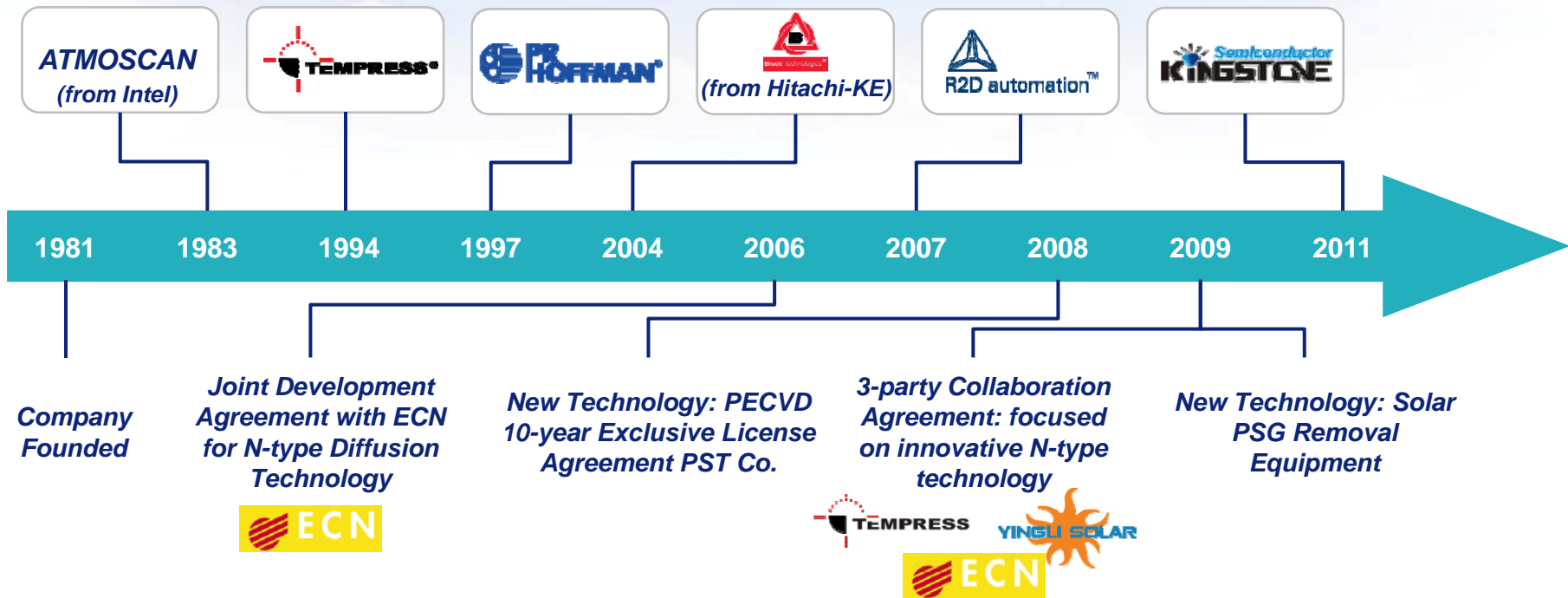
Subsidiaries



Business Model

(Successful Acquisitions & Technology Innovation)

Acquisitions



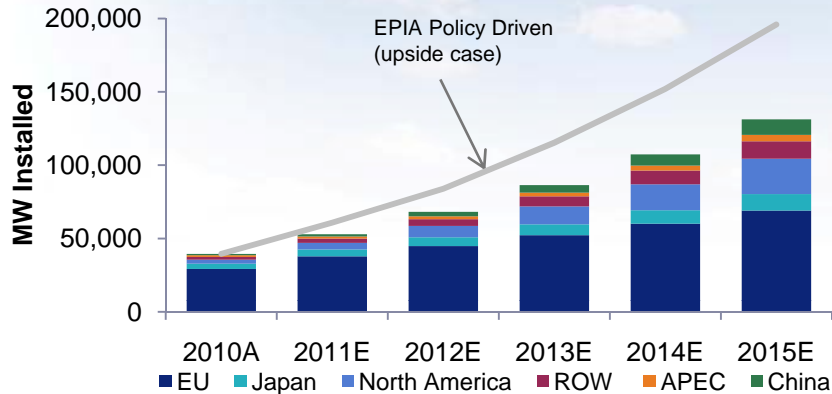
Innovation



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High Growth Solar End-Market

2010 - 2015 Global Cumulative Installed Capacity

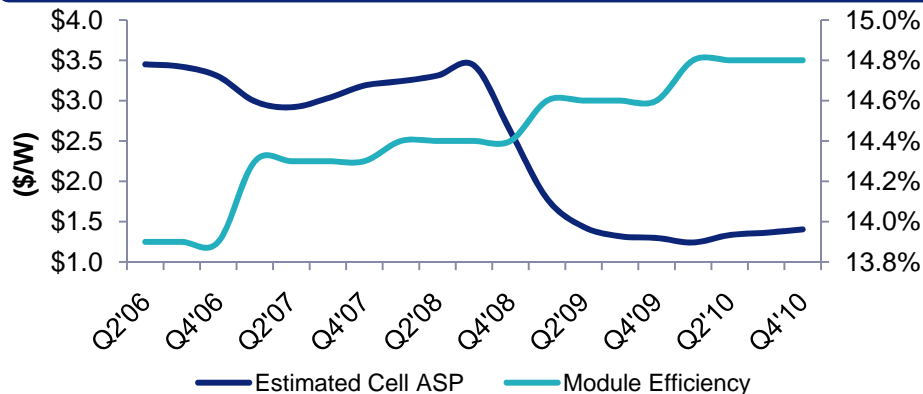


Source: EPIA Research.

Key Characteristics

- Global installed PV capacity has grown from 1.5GW in 2000 to 39.5GW in 2010 – 39% CAGR
- Aggressive new capacity expansions by polysilicon producers and cell manufacturers
- Next generation process technology is the driver of increasing efficiencies and lowering cost
- Lower cost and declining ASPs are leading to grid parity

Declining Cell ASPs / Increasing Module Efficiency



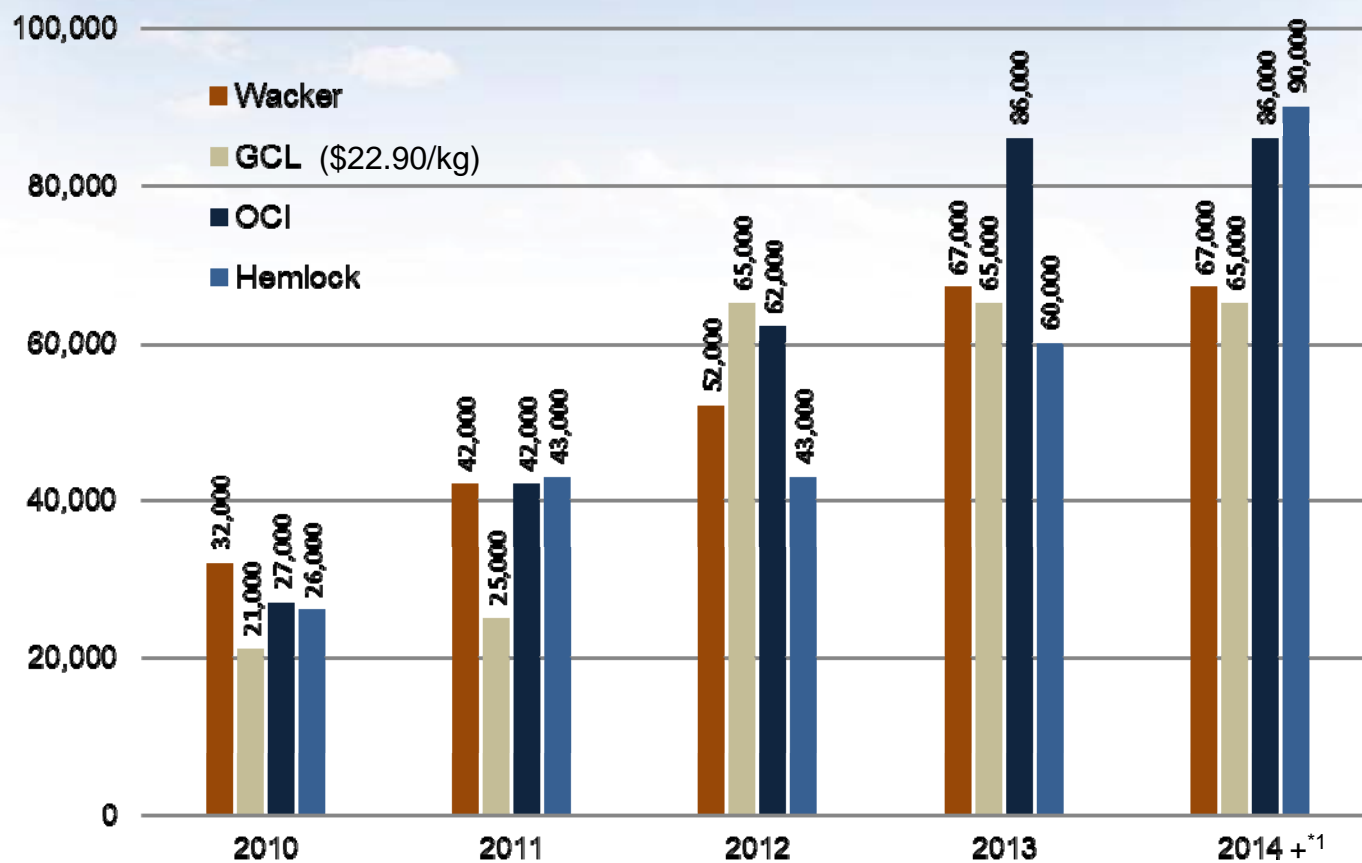
Source: Publicly filed solar company reports, Marketbuzz 2011 by Solarbuzz.



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Big Four Silicon Producers' Expansion Plans

Near-term cost target: \$20/kg / Long-term cost target: \$15/kg



^{*1} Hemlock targets 90,000 by 2015; Wacker and OCI have not announced plans past 2013; GCL's latest target is in 2012



The Role of Equipment Providers

Shift from a capacity market to a technology market

Focus of Cell Manufacturers

- No longer a supply constrained market
- “Me-too” and undifferentiated high cost infrastructure companies will suffer
- Focus on high efficiency and reduced cost
- Technology roadmap focused on \$/W

Role of the Equipment Providers

- Improve cell efficiencies through technology differentiation
- Increase scale
- Improve throughput
- Reduce yield losses / wafer breakage
- Reduce energy use
- Reduce labor costs
- Enable new silicon based technologies
- Ensure quality / repeatability



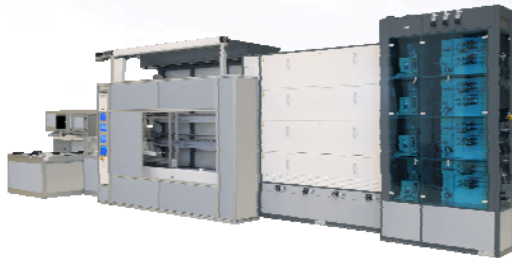
Our Strategy

- ✓ **Capitalize on growth opportunities in the solar industry by leveraging our leading diffusion furnace market share, top-tier customer relationships, and track record of technological innovation**
- ✓ **Provide next generation technology solutions that will enable higher solar conversion efficiency**
- ✓ **Develop multi-product solutions to expand addressable market**
- ✓ **Pursue strategic acquisitions that complement our strong platform**
- ✓ **Contribute to the solar industry's mission of reaching grid parity**



Amtech Products, Brands & Applications

Process Equipment



P-Type and N-Type Diffusion Furnaces



PECVD



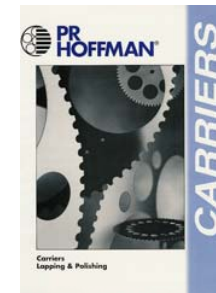
PSG Dry Etch

Furnace Automation & Wafer Handling Systems



S-300

Wafer Carriers, Templates & Polishing Tools



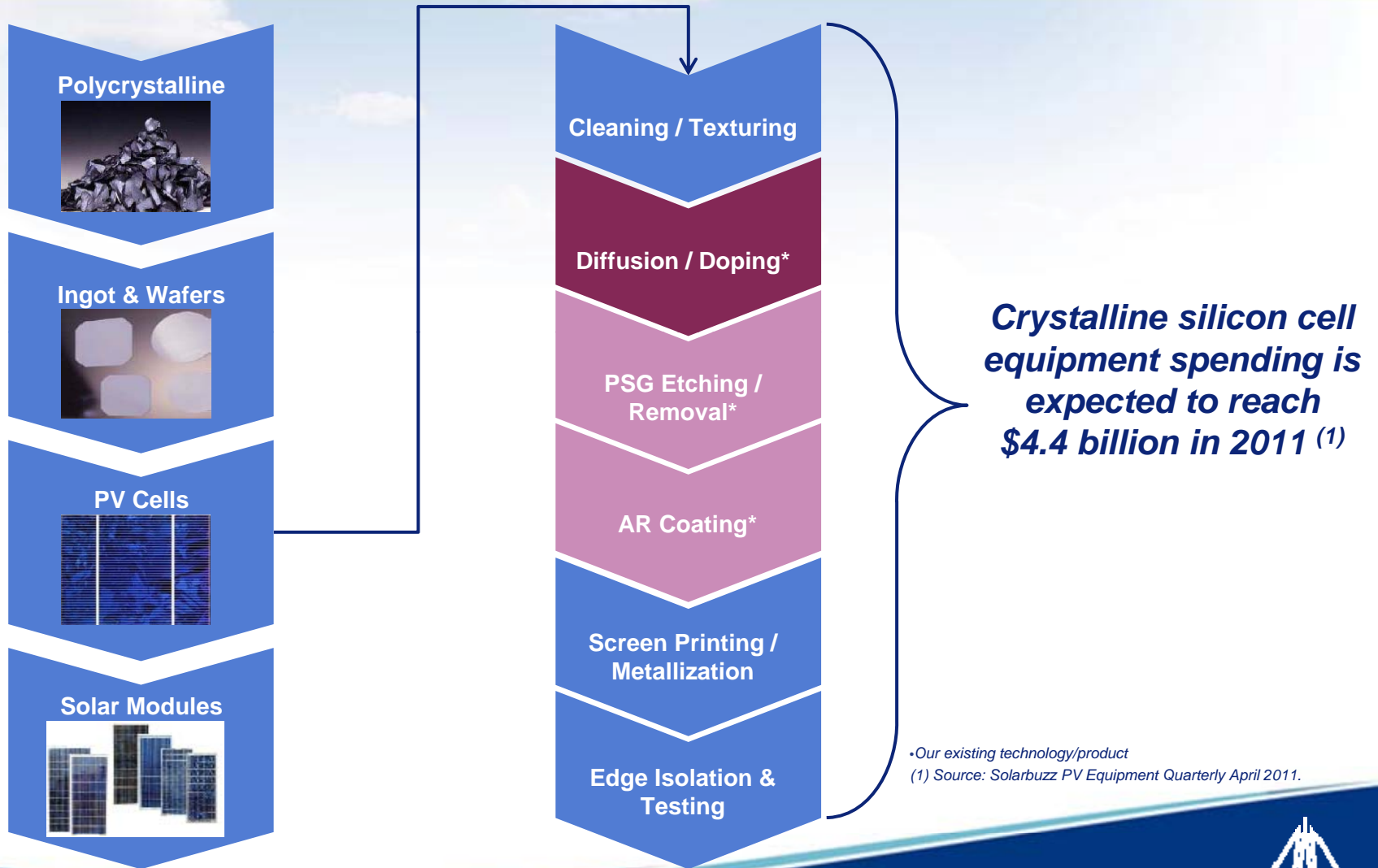
Solar Cells & Semiconductor Chips

LED & Silicon Wafers



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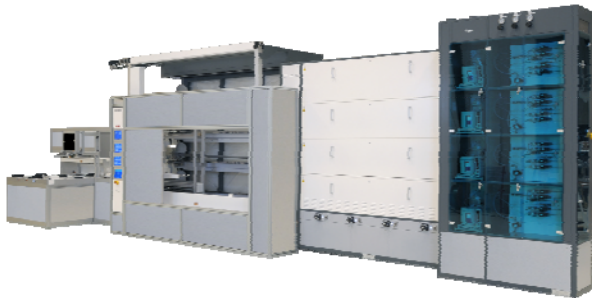
Our Position in the Solar Value Chain



Providing A Next Generation Technology Roadmap

N-Type Diffusion Furnace

- **Our proprietary N-type furnace has a demonstrated record of improving customer efficiency**
 - N-type furnace plays a critical role in achieving a 1-2% efficiency gain
 - Underlying technology for Yingli's Panda modules
 - Yingli exclusivity ended in calendar Q3' 11 enabling further market traction



Ion Implant

- **Our Kingstone acquisition offers an ion implant roadmap for next generation higher efficiency cell processes**
- **We are well positioned to compete in a future ion implant market**
 - Kingstone provides a foundation for a low-cost of ownership
 - Solar purposed tool
 - 18-24 month development plan



Our Solar Technology Road Map

Cell Type / Tool	Up to 18%	~20%	~22%	~24%	25%+
P-Type* / Furnace P-Type*	 				
Standard N-Type* P-Type Ion Implant / Furnace N-Type* / PSG-BSG Ion Implanter**		 			
Interdigitated Back Contact (IBC) / Ion Implant / Furnace / PECVD		 			
Heterojunction with Intrinsic Thin Layer (HIT) / PECVD			 		
Heterojunction (HJ) – IBC / Ion Implant / Furnace / PECVD				 	

* Our existing technology/product. NOTE: The contents of Road Map can change in response to technology shift.

** Being developed at Kingstone Semiconductor Co.



Aligned with Leading Asian Customers



Hanwha
SolarOne

JA SOLAR

JinKO^{Solar}
We Build Your Trust in Sun

Trinasolar

TSi

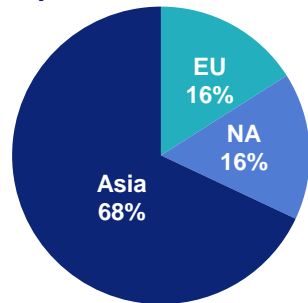
Topcell Solar International Co., Ltd.



- Amtech supports the leading global PV manufacturers as production continues to expand throughout Asia
- Diversified customer base with varying CapEx investment cycles – top 3 customers change quarterly and yearly

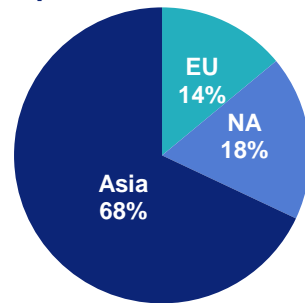
FY: 2008

Top 3 Customers: 33%



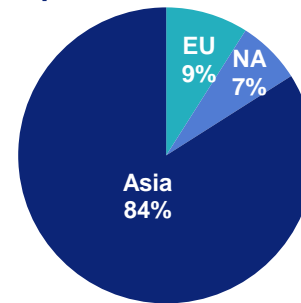
FY: 2009

Top 3 Customers: 32%



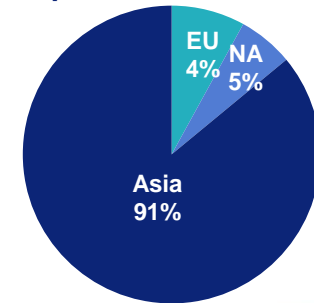
FY: 2010

Top 3 Customers: 45%



FY: 2011 YTD

Top 3 Customers: 53%



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Management Overview

Member	Position	Experience
 J.S. Whang	Chief Executive Officer & Chairman	<ul style="list-style-type: none">• 37 years of semiconductor & solar experience• Siltronics• U.S. Quartz
 Fokko Pentinga	President	<ul style="list-style-type: none">• 30 years of semiconductor and solar experience• Tempres Systems
 Brad Anderson	Chief Financial Officer	<ul style="list-style-type: none">• 26 years of experience• Zila• Deloitte
 Dr. James Hwang	Chief Technology Officer	<ul style="list-style-type: none">• 22 years of semiconductor and solar experience• Westinghouse• Texas Instruments



Financial Overview



Q3 FY11 (ending June 30) Highlights

Revenue

- Record revenue of \$71.9 million; +17% sequentially & +67% YoY
- Total fiscal Q3' 11 YTD revenue of \$187 million +150% YoY

Gross Margin

- Q3' 11 gross margin of 36% vs. 37% in Q3' 10
- Driven by efficient capacity utilization from higher volume

EPS

- Strong profitability: Q3' 11 EPS of \$0.74 per share vs. \$0.45 in Q3' 10

Backlog

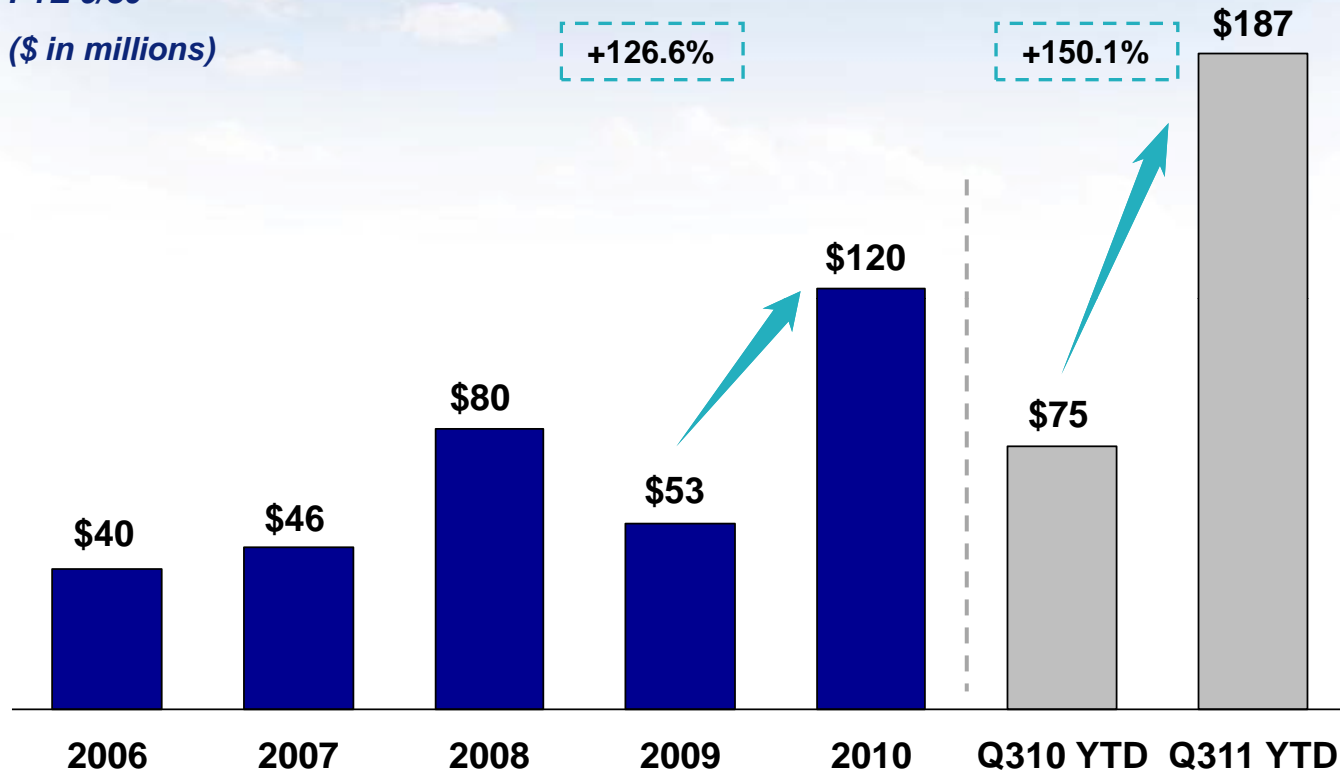
- Solid backlog of \$140 million
- Fiscal Q3' 11 YTD bookings of \$223 million (\$196 million solar) +62% YoY



Long-Term Revenue Growth Track Record

FYE 9/30

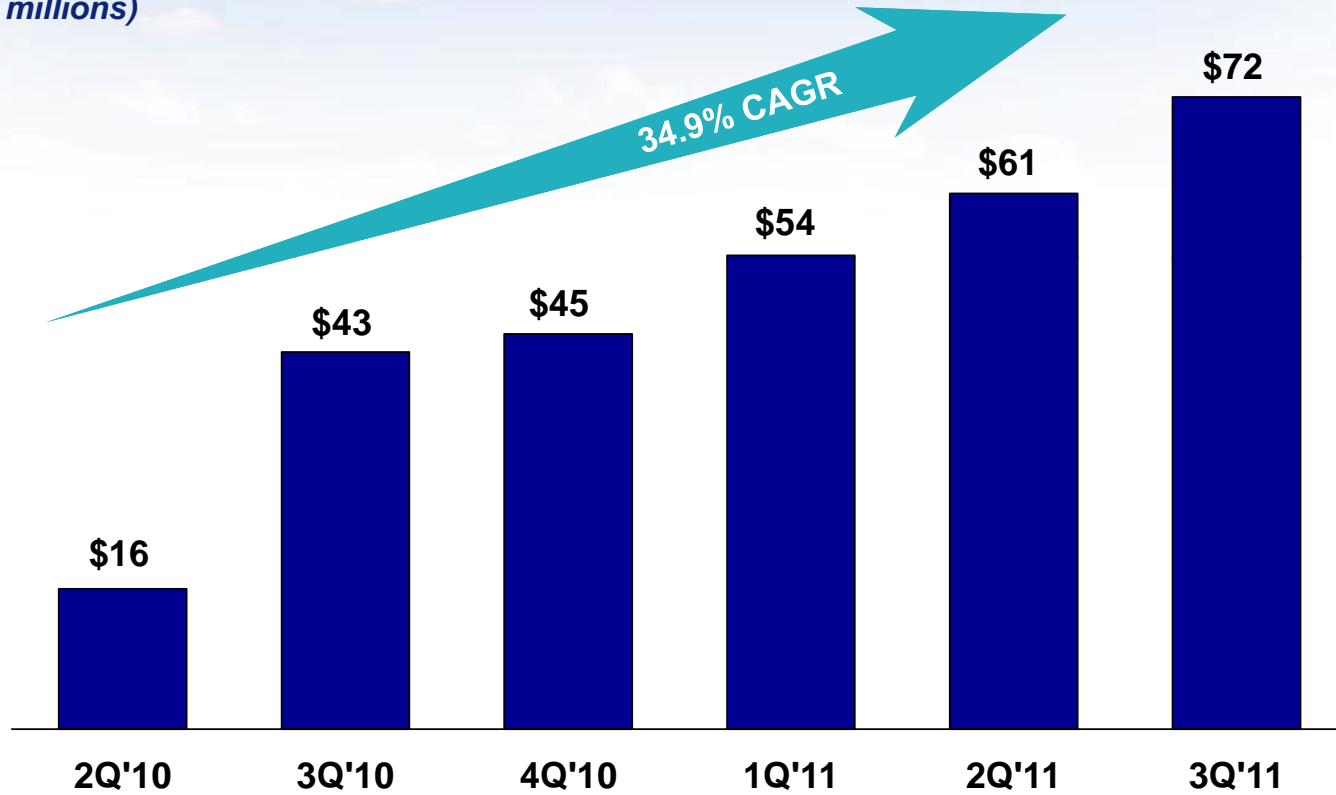
(\$ in millions)



Consistent Quarterly Revenue Growth

FYE: 9/30

(\$ in millions)



Strong Backlog Supports Continued Growth

FYE: 9/30

(\$ in millions)



Balance Sheet

(\$ in millions)

Q3' 11 (6/30/11)

Cash & Cash Equivalents

\$60.2

Working Capital

\$88.4

Total Assets

\$220.5

Total Debt

\$0.0

Total Liabilities

\$98.8

Stockholders' Equity

\$121.5 ⁽¹⁾

(1) Includes non-controlling interest of \$6.8 million.



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Thank you !



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