

# MBIPV Industry News Q2/2008

## PV Industry Development and Enhancement Program

### Editorial

Dear MBIPV and industry stakeholders

Sun, beautiful beaches, friendly people and great food, these attract tourists from around the world to Malaysia. But not only tourists get increasingly attracted to Malaysia, also the international PV industry. Beside First Solar in Kulim, Q-Cells, the no.1 PV manufacturer, announced in Feb/March 2008 to establish a local production line in Selangor. Please read in this newsletter the latest details on these two companies. Malaysia has put herself in the spotlight in the international PV industry and further announcements will follow, benefiting Malaysia and its people with the PV technology.

For further information regarding the activities in MBIPV, or the industry enhancement activities or if you are interested to send us your feedback, please send an email to [nazri@mbipv.net.my](mailto:nazri@mbipv.net.my). Please visit also our website [www.mbipv.net.my](http://www.mbipv.net.my) for further information on events and facts & figures.

### MBIPV C4 News

#### Industry development program in 2008

In five to ten years, Malaysia can become a serious global player in the PV business if successful with efforts undertaken today and lead by MEWC to introduce a sustainable PV policy (feed-in tariff) in Malaysia. A critical success factors is to follow the learning curve and learn from international examples. In 2008, MBIPV will conduct industry missions, which offer excellent opportunities for matchmaking, getting latest product and industry information, and to network. Please visit [www.mbipv.net.my/C4ms.html](http://www.mbipv.net.my/C4ms.html) for detailed information and registration.

### Industry Events

#### Seminar and colloquium on R&D and Quality control on PV technology, 20<sup>th</sup> May 2008

The seminar and colloquium address the need for sound quality control and R&D activities in Malaysia with focus on PV products. The morning session is limited to 70 participants from Universities, Government and Industry; with presentations from international and local experts. The afternoon session is in the form of a colloquium and limited to 30 participants from Universities. The colloquium will discuss national research and development strategy and commercialization of R&D projects. Please visit [www.mbipv.net.my/C4Ws.html](http://www.mbipv.net.my/C4Ws.html) for detailed information and registration.

### Asia PV News

#### Establishment of an ingot and wafer production plant in Malaysia

Q-Cells AG has decided to construct the company's seventh production line for polycrystalline solar cells in Malaysia, with a target production capacity of more than 300 MWp. Total FDI exceeds RM 1 billion. Construction will start in the second quarter of 2008 and the ramp-up phase for the first step (160 MWp) is expected to start in the first quarter of 2009. On the basis of its contractually agreed supplies of silicon, particularly in view of the new supply contract with Becancour Silicon Inc., Q-Cells has decided to integrate also production of the blocks of silicon from which wafers are sawn, which are known as ingots. Capacity will match that of cell production and is to reach more than 300 MWp over several phases of expansion. The decision on the start of ingot production was taken against the background of the substantial supply contracts for metallurgical silicon.



#### First Solar targets 1 gigawatt production by end of 2009

Without the current handicap of polysilicon shortages, thin film CdTe PV manufacturer First Solar has revealed that it expects annual capacity to reach approximately 1 GW by the end of 2009 with the expected full ramp of all four plants in Malaysia going to plan. Currently, First Solar has completed, slightly ahead of schedule, Plant 1 in Malaysia with equipment installation and line qualification ongoing. Plant 1 is expected to ramp production in the second quarter of 2008. The three other plants are nearing completion with First Solar expecting capital spending to reach approximately RM 1.5 billion this year.

First Solar	2006				2007				2008				2009			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Base Plant																
Ohio Expansion	QUAL	RAMP														
Germany	GO	CONSTRUCTION	QUAL	RAMP												
Malaysia Plant 1					GO	CONSTRUCTION	QUAL	RAMP								
Malaysia Plant 2							GO	CONSTRUCTION	QUAL	RAMP						
Malaysia Plant 3								GO	CONSTRUCTION	QUAL	RAMP					
Malaysia Plant 4									GO	CONSTRUCTION	QUAL	RAMP				

**SunPower increases solar cell capacity with minimum efficiency of 22 percent**

SunPower Corporation stated that it would be increasing solar cell capacity by 150 percent in 2008, compared to 2007. The company also said that nearly half of its cell production was its 'Gen2' solar cell technology that has a minimum conversion efficiency of 22 percent. "Our proprietary technology delivers the highest output per unit area of any commercially available solar system and we intend to leverage this technology by aggressively expanding our solar cell production by more than 150 percent in 2008 compared to 2007," commented Tom Werner, SunPower's CEO.

**United Arab Emirates has pledged USD 15 billion (RM 48 billion) for Masdar Initiative**

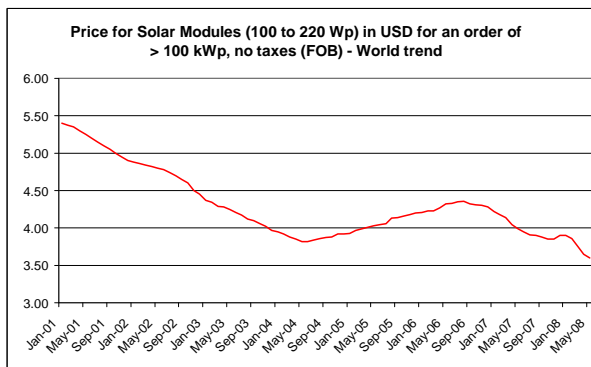


The equity seed money should become a magnet for a renewable energy economy as part of its Masdar Initiative. In addition to wind and hydrogen projects, as well as a research institute in a yet-to-be built carbon-neutral city, the leveraged money will be used to support a solar cluster including hundreds of megawatts of installed PV, an integrated crystalline-based value chain production.

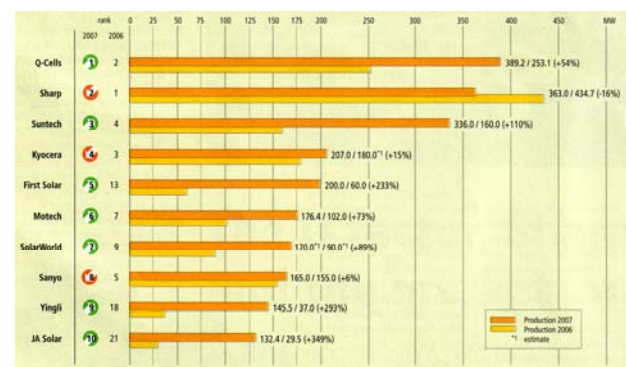
**Price Index / Top 10 PV Cell Producers**

The following graphs present the **global trend for the price of solar modules and the top 10 PV producers**. The price is reflecting retail cost, no taxes and serves for indication only. The latest graph on the top 10 PV cell producers in 2007 (2006) (ref: Photon International in April 2008).

Solar modules (1<sup>st</sup> May 2008)



Top 10 PV cell producers 2007 (2006)



**Important Events**

<p><b>May 5-7, 2008</b> Trade fair: <b>Semicon Singapore 2008</b> Singapore <a href="http://www.semi.org">www.semi.org</a></p>	<p><b>June 4-7, 2008</b> Conference &amp; Exhibition: <b>Renewable Energy Asia 2008</b> Bangkok, Thailand <a href="http://www.cmpthailand.com">www.cmpthailand.com</a></p>	<p><b>June 18-19, 2008</b> Conference: <b>5th Annual Renewable Energy Finance Forum - Wall Street</b> New York, USA <a href="http://www.euromoneyenergy.com">www.euromoneyenergy.com</a></p>	<p><b>October 7-8, 2008</b> Photovoltaic Forum &amp; Exhibition <b>Taiwan 2008</b> Taipei, Taiwan <a href="http://www.taiwantrade.com.tw">www.taiwantrade.com.tw</a></p>
<p><b>May 10-12, 2008</b> <b>SNEC &amp; CESEE Exhibition</b> Shanghai, China <a href="http://www.snec.org.cn">www.snec.org.cn</a></p>	<p><b>June 5-7, 2008</b> Conference &amp; Exhibition: <b>2008 Shanghai International Photovoltaic Expo</b> Shanghai, China <a href="http://www.sh-wes.com">www.sh-wes.com</a></p>	<p><b>July 30 - August 1, 2008</b> Trade fair: <b>PV Japan 2008</b> Tokyo, Japan <a href="http://www.pv-japan2008.org">www.pv-japan2008.org</a></p>	<p><b>October 13-17, 2008</b> <b>Solar Power 2008</b> San Diego, United States <a href="http://www.solarpowerconference.com">www.solarpowerconference.com</a></p>
<p><b>May 11-16, 2008</b> <b>33rd IEEE Photovoltaic Specialists Conference</b> San Diego, California, USA <a href="http://www.33pvsc.org">www.33pvsc.org</a></p>	<p><b>June 11-13, 2008</b> Exhibition: <b>Solar Taiwan 2008</b> Taipei, Taiwan <a href="http://www.optotaiwan.com">www.optotaiwan.com</a></p>	<p><b>September 1-5, 2008</b> <b>23rd European Photovoltaic Solar Energy Conference and Exhibition</b> Valencia, Spain <a href="http://www.photovoltaic-conference.com">www.photovoltaic-conference.com</a></p>	<p><b>October 21-23, 2008</b> Trade fair &amp; Conference: <b>Power-Gen Asia 2008</b> Kuala Lumpur, Malaysia <a href="http://www.powergenasia.com">www.powergenasia.com</a></p>
<p><b>May 21-23, 2008</b> <b>International Green Energy Expo Korea 2008</b> Daegu, Korea <a href="http://www.energyexpo.co.kr">www.energyexpo.co.kr</a></p>	<p><b>June 12-14, 2008</b> <b>Intersolar 2008</b> Munich, Germany <a href="http://www.intersolar.de">www.intersolar.de</a></p>	<p><b>October 7-10, 2008</b> Conference &amp; Exhibition: <b>Clean Energy Asia 2008</b> Singapore <a href="http://www.terrapinn.com/2007/solar/">www.terrapinn.com/2007/solar/</a></p>	<p><b>November 26-28, 2008</b> <b>ISES 3rd Asia Pacific Congress</b> Sydney, Australia <a href="http://www.ises.org">www.ises.org</a></p>

**Further Information**

Following links provide further information on industry and country news:

- [www.solarbuzz.com](http://www.solarbuzz.com)
- [www.epia.org](http://www.epia.org)
- [www.renewableenergymagazine.com](http://www.renewableenergymagazine.com)
- [www.iea-pvps.org](http://www.iea-pvps.org)
- [www.solarplaza.org](http://www.solarplaza.org)
- [www.prometheus.org](http://www.prometheus.org)
- [www.photon-magazine.com](http://www.photon-magazine.com)
- [www.renewableenergy.com](http://www.renewableenergy.com)
- [www.refocus.net](http://www.refocus.net)
- <http://en.china-solarenergy.com>
- [www.enf.cn](http://www.enf.cn)
- [www.marketwatch.com](http://www.marketwatch.com)

The MBIPV project is a national project initiated by the Government of Malaysia with co-financing from Global Environment Facility whose fund is disbursed through the United Nations Development Programme.

The MBIPV project objective is to reduce the long term cost of the BIPV technology in Malaysia. This is achieved through the widespread implementation of BIPV applications and creation of enabling environments on policy and industrial side in Malaysia. To have further information on MBIPV, please visit [www.mbipv.net.my](http://www.mbipv.net.my).