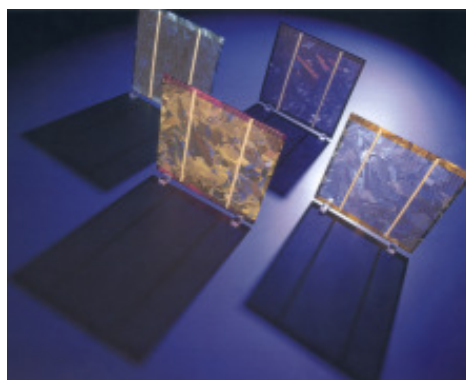




**MILESTONE REPORT FOR
PARTICIPATION IN
IEA PVPS TASK 1 MEETING
IN SOPHIA ANTIPOLIS, FRANCE**

Prepared by:

Malaysia Building Integrated Photovoltaic (MBIPV) Project



MILESTONE REPORT

for

*Participation in IEA PVPS Task 1 Meeting In
Sophia Antipolis, France.*

Malaysia Building Integrated Photovoltaic
(MBIPV) Project

UNDP Project No.	MAL/04/G31 (Project ID: 42090)
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Table of Content

Introduction.....4
Background4
31st IEA PVPS Task 1 Meeting, France.....5
Notes of Meeting discussions.....7
Relevant Action Items.....11
Action List.....11
Conclusions.....11

Introduction

This milestone report covers the Malaysian participation in the 31st Task 1 Meeting on 17 - 18 June 2008 at Sophia Antipolis in France. This activity was carried out by G. Lalchand from MBIPV Team Component 3.

Background

Malaysia has participated in IEA PV PS events since the commencement of the MBIPV project to provide support to generate publicity coverage on the development of PV in Malaysia so as to qualify to join the "IEA PV PS Community".

Malaysia had subsequently been invited to be a full member of IEA PV PS. The formalities to do so have been initiated by PTM/MBIPV, but formal approval from the Ministry of Energy, Water and Communications is still being processed. Nevertheless, MBIPV continues to participate in IEA PV PS as the Malaysian representative pending completion of the relevant formalities.

The TA (Technical Advisor) for Component 1 of the MBIPV Project team has been the Task 1 representative from Malaysia and participated in the IEA PV PS 30th Task 1 meeting in Tokyo from 10 to 11th December 2007.

The TA for Component 3 was assigned to represent Malaysia for the 31st Task 1 meeting in place of the Component 1 TA.

31st IEA PVPS Task 1 Meeting, France

Date / time	Activity	Location
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Tuesday, 17th & 18th June 2008

9:15 am – 5:30pm

The meeting was attended by the following country and organization representatives:

- | | |
|--|---|
| 1. Mr. Greg Watt, Australia
PVPS Consortium Task 1
Operating Agent | 9. Mr. Peter Ahm, Denmark |
| 2. Mr. Andre Claverie, France | 10. Mr. Pius Husser, Switzerland |
| 3. Dr Lothar Wissing, Germany | 11. Mr. Rolland Bruendinger,
Austria |
| 4. Dr Ulf Malm, Sweden | 12. Mr. Salvatore Castello, Italy |
| 5. Adam Hultqvist, Sweden | 13. Ms Izumi Kaizuka, Japan |
| 6. Dr Vicente Salas, Spain | 14. Lars Bugge, Norway |
| 7. Mr. Osamu Ikki, host for
Japan | 15. Ms Carol Anna, USA |
| 8. Mr. Paul Cowley, United
Kingdom | 16. G. Lalchand, Malaysia |

In attendance:
Ms Mary Brunisholz
IEA PVPS Executive Secretary

The tentative programme for the 31st meeting is shown in the table below.

Tuesday 17th June 2008 9:00am	Welcome Apologies and recognition of meeting participants Any matters arising from previous Task 1 and ExCo meeting Plans for next Task 1 meetings	Nice, location to be advised	
	NSRs – issues arising from 2007 reports; comments on new template and guidelines.		
10:30 – 10:45	Break		
	PVPower newsletter – issues for 2008		
12:30 – 13:30	Hosted lunch		
	Trends report: final plans for 2008 report		
15:00 – 15:15	Break		
	Country presentations 1		
17:00	Close of meeting - day 1		
	Hosted dinner		
Wednesday 18th June 2008 9:00am	The 'new' website – progress, requirements and plans	Nice, location to be advised	
10:30 – 10:45	Break		
	Special projects – new ideas? Task 1 organized workshops – reports & plans		
12:30 – 13:30	Hosted lunch		
	Country presentations 2		
15:00 – 15:15	Break		
	Country presentations continued Any other business		
17:00	Close of meeting		
	Informal group dinner		
	Item	Responsible person	Timing
	1. Circulate ExCo minutes to Task 1	Greg	post-meeting

Notes of Meeting discussions

Issue	Summary of discussion
Opening by ADEME (Jean Michele)	The opening remarks mentioned the French national target to achieve 20% RE by 2020, including having 5 GW of PV (800 times the current capacity).
Matters arising from previous Task 1 and ExCo meeting	<p>Greg Watt briefed the T-1 Group on the interaction between PVPS Task Groups at the Ex-Co level, & T-1 responsibility for information dissemination. T-1 has proposed increasing the frequency of publications but Ex-Co raised cost concerns. Alternatives considered were to have "Newsletter" form of publications. Other points were:</p> <ul style="list-style-type: none"> • Discussion on greater use of digital info dissemination vs hard copies, though hard copies are still important for "public awareness raising" at events like conferences, workshops, etc. • Greater use of digital form meant the need to upgrade web-site content & management, especially to be up-to-date. • Trends Report depends on NSRs, & it was agreed that its contents and formatting needed review. Among the revisions were: <ul style="list-style-type: none"> ○ Removal of some front pages, ○ Reformatting of some tables (e.g. Section 4, Table 9 to define support measures, such as "net-metering" vs "net-billing", etc. <p>Ms Sarah Davidson (UK) offered to provide a revised format for T-1 consideration.</p> <ul style="list-style-type: none"> • Discussions on IEA PVPS Communications strategy & methodology attempted to optimize effort (& costs) against desired outputs. Important in this respect is accuracy and timeliness of info through the country reports. Ms Carol Anna (USA) offered to assist with input on communications strategy. • Web-site development had received strong support from Mr. Paul Cowley (UK). He gave detailed recommendations on proposed improvements & shortcomings to overcome. <ul style="list-style-type: none"> ○ A key issue was to access archived documents & make them available on the web. ○ Another important issue was to have comprehensive FAQs on the web so as to minimize questions to Country Reps who may not have the time too entertain the large no. of Qs they receive. ○ Suggestion to reformat web pages to use the space effectively & not waste space with unnecessary pictures. ○ Thus, web based info needs to be concise & "reader-friendly"; so it must avoid long paragraphs.
Next T-1 meeting	<p>Although Malaysia had not formally joined IEA PVPS, the Group agreed to have the next T-1 meeting in Malaysia. Based on Malaysian presentation of alternative options, it was agreed to have the meeting at the Tg. Aru Resort in Kota Kinabalu, Sabah. The Group also agreed that the meeting incorporates a "Decision-makers" Workshop to highlight the PV industry development & its important role in future clean energy from indigenous resources. It was also agreed that the meeting in Malaysia may stretch over 3 days instead of the normal 2-day meetings for T-1.</p> <p>The meeting was also reminded of the National PV Conference in Malaysia on 14 August 2008.</p>

Issue	Summary of discussion
Country reports	<p>Some key issues from the country report presentations are listed below.</p> <p>The key points from each of the presentations are as follows:</p> <p>France – (Andre Claverie – ADEME)</p> <ul style="list-style-type: none"> • The PV tariff comprise 2 parts, a base tariff & a PV bonus making a total of about €0.57 / kWh. Incentives also include a 50% tax credit up to a limit of €8,000 per family • PV installed was 11 MW in 2006 & 27 MW in 2007. • The presentation highlighted a Solar Nano Technology project with fabrication capacity of 25 MW per annum. <p>Germany - (Dr. Lothar Wissing – PTJ Division, BMU - Federal Ministry for the Environment, Nature Conservation & Nuclear Safety).</p> <ul style="list-style-type: none"> • Dr. Lothar gave some key statistics of his organisation and its budgets (e.g. € 77.9 million for 2007 for Renewables). • PV installation in 2007 was about 1,100 MW (1,300 by Photon International), giving a cumulative capacity of 3,600 MW comprising about 430,000 systems & generating about 7,000 GWh/an.. • PV business turnover was € 5.7 billion, with investment of € 1.9 billion, and employment of about 42,600 jobs. • PV installed price range was about € 4.3 to € 5.2 per Wp. • EEG revision in 2009 foresees more drastic PV FIT depression. <p>United Kingdom (Sarah Davidson – IT Power)</p> <ul style="list-style-type: none"> • Not much has changed in UK, with PV installation of about 3 MW making a total of about 17 MW installed. Majority was funded from a “Low Carbon Building Programme (LCBP)” • Micro generation strategy was launched in 2006 for capacity of up to 50 kW. • Manufacturing capacity expansion – Sharp (100 MW to 200 MW) and Romag (glass-glass from 12 MW to 28 MW). • Expansion plans also for Crystalox (from 290 to 350 MW) & EPOD Solar (from 3 to 5 MW). • Incentives for PV in 2006 (£ 80 million renewables for 3 years, with £ 50 million for large public buildings), but incentives have run into problems & have not produced the success intended. • A Solar for Schools programmes gives 50% rebate for 4 kWp systems • Energy Bill for FIT failed in Parliament in 2008. • All buildings from 2016 must be “Zero-Carbon”. <p>Norway – (Lars Bugge – KanEnergi)</p> <ul style="list-style-type: none"> • R&D investment by Govt (€7.0 million) and private sector (at least €12 million). Major R&D by private sector & universities. • Energy supply is mainly from hydro & there is no stimulation package for solar yet. • PV installations in 2007 exceeded 1MWp for the year & expect same in 2008. Total PV capacity is about 7-8 MW. • Norway has major production capacity (REC business revenue alone > US\$ 1.0 billion), with employment of about 1,200 persons. <p>Sweden –</p> <ul style="list-style-type: none"> • PV support in Sweden is limited, capped at €15 million in 2007, • Cap was removed for 2008 but the scheme ends by end of 2008.

	<ul style="list-style-type: none"> • PV installed capacity in 2007 passed 1.0 MW & expected capacity for 2008 is also about 1.0 MW. <p>Italy – (Salvatore Guastella – CESI Recera)</p> <ul style="list-style-type: none"> • About 70 MWp of PV installed in 2007, making a total of about 120 MWp. • Forecast for end 2008 is 250 MWp, with 201 installed by June. • About 53 MWp of Grid connected PV is distributed while about 17 MWp is centralised. • Investment in R&D is about €5 million while for @Market Stimulation@ is about € 20 million. • New Feed In decree raised forecast capacity from 1 GM to 3 GW by 2016. • FIT varies from €0.49 to €0.36 for small & large plants respectively. • Manufacturing capacity to increase by 2008 for PV Cells (13 to 100 MW) & Modules (72 to 180 MW). • There is no support for concentrating systems. <p>Switzerland – (Pius Husser)</p> <ul style="list-style-type: none"> • Installed PV capacity increased from 2.5 MW in 2006 to 6.5 MW in 2007 (at added cost of 20 million CHF, but resulting in industry business value of CHF 950 million) • New FIT has been instituted in Switzerland, effective 01/01/09, over 25 year period; FIT will decrease by 8% pa from 2010. • FIT values from €0.30/kWh (for ground mounted) to €0.55/kWh (for BIPV) installations. • Over 3,000 applications submitted for FIT from May to July 08. <p>Korea – (Pius Husser)</p> <p>Input for Korea was presented by Pius Husser.</p> <ul style="list-style-type: none"> • Main point of interest was that the current FIT will be replaced with new values from October 2008 until 2011. • Beneficiaries (PV owners) chose whether to opt for 15 years or 20 years tariffs with corresponding FIT. (older FIT only for 15 years). • Capacity limit (cap) increased from 100 MW to 500 MW • By end 2007, 46 MW (225 systems) installed & 567 MW (899 systems) under construction or planned). • RPS will replace FIT from 2012. <p>Austria – (Roland Brundlinger – Arsenal research)</p> <p>Federal programme:</p> <ul style="list-style-type: none"> • PV capacity installed in 2007 was 2.1 MW making a total installed capacity of 27.7 MW. • Green Electricity Act (GEA) – first enacted in 2003. 2006 version covers period 2006 to 2011. Total RES target is 10% by 2010, with funding capped at €17 million a year, which also caps the Purchase Obligation for the utilities. • Share of RE fixed for different forms of RE, with PV included as a part of “others” forming only 10%. Of the etotal. • FIT is on a dedining rate over the period (100% for 10 year, 75% in year 11, 50% in year 12) • GEA revisions for 2008 not passed but cater more for non-PV RE. <p>Provincial programmes</p> <ul style="list-style-type: none"> • Different provinces have different standards, with FIT varying from €0.30 to €0.46. Some provinces also give capital rebates,
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	<p>but Vienna gives only 50% rebate without any FIT.</p> <ul style="list-style-type: none"> • Overall, PV is not seen as an attractive “energy relevant” option in Austria. <p>Australia – (Greg Watt)</p> <ul style="list-style-type: none"> • Climate change concerns drive PV & other RE in Australia. • Plans are for 20% RE by 2020 , with support for Solar Cities (combining EE & RE) • PV in Australia is mainly for off-grid use. • Plans are afoot to push for a national FIT instead of individual State FITs. • Rebate scheme provides roughly 50% capital . <p>United States of America – (Ms Carol Anna)</p> <ul style="list-style-type: none"> • PV capacity installed in USA has exceeded 209 MW. • Largest systems are 14.2 MWp in Nevada, & 8.2 MWp in Colorado.
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The pictures below show the meeting in progress, the informal dinner for the participants, and views of the hotel (Media Garden) which is located in the Sophia Antipolis Science Park, an area which is developed to follow the natural contours of the land, with the building being designed to blend in with the landscape.



Relevant Action Items

Some key “Action Items” are listed below :

Issue	Comments
NSR reports	Sarah Davidson to provide new format
Communications strategy	Carol Anna offered to give input
Web-site enhancement	Paul Cow ley greed to implement as discussed
Definition of Support Measures	Greg Watt to provide input
PV Pow er annual publications	Suggest Country Reps to raise at Ex-Co meeting
FAQs	Greg Watt w ill expand current content
“Common” public enquiries	Greg Watt offered to draft as additional FAQs

Action List

The follow ing is an action list to be carried out after the Japan mission trip.

Action list	Status
Briefing to MBIPV team	Done, 25 th July 2008
Prepare for 32 nd Task 1 Meeting to be hosted in Malaysia	Not yet; to be done later.

Conclusions

To date, Malaysia has participated in Task 1 IEA PV PS activities without being a formal member yet. Participation in the IEA PV PS activities has put Malaysia on the international PV industry “radar screen”.

Participation in PV PS Task 1 gives Malaysia access to the vast first hand know ledge through exchange of information with other members. Such information would not otherwise be available through the usual media publications or electronic channels. This know ledge enables Malaysia to “leap-frog” our neighbours and to benefits from other countries’ experience, w hich is valuable in time and funding.