

JA SOLAR

JA Solar Company Presentation

- September, 2013



Company Overview



Headquarters

Shanghai, China (with EU, US & Japan Offices)

Founded / IPO

May 2005 / February 2007 JASO (NASDAQ)

Business

c-Si solar module , cell & system supplier

Shipments

1.7GW in 2012

Product Highlights

High efficiency, reliability

Capacity (Annual)

1.8 GW Module, 2.5 GW Cell, 1.0 GW Wafer

Mission

Mission: Responsible Partners

Employees

9,784 as of December 31, 2012

Selectively Optimized Vertically Integrated Model

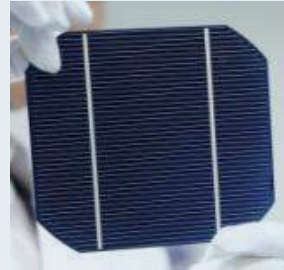
Polysilicon



Silicon wafer



Cell



Module



System



Solar wafers

- Low-cost, high-quality production
- Leading the industry in high-efficiency wafer research

Solar cells

- One of the world's largest manufacturers
- Recognized for top tech at low cost
- High-performance mono- and multi-crystalline solar cells

PV modules

- High-quality product with high-quality BOM
- Additional channel for product distribution
- Working with leading brands on OEM modules

EPC

- Partnering with top-tier developers in China
- Cooperation with global leading IPPs on utility scale projects

...with State-of-the-art Production Facilities



TOP 10 c-Si cell manufacturer in the world

Rank	2010	2011	2012
1	JA SOLAR	JA SOLAR	Yingli
2	Suntech	Suntech	JA SOLAR
3	Sharp	Trina	Trina
4	Q-Cells	Yingli	Suntech
5	Trina	Motech solar	Motech solar
6	Yingli	Hareon	Gintech Solar
7	Motech	Gintech solar	Canadian Solar
8	Gintech	Q-Cells	Jinko
9	Kyocera	NEO Solar	NEO Solar
10	Others	Canadian Solar	Sunpower

Source: IMS & SolarBuzz, 2012

World's Fastest-growing Leading Module Manufacturer

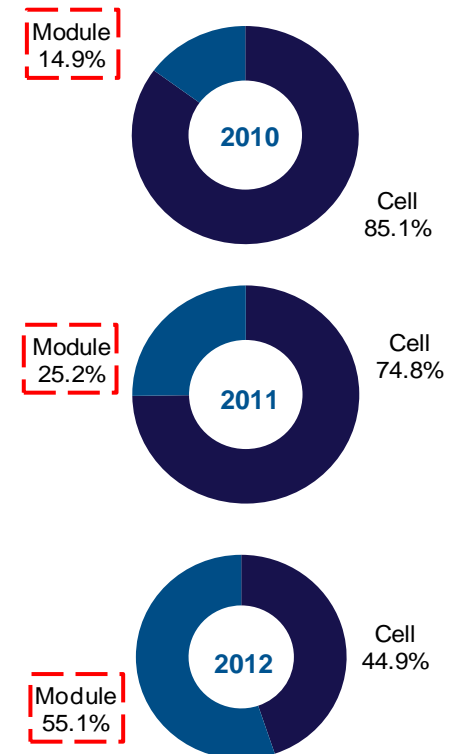


- Module shipment ranked 8th globally in 2012, increasing 7 spots YoY
- Successful transformation into a major module supplier

Top 10 PV Module Suppliers in 2012

2012 Rank	Module Supplier	Change from 2011
1	Yingli Green Energy	+1
2	First Solar	+2
3	Suntech	-2
4	Trina Solar	-1
5	Canadian Solar	-
6	Sharp Solar	-
7	Jinko Solar	+2
8	JA Solar	+7
9	SunPower	-1
10	Hanwha SolarOne	-3

Shipments (% of total MW shipped)



Experts Rank JA Solar Amongst Future Leaders

■ April 2012: Financial Times Germany

Report on a study on the solar industry by the strategy consultancy Simon-Kucher identifying companies with strong financials.

- Germany: Solarworld, Aleo, Payom, Solarfabrik
- USA: First Solar
- China: JA Solar, Trina

Source: *Die Solarbranche kann es noch schaffen*, April 13, 2012.
Financial Time Deutschland



■ August 2012: China Development Bank

JA was enlisted to be one of the top Chinese solar manufacturers whose credit lines are supported by CDB and other major domestic commercial banks.



■ Sep.2012: Goldman Sachs 'Transforming China' Report

JA placed at long term hold.

Predicted to become industry survivor and amongst leaders



■ October 2012: GTM Research USA

Researchers placed JA Solar in the forecasted 9 major global module manufacturers of 2015.

http://www.pv-magazine.com/news/details/beitrag/dead-manufacturers-walking--study-predicts-solar-firms-survival_100008863/#axzz29Xwhi700





Innovation – Highest Efficiency in Main Stream Cells & Modules (P-type, 80% market share in the world)

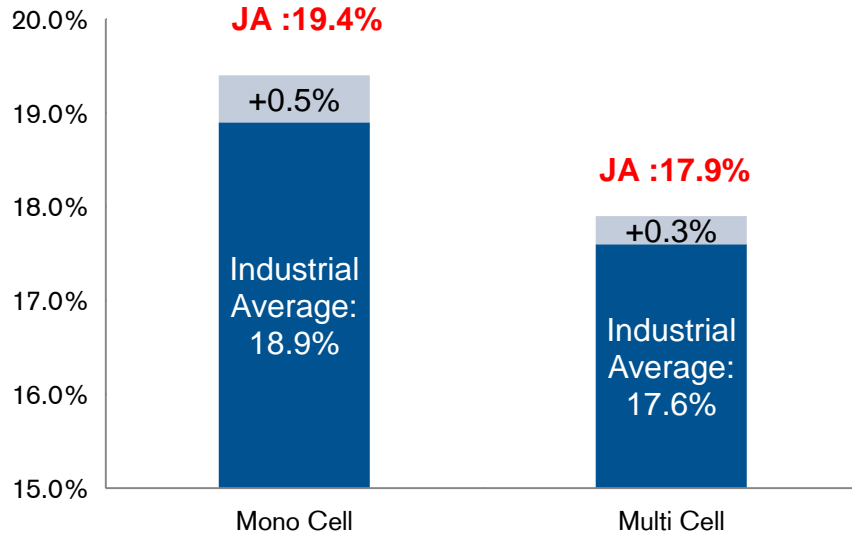
■ CYPRESS Series high efficiency solar cell

- Average efficiency in mass production:
 - Mono-crystalline cell: **19.4%**
 - Multi-crystalline cell: **17.9%**
- Excellent solderability
 - Application of double printing technology in production enhances solderability

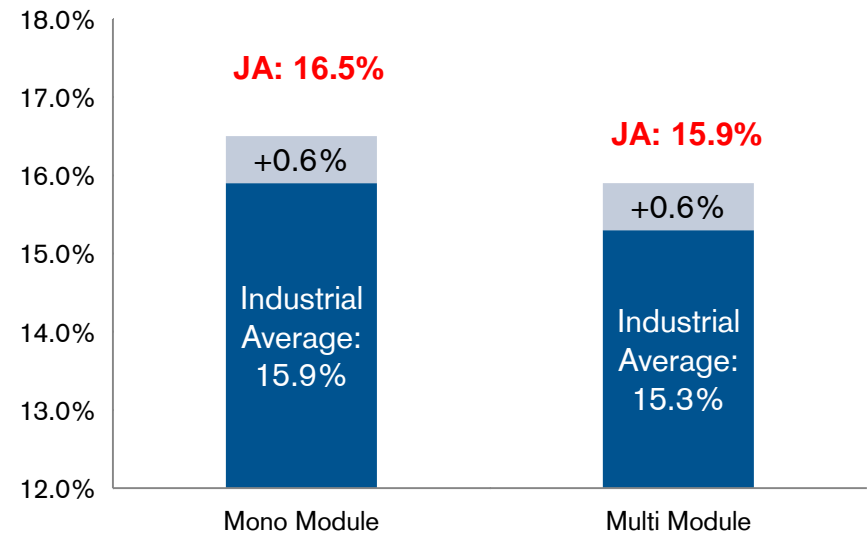
■ High efficiency solar module

- Average efficiency in mass production:
 - Mono-crystalline module: **16.5%**
 - Multi-crystalline module: **15.9%**
- Reliable Quality
 - 100% EL double-inspection ensures modules are defect free
 - Potential Induced Degradation (PID) Resistant

High efficiency cells in mass production



High efficiency modules in mass production



■ High efficiency and low cost solar cell and module technology

- Innovative solar cell technology
 - ▶ PERCIUM Solar Cell (P-type): ~20.1%
 - ▶ BYCIUM Solar Cell (N-type): >20.1%
 - ▶ WRACIUM Back-contact Cell: ~ 18.6% (Poly), ~19.9% (Mono)
- Proprietary technology and innovative processing to continuously improve solar cell conversion efficiency
 - ▶ DT(Dry Texturing) Poly Cell: >18.3%
- Develop new module manufacturing and system integration technology based on existing high efficiency cell technology
- Long-term research for next generation PV cell and module technology

Mono



Multi



Black Silicon Cell (Multi.)



■ Long-term Reliability Test

- DH1000 to DH3000
- TC200 to TC600
- Mechanical load test 5400Pa to 10000Pa
- HAST test DH1000 to 121°C and 100%RH
- PID test: -1000V, 85°C、85%RH, 96h
- Thresher test: HF 30, Hot Spot 20h



■ Special Test Certification & Factory Audit Program

- TÜV-Rheinland Ammonia Resistance Test Certificate
- Intertek Salt Fog Spray Test Certificate
- TÜV-NORD Salt Mist Spray Test Certificate
- Certificate for H₂S Acid Test
- Overall Factory Audit by Third-party PI-Berlin



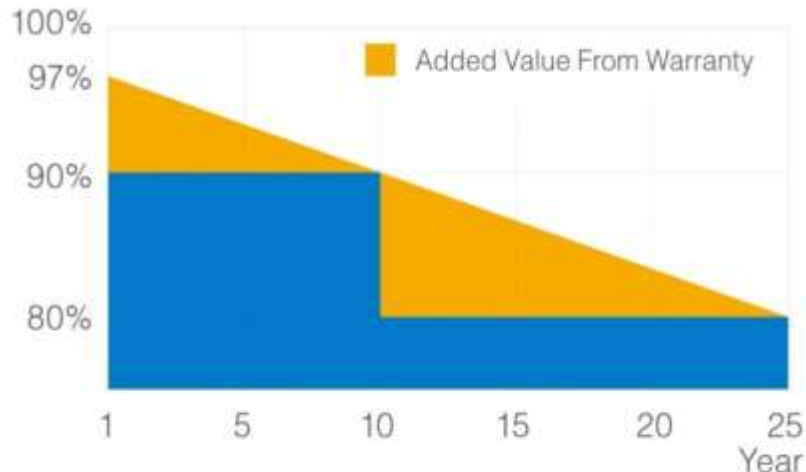
■ Customized Services, caring for clients' unique demand

- Process
- Planning
- Quality assurance

■ Prompt Response

- Immediate feedback within **24** hours
- Service E-mail: services@jasolar.com

■ Linear Warranty



- ✓ 10 year warranty on material and workmanship
- ✓ 25 year linear power output warranty

“The linear warranty of JA Solar modules offers the additional insurance of electricity generation, they even offered retroactive warranty upgrade for modules originally purchased under the staircase warranty.”

– Customer A

Global Service Network

Japan



Germany



U.S.A



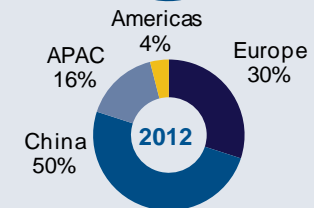
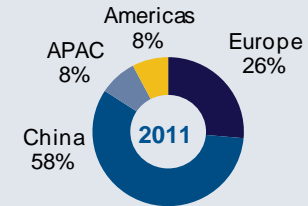
Globalization Market Strategy – Well Positioned in Major Emerging Markets

- **Japan:** Top 2 Chinese module supplier in year of 2012 and 1H 2013.
- **Middle East:** No.1 Chinese module supplier in 1H 2013.
- **China:** 3rd largest module supplier in 2012.
- **Other APAC market:** India, Thailand breakthroughs
- **Africa Market:** Morocco breakthroughs

Source: Solarzoom & China Customs

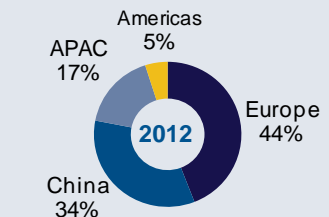
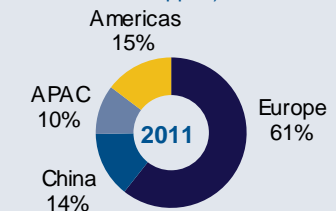
Total shipments by region

(% of total MW shipped)



Module shipments by region

(% of total module MW shipped)



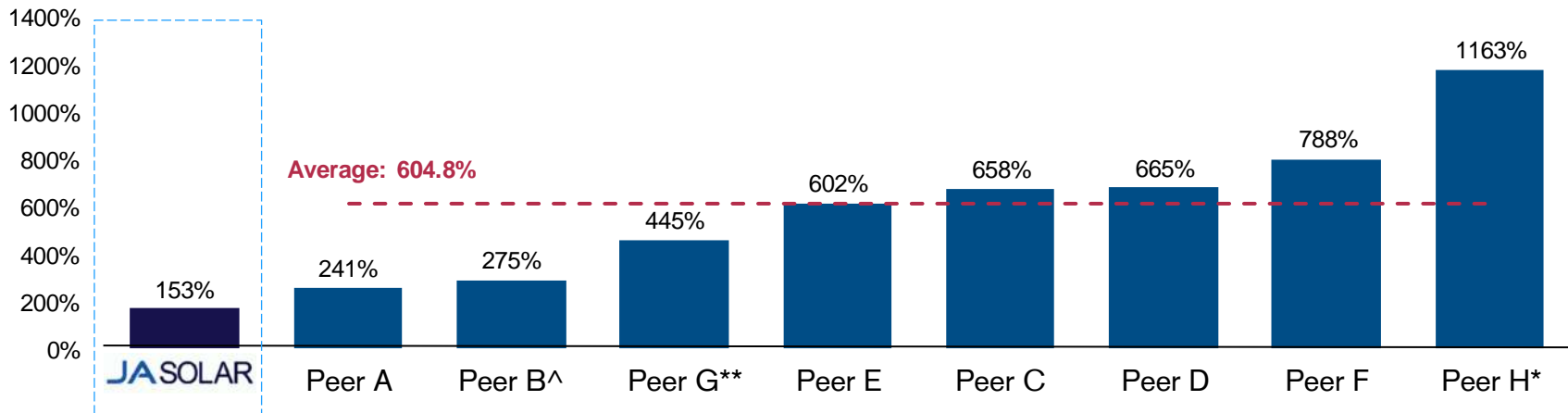
Globalization Market Strategy – Selected Strategic Partners

- JA Solar has established long-term strategic partnerships with various leading corporations around the world.

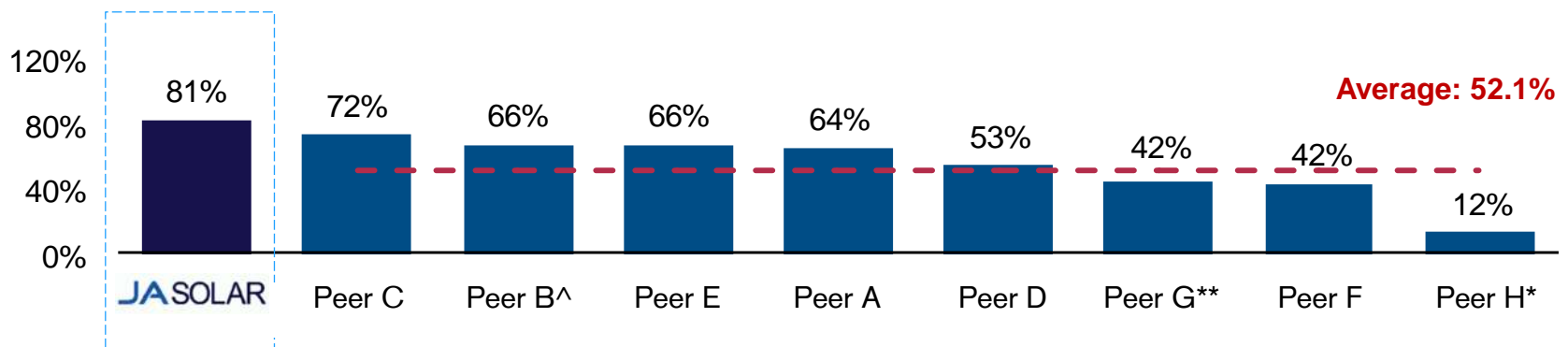


Healthy Financial Conditions – Strong Credit Profile Relative to Peers

Total Liabilities / Total Equity



Cash & Cash Equivalent⁽¹⁾ / Short-term Borrowings



Source: Company filings.

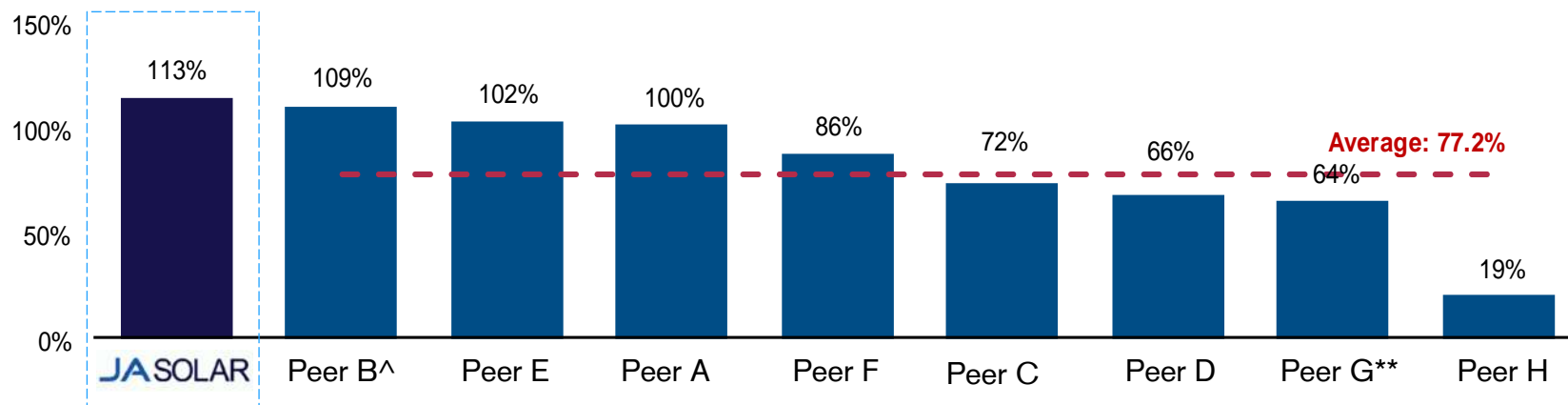
Note: Balance sheet figures are as of 6/30/2013 (except ** as of 3/31/2012, ^ as of 3/31/2013).

Peer H* Total Liabilities / Total Equity value is negative, illustrated in absolute value for comparison purpose

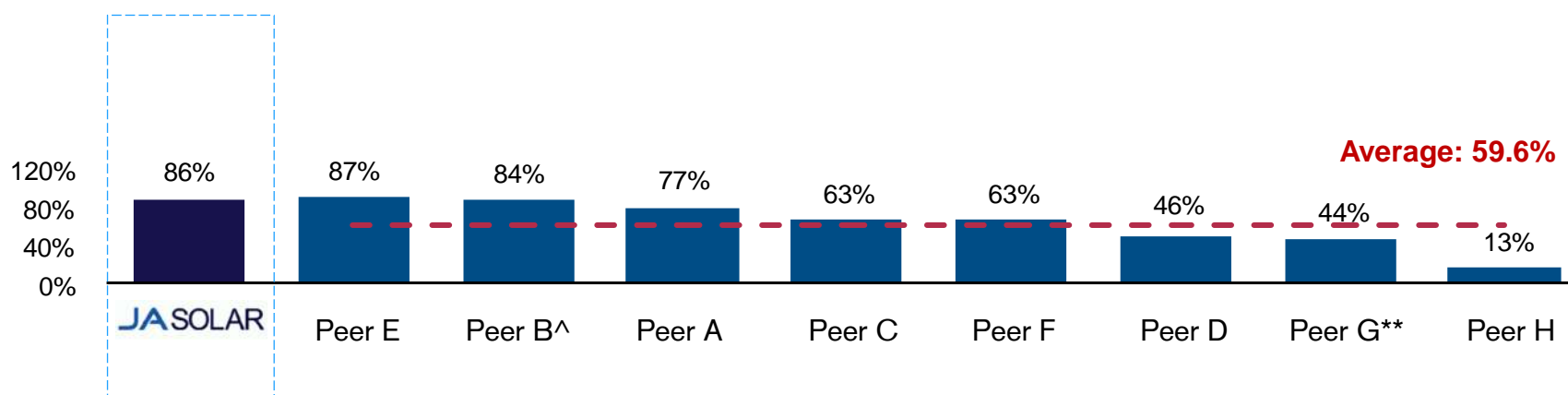
(1): including restricted cash

Healthy Financial Conditions – Ability to Meet Short-term Obligations

Current Ratio



(Current Assets – Inventories – Short-term Pre-payment) / Current Liabilities



Source: Company filings.

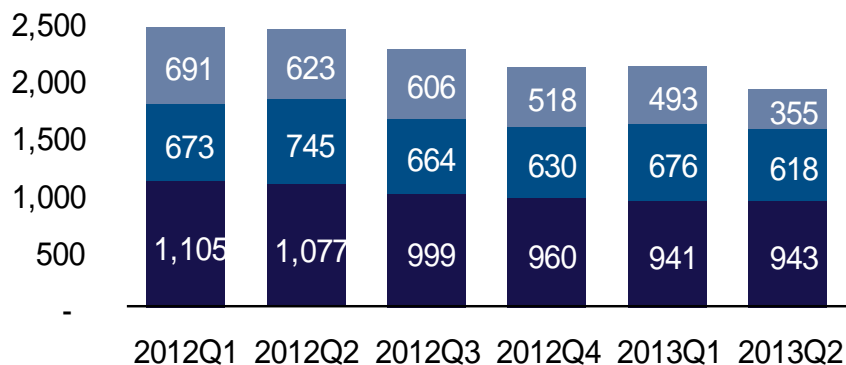
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Healthy Financial Conditions – Strong Balance Sheet for Future Growth

- Strong cash position and unused credit lines provides adequate liquidity to ensure sustainable development.

Assets

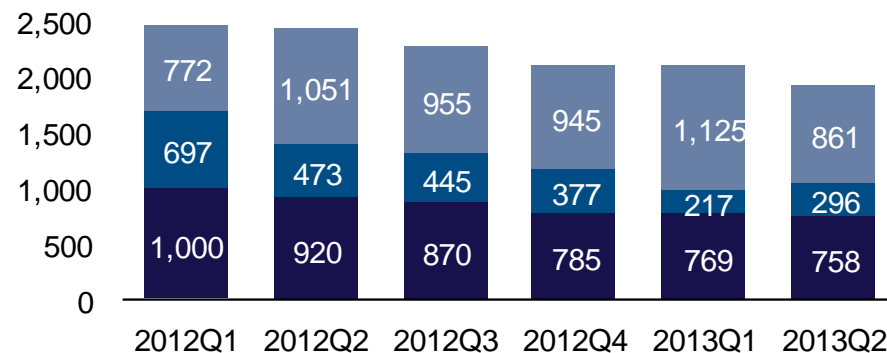
(US\$ million)



- Non-Current Assets
- Current Asset Excluding Cash & Cash Equivalents
- Cash & Cash Equivalents

Liabilities and Stockholders' Equity

(US\$ million)



- Stockholders' Equity
- Non-current Liabilities
- Current Liabilities

(1) Includes restricted cash

(2) All figures converted from RMB to USD using exchange rates of 6.285, 6.298, 6.353, 6.285, 6.230 at 12/31/2011, 3/31/2012, 6/30/2012, 9/30/2012, and 12/31/2012 respectively.

Recent activities to further strengthen our balance sheet

- Successfully closed a registered direct offering of up to \$96 million.
- Extended the terms of an outstanding loan with the Hefei High-tech Development Committee in the amount of \$234.6 million.
- Together with Jinglong Group, secured RMB 550 million loan with Bank of Communications of China. Of the RMB 550 million, RMB 250 million (roughly \$41 million) will be available to JA Solar.

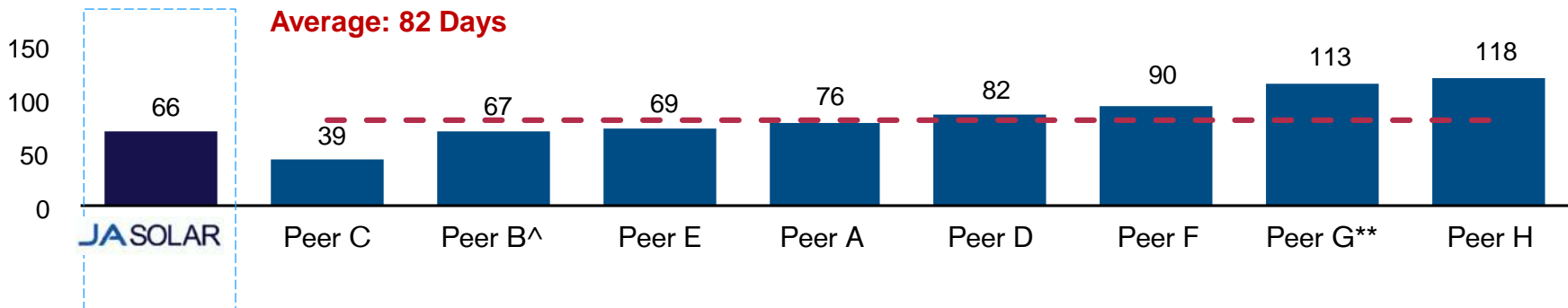
Supported by Leading Banks



Healthy Financial Conditions – Strong Operation Management

- Prudent inventory control and working capital management ensure long-term viability.

Days of Inventory (DOI)

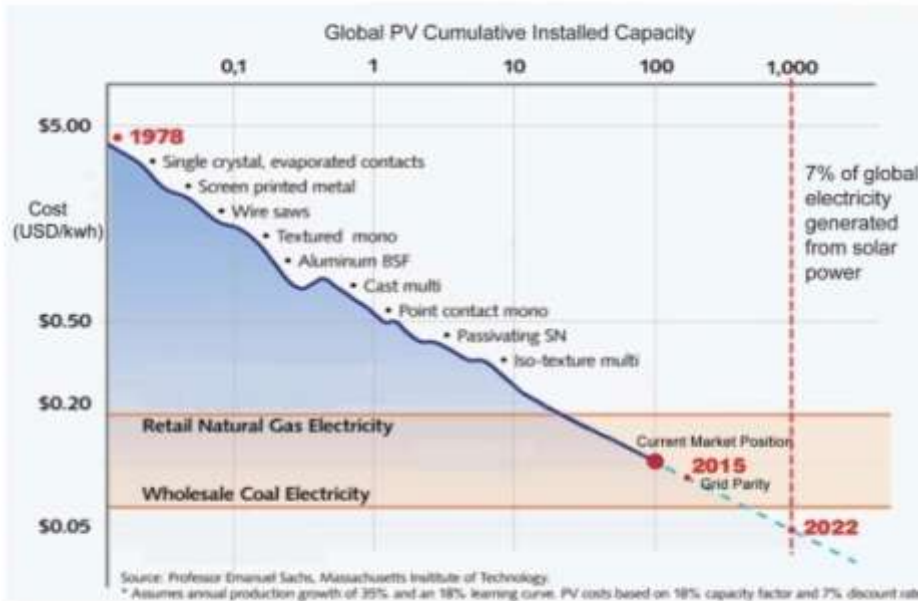


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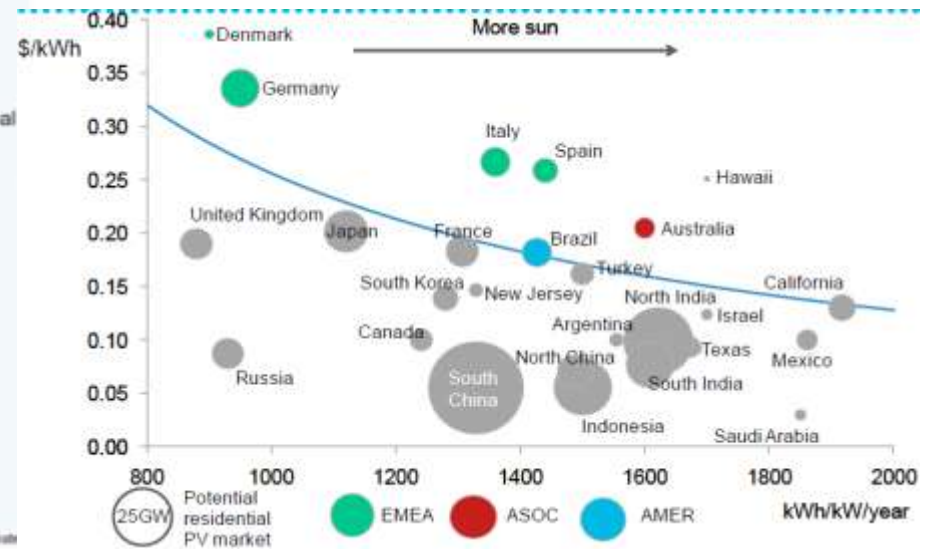
CSR – the Upcoming “Grid Parity” era

- By the end of 2012, the global PV cumulative installed capacity reached 100GW, the cost of PV power generation has been lower than the retail price of natural gas.
- The decline in the cost of PV power generation is faster than the projection of Professor Sachs. Currently, some regions with high consumer electricity price and rich solar irradiation have already reached “grid parity”.



Source: Professor Emanuel Sachs, Massachusetts Institute of Technology

Residential Grid Parity Regions in 2013



Source: Bloomberg, 2012

- **Germany:** JA Solar is the Chief Official Sponsor of German Cycling Federation.



- **USA:** Donated modules to Stanford University for its construction of the Bioengineering & Chemical Engineering building.



- **China:** Sponsors Peking University, Tsinghua University, and Tongji University in their participation at the “Solar Decathlon SD”.



- **Haiti:** Following Haiti’s earthquake, JA donated PV modules to the local fish farmers for electricity generation



Thank You