

**Taiwan Investment Forum 21 April 2011** 

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### Agenda



- 1 Corporate Overview
- **2** Critical Success Factors
- **3** Financial Performance
- **4** Business Review
- **5** Future Plans and Strategies
- 6 Q&A



# **Corporate Overview**



#### **Company Overview**





#### Overview

- Established in Jinzhou, Liaoning Province since 2000
- Top player in China in terms of the capacity of monocrystalline silicon solar ingot
- Vertical integration strategy:
  - 800MW monocrystalline ingot capacity
  - 600MW wafer capacity
  - 300MW cell capacity
  - 50MW module capacity
  - System installation

#### Market Data

- Listed in Hong Kong since
   31 March 2008 (00757.HK)
- Listed in Taiwan since11 December 2009 (9157.TT)
- Net asset value of RMB1,645.7 million as at 31 December 2010
- 1,807 million shares in issue
   (2,242 million shares in issue if all convertible bonds are converted into new shares)

A leader in MONOCRYSTALLINE SILICON SOLAR INGOT production in China with a VERTICALLY-INTEGRATED BUSINESS MODEL from ingot to system.

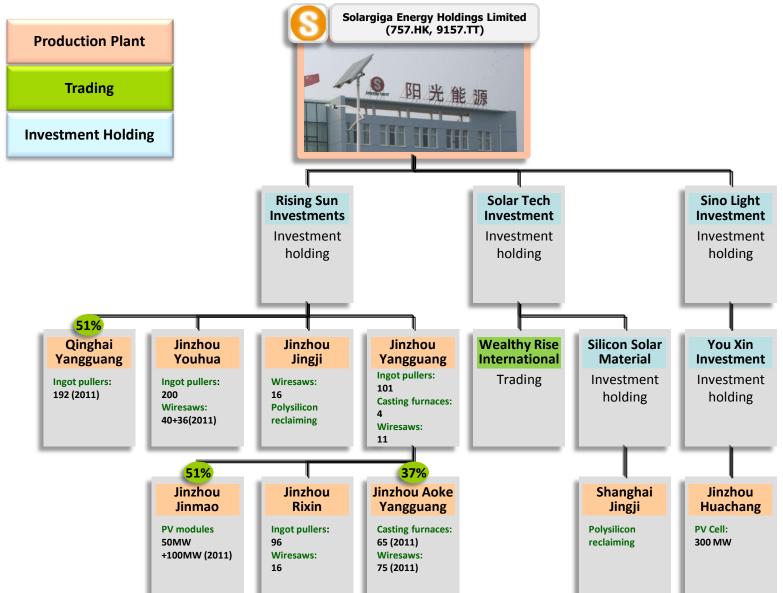
# **Shareholding Structure**



		As at 31.12.2010	After CB Conversion	
Tan Wenhua and his associates		26.46%	27.56%	
Wafer Works Corp.	WAFERWORKS	19.05%	15.35%	
Chong Kin Ngai		4.63%	5.22%	
Sumitomo Corporation	Sumitomo	1.23%	0.99%	
Other Directors		1.20%	0.97%	
Public shareholders – Hong Kong	HKE	41.90%	45.45%	
Public shareholders – Taiwan (TDR)	TAIWAN, TCK EXCHAN	5.53%	4.46%	

#### **Organisation Chart**





#### **Manufacturing Base**



#### Jinzhou, Liaoning (遼寧錦州)

- Major manufacturing base
- Polysilicon reclaiming and upgrading facilities
- 800MW monocrystalline silicon ingot
- 600MW monocrystalline silicon wafer
- Joint venture project of 500MW multicrystalline silicon ingot and wafer which is 37% owned by the Group
- 300 MW photovoltaic cell
- Joint venture project of 50 MW photovoltaic module which is 51% owned by the Group

#### Xining, Qinghai (青海西寧)

- Joint venture project of 400MW monocrystalline silicon ingot which is 51% owned by the Group

#### Shanghai (上海)

- Polysilicon reclaiming and upgrading facilities



#### Joint Ventures



Cooperates with strong players to speed up capacity expansion.



51%

- 400MW Monocrystalline silicon solar ingot production capacity
- Cooperates with the Xining Economic & Technology Development Zone Administration Committee
- Intends to build a 200 kW photovoltaic pilot power plant



**37%** 

- > 500MW Multicrystalline silicon solar ingot and wafer production capacity
- Cooperates with Oxiranchem, listed company on the Chinext of Shenzhen Stock Exchange (300082.SZ)
- Sales of all the output from the production plant will be coordinated by Solargiga.



- 50MW Module production capacity
- Cooperates with Taiwan Kinmac Solar
- Completed 300kW PV project in Binhai New Area of Jinzhou and 16.8kW PV project in Henan Pingdingshan City







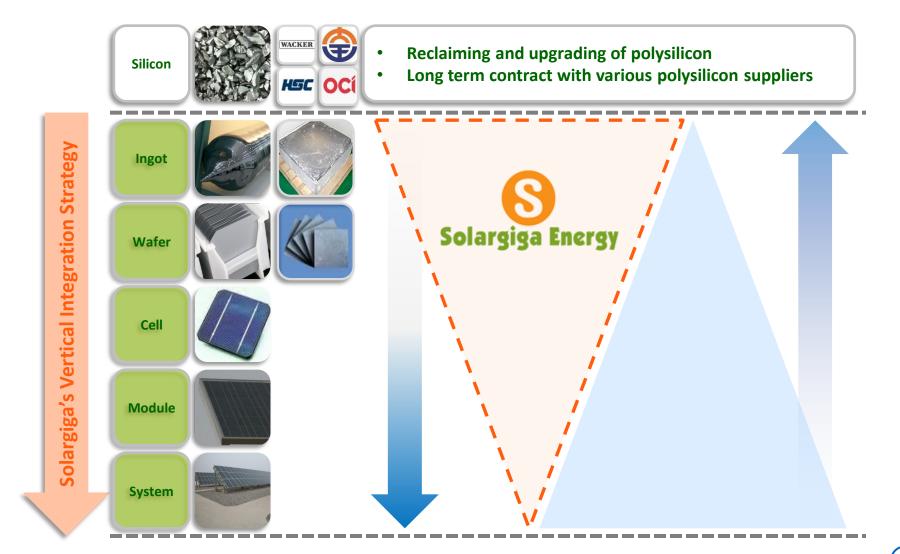


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# Product Range – Vertical Integration Strategy





#### **Customer Base**



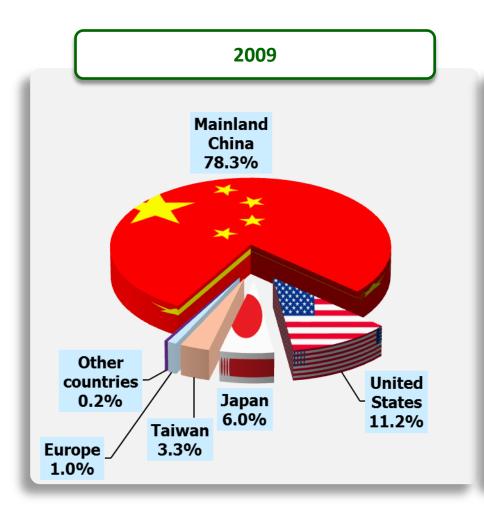
- Well-diversified customer base in the PRC and abroad
- Maintained long-term relationship with customers

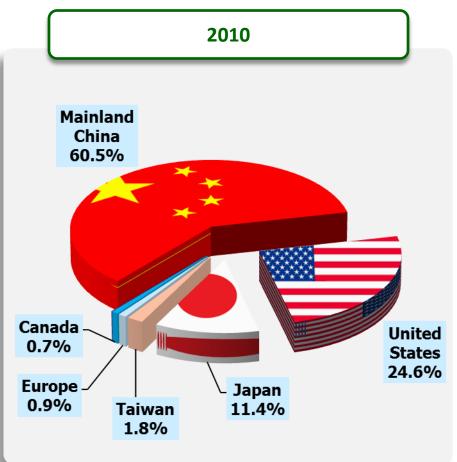


### Customer Base – By Geographical Segment



Expansion in overseas market







#### **Critical Success Factors**



#### **Critical Success Factors**



#### Strong market potential as the largest mono-Si ingot producer in the world

- No. 1 mono-Si ingot producer in China ranked by production volume
- focus on manufacturing of mono-Si ingots/wafers which generated 83% of total revenue in 2010

#### Resilient business model with balanced procurement and OEM processing

- adopt "1/3-1/3" procurement strategy to minimize polysilicon price risk
- 1/3 raw material supply through long-term contracts locking in price level
- 1/3 OEM processing pass over raw material price fluctuation to customers
- 1/3 purchase through spot market to capture price downward potential

#### High quality products with good brand recognition

- the only mono-Si manufacturer winning the national quality exemption certificate in China
- high quality products well-received by its long-term customers such as Sharp and Suniva

#### Competitive cost position due to economy of scale

- lower cost structure through economy of scale and high capacity utilization rate
- co-developed production equipment to improve efficiency and further drive down cost

#### Unique inverted pyramid business model in capturing value chain

- inverted pyramid model developing from ingot/wafers into downstream cell/module business
- external sales at each production step to withstand stringent quality test from third party customers

#### Strong support from provincial and central government in China

- improved solar investment climate in China reflected via PV installation subsidies and preferential tariff
- received 67.5% of the total provincial solar subsidies in 2010



### **Financial Performance**



#### **Results Highlight**



- Increase in market demand, improving product ASP
- Turnover and gross profit margin for the three months ended 31 December 2010 were RMB553.6m and 31.1%, respectively
- Proposed final dividend of RMB3.5 cents (HK4.1 cents) per share to maintain 30% dividend payout ratio.

(RMB million)	2010	2009	Change
Revenue	1,854.8	658.7	+181.6%
Gross Profit	413.8	(5.8)	N/A
Gross Profit %	22.3%	(0.9)%	N/A
Profit from Operations	300.9	(98.8)	N/A
Profit Attributable to Equity Shareholders of the Company	214.1	(98.1)	N/A
Basic EPS (RMB cents)	11.85	(5.75)	N/A
Final Dividend (RMB cents)	3.5	-	N/A

### **Financial Position**



#### Strong financial position

	2009	Change	
1,540.5	1,126.9	+36.7%	
1,113.6	495.5	+124.7%	
3,043.2	2,048.0	+48.6%	
1,397.5	640.7	+118.1%	
1,645.7	1,407.3	+16.9%	
355.4	(66.1)	N/A	
	1,113.6 3,043.2 1,397.5 1,645.7	1,113.6       495.5         3,043.2       2,048.0         1,397.5       640.7         1,645.7       1,407.3	

# **Key Financial Ratios**



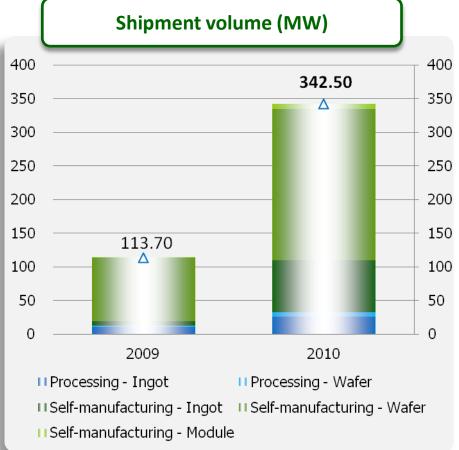
(RMB million)	2010	2009	Change
Turnover day analysis			
Trade Receivables Turnover (Days)	33	77	-44
Trade Payable Turnover (Days)	32	61	-29
Inventory Turnover (Days)	104	230	-126
Gearing Analysis			
<b>Current Ratio (times)</b>	1.4	2.3	-0.9
Net Debt to Equity Ratio (%)	12.3%	5.9%	-6.4 pp
Interest Coverage Ratio (times)	19.7	(4.1)	N/A
<u>Return Analysis</u>			
Return on Assets (%)	6.9%	-4.8%	N/A
Return on Equity (%)	12.9%	-7.0%	N/A

### Revenue and Shipment Volume



- Strong revenue and shipment volume growth, hits record revenue and shipment volume since listing
- Self-manufacturing wafer continues to be the key revenue contributor in FY2010

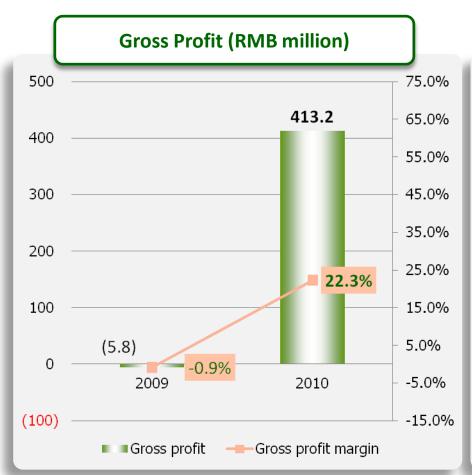


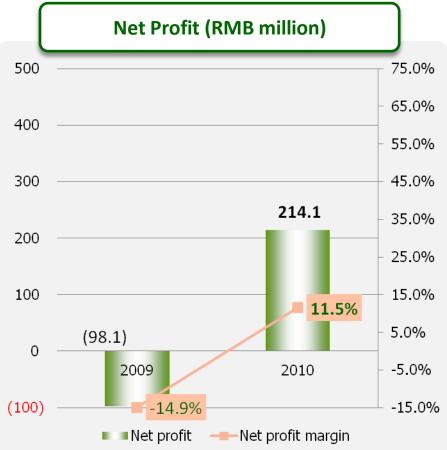


#### **Gross Profit and Net Profit**



#### Turned loss into profit





### Revenue - Quarterly by Business Segment



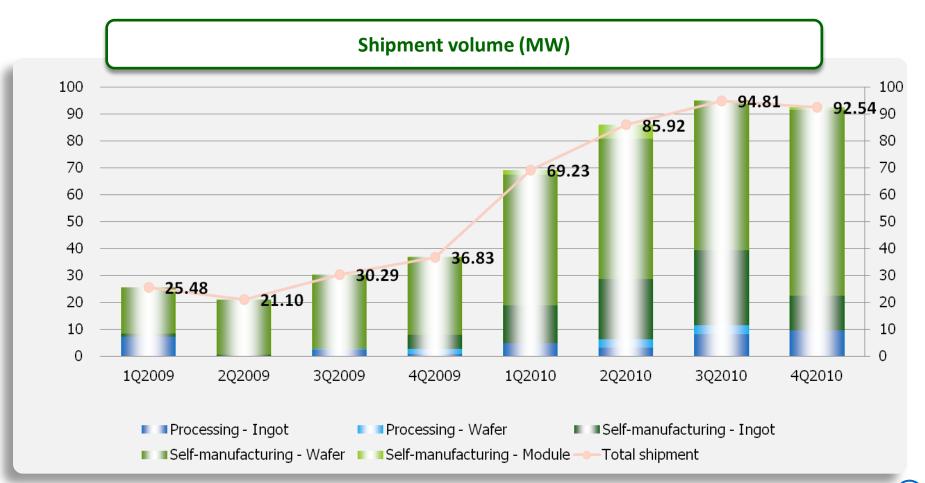
- Strong revenue growth quarter-on-quarter
- Self-manufacturing ingots and wafers contributes over 84% to the revenue in FY2010

(RMB million)	1Q2009	2Q2009	3Q2009	4Q2009	FY2009	1Q2010	2Q2010	3Q2010	4Q2010	FY2010
Processing - Ingot	13.0	0.2	4.2	1.0	18.4	5.7	4.9	12.7	14.6	37.9
Processing - Wafer	-	-	0.1	5.5	5.6	0.1	10.7	11.8	-	22.6
Self Manufacturing - Ingot	12.0	4.7	0.8	18.3	35.8	56.6	90.3	123.6	62.9	333.4
Self Manufacturing - Wafer	134.7	117.6	156.1	151.2	559.6	247.1	274.9	307.3	399.5	1,228.8
Self Manufacturing - Module	-	-	-	0.8	0.8	19.2	56.8	0.2	10.8	87.0
Reclaiming and others	16.6	4.9	7.7	9.3	38.5	5.8	24.3	49.2	65.8	145.1
Total	176.3	127.4	168.9	186.1	658.7	334.5	461.9	504.8	553.6	1,854.8

#### Shipment Volume - Quarterly By Business



- Increasing market demand from our customers
- Shipment volume remained strong even in traditional off-peak season





#### **Business Review**



#### Monocrystalline Solar Ingots and Wafers Businesses



- The new 200 ingot pullers and 40 wiresaws have been installed at end of 2010
- Acquired 51% interest in Qinghai Yangguang, aiming to install 192 ingot pullers in 2011. Total investment for the project is approximately RMB300 million
- Increasing customer demand for 156mm wafers
- Long-term supply contract signed with renowned polysilicon supplier such as Wacker and Hemlock to secure stable polysilicon supply

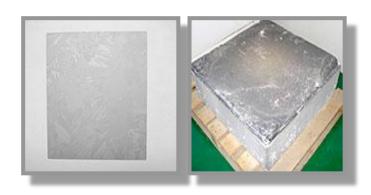




#### Multicrystalline Solar Ingots and Wafers Businesses



- Established joint venture with Oxiranchem, listed company on the Chinext of Shenzhen Stock Exchange (300082.SZ), aiming to install 65 casting furnaces and 75 wiresaws in 2011, and is 37% owned by Solargiga. Total investment for the project is approximately RMB675 million
- Long-term contract signed with customer to secure sale of multicrystalline wafers from the new capacity



#### PV Cells and Modules Businesses



- Operated businesses of solar energy photovoltaic modules and system installation through a joint venture company in Jinzhou
  - capacity reached 50MW currently
- Successfully acquired Sino Light Investment Ltd to manufacture silicon solar cells
  - to secure reliable sources for the Group's module business whilst improving the operational efficiency of the Group's module business
  - expansion plan is completed and part of capacity addition has already been secured by two renowned clients in the industry from Japan and the US
- 2 pilot power stations in Jinzhou, Liaoning Province and Pingdingshan, Henan Province are currently in operation
  - a 13.5MW project is expected to be completed gradually in 2011

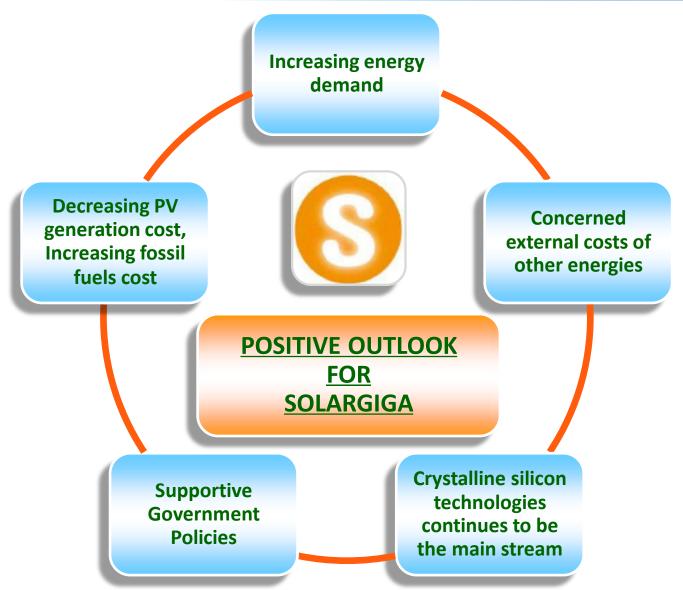


### **Future Plans and Strategies**



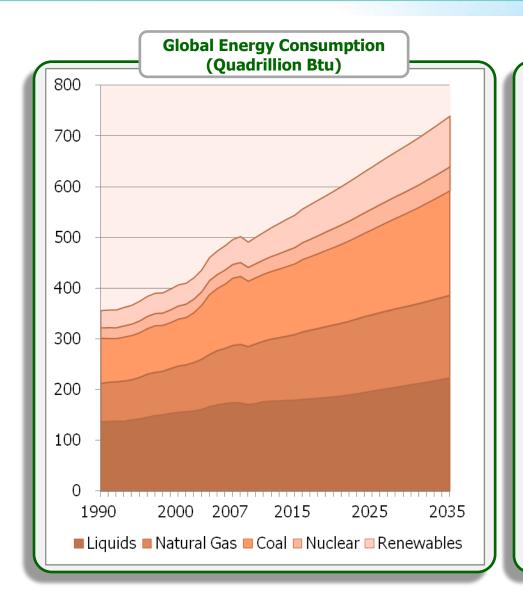
# Strong Market Growth Potential





#### 1. Increasing Energy Demand





- According to U.S. Energy
   Information Administration
   (EIA), annual global energy
   consumption will increased by
   ~50% from 2010 to 2035
- The development of renewable energy has increasing its importance in order to meet future energy demand from every countries.

#### 2. Concerned External Costs of Other Energies

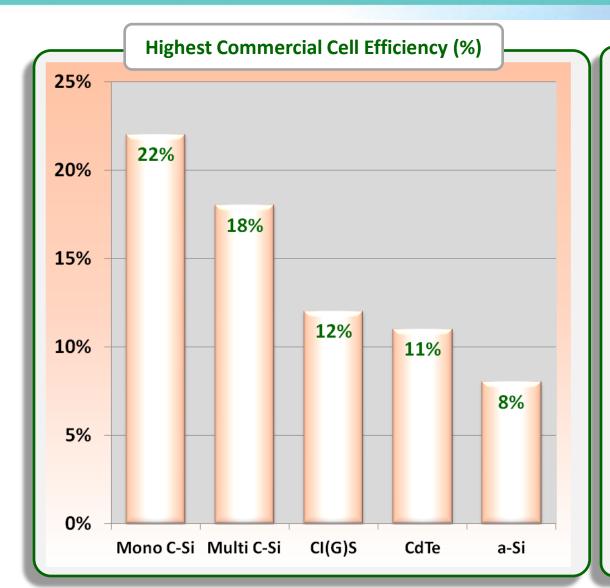




- Electricity prices from conventional energies, for example, burning fossil fuels or nuclear power generation, may not include external costs to society as the costs on emitting large amounts of air pollutants or risk of potential leakage of radioactive substances are difficult to quantify
- The development of clean and safe energy has increasing its importance in order to build a better world

#### 3. Crystalline Silicon Technologies Continues To Be The Main Stream





- Crystalline silicon technologies have dominated the market for the last 30 years, due to the proven cell efficiency and lifetime
- EPIA expects that by 2020 silicon wafer-based technologies will account for about 61% of sales, while Thin Films will account for around 33%. CPV and emerging technologies will account for the remaining 6%

#### 4. Supportive Government Policies





According to European Photovoltaic Industry Association (EPIA), more than 40 countries in the world have introduced Feed-in Tariff for renewable energy systems including photovoltaic (PV) systems



Restarted its subsidy for PV systems in 2009. Target for PV installed capacity is 28GW and 53GW by the end of 2020 and 2030, respectively



California established a law, effective from 2011, that enables utilities that purchase electricity through the state's FiT to be eligible for credits under the state's renewable portfolio standards

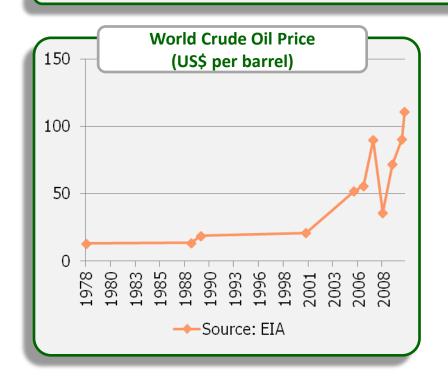


Largest PV producer. Small PV market at the moment but huge market potential. Target for PV installed capacity is 5GW and 20GW by the end of 2015 and 2020, respectively

# 5. Decreasing PV Generation Cost, Increasing Fossil Fuels Cost



- Cost of fossil fuels continues to rise due to its non-renewable nature, lead to an increasing trend of retail electricity charges
- PV generating cost continues to improve on every part of the value chain in the industry: improving polysilicon production cost, better quality ingot, thinner wafer, technology upgrade on cells, etc.
- Grid Parity: PV generating cost = retail electricity charges





### **Our Objectives**









- Top player in monocrystalline ingots and wafers
- Key player in multicrystalline ingots and wafers



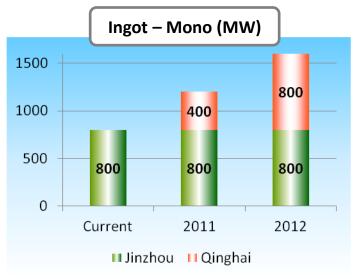


One of the best quality cell and module providers



## Capacity Expansion Plan – Mono Ingots and Wafers









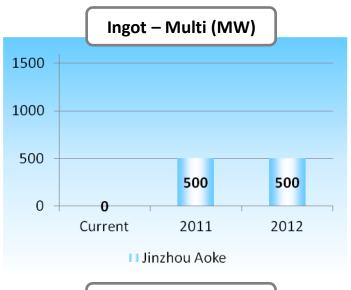


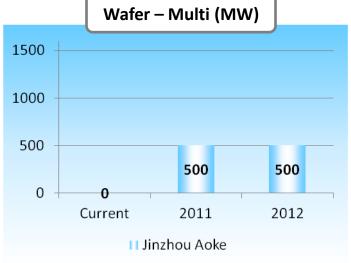
## Capacity Expansion Plan – Multi Ingots and Wafers







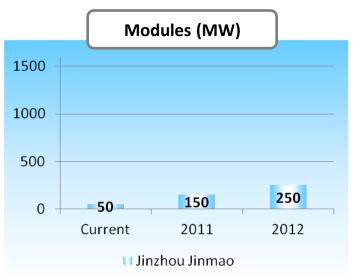




# Capacity Expansion Plan – Cells and Modules











# Capacity Expansion Plan – System

Solargigo Energy

- 300kW system in Jinzhou Binhai new zone and 16.8kW system in Henan Pingdingshan have been installed.
- 13.5MW system installation under "Golden Sun Programme" will be completed in 2011.



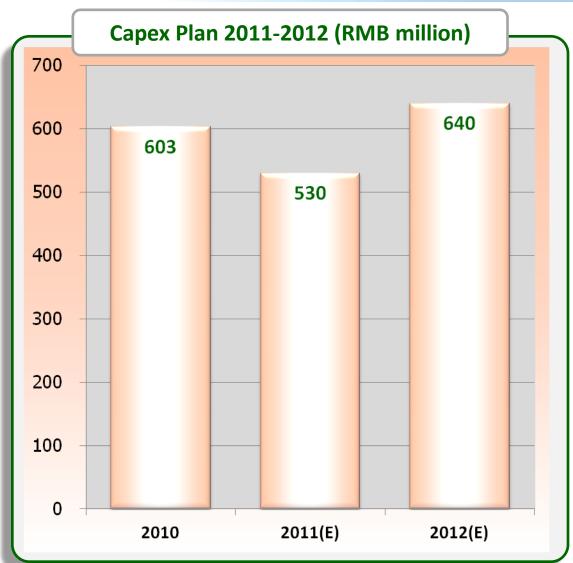
**BIPV** 

Solar roof top



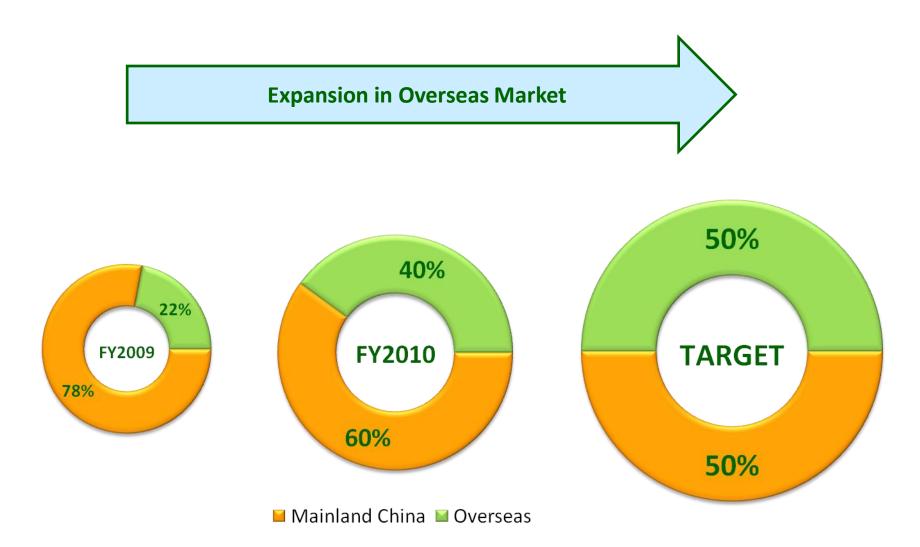
# **Future Capex Plan**





# **Expansion in Overseas Market**







#### Solargiga Energy Holdings Limited

# 陽光能源控股有限公司

Q&A

