



# 綠能科技股份有限公司



March 2011

Strictly Private and Confidential

## 免責聲明

This presentation and the materials provided herewith do not constitute an offer to sell or issue or the solicitation of an offer to buy or acquire securities of the “Company” in any jurisdiction or an inducement to enter into investment activity, nor may it or any part of it form the basis of or be relied on in connection with any contract or commitment whatsoever. Any decision to purchase securities in a proposed offering should be made solely on the basis of the information contained in the offering circular published in relation to such proposed offering,

The information contained in this presentation has not been independently verified. No representation, warranty or undertaking, express or implied, is made as to, and no reliance should be placed on, the fairness, accuracy, completeness or correctness of the information or the opinions contained herein. The information contained in this document should be considered in the context of the circumstances prevailing at the time and has not been, and will not be, updated to reflect material developments which may occur after the date of the presentation. None of the Company nor any of its affiliates, advisors or representatives will be liable (in negligence or otherwise) for any loss howsoever arising from any use of this presentation or its contents or otherwise arising in connection with the presentation.

This presentation contains statements that constitute forward-looking statements. These statements include descriptions regarding the intent, belief or current expectations of the Company or its officers with respect to the consolidated results of operations and financial condition of the Company. These statements can be recognized by the use of words such as “expects,” “plans,” “will,” “estimates,” “projects,” “intends,” or words of similar meaning. Such forward-looking statements are not guarantees of future performance and involve risks and uncertainties, and actual results may differ from those in the forward-looking statements as a result of various factors and assumptions. The Company has no obligation and does not undertake to revise forward-looking statements to reflect future events or circumstances.

By attending this presentation, you agree not to remove this document, or any materials provided in connection herewith, from the conference room where such documents are provided. You agree further not to photograph, copy or otherwise reproduce any part of these materials in any form or pass on any part of these materials to any other person for any purpose. You must return this presentation and all others materials provided in connection herewith to the Company at the completion of the presentation.

# 公司簡介



# 大中華地區太陽能矽晶圓之領導廠商

## 公司簡介

- 綠能科技為大中華地區太陽能晶圓之領導廠商
  - 管理總部設立於台灣桃園
  - 生產工廠座落於台灣與大陸
- 大同集團於2004年6月轉投資設立
- 實收資本額：新台幣22.43億元

## 營運總處



晶片

### 產品



矽晶錠



矽晶片

### 主要特點

- 專業技術回收使用多晶矽
- 平均轉換率已達16.6%
- 推出超級矽晶圓最高轉換率突破17.0%



薄膜

### 產品



薄膜太陽能  
模組

### 主要特點

- 美商應用材料技術轉移

# 於大中華地區迅速發展奠定優勢地位

生產設備設置大陸與台灣，人力資源與營運產生綜效



## 營運總部

台灣：（2011年2月總人數1,277人）

### ■ 觀音、大園工廠



長晶產能

• 生產力 ~ 2011年2月達 **1,140MW**

切片產能

• 生產力 ~ 2011年2月達 **350MW**

薄膜模組

• 生產力 ~ 2011年2月達 **45MW**



### ■ 南科廠（預計2011年4月啟用）

預估長晶產能 **540MW**、切片產能 **590MW**

## 生產工廠

大陸：

（2011年2月總人數699人）

### ■ 山東切片廠

晶片切割產能達 **610MW**



資料來源：本公司整理

## 區域優勢

- 台灣：專業人才、專業製造技術、大同集團支持
- 大陸：鄰近客戶獲取原物料並降低製造成本

## 總產能

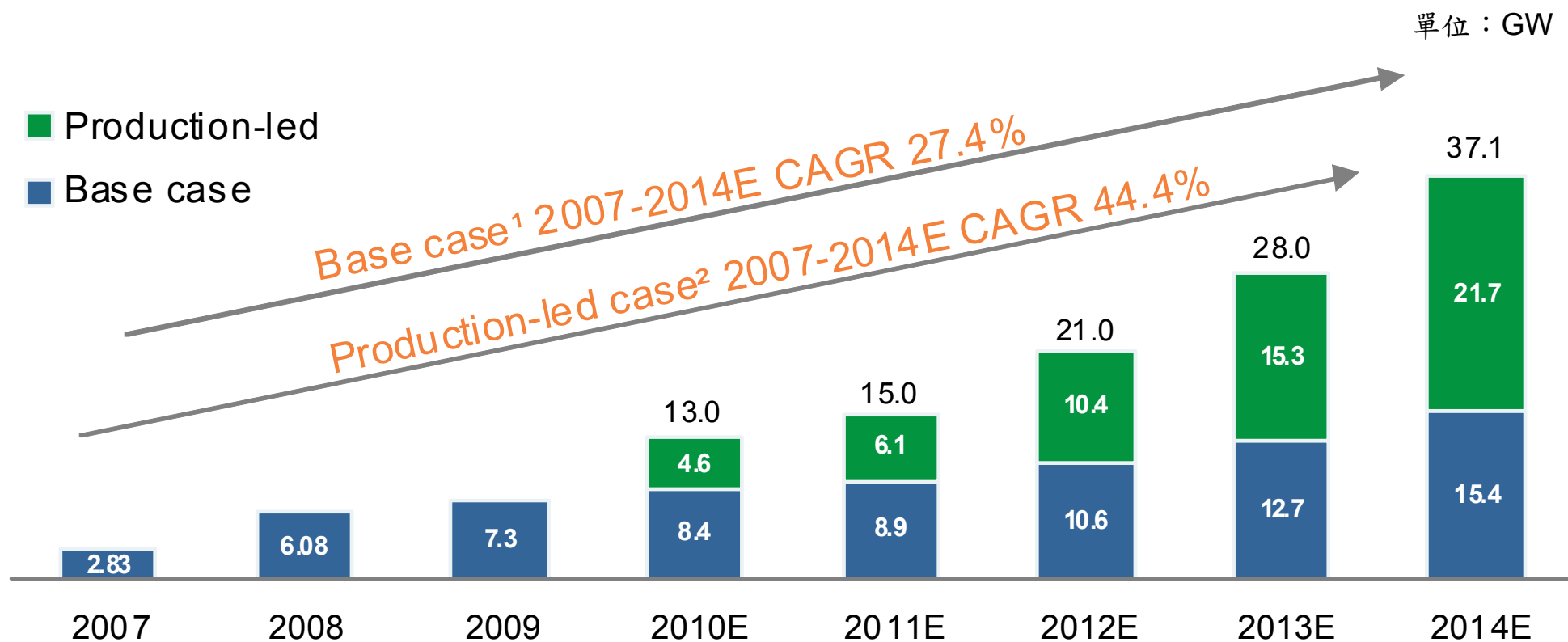
- 長晶總產能：2,010MW（加入大同台北三峽廠330MW）
- 切片總產能：1,550MW



# 產業訊息



# 全球太陽能產業發展迅速



<sup>1</sup> Base case (balanced energy scenario): Slowest global market growth; Crystalline silicon cell capacity utilization to fall from 54% in 2009 to 41% in 2014; Factory-gate pricing falls to US\$1.52/W driven by a highly competitive supply environment

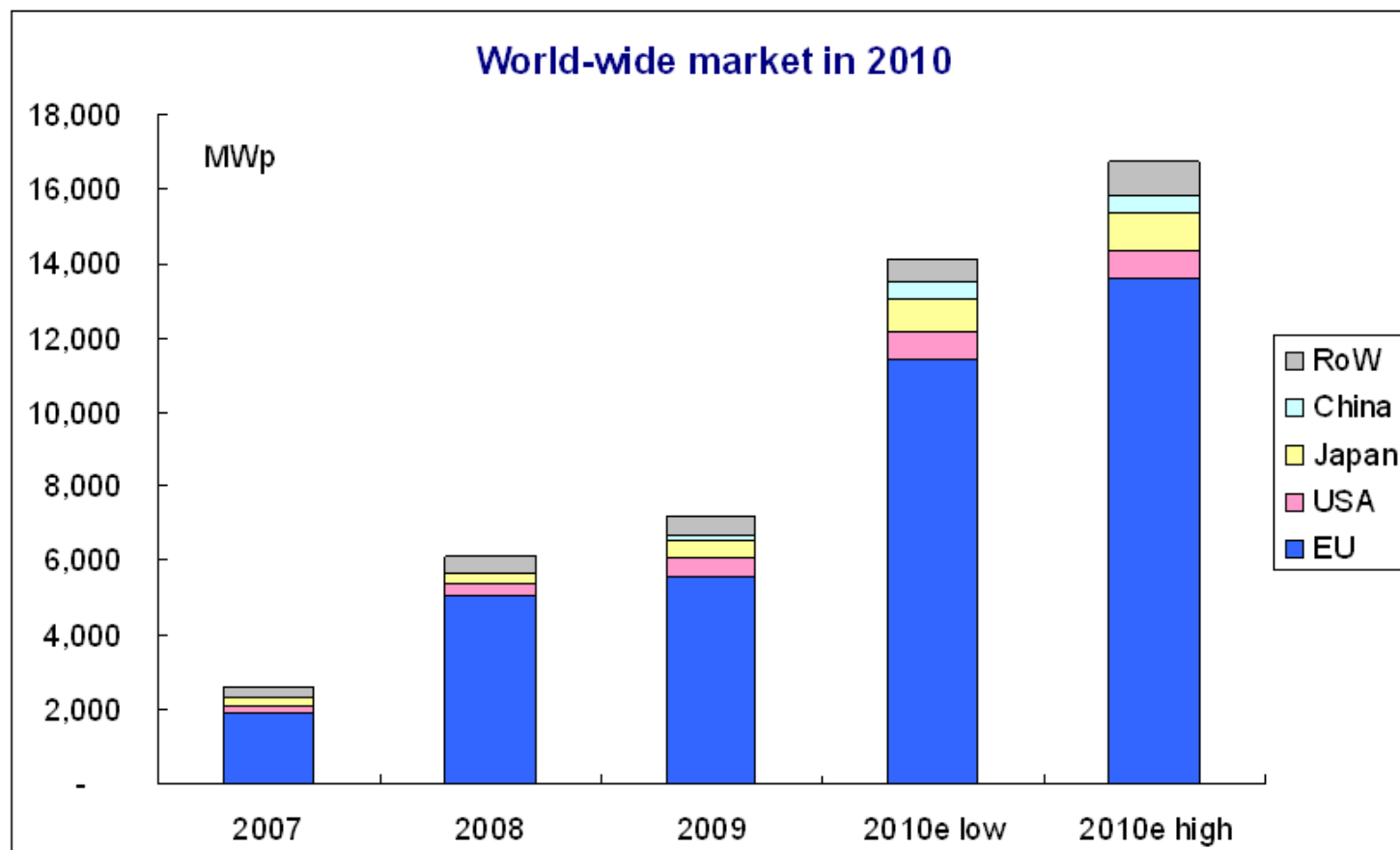
<sup>2</sup> Production-led case: Fastest global market growth; Crystalline silicon cell capacity utilization to increase from 54% in 2009 to 70% in 2014; Factory-gate pricing falls to US\$1.10/W in 2014; Installed crystalline silicon PV system prices breach \$3/W by 2013

資料來源：Solarbuzz (Mar., 2010)

## 2010全球主要各國太陽能產業概況

### *World-wide Market in 2010*

In 2010, global market doubled at 14-16.7 GWp, of which 11.5-13.5 GWp (80%) was installed in Europe

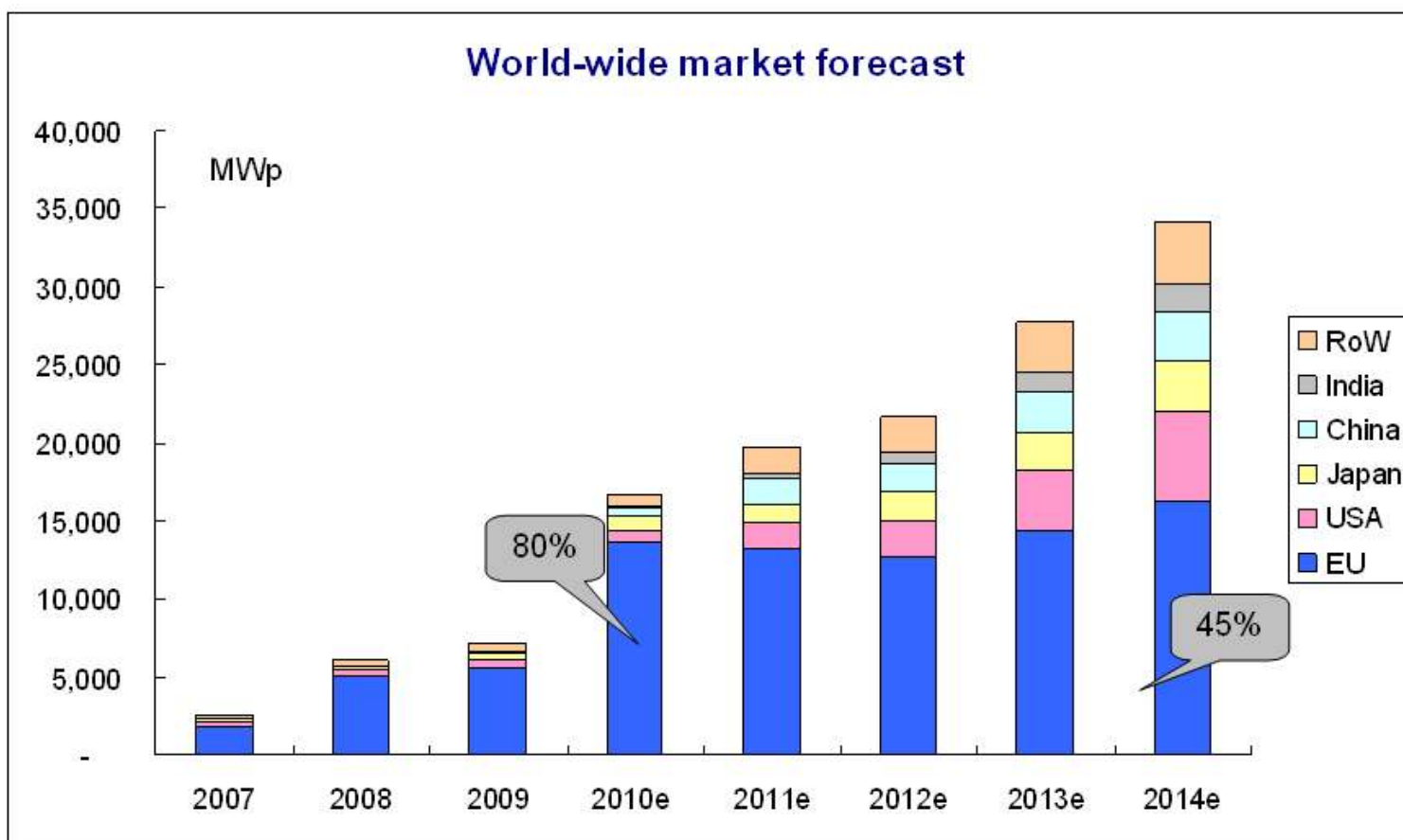


資料來源：PV EXPO Tokyo (Mar,2011) , A. EL GAMMAL / AMON Management

# 全球主要各國太陽能發展預估

## World-wide Market forecast

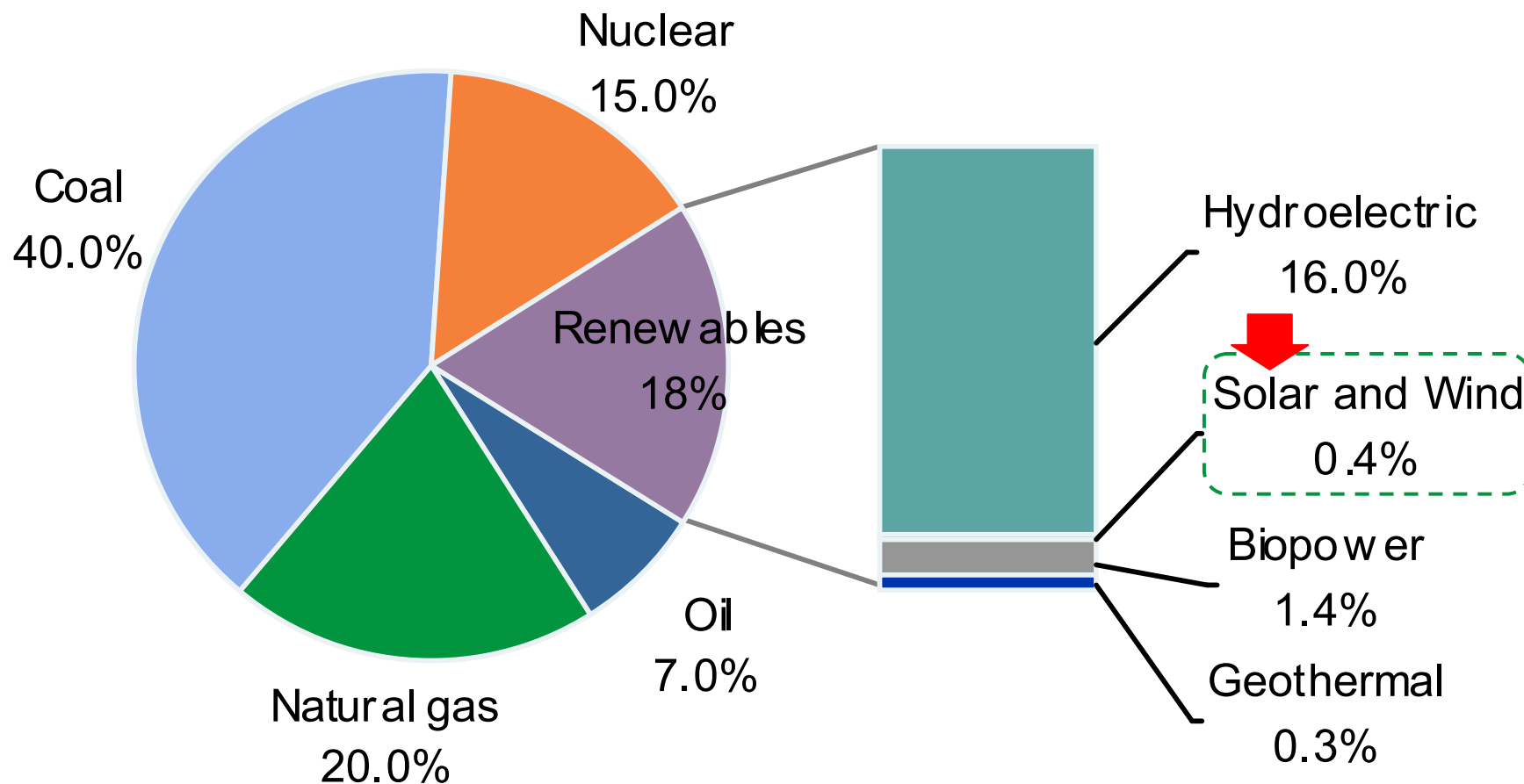
After a huge increase in 2010, EU market is expected to stagnate while significant growth is expected to occur outside EU



資料來源：PV EXPO Tokyo (Mar,2011) , A. EL GAMMAL / AMON Management

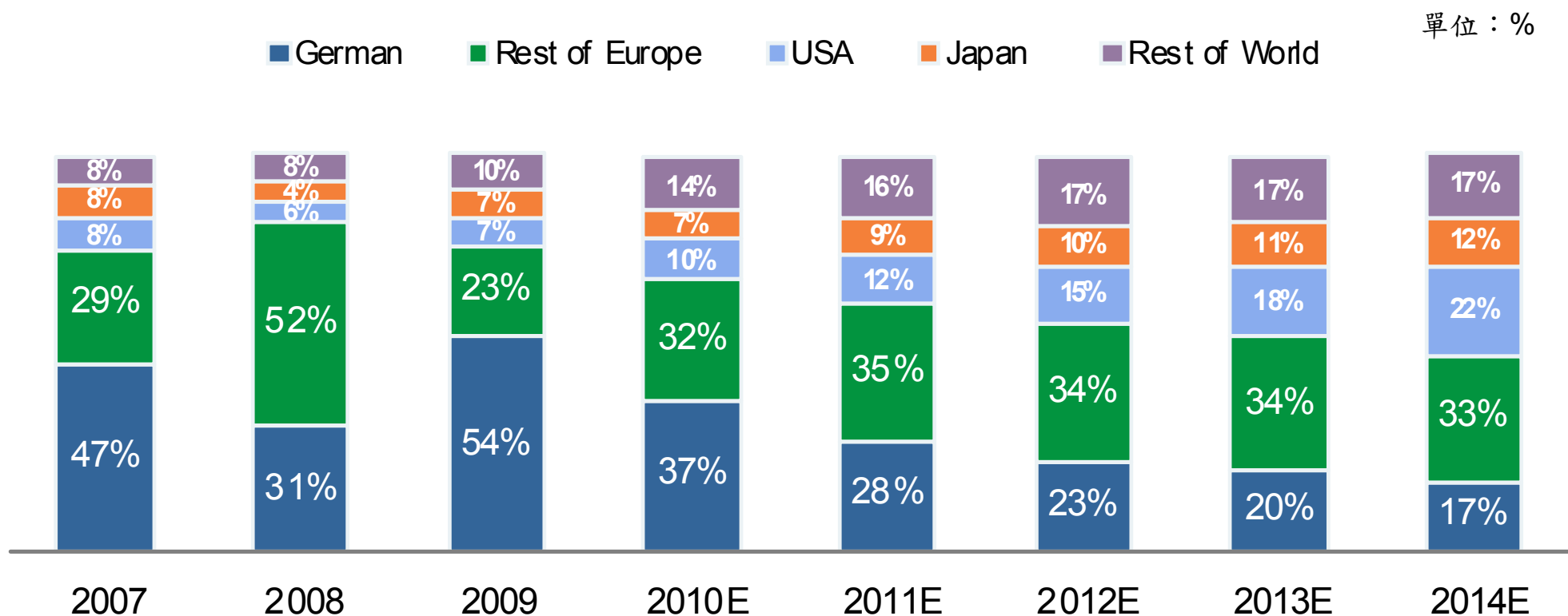
# 太陽能發電佔全球發電比例仍極低

單位：%



資料來源：EIA, Broker research

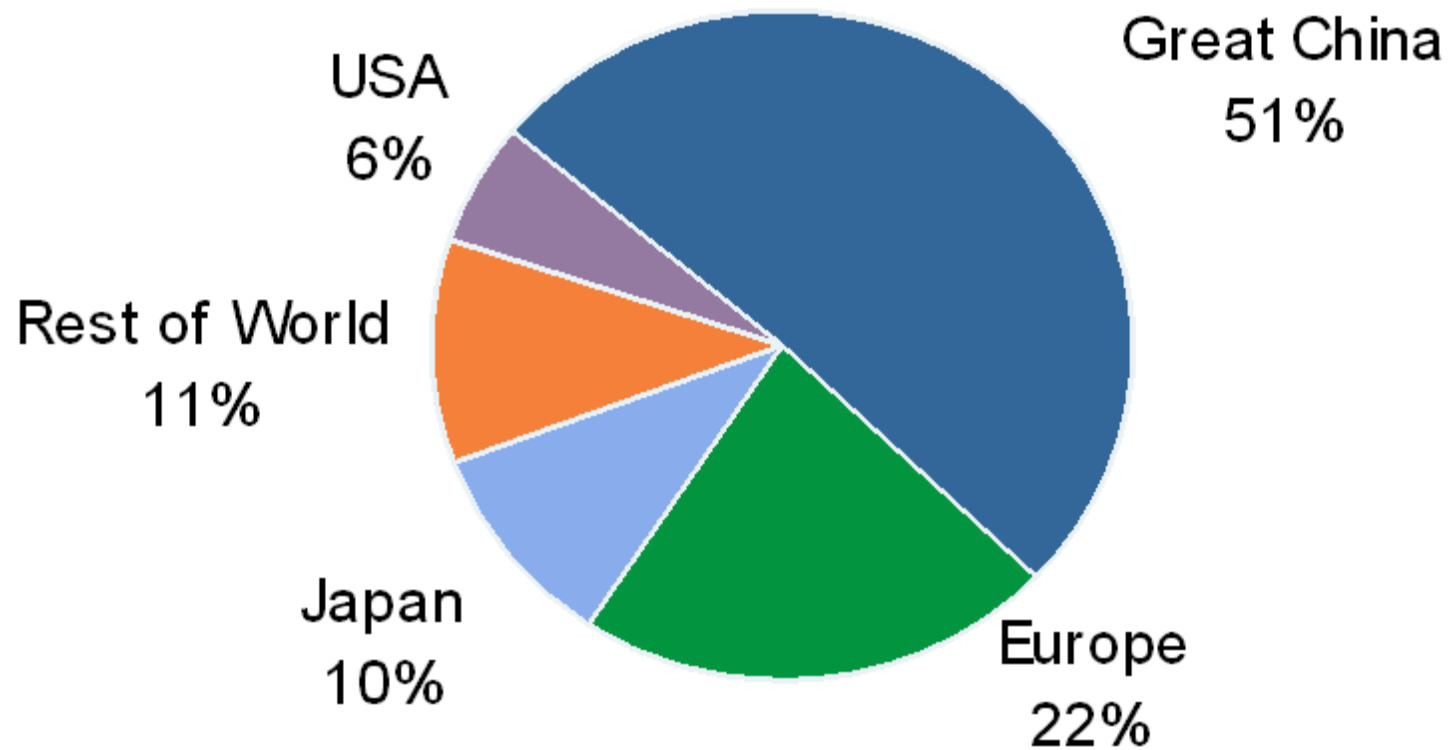
## 來自美國與亞洲的需求與日俱增



資料來源：Solarbuzz (Mar., 2010)

## 大中華地區為全球最大的太陽能電池供應商

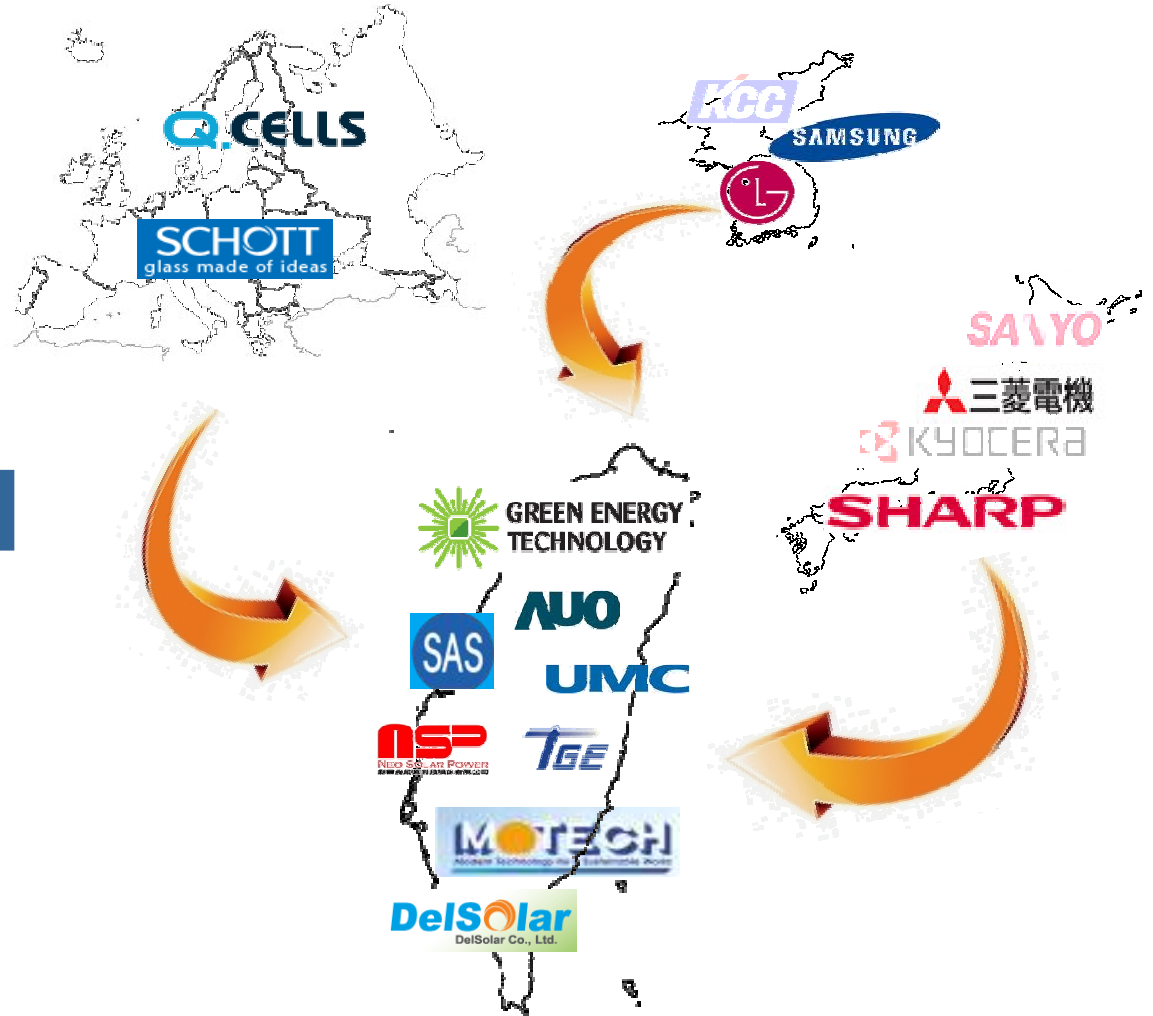
單位：%



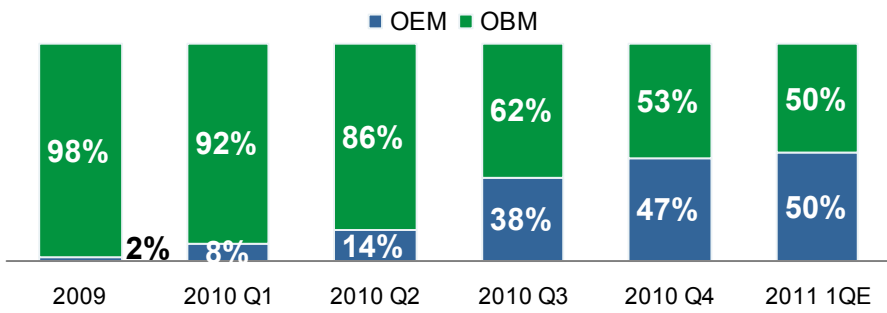
資料來源：Solarbuzz (Mar., 2010) ; data as of 2009

# 台灣成為太陽能產業發展的核心區域

- 歐洲、日本及韓國的大太陽能產業，逐漸轉移至台灣發展。
- 優良的製造技術
  - 高效率晶片製造能力
  - 良好的成本控制



## 綠能 OEM 與 OBM 生產比例



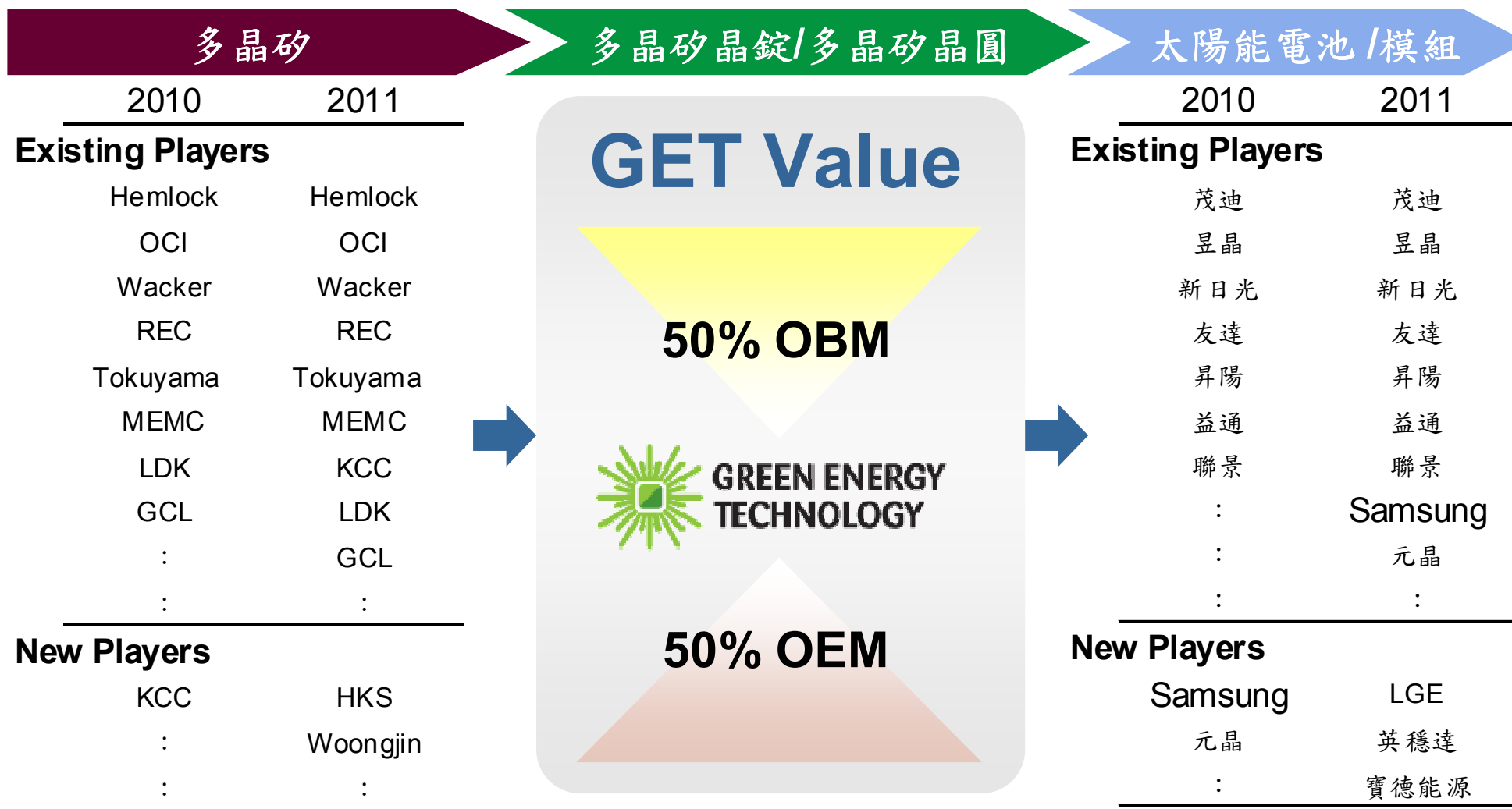
1 Original Equipment Manufacturing  
 2 Own Branding and Manufacturing

資料來源：本公司整理

# GET 定位



# GET Value Chain 產業價值鏈



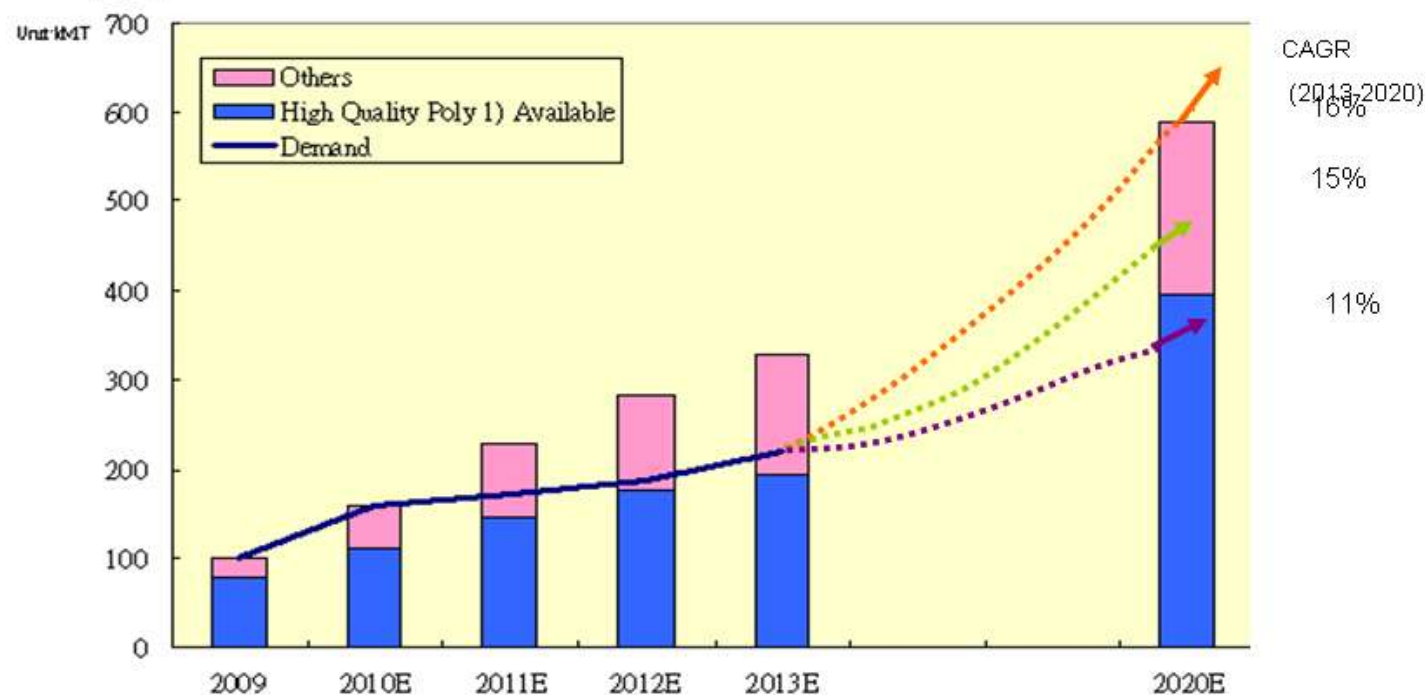
■ 與台灣具有豐富經驗的Cell、Module廠，共組形成堅強的產業供應鏈。

資料來源：本公司整理

## 全球矽原料供給與需求預測

# Global Poly-Si Demand-Supply

The shortage of high quality will remain significant until 2020 despite overall oversupply situation



	2009	2010E	2011E	2012E	2013E	2020E
Poly-Si Demand	100	159	172	188	219	639
Poly-Si Available	100	159	229	284	330	589
Balance of Poly-Si	0	0	57	96	111	~ -50
High Quality Poly 1) Available	78	112	146	176	195	395
Balance of High Quality Poly-Si	(22)	(47)	(26)	(12)	(24)	~ (244)

1) Companies production over 9N purity Poly-Si source: OCI Analysis.

## 原料與供應鏈管理

### 多晶矽原料供應管理使其具有競爭性價格

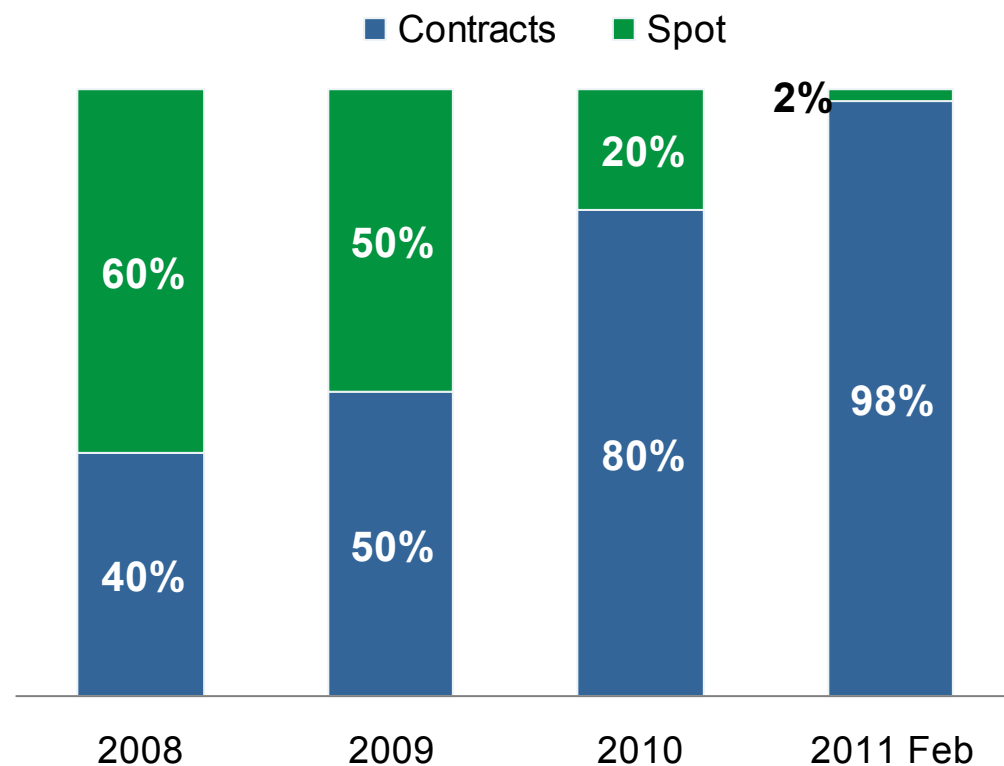
- 強化多晶矽供應商關係
  - 品質保證與有利的訂價
- 簽訂長期供應合約價格
- 多晶矽來源
  - 多元化供應
  - 取得原料供應優勢價格



資料來源：本公司資料

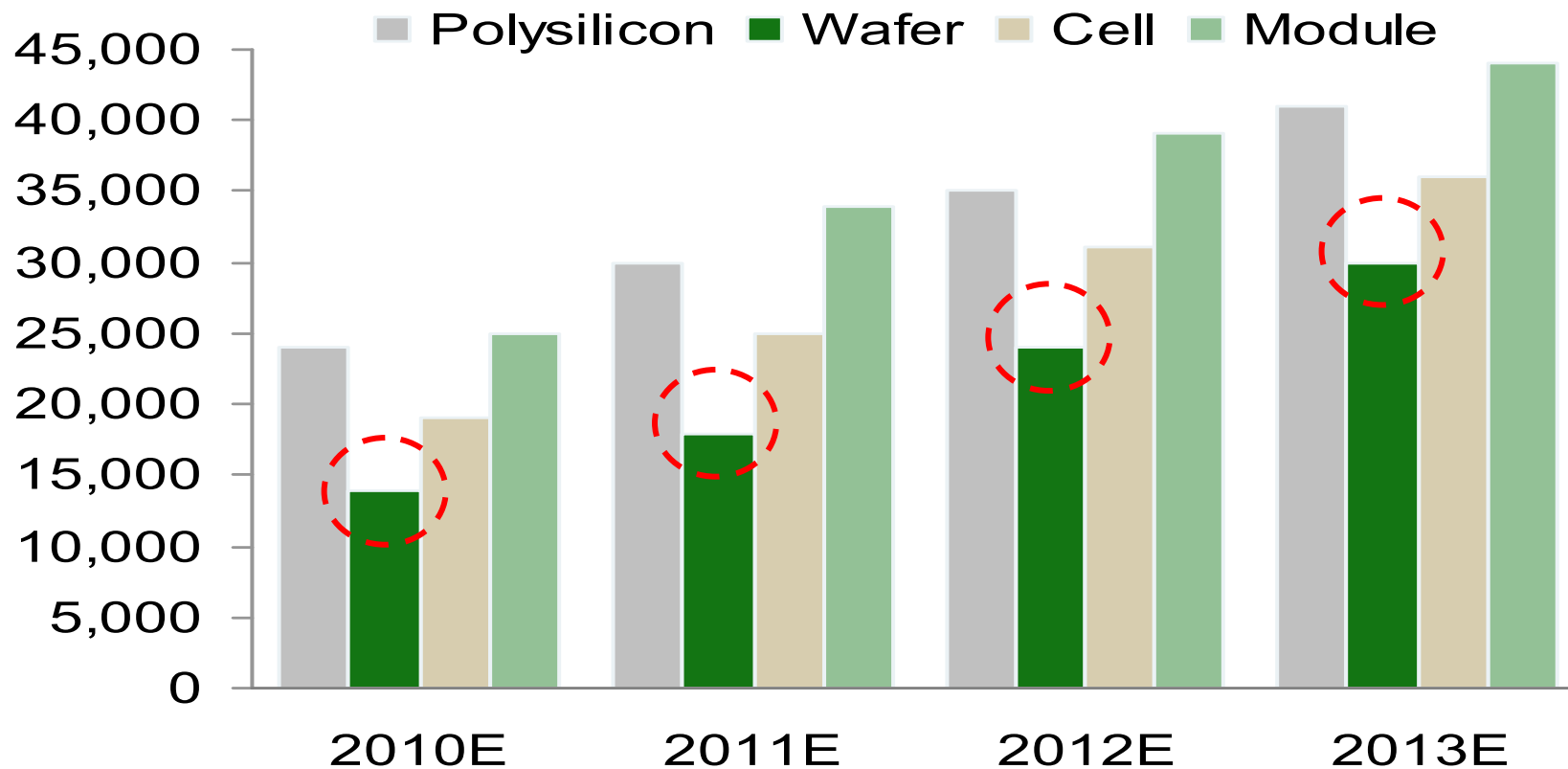
## 多晶矽供應組合

單位：%



## 矽晶圓與太陽能電池模組廠商供給需求

單位：MW



資料來源：Broker research

# 2011綠能產能預估

## 長晶產能

單位：MW / 年

Factory Capacity	Original Plan	Q2-end Revised
GET - 桃園觀音廠	1,000	1,140
TATUNG - 台北三峽廠	300	330
GET - 高雄南科廠	500	540
<b>Total Ingot Capacity</b>	<b>1,800</b>	<b>2,010</b>

## 切片產能

單位：MW / 年

Factory Capacity	Original Plan
GET - 桃園觀音廠	350
UET - 大陸宇駿	610
GET - 高雄南科廠	590
<b>Total Ingot Capacity</b>	<b>1,550</b>

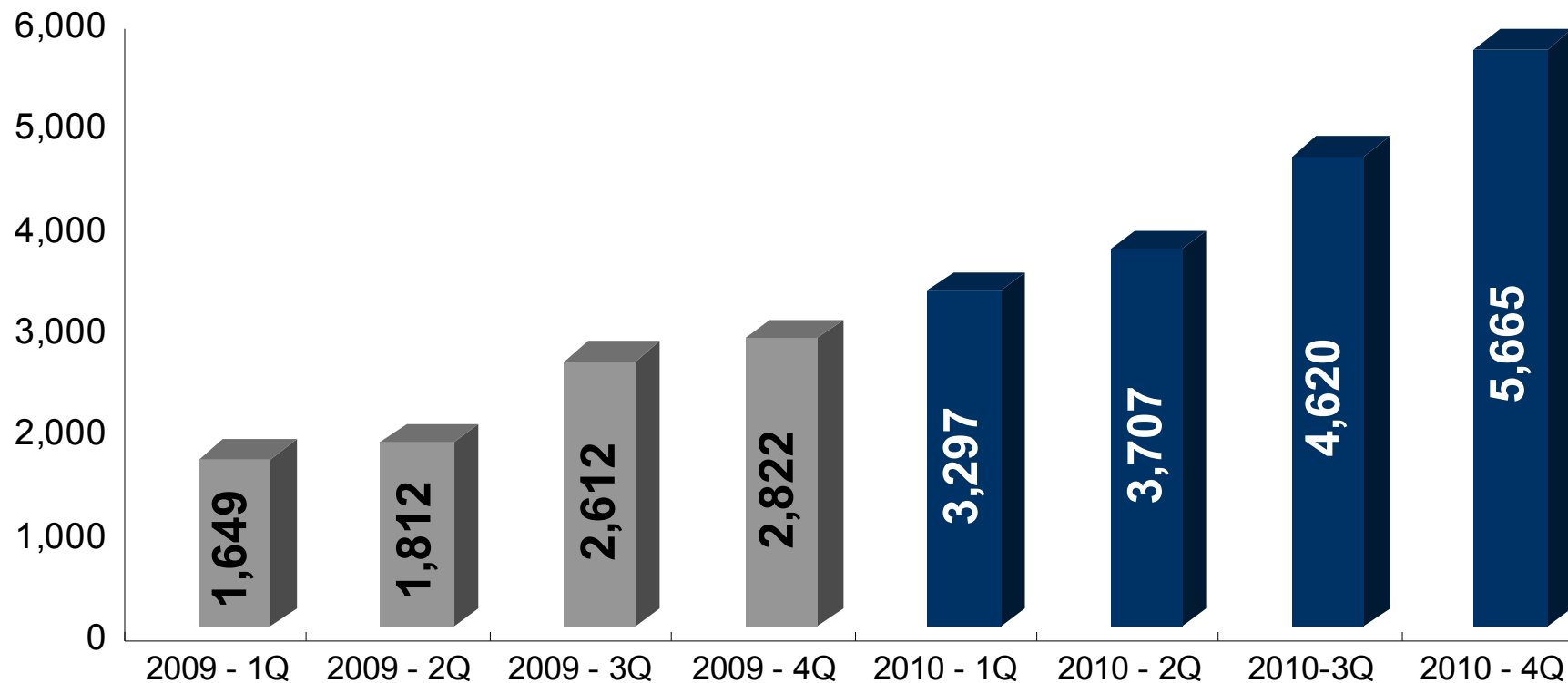
資料來源：本公司資料

# 財務資訊



## 營業收入概況

單位：新台幣佰萬元 / 每季



■ 2011年1、2月營收合計數：新台幣4,180佰萬元

資料來源：本公司資料

## 經營成果

單位：新台幣佰萬元 / %

	2010 - 1Q	2010 - 2Q	2010-3Q	2010 - 4Q	2010
<b>Gross Margin</b>	<b>9.37%</b>	<b>10.68%</b>	<b>15.87%</b>	<b>17.46%</b>	<b>14.04%</b>
<b>Gross Profit</b>	<b>309</b>	<b>396</b>	<b>733</b>	<b>989</b>	<b>2,427</b>
<b>Net Margin</b>	<b>6.82%</b>	<b>11.01%</b>	<b>3.92%</b>	<b>14.90%</b>	<b>9.59%</b>
<b>Net Income</b>	<b>225</b>	<b>408</b>	<b>181</b>	<b>844</b>	<b>1,658</b>

資料來源：本公司資料

## 簡式資產負債表：2010(會計師查核數) vs 2009

單位：新台幣億元

	2010	%	2009	%
流動資產	81	35%	53	34%
長期投資	26	11%	14	9%
固定資產	98	42%	69	44%
其他資產	27	12%	21	13%
<b>資產總額</b>	<b>232</b>		<b>156</b>	
流動負債	59	25%	48	31%
長借	37	16%	26	17%
其他負債	8	3%	9	6%
<b>負債總額</b>	<b>104</b>	<b>45%</b>	<b>83</b>	<b>53%</b>
<b>股東權益</b>	<b>128</b>	<b>55%</b>	<b>74</b>	<b>47%</b>
<b>負債權益總額</b>	<b>232</b>		<b>156</b>	

資料來源：本公司資料

***Thank You***

