EMCORE Corporation

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13th Annual Needham Growth Conference

Hong Hou, Chief Executive Officer

Mark Weinswig, Chief Financial Officer

January 12, 2011

“Safe Harbor” Statement

Statements in this presentation which are not historical facts, and the assumptions underlying such statements, constitute "forward-looking statements" and assumptions underlying "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 including, but are not limited to, (a) statements regarding future product introductions and performance metrics, (b) statements regarding 2009 and other future financial performance, and (c) statements regarding future development and growth in the Company’s markets. Readers should also review the risk factors set forth in EMCORE's Annual Report on Form 10-K for the fiscal year ended September 30, 2010. These forward-looking statements are made as of the date hereof, and EMCORE does not assume any obligation to update these statements.

EMCORE's Business Units

Global Communications and Power at the Speed of Light

Fiber Optic Components & Systems for Broadband, 10G Ethernet, Datacom & Telecom

Fiber Optics Broadband (EBB)

CATV Tx/Rx
FTTx Tx, PON TRx
RF over fiber links
Fiber-optic gyro
Video Transport

Fiber Optics Data/Telecom (EDP)

DataCom Component
Telecom Component
10 GE TRx (LX4, CX4)
Parallel Optical TRx

Space and Terrestrial Solar Power Based on Multi-Junction Solar Cells

Photovoltaics Solar Power (EPV)

Space Solar Cells
Space Solar Panels
CPV Solar Cells

Emcore Solar Power (ESP)

Solar Power System
Based on CPV Cells

Comprehensive Broadband Products

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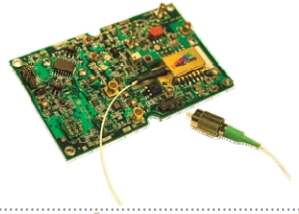
CATV	FTTx	VIDEO	SPECIALTY
CATV Transmitters & Receivers, Subassembly Boards, Lasers, Photodiodes	1550nm Transmitters, Video Receivers, PON Transceivers, EDFA's	Analog Video, HDTV/DTV Video, Mobile Video and IP Transport	RF Satellite Links Tx/Rx/Delay Lines, FOG's, THz, Lithium Niobate Devices















Broadband Business

- **Leading Provider of Broadband Components and Systems**
  - Consolidated technology, IP, product portfolio & CATV customer base,
  - Full end-to-end product offering for hybrid-fiber-coaxial (HFC) network.
- **CATV Market Drivers**
  - Upgrade of HFC network to 1GHz to offer more value-added premium services,
  - Buildout of new networks to businesses offering commercial services,
  - Strong overseas market demand in Eastern Europe, Russia, India, China, etc.
- **Penetration into High Growth Video Transport and IPTV Markets**
  - Telecom product offering,
  - Intra-studio transmission,
  - Pre and post production video transport.
- **Technology Provider for both CATV & Telecom Companies**
  - Transmitters, receivers and components enabling “triple play” services,
  - Technology build-out seen from both CATV and Telecom customers.

Telecom / Datacom Products

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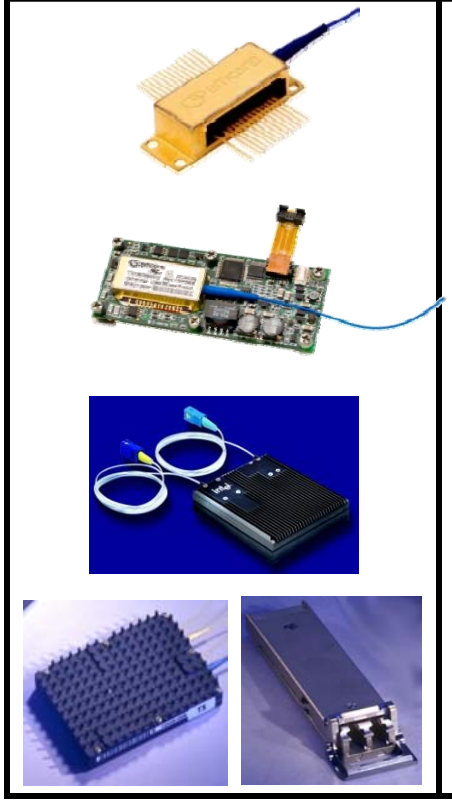
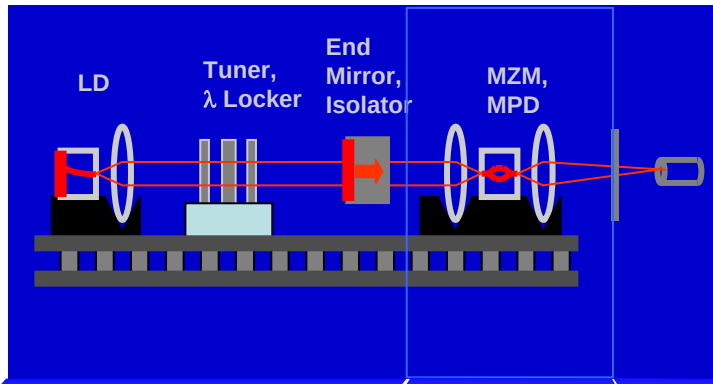
Telecom Transport	Parallel Optics	LAN / SAN	Components
• Full C&L-Band Tunable Lasers, ITLAs, & trspdrs • 300-pin Transponders • 80-km XFP	• 2.5 & 5Gb/s per ch parallel Optic Tx / Rx in SNAP-12 • 4-lane parallel TxRx OMC • TxRx-based optical cable	• Xenpak/X2 LX4, CX4, LR, SR, ER TxRxs • 1/2/4 Gb/s SFF/SFP TxRx • SFP+ and XFP TxRxs	• 10 Gb/s VCSELs & PDs • 10Gb/s DFB & PDs • GPON TO Cans • 1-10 Gb/s TOSA/ROSA




EMCORE's Tunable Product Portfolio

CLEARLIGHT™



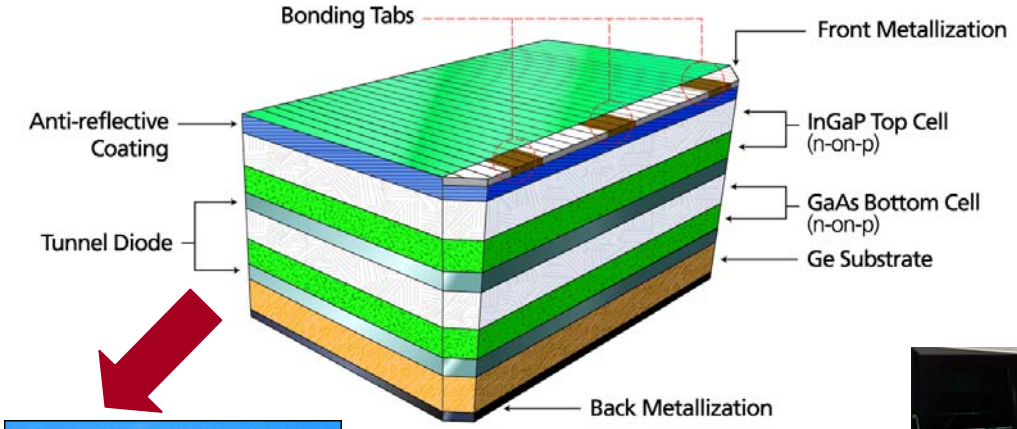
Laser Block	Modulator Block	Fiber Block	Integration Level
Standard Power 13.5 dBm	No Modulator (CW) Launch 2H 2010	LC TOSA receptacle	Tunable TOSA Launch 2H 2010
High Power 16 dBm	10G NRZ (development) Launch 2H 2010	PM Fiber pigtail or receptacle	Tunable XFP Launch 2H 2010
C or L band	40G DQPSK Planned R&D		µITLA (37 x 15 x 8mm) Launch 2H 2010
High / Standard Frequency Accuracy (+/- 1.5 or 2.5 GHz EOL)	100G, Planned R&D		300 PIN – TOSA
	Engaging with Partners		Other MSA / Subsystem Form Factor

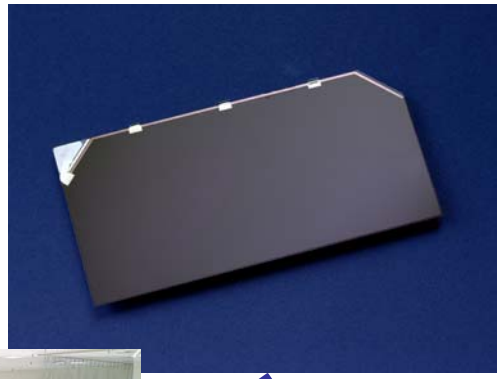
Modular Approach using TOSA based ECL Laser Architecture, enables flexibility, low cost and higher density

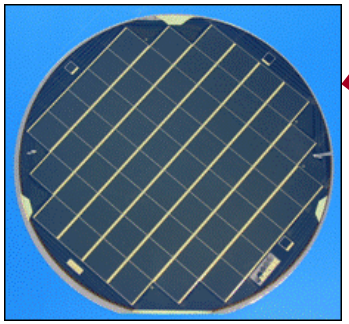
Fiber Optics Growth Strategy

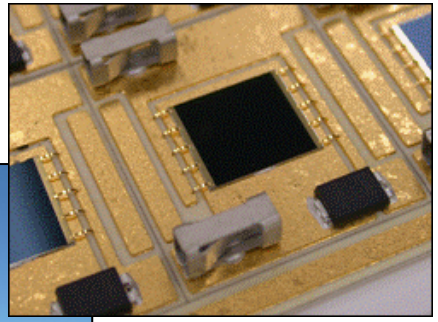
- **Grow Business through Disruptive New Products**
  - Tunable XFP transceivers and tunable TOSAs
  - m-ITLA for 40 and 100 Gb/s Telecom transponders
  - CXP pluggable modules and active cables based on parallel optic engines
  - Full-band unicast QAM transmitters for HFC infrastructure
  - R-FOG transceivers to increase the bandwidth of HFC network
  - Fiber optic gyro transceivers
- **Expand Market Share of Current Product Portfolio**
  - Nine product lines are being qualified by a leading OEM located in China
  - Increase penetration to international customer base
- **Grow Optical Components by Leveraging Low-cost Manufacturing Base**
  - PON components
  - SAN optical components for 14 Gb/s

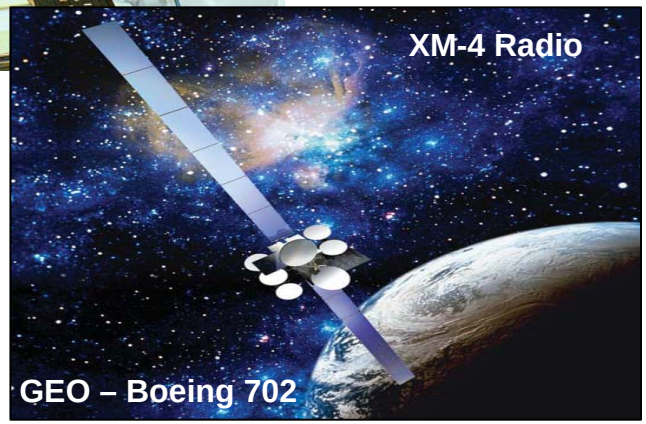
Solar Cell Technology & Applications











Overview of Space Solar Products

- **Space Solar Cells**
  - Highest efficiency commercially available space solar cells in the industry
  - Currently offer six generations of space solar cell with minimum average efficiency of 27.0% to 29.5%
  - Lowest solar cell mass of 84 mg/cm^2 and are fully space-qualified with proven flight heritage

- **Satellite Solar CiC Assemblies**
  - Highest efficiency commercially available CiCs in the industry
  - Extensive flight heritage for LEO, MEO, GEO and interplanetary missions

- **Satellite Solar Panels**
  - Fully tested and wired for integration into solar array assemblies
  - Manufactured and tested per mission profile requirements in a modern Class-10,000 clean room manufacturing high-bay under continuous temperature and humidity environmental control

Industry Leader within Space Market

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Major Customers

Current Status

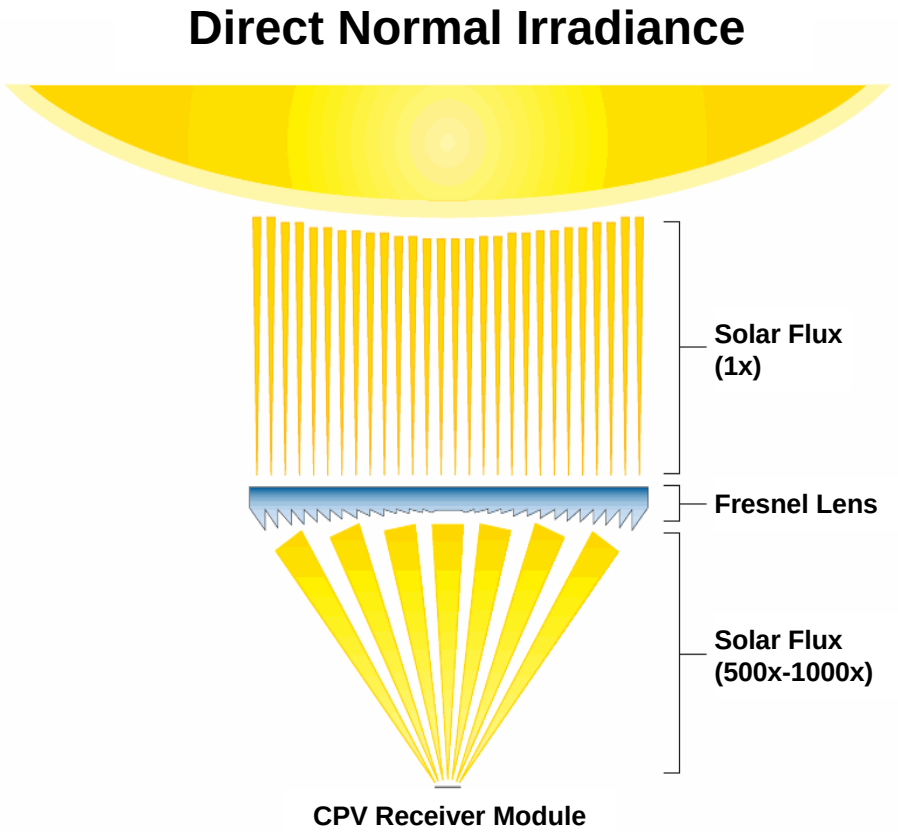
- Significant improved financial performance through cost reductions
- Robust visibility: $74M new orders booked in 2010, with an option for additional $34M
- Strong position (with >50% market share) to serve the commercial satellite markets with backlog to support 82 active programs
- Outstanding reliability tracking record (zero failure for over 76 launched missions) and customer recognition (supplier excellence awards)

Growth Strategy

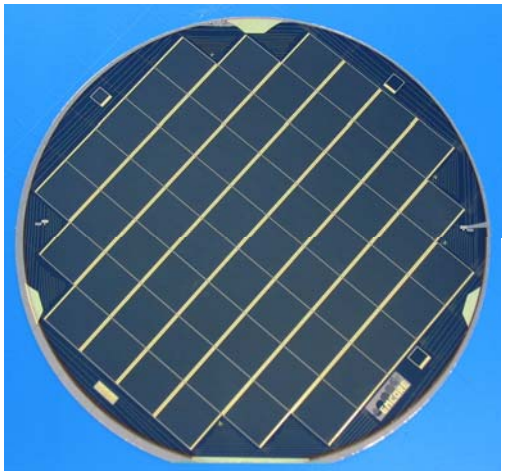
- Expand the government and defense programs through establishment of Trusted Supplier
- Provide more value added products to customers, e.g., solar panels instead of solar cells
- Develop other applications enabled by the high efficiency of multi-junction solar cells.

Concentrator Photovoltaics (CPV)

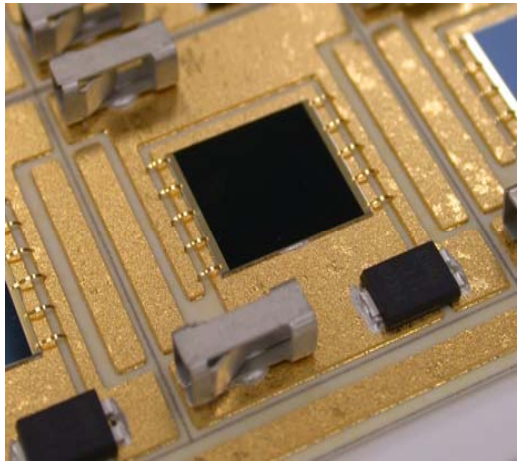
- CPV's energy production is directly related to the amount of DNI available
- To capture DNI, CPV systems require 2-axis tracking to remain in direct line of sight with the sun
- “Sweet spots” for CPV products are geographic areas with optimal DNI conditions and/or attractive incentive programs such as Spain, Italy, China, India, Australia, UAE and southwestern U.S. states



Only Vertically Integrated CPV Supplier



CPV Solar Cells – 60 1x1 cm^2 solar cells on a 4" wafer



CPV Solar Cell Receiver – 1x1 cm^2 cell mounted on a heat sink with electric connectors and a by-pass diode

Gen-III CPV Module – 15 1x1 cm^2 CPV solar cells integrated with 1,090X Fresnel lens, producing 450W power

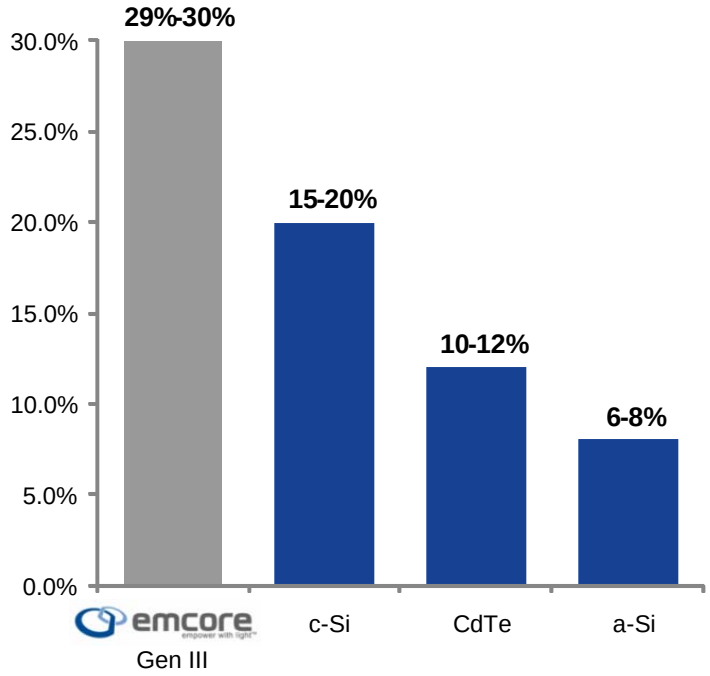
<u>Gen-III CPV System</u> – 36 CPV modules on a tilt-and-roll tracker producing 16.2 kW power

- **System operating on sun for approximately 7 months**
- **Ramping up production tooling and qualification (IEC, CEC)**
- **Very competitive cost platform allowing pricing against silicon and thin film in areas with high DNI**
- **Clear roadmap for continued cost reductions through increases in cell efficiencies, material costs, and system optimization**

Key Advantages of CPV Technology

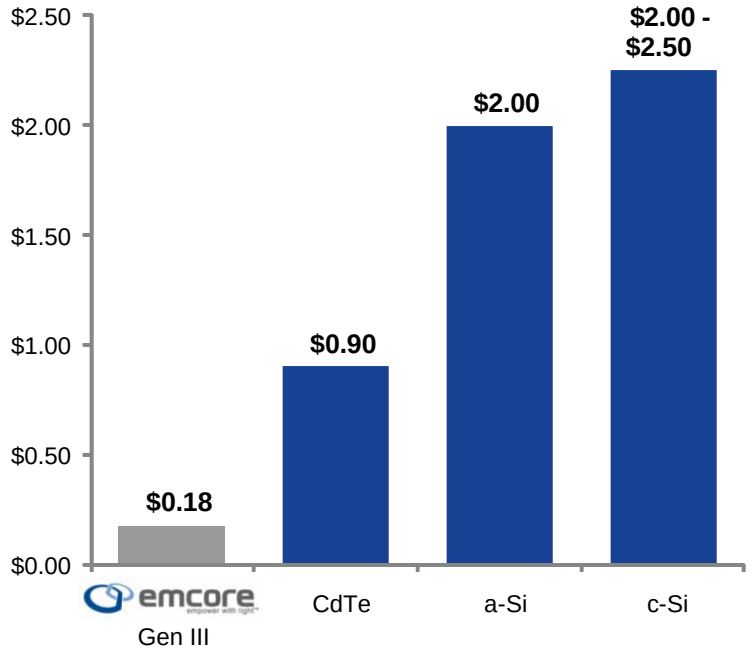
- EMCORE Solar's leading efficiencies increase energy density, which lowers per watt land acquisition costs
- EMCORE Solar's capex expansion costs are a fraction of competitive technologies

Module Efficiency



Source: Wall street research, company filings, EMCORE Solar management estimates

Capex per Watt



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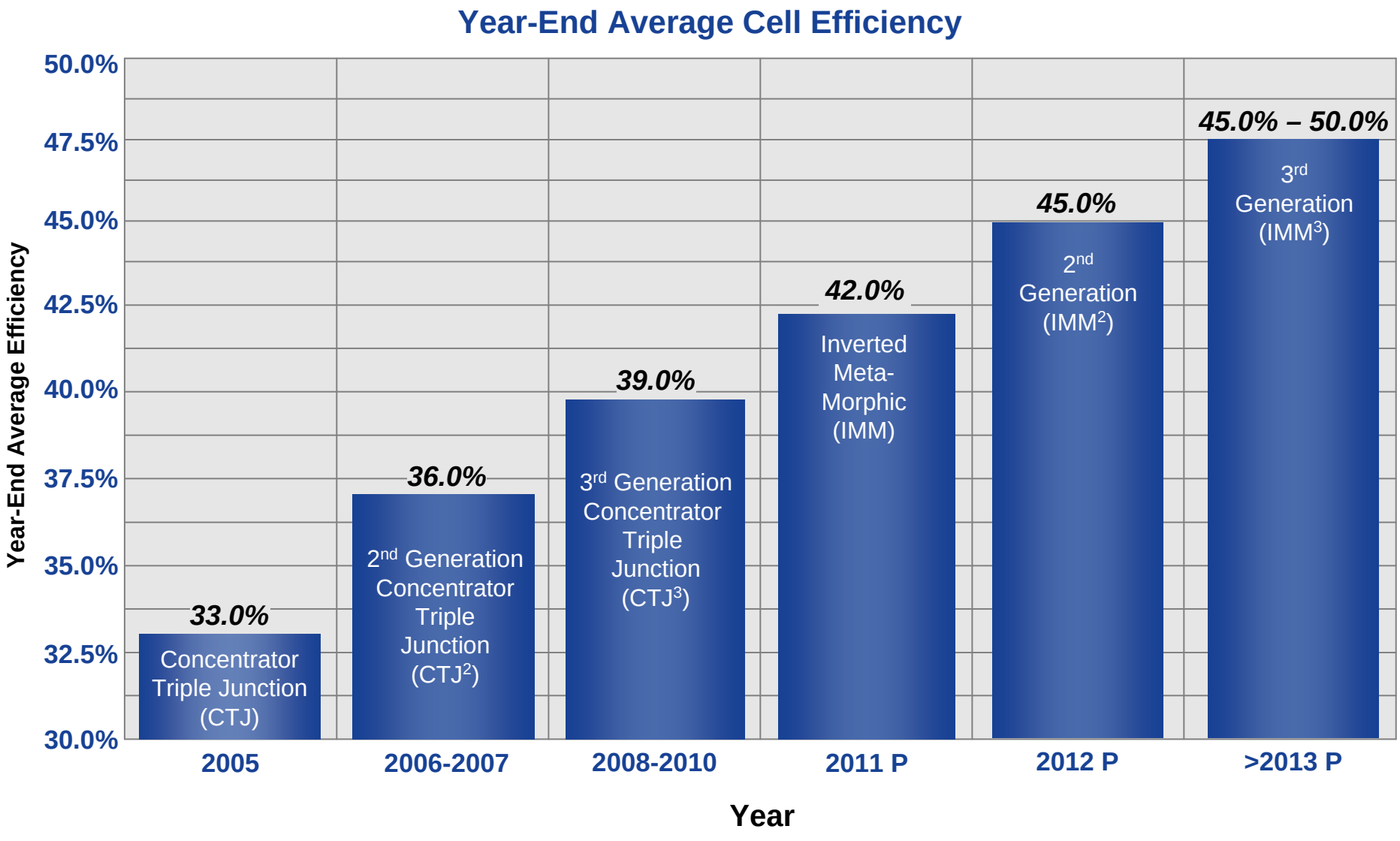
CPV Solar Cell Technology Roadmap



CPV Business Model with the JV

- **Direct P&L**
  - EMCORE continues to sell CPV components and systems & book revenue
  - Products will be manufactured at the China JV and priced at an internal transfer price
  - EMCORE will continue to develop lower-cost CPV cell and system products for its future contribution to the JV through technology
- **P&L from the JV below the line**
  - JV will manufacture and sell EMCORE designed CPV components and systems under a technology licensing to EMCORE and other customers in China
  - EMCORE will consolidate 40% of the JV profit/loss below the line.
- **JV operations is expected to be low cost**
  - CapEx for CPV component and system manufacturing lines will be funded through the cash grant (up to $75M) by Huainan City
  - Land grant of 263 acres from Huainan City as well
  - Working Capital will be provided in a form of loan from our JV partner – San'an
  - Other incentives and subsidies will further reduce the cost of products
  - EMCORE will contribute $12M (40% of the total registered capital) to the JV, of which $8.5M was funded by San'an in a form of consulting fee to Emcore.

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Financial Information

Mark Weinswig, Chief Financial Officer

January 12, 2011

Financial Slide to Recap FY2010

	9/30/2009	FY2009	12/31/2009	3/31/2010	6/30/2010	9/30/2010	FY2010
Revenue	$ 40,527	$ 176,356	$ 42,402	$ 48,194	$ 46,606	$ 54,076	$ 191,278
COGS	38,993	182,666	33,089	32,436	33,797	41,295	140,617
Gross Profit	1,534	(6,310)	9,313	15,758	12,809	12,781	50,661
Gross Margin	**3.8%**	**-3.6%**	**22.0%**	**32.7%**	**27.5%**	**23.6%**	**26.5%**
SG&A	11,736	46,775	12,227	9,023	14,004	7,295	42,549
R&D	6,445	27,100	7,513	7,596	7,147	7,282	29,538
Impairment	-	60,781	-	-	-	-	-
Total Operating Expense	18,181	134,656	19,740	16,619	21,151	14,577	72,087
Operating Loss	**(16,647)**	**(140,966)**	**(10,427)**	**(861)**	**(8,342)**	**(1,796)**	**(21,426)**

	Q4-FY09	Q1-FY10	Q2-FY10	Q3-FY10	Q4-FY10	Q1-FY11
As Reported	$40.50	$ 42.4	$ 48.2	$ 46.6	$ 54.1	
As Planned	$40.50	$ 42.4	$ 48.2	$ 49.8	$ 50.9	$50-53

Sequential Revenue Growth

Key Assumptions for a Financial Model

For FY2011

- **Revenue will be guided for the immediately following quarter**
- **GAAP consolidated gross margin: 22-30%**
- **GAAP operation expenses**
  - SG&A: ~$5M per quarter
  - R&D: ~$8M per quarter
- **Non-cash items**
  - Stock option expenses (SFAS123): ~$1.4M per quarter
  - Depreciation: ~$2.5M per quarter
  - Amortization: ~$0.6M per quarter
  - Other non-cash: $0.6M per quarter
- **NOL: ~$200M for tax liability exemption**

Key Investment Considerations

- **Telecom/Datacom Fiber Optics**
  - Tunable ECL laser for 40 &100 Gb/s
  - Tunable TOSA and XFP for 10 Gb/s
  - Parallel optic module & active cable
- **Terrestrial CPV Solar**
  - The only vertically integrated player from “cell-through-system”
  - JV manufacturing & IMM solar cells low-cost CPV & business growth

Emerging and near-term growth opportunities

Support

- **Broadband Fiber Optics**
  - Market and technology leader
  - CATV infrastructure upgrade continues within the HFC network
- **Space Solar**
  - Market and technology leader
  - Robust visibility & growth potential through government programs

Robust and profitable business units

The Company Is Poised to Grow and Deliver Improved Profitability

Key Investment Considerations

- **Space Solar**
  - Market and technology leader
  - Robust visibility & growth potential through government programs
- **Terrestrial CPV Solar**
  - The only vertically integrated player from “cell-through-system”
  - Low-cost manufacturing through JV and advanced technology roadmap enabling price competitiveness and business growth.
- **Broadband Fiber Optics**
  - Market and technology leader
  - CATV infrastructure upgrade continues within the HFC network
- **Telecom/Datacom Fiber Optics**
  - Launch of disruptive tunable laser technology platform
  - New product introduction to capture new markets and applications

The Company Is Poised to Grow and Deliver Improved Profitability

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