

“Global PV Policies: Successes, Challenges & the Way Ahead”

***“Asian Policy Perspectives -
China and Taiwan”***

Solarcon India

Hyderabad, India, Nov 9-11, 2009

Frank Haugwitz



China Political Framework

- January 06 RE-Promotion Law came into effect
 - Amendments are currently under preparation
- September 07 Mid & Long-Term Dev. Plan (NDRC)
 - Unofficial New Targets for PV released in Mid May 2009
 - 2 GW by 2011 and 20 GW by 2020
- May 09 Long-Term Solar Dev. Plan (State Council)
Proposed Targets:
 - 2010 (3.5 GW) 2020 (50 GW) and by 2050 (500 GW)



Ministry of Finance

March 23, 2009 -- Announcement

- Subsidy of up to € 1.5 - 2 / Wp
- Priority: Roof-Top & BIPV
- Minimum capacity 50 kWp
- Focus are public buildings
- Eligibility: cell type (mono, poly, thin) must have a minimum efficiency of 16, 14, and 6%
- Cap (Budget / Capacity) unknown
- 2009 is a trial period
- Submission deadlines
 - a) May 15
 - b) August 30, 2009



关于印发《太阳能光电建筑应用财政补助 资金管理暂行办法》的通知

财建[2009]129号

各省、自治区、直辖市、计划单列市财政厅(局), 新疆生产建设兵团财务局:

为贯彻实施《可再生能源法》, 落实国务院节能减排战略部署, 加快太阳能光电技术在城乡建筑领域的应用, 我们制定了《太阳能光电建筑应用财政补助资金管理暂行办法》。现予印发, 请遵照执行。

财政部

二〇〇九年三月二十三日

By May 15 applications approx. 600 MW !



Province of Jiangsu PV Policy

On Grid Purchase Price (€cents/kWh)

Year	Ground-Mounted	Roof-Top	BIPV
2009	21.5	37	43
2010	17	30	35
2011	14	24	29
Cap (MW)	130	260	10

Company	Quota (MW)
Suntech Power	80
Trina Solar	30
Sunergy	20
JA Solar Holdings	20
ET Solar	20
Total	170

June 19, 2009 the Provincial Govt. of Jiangsu announced a Feed-in-Tariff based support scheme for up to 400 MW by 2011.



Irradiation: 1050-1400 kWh/m²



Golden Sun Programme (MoF, MoST, NEA)

July 21, 2009 -- Announcement

- Duration the next 2-3 years (2011/12)
- Supports all types of demonstration projects up to 500-600 MW or 20 MW cap per province
- Minimum System Capacity 300 kW
- Subsidy 50% for on-grid // 70% for off-grid systems
- 20 years of operation, 30% equity required
- If Subsidy Level is € 1.5-2/Wp \approx € 900 Mio - 1.2 bn.

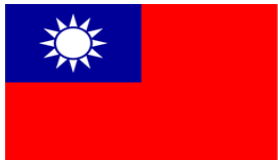
MoF & Golden Sun Programme merged in July 2009
Approx. 60-80 MW with budget €130 Mio approved!

China's Solar Energy Resource Distribution Map - Reference for a National Feed-in-Tariff (FiT) Scheme (?)



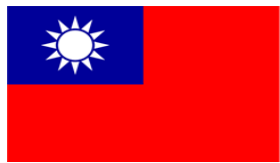
Zone	kWh/m ² /a	Share of Natl. %
I	≥ 1750	17.4
II	1400 ~ 1750	42.7
III	1050 ~ 1400	36.3
IV	< 1050	3.6

Indicated FiT:
€cents 10-15/kWh
Conditions ?
Introduction ?



Taiwan Political Framework

- June 2008 “Framework of Sustainable Energy Policy”
- April 15-16, 2009 the 3rd National Energy Conference
- **July 8, 2009 “Renewable Energy Development Act”**
 - By 2025: 15% RE share of installed power generation capacity
 - PV Targets:
2010: 31 MW // 2012: 60 MW // 2015: 320 MW // 2025: 1 GW
- **Green Energy Industry Programme: Photovoltaic**
 - Turnover 2008: € 2.1 bn. // 2009e: € 2.4 bn.
 - Turnover Target 2015: € 9.2 bn. = Top 3 global manufacturer
- **Further Legal Instruments under Preparation**
 - Greenhouse Gas Emission Reduction Act
 - Regulations on Energy Tax
 - Sustainable Energy Basic Law



Taiwan PV Feed-in-Tariff

On Sept. 21, 2009 Tentative PV Feed-in-Tariff released

Public Hearings: Sept. 24, 2009 // Oct. 2, 2009

Capacity (kW)	Feed-in-Tariff (NT\$/kWh) for 20 years
1-10	NT\$ 8.1243 (€cents 0.168) plus Subsidy NT\$ 50.000 (€ 1040) for Equipment Cost
10-500	NT\$ 9.3279 (€cents 0.193)
> 500	NT\$ 9.0270 (€cents 0.187)

TPVIA: On average 20% increase → ROI ≈ 7-10 years

Differentiated Tariffs for different Applications

***“Thank you for your
attention”***

A hand is holding a blue, textured object that resembles a circuit board or a map. The object features a white outline of the map of China in the center, surrounded by white lines that look like circuit traces or a grid. The background is dark with some blue bokeh lights.

Contact Details

Beijing, China

Tel.: 0086 – 1390 1133 214

Email: fh@frankhaugwitz.info

Frank.Haugwitz@gmail.com

URL: China Renewable Energy Information

URL: www.frankhaugwitz.info