



## **PV Crystalox Solar**

## Presentation of Results 1<sup>st</sup> Half 2007

## September 2007

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# Leading wafer pure-play in highly attractive solar electricity market





#### H1 2007 Highlights



- Revenue growth 7.8%
  - €123.6m versus €114.6m in H1 2006
- Net profit growth (before exceptional items) 14%
  - €29.3m versus €25.6m in H1 2006
- Shipments 89MW
- In house solar grade production facility on schedule
  - Construction approval by Sachsen-Anhalt State Authority





#### **H1 Operational Review**



Continued shift in product mix from ingot to wafers

- Over 90% of ingots now processed into wafers
- Strong progress on wafer thickness reduction
  - All wafers now supplied at 200µm or less
  - 25% of H1 wafers shipped at 180μm
- Effective capacity utilisation in H1-2007 was 65%
- H1-2007 shipments 89MW equivalent (versus 215MW in 2006)
- Improved wafer pricing

#### **Developments in Silicon Supply Market**



- Additional deliveries of polysilicon feedstock commenced in July 2007 (260MT in H2) which will positively impact H2 wafer production
  - Total contracted polysilicon for 2007: 1282 MT rising to 1540MT in 2008
- Market for scrap silicon has continued to tighten throughout 2007
  - Increased recycling within semiconductor industry
  - Demand for scrap silicon from Chinese products particularly acute
- PVCS recycling has increased and partially offsets tight scrap supply situation
- Higher wafer prices and more wafers/kg feedstock have been offsetting lower ingot production

# **Development at Bitterfeld—new silicon production facility**



- Permission by local- and state authorities to construct the facility was granted in August
- Ground breaking ceremony and construction start on September 19
- Facility planning and purchasing of equipment for the chemical infrastructure together with Degussa



Engineering progressing as planned. Silicon deposition technology using modified Siemens process and proven deposition reactors on target to meet goal of commercial silicon production in Q1 2009

 Total investment for the facility estimated at €80m with grants and subsidies from the government and EU at €21m

#### **New Political Developments**



#### Germany

- The German Federal Environment Ministry proposes to accelerate annual reduction of feed-in tariff for solar electricity. The current 5% annual reduction for roof mounted installation would increase to 7% in 2009 and to 8% in 2011. Reduction for open field installations is expected to increase from current 6.5% to 8.5% in 2009 and to 9.5% in 2011. Recommendation needs to be approved by the Parliament
- Modification of feed in law, although not favoured by PV Industry, still gives long-term security and predictability of the important German market. Lower cost for silicon feedstock, thinner wafers, higher solar cell efficiencies and lower installation costs are measures to drive down cost of solar electricity

#### • Spain

- Favourable feed-in tariffs for solar electricity (41-44 euro cent/kWh for 25 years) in Spain have resulted in strong market growth. Official cap at 371MWp, beyond cap legal situation not clear. Mainly large scale systems, few roof top installations. Despite uncertainties we consider Spain as a major growth market
- USA
  - Major drive for solar electricity is coming from the State level, with California taking the lead to increase solar electricity installations to 3000MWp by 2017





#### **Financial Highlights**



PV Crystalox plc Group Consolidated Income Statement				
	6 Mths Ended 30-Jun-2007 €'000	6 Mths Ended 30-Jun-2006 €'000	H	1-2006/07 Change %
Revenues - Silicon Products	92,796	89,489	+	3.7%
Revenues - Equipment, Parts & Trading	30,762	25,177	+	22.2%
Total Revenues	123,558	114,666	+	7.8%
Net Profit before exceptional charges	29,298	25,598	+	14.0%
Cash flow from operating activities	15,874	9,719	+	63.0%

- Higher sales prices
- Higher proportion of wafers sold in Japan
- Weaker Japanese Yen
- Higher margins
- Strong cash flow

#### **Japanese Yen**







#### • Impact on H1 2007 reported results:

- Revenues 8% lower
- Earnings 1% lower
- PBT 1% lower

### **Key financial – Summary Income Statement**



#### Income statement (€m) Half Year to 30 June

二百音音 (1)	6 Mths Ended 30-Jun-2007 €'000	6 Mths Ended 30-Jun-2006 €'000	12 Mths Ended 31-Dec-2006 €'000
Total Revenues	123,558	114,666	242,366
Earnings Before Interest & Tax (EBIT)	28,984	25,591	48,327
Earnings Before Interest Tax Depreciation & Amortisation (EBITDA)	31,135	28,296	49,013
IPO Expenses	(3,486)	0	0
Employee Share Schemes	(2,891)	0	0
EBIT after exceptional items	22,607	25,591	48,327
Earnings before tax (EBT) after exceptional items	22,922	25,598	49,013
NET INCOME	13,576	16,451	31,594
Earnings per share (Euro cents)	3.6	4.4	8.4
Adjusted earnings per share (Euro cents) before IPO & EBT costs	5.0	4.4	8.4

#### **Sales analysis**





#### Silicon products and trading operations

- To facilitate a major supplier relationship PV Crystalox Solar buys single crystal ingots which it sells on to one of its customers
  - Facilitates relationship
  - Creates margin for group
- Function of demand for solar silicon
   the supplier gets a good price
- Unlikely to be long term phenomenon
- Not a core operation for the Group

## **Summary balance sheet**



	30 Jun	30 Jun	31 Dec
Consolidated balance sheet (€m)	<u>2007</u>	<u>2006</u>	<u>2006</u>
Non-current Assets	23.4	18.3	17.1
Current Assets	247.0	129.9	157.1
Current Liabilities	87.5	75.0	84.3
Non-current Liabilities	13.5	5.1	5.8
Net Assets	<u>169.4</u>	<u>68.1</u>	<u>84.1</u>
Share Cap & Non-dist Reserves	87.9	7.5	7.5
Profit & Loss Reserves	81.5	60.6	76.6
Shareholder Equity	<u>169.4</u>	<u>68.1</u>	<u>84.1</u>

## Summary cash flow & net cash/(debt) analysis



Half Year to 30 Jun (€m)	2007	2006
Net cash flows from operating activities	15.9	9.7
Net cash flows in investing activities	(2.7)	(1.1)
Net cash flows used in financing activities	72.9	8.6
Net increase (decrease) in cash/cash equivalents	86.1	17.2
Exchange Rate Adjustment	0.4	(0.2)
Net change in cash in period	86.5	17.0
Cash and cash equivalents, start of period	61.5	31.9
Cash and cash equivalents, end of period	148.0	48.9
Group loans	(54.4)	(51.6)
Cash/(net debt)	93.6	(2.7)





#### **Outlook**



- Improved silicon utilisation
  - In-house change from OD sawing to wire sawing for block production
  - Together with customers further move into 180 µm thin wafers
- Increased polysilicon supply in H2
- Bitterfeld solar-grade silicon production site progressing to plan—ground breaking on 19th September
- Continue to make progress in discussions with customers in terms of negotiating long term contracts
- Growth of solar electricity market continues at 35-40% per annum with crystalline wafer technology dominating the market with more than 90%
- Strengthening our position as one of the PV industry's lowest cost wafer producers
- Confident of outlook for the full year 2007





### **Management and Board**



Name	Position	Experience
Dr Iain Dorrity	Chief Executive Officer	Expertise in crystallisation of semi-conductor materials
		• 18 years international sales and marketing experience within solar industry
Dr Hubert Aulich	Executive Director,	Renowned expert in silicon-based solar cells
	German Operations	• 25 years international research, development and production experience (Senior Vice President—Siemens Solar)
Dr Peter Finnegan Chief Financial Officer	Doctorate in Corporate Finance and MBA from the Manchester Business School	
		Member of the Chartered Institute of Management Accountants
		• 10 years experience as UK Financial Director for an international group
	ectors	
Non-Executive Dire		
Name	Position	Experience
Non-Executive Dire	Position Non-Executive	Experience           • 2000—2004 CFO of KPN, 2004—2006 CFO of Nuon, currently CFO of Getronics NV
Name	Position	

Key Senior Management			
Name	Position	Experience	
Dr Barry Garrard	Silicon Ingot Production and Research	<ul> <li>10 years crystallisation research experience at Oxford University</li> <li>Engaged in crystallisation and production of silicon for solar uses for over 20 years</li> </ul>	
Dr Friedrich-Wilhelm Schulze	Silicon Wafer Production and Research	<ul> <li>Expert in processing crystalline and amorphous silicon</li> <li>25 years international research, development and production experience (Siemens Solar)</li> <li>Development of silicon-based solar cells, production technology and cost optimised mass production</li> </ul>	
Dr Hilmar Tiefel	Plant Manager Polysilicon Plant	• Responsible for planning, building and operating the new Polysilicon Plant at Bitterfeld	