

The Global PV Value Chain

Presented to the NAS Symposium

**“The Future of Photovoltaic
Manufacturing in the United States”**



SUNPOWER
Smarter Solar

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**Dick Swanson
President and CTO**

Safe Harbor Statement

This presentation contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Forward-looking statements are statements that do not represent historical facts. We use words and phrases such as "believe," "plan," "will," and "expect" and similar expressions to identify forward-looking statements. Forward-looking statements in this presentation include, but are not limited to, our plans and expectations regarding our cost reduction roadmap, cell manufacturing ramp plan, financial forecasts, future government award funding, future solar and traditional electricity rates, and future percentage allocation of SunPower solar panels within our systems business. These forward-looking statements are based on information available to us as of the date of this release and our current expectations, forecasts and assumptions. They involve a number of risks and uncertainties, some of which are beyond our control and could cause actual results to differ materially from those anticipated, including an industry-wide shortage of polysilicon, potential downward pressure on product pricing as new polysilicon manufactures begin operating and the worldwide supply of solar cells and panels increases, the possible reduction or elimination of government and economic incentives supporting the use of solar energy, our ability to ramp new production lines and realize expected manufacturing efficiencies, the success of our ongoing research and development efforts, the challenges to reducing costs of installed solar systems by 50% by 2012 to maintain competitiveness, the continued availability of third-party financing for our customers, difficulties in maintaining or increasing the Company's growth rate and managing such growth, accurately predicting warranty claims, and other risks described in our Quarterly Report on Form 10-Q for the quarter ended Sept. 28, 2008, and other filings with the Securities and Exchange Commission. These forward-looking statements should not be relied upon as representing our views as of any subsequent date, and we are under no obligation to, and expressly disclaims any responsibility to, update or alter our forward-looking statements, whether as a result of new information, future events or otherwise.

Note that the financial information includes, and identifies as such, non-GAAP financial information. Management will provide a reconciliation to GAAP for this financial information.

SunPower's History

- § Created in 1985 to commercialize high-efficiency, all-back contact cell technology developed at Stanford University
- § Original funding from VCs, DOE, and EPRI
- § Initial product was utility scale concentrator dish
- § NASA & Honda early customers
- § 1990's: Great technology, high cost



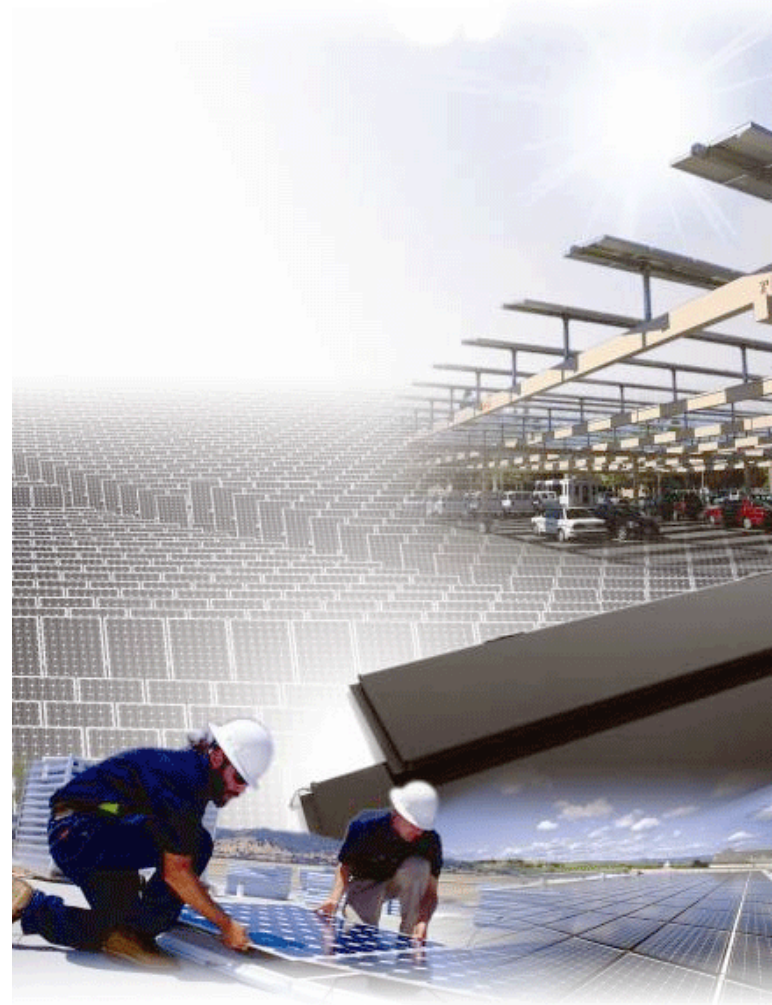
Corporate Overview

- § Merged with Cypress Semiconductor in 2000
 - Brought semiconductor manufacturing knowhow
- § IPO - 2005
- § Manufacturing: Philippines, US
- § Highest-performing solar electric systems worldwide
- § Deliver most energy/m²
- § 500 systems / 400 MW



PowerLight Acquisition

- § Acquisition closed January 10, 2007
- § PowerLight incorporated in 1995
 - Worldwide Leader Large Solar Systems
 - Innovator: > 70 patents/applications
 - 89% CAGR 1997-2006
- § Showcase power plants include:
 - 14 MW Nellis Air Force Base, Nevada
 - 11 MW Serpa Power Plant, Portugal
 - 10 MW Bavaria Solar Plant, Germany



Global Reach

Mission

- § As the leader in delivering innovation and complete solar energy solutions to our customers, we work as a team to continuously set new standards for systems performance, value, appearance and customer experience.
- § We will compete with retail electric rates by reducing system cost by 50% by 2012.



SunPower Applications

Residential Retrofit



New Production Homes



Commercial & Public



Power Plants



Sunset Home, Silicon Valley, CA

4 kW, SunPower Solar Electric System



FedEx Express Oakland Hub, CA—904 kW



U.S. DOE Headquarters SunPower Solar System



Nellis Air Force Base, Las Vegas, 14MW

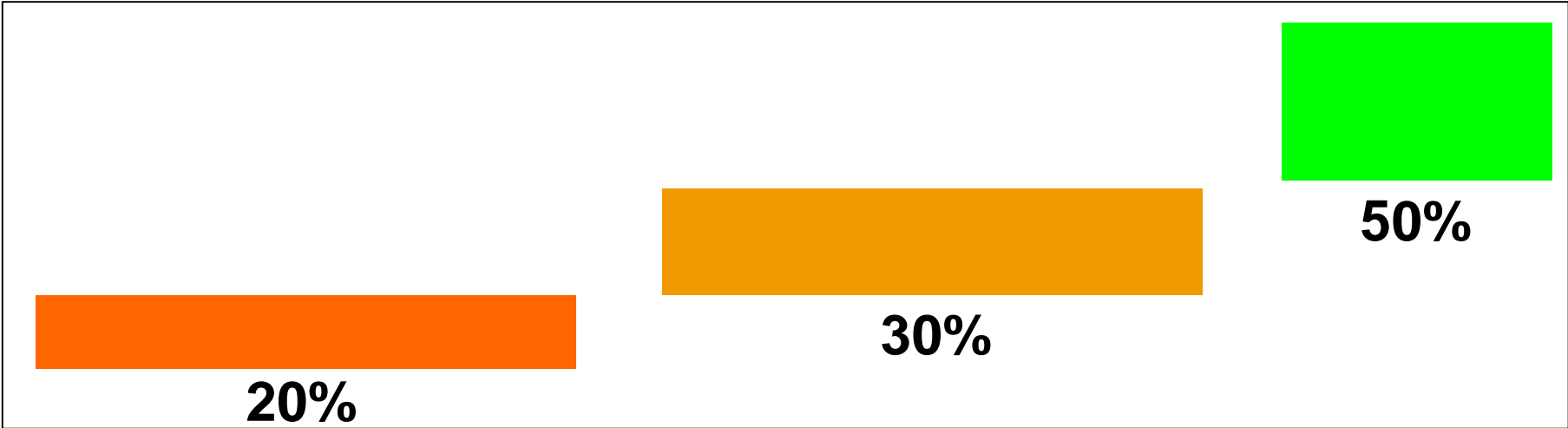


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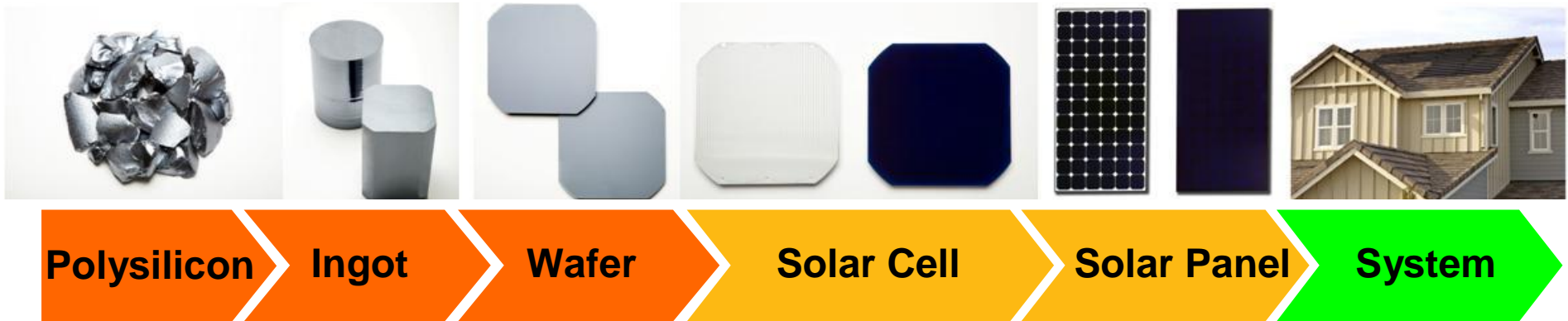
Value Chain Cost Distribution



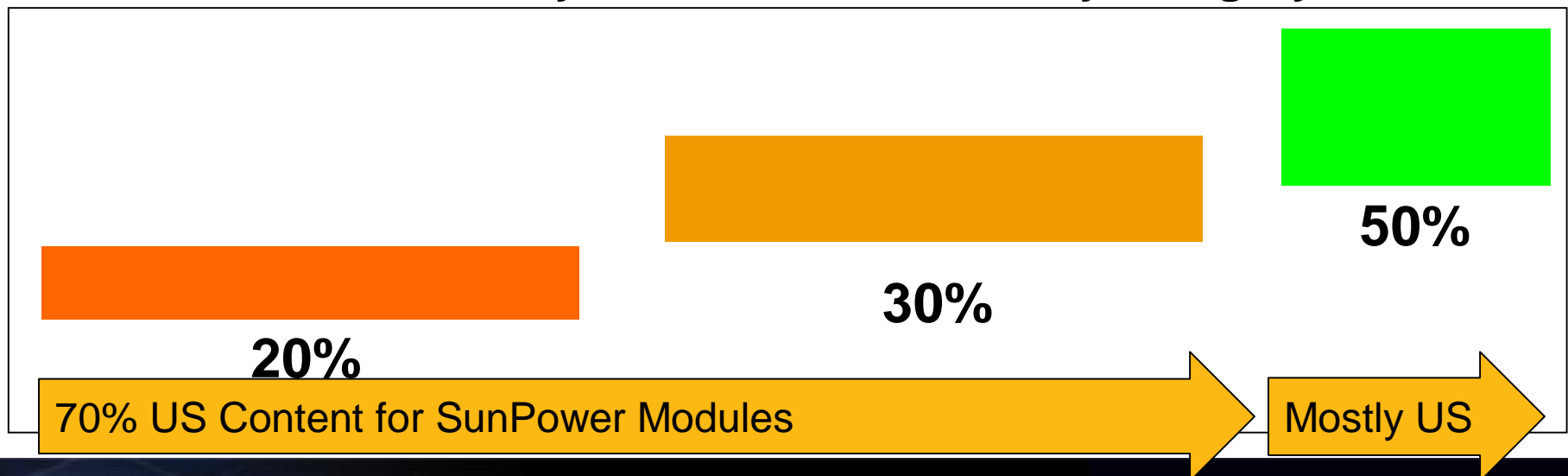
2006 US Solar System Cost Allocation by Category



Value Chain Cost Distribution



2006 US Solar System Cost Allocation by Category



Polysilicon

Polysilicon

Ingot

Wafer

Solar Cell

Solar Panel

System



Hemlock Polysilicon Plant, Michigan

Polysilicon Suppliers

Polysilicon

Ingot

Wafer

Solar Cell

Solar Panel

System

Company	Location	Equipment Suppliers	Location
Hemlock	US	GT Solar	US
REC	US		
MEMC	US		
Wacker	Germany		
DCC	Korea		
M-Setek	Japan		

SunPower JV with Woongjin Energy (Korea)

Polysilicon

Ingot

Wafer

Solar Cell

Solar Panel

System



Ingot Suppliers



Company	Location	Equipment Suppliers	Location
Woongjin	Korea	Mitsubishi	Japan
Solaicx	US	Kayex	US
M-Setek	Japan		
Wacker	Germany		
DCC	Korea		
M-Setek	Japan		

Labor content: 25-50 people per 100 MW/yr

Wafer Suppliers



Company	Location	Equipment Suppliers	Location
FPSC	Philippines	AMAT	US/Switz.
M-Setek	Japan	Meyer Berger	Switzerland

Labor content: 75-150 people per 100 MW/yr

SunPower Solar Cell Manufacturing-Philippines

Polysilicon

Ingot

Wafer

Solar Cell

Solar Panel

System



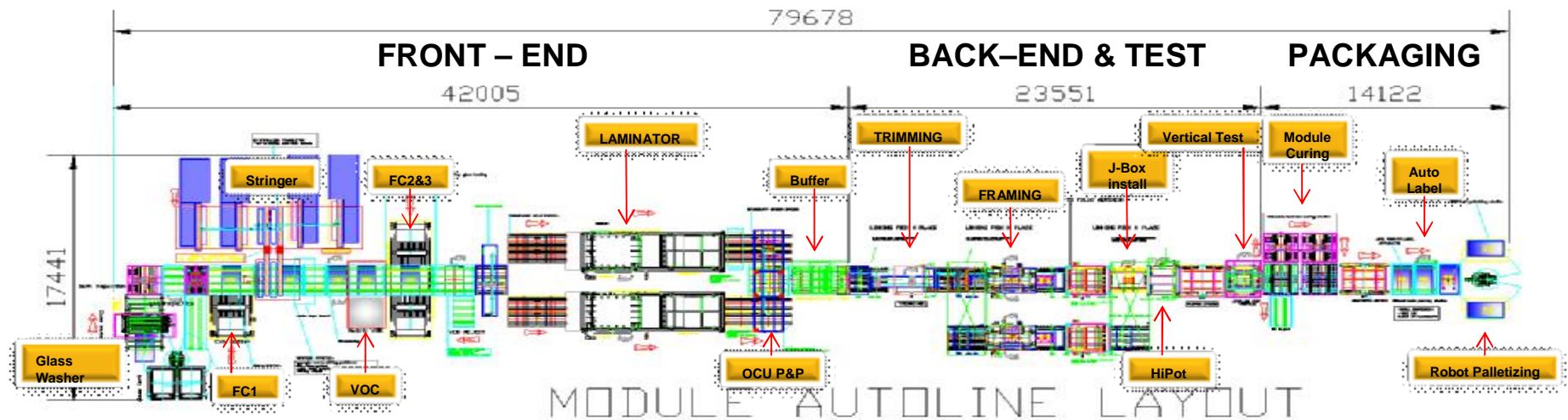
SunPower Solar Cell Manufacturing



Company	Location	Equipment Suppliers	Location
SPML	Philippines	AMAT	US/Switz./It.
Malaysia	Malaysia	Kurdex	US
		SierraTherm	US
		MRL	US
		OTB	Holland
		Korvis Autom.	US

Labor content: 300-600 people per 100 MW/yr

SunPower's SAI Autoline Regional MODCOs



Labor content: 150-300 people per 100 MW/yr

SunPower's SAI Regional MODCO



Company	Location	Equipment and Material Suppliers	Location
Cont. Mfg.	Regional	Dow Corning	US
		Guardian	US
		STR	US
		TYCO	US
		Komax	US
		Korvis	US

Autom.

Minimum Size: 100 MW/yr

Labor content: 200-300 people per 100 MW/yr

SunPower's SAI Regional MODCO

Polysilicon > Ingot > Wafer > Solar Cell > **Solar Panel** > System

Advantages of Regional MODCOs

Reduces glass shipping cost

Reduces module shipping cost

Reduces cycle time allowing for better product match

Reduces dollars tied up in inventory

Faster customer response

Reduces capital expense through automation and standardization

SunPower's System Integration



Company	Location	Equipment and Material Suppliers	Location
SunPower	Regional	Steel	US
		Concrete	US

Labor Content: 250 people per 100 MW/yr	
Electricians	Supply chain
Steel	Civil Engineers
General labor	Field Inspectors
Electrical Engineers	O&M
Construction Managers	

Designed for local final assembly



SUNPOWER®

Designed for fast, easy, low-cost installation



Achieved 2 MW per day installation rate

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THANK YOU

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