

2007 Robert Hill Award for Photovoltaics for Development Laudation

Bernard McNelis and Anthony Derrick
IT Power
Grove House, Lutyens Close
Chineham, Hampshire, RG24 8AG, UK
Tel: + 44 1256 392700
Fax: +44 1256 392701
Email: itpower@itpower.co.uk
Internet: www.itpower.co.uk

Distinguished Guests, Chairman, Ladies and Gentlemen:

I am honored to make this Laudatio for **Wang Sicheng**, the recipient of the 2007 Robert Hill Award for the Promotion of Photovoltaics for Development. This speech has been prepared by Bernard McNelis, who regrettably is unable to be with us in Milano; The reason being his daughter Terri Zhu was born at 04:40 BST this morning.

Like many of his generation, after secondary school, Wang Sicheng spent six years of his youth experiencing the Cultural Revolution by working in the countryside. After his 'release', he then studied chemistry at Xiamen University, in Fujian Province in the south of China, where he received his Masters degree in 1981. His thesis was on numerical methods for studying photoelectrodes, and won him 2nd Prize from the Education Bureau of Fujian Province. He then joined an Electronics Research Institute in Beijing and began his career in Photovoltaics.

His first projects included working on a 560Wp PV battery charger, installed in Balinyouqi, Inner Mongolia, and the first PV telephone for rural areas, installed in Yuzhen in Henan Province. Both projects received prizes from the Ministry. He also installed the first PV microwave repeater station in 1984 (Fig 1).



Figure 1: Wang Sicheng (right) installs first PV Telecommunications System in China (1984)

In 1985 he was promoted and started to manage R&D projects, mostly development of small and medium sized PV systems.

In 1986, Wang Sicheng attended his first European PV Conference, the 7th EPVSEC in Sevilla. He was sent by the State Science and Technology Commission, and presented a paper on the Status of PV in China. We had a Developing Countries Workshop in the Conference, organised by Bob Hill. I also presented a paper on the status of PV Pumping. He was the only Chinese to attend the Conference; I wonder at the time did he dream of how today China is such a large and fast-growing part of the PV World?! His spoken English wasn't so good at the time and he had trouble understanding the orals, so he spent most of his time in the Poster Sessions and diligently recorded progress around the world. But he did manage to talk to one of the PV World Leaders, Antonio Luque (Fig 2).



Figure 2: Wang Sicheng meets Antonio Luque, 7th EPVSEC, Sevilla (1986)

When he returned home, he published a report on the Conference in the newly launched Chinese Solar Energy Journal.

In 1990, he started to put his technical excellence into significant practice. He directed the project to design and install a 10kWp village power system in Geji, Tibet (Fig 3).



Figure 3: Wang Sicheng dresses in National Costume for dedication of PV Systems, Tibet (1990)

He added to his established interest in exciting and high quality technology, a devotion for bringing electricity and modern energy services like lighting, to poor people who could otherwise never hope to be connected to the electricity grid. That project won him Second Prize from the Ministry of Electronics Industry.

He continued with projects in Tibet in the early 90s, including a PV satellite ground station and TV transmitter at Menshi, this project winning a prize from the Chinese Academy of Sciences. And in 1993 he was awarded a government ‘bonus’ for his ‘Special Contribution to the Science and Technology of China’.

Throughout the 90s, he attended conferences around the world and published papers, including contributing to the UNESCO World Solar Summit Process in 1995. In 1996 he moved to the Beijing Jike Energy New Technology Development Company, as General Manager. Beijing Jike is part of the Energy Research Institute (ERI), of the National Development and Reform Commission (NDRC). He directed work on PV in rural schools, microwave repeater stations, street lighting, and cathodic protection of oil pipelines. He also started to work more closely with the International Donor agencies, all of which had become very interested in PV in China.

The well-known World Bank – Global Environment Facility China PV Programme started in 1996. Anil Cabraal, the first winner of the Robert Hill Award in 2005, was instrumental in getting this started. Wang Sicheng has played a major role in the Programme throughout.

He led the world’s largest PV Rural Electrification Programme, the Song Dian Dao Xiang Project (SDDX, Unelectrified Township Power Supply Project), which installed PV in 70 villages, with a total capacity of 1.3 MWp.

China is often in the news over the quality of it’s manufactured products. There are horror stories about children’s toys which can be lethally dangerous, fake DVDs, even fake wine (disgraceful!), and drugs (even more disgraceful!). But China’s PV industry is booming, and providing top-quality PV modules into the World market.

One of Wang Sicheng’s major contributions to Photovoltaics for Development, and which is included in the citation on his Robert Hill Award, is his huge contribution to promoting high quality of components and systems and the development of Standards. He is the principal author of three Chinese National Standards (confusingly, to the British, called ‘GB’s!)

He has supported and contributed to PV-GAP,. In 1998 he joined a Training Course in India on PV-GAP and ISO 9000, led by Ramon Dominguez. He immediately put his new knowledge into practice, starting in 1999 teaching in China (Fig 4).



Figure 4: Wang Sicheng teaches ISO 9000 and PV-GAP, Beijing (1999)

Ramon and Peter Varadi, who cannot be with us in Milano, have sent their personal congratulations.

Wang Sicheng is a member of the PV-GAP Advisory Board. He supervised the translation of the PV-GAP manual into Chinese, supported by the World Bank.

Wang Sicheng has not limited his PV activities to rural applications. He has worked on PV grid-connection, including developing standards, and PV integration into buildings. He has directed projects for the Ministry of Science and Technology (MOST) which completed 5kWp and 20kWp PV buildings in Beijing by 2003, and more recently the 140kWp for the Beijing Streetlight Bureau and 300kW on the rooftop of the new Capital Museum in Beijing. He is working on a 100kWp project for the 2008 Olympics. Earlier this year he published a paper on Technology and Engineering of BIPV.

He is also currently working on studies for MWp scale PV for the Gobi Desert, and he contributes as an expert to the IEA-PVPS Task 8. As a dynamic leader in all of China’s PV activities, last year at the 9th China National PV Conference in Chengdu he received the SunTech Special Award.

Like many of us involved in PV for development, we also dress up in suites to respond to market forces, and hence work in the grid-feeding and plenty-big tariff subsidy (PV-greeding!!) arena (Fig 5).



Figure 5: Wang Sicheng advises on building Integrated PV in Macao (2006)

But, Wang Sicheng's passion firmly remains with bringing PV services to poor rural and disadvantaged people. For all of this he receives the 2007 Robert Hill Award.

Congratulations on behalf of the world PV Community

