

Aggressive advertising campaign: Suntech Power invited the conference participants to an opulent dinner with music. The PV manufacturer always attaches great importance to a high level of presence in society. In Shanghai, large advertising spaces have been rented for a campaign on solar technology, and board chairman Zhengrong Shi appears in public on various occasions.



The right place at the right time

The future of the Chinese PV market played a major role at the congress of the International Solar Energy Society (ISES) in China in mid-September. The open political discussion pointed out the opportunities as well as the limitations of feed-in tariffs in China.

A conference in the right place and at the right time. This can be said about the ISES Solar World Congress 2007, which took place in Beijing, China from 18th to 21st September. The conference of the International Solar Energy Society (ISES) is held every second year at varying locations, and the organisers usually have a talent for choosing the right venue. This was the case again this year, with China being the place of choice. The booming solar industry of the host country attracted 600 participants from overseas, and 300 Chinese trade visitors also registered. Typically for ISES conferences, the programme was extremely tightly packed. There were also



Reputable government representative and renewable energies expert in China: Li Junfeng is deputy director of the Energy Research Institute of the National Development and Reform Commission (NDRC).



some welcome extensions to the range of conference topics. In contrast to the past, when there had been a strong bias towards science, there was a remarkable amount of discussion on social and political topics at this year's ISES congress – a development that was welcomed by many participants.

The future of the Chinese PV market played a central role in these discussions. Frequently asked questions were: »What are the problems in the implementation of the Chinese Energy Law, and why is the PV market developing so slowly?« Everybody recognises that the German Renewable Energy Act (REA) cannot be taken over directly, but that specific adaptations are required. In this context, it was a great pity that the lecture by Hermann Scheer, the president of the European Association for Renewable Energy (Eurosolar) and the »inventor« of the German Renewable Energy Act, was cancelled because he did not attend and also did not send a replacement speaker. It would have been a positive signal for the PV industry in China if this prominent politician had tackled the problems of implementation. As

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Critical questions about politics: Charles Sanchez Jimenez, an architect in Taipei, Taiwan, asks why the Renewable Energy Act works in Europe but not in China.



Four conference days, four sponsors: CEO Xin Jian Xu of the vacuum tube collector manufacturer Sunrain Solar Energy Co. welcomed the participants to the second day of the conference. Besides Suntech and Sunrain, the PV manufacturer Yingli New Energy Resources Co. Ltd and the governmental association China Renewable Energy Industries Association (CREIA) sponsored one day of the ISES congress.



Transatlantic talk: the president of Eurosolar Turkey, Tanay Sidki Uyar (on the left), and the director of the Chinese Renewable Energy Society, professor Yang Jinhuan

a result, the lecture by Li Junfeng on »Renewable Energy Strategies and Policies in China« was crucial in the analysis of the above-mentioned questions.

Li Junfeng is deputy director of the Energy Research Institute of the National Development and Reform Commission (NDRC), the highest-ranking government institution for regenerative energies. »Renewables will play a significant role in the future for energy security and climate change in China,« emphasised Junfeng, and presented the government's expansion goals for renewable energies until 2010 and until 2020, as specified in the Chinese Energy Law (see table). The road map for the PV sector schedules a capacity of 400 MW_p by the year 2020. By the end of 2006, only 80 MW_p were installed in the vast country.

According to the government representative, the biggest problem is that the prices for electricity from renewable energy technologies are still too high, and he welcomes the introduction by the government of feed-in tariffs. »A system for classifying tariffs for RE electricity needs to be established, i.e. there should be a related fixed price or bidding price based on the different average costs for different renewable energies.«

Junfeng regards planning certainty as important for investors and the industry: »The tariffs will be published so that investors can plan projects based on fixed electricity prices and the approval procedures can be simplified. The grid company will purchase the energy output from renewable energy systems at the full price. The negotiation period and unnecessary disputes when signing purchase agreements can thus be reduced.«

Obviously, the political will is there, but where are the sticking points in the implementation? Some convincing answers to this question were also given at the conference:

- So far, photovoltaics has been perceived by the government as a technology for the electrification of rural areas, and not necessarily for grid feed-in. »The utilisation of the solar PV in China in the next five to ten years will be mainly for rural electrification, public facility lighting and large scale grid-connected systems,« Junfeng emphasised. The first, and so far biggest, programme for supporting the off-grid sector – the »Brightness Programme« – expired in 2005. Now, the government has issued a new electrification programme for 3 million households.

- The system of passing on the additional costs to the general electricity price by means of a PV feed-in tariff, which is common in Europe, would be impossible to realise in China. In comparison with the income level of the people, electricity prices are already quite high. The state-run energy companies closely monitor electricity price development and intervene if necessary in order to cushion social hardship. Junfeng rules out any further subsidisation of the additional costs for expensive solar electricity: »It would be difficult for the Chinese government to provide as much in subsidies as their German counterparts.« According to Junfeng, it is also highly unlikely at present that the policy of electricity price adjustment and subsidisation will be abandoned.

- Compared with the real incomes of the people, PV systems are too expensive. The increased demand in the EU has given rise to correspondingly higher prices. Thus, it is not surprising that 90% of the Chinese modules are exported to Germany, Japan and the USA. The Chinese market consists only of a few pilot projects initiated by the government, and the off-grid segment for rural electrification.



Attentive listener: The Australian PV expert professor Martin Green from the University of New South Wales listens to the explanations of the German architect Astrid Schneider on »The Solar Government Quarter in Berlin«.

Photos (8): Sven Tetzlaff

Share of renewables in the total primary energy supply by 2010	10 %
Share of renewables in the total primary energy supply by 2020	16 %
Installed capacity of hydropower by 2020	300 GW
Installed capacity of wind power by 2020	30 GW
Installed capacity of biomass by 2020	30 GW
Installed PV capacity by 2020	0.4 GW _p

Well-defined expansion plans of the Chinese government for renewable energies

Source: [1]

● The Chinese PV manufacturers are still largely cut off from cheap offers of solar silicon or wafers. »Chinese solar cell makers have to pay dearly for the stuff, which has somewhat undercut their huge labour cost advantages. Lack of access to polysilicon serves as a barrier to growth or entry for many Chinese companies,« says Sanjeev Chaurasia, vice president of Credit Suisse's Energy Group.

● With regard to their technical know-how, the Chinese are behind in comparison with European or American companies. Moreover, the German industry, for instance, is not really interested in a transfer of knowledge. Frank Haugwitz from the German Agency for Technical Cooperation (GTZ) said on this topic: »The national PV manufacturers have a problem in obtaining the technology. Foreign technology suppliers are not so willing to sell them know-how and machinery.« The Chinese are therefore rather more orientated toward Russian expertise.

Even if not all of these problems could be conclusively resolved, the hosts as well as the guests of the Solar World Congress certainly profited from the choice of venue. It is to be hoped that the next ISES congress in South Africa in two years will be a success in this respect as well.



Sven Tetzlaff

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[1] Li Junfeng, secretary general of the Chinese Renewable Energy Industry Association: Presentation »Renewable Energy Strategies and Policies in China« at the ISES Solar World Congress 2007.

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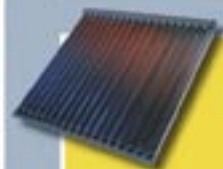


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