

ANNEX 1: INDICATORS WITH ANNUAL TARGET VALUES (updated August 2007)

SUCCESS INDICATORS	TARGETS ¹ (as expected by the 30 th June of corresponding year)					
	BASELINE	2006	2007	2008	2009	2010
Development Goal: The annual growth rate of GHG emissions from fossil fuel fired power generators is reduced via the widespread implementation of BIPV application to replace part of the current fossil fuel use in Malaysia, and via the cost reduction of the BIPV technology						
The amount of annual GHG emissions avoided from fossil fuel-based power generation – in tons CO2 of the cumulative installed PV capacity (inclusive of awarded Suria 1000 capacity but not yet commissioned)	0 tons (0 kWp)	3.78 tons (5 kWp)	98.3 tons (130 kWp)	359.1 tons (475 kWp)	861.8 tons (1140 kWp)	1168 tons (1545 kWp)
Project Purpose: The overall capacity (technical, policy, planning, institutional, fiscal, financial) both in government and the private sectors, to develop, design and make use of the BIPV energy potential and to develop local industry is significantly improved.						
1) % of increased installed BIPV capacity against baseline (inclusive of awarded Suria)	468 kWp	1%	28%	101%	243%	330%
2) % of BIPV unit cost reduction against baseline	US\$8,266	0%	2%	6%	12%	20%
3) No. of National BIPV program integrated into the 10th Malaysian Plan	0	0	0	0	0	1
Objective 1: BIPV Information Services, Awareness and Capacity Building Programs						
1.1. Integrated information and awareness building program on BIPV						
4)	<ul style="list-style-type: none"> No. of books/magazines/references available in the resource centre at PTM No. of staff available as BIPV spokesperson 	0 0	22 10	24 10	27 10	27 10
5)	<ul style="list-style-type: none"> No. of hits on the BIPV website and visitors each year that received information 	0	120	120	120	120
6)	<ul style="list-style-type: none"> No. of media articles published No. of brochures distributed No. of PVPS meetings attended 	8 0 2	1 0 1	2 500 1	2 500 1	2 500 1
7)	<ul style="list-style-type: none"> No. of media adverts published No. of seminars/workshops organized No. of talks delivered No. of developers' launching No. of road show implemented 	0 2 3 1 0	4 3 4 0 0	4 2 2 1 1	4 1 2 1 1	4 3 2 0 0

¹ Targets could either refer to the target completion date or the annual target value corresponding to a particular indicator.

SUCCESS INDICATORS		TARGETS ¹ (as expected by the 30 th June of corresponding year)					
		BASELINE	2006	2007	2008	2009	2010
1.2. National BIPV database							
8)	<ul style="list-style-type: none"> No. of download from BIPV database and visitors each year that received information 	0	0	50	50	50	50
1.3. BIPV training courses							
9)	<ul style="list-style-type: none"> No. of in-house training course organized 	0	1	0	0	0	0
	<ul style="list-style-type: none"> No. of support staff (PTM) fully trained. 	0	11	0	0	0	0
10)	<ul style="list-style-type: none"> No. of training manual developed 	0	0	1	0	0	0
	<ul style="list-style-type: none"> No. of training institute established 	0	0	1	0	0	0
11)	<ul style="list-style-type: none"> No. of trainings conducted 	0	0	2	2	1	0
	<ul style="list-style-type: none"> No. of participants enrolled 	0	0	24	24	12	0
	<ul style="list-style-type: none"> % of participants passing the exam 	0%	0%	80%	80%	80%	0%
1.4. Malaysian PV Industry Association							
12)	<ul style="list-style-type: none"> No. of meetings organized (including pro-tem meetings) 	1	2	2	2	2	2
	<ul style="list-style-type: none"> No. of members (full and associate members) 	0	0	15	17	19	21
1.5. Quality control programs for local industry							
13)	<ul style="list-style-type: none"> No. of BIPV quality consultants appointed 	0	0	0	1	0	1
	<ul style="list-style-type: none"> No. of BIPV systems checked 	0	0	0	1	1	2
14)	<ul style="list-style-type: none"> No. of companies approved as "Approved PV Service Provider" and one-stop centre 	0	0	1	2	2	3
15)	<ul style="list-style-type: none"> No. of BIPV award ceremony 	0	0	0	0	1	1
	<ul style="list-style-type: none"> No. of winners for BIPV award ceremony 	0	0	0	0	1	1
1.6. Capacity building and awareness programs for policy makers and financial sector							
16)	<ul style="list-style-type: none"> No. of participants 	0	15	15	15	0	0
	<ul style="list-style-type: none"> No. of local study missions 	0	1	1	1	0	0
	<ul style="list-style-type: none"> No. of international study missions 	0	1	1	1	0	0

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		BASELINE	2006	2007	2008	2009	2010
1.7. International BIPV event for decision makers							
17)	<ul style="list-style-type: none"> No. of international BIPV event hosted in Malaysia No. of participants 	0	0	0	1	0	1
		0	0	0	50	0	50
1.8. Disseminate information and lessons learn to regional ASEAN countries							
18)	<ul style="list-style-type: none"> No. of presentation at RE-SSN meetings and to other ASEAN countries 	1	0	0	1	1	1
1.9. Impact assessment of BIPV technology development							
19)	<ul style="list-style-type: none"> No. of surveys conducted 	0	0	1	0	0	1
Objective 2: BIPV Market Enhancement and Infrastructure Development Program							
2.1. Standards and guidelines development							
20)	<ul style="list-style-type: none"> No. of PV standard published by DSM 	0	1	0	0	0	0
21)	<ul style="list-style-type: none"> No. building standard/guideline developed 	0	0	0	0	0	1
2.2. Review and final design of the planned BIPV showcases							
22)	<ul style="list-style-type: none"> No. of tender documents or approved design for BIPV showcase “office building” 	0	1	0	0	0	0
	<ul style="list-style-type: none"> No. of tender documents or approved design for BIPV showcase “Government building” 	0	0	1	0	0	0
	<ul style="list-style-type: none"> No. of tender documents or approved design for BIPV showcase “public access building” 	0	0	1	0	0	0
	<ul style="list-style-type: none"> No. of tender documents or approved design for BIPV showcase “residential property” 	0	1	1	0	0	0
2.3. Hardware installation and operation of the BIPV showcases							
23)	<ul style="list-style-type: none"> BIPV showcase “office building” installed capacity 	0	0	45 kWp	0	0	0
	<ul style="list-style-type: none"> BIPV showcase “Government building” installed capacity 	0	0	0	4 kWp	0	0
	<ul style="list-style-type: none"> BIPV showcase “public access building” installed capacity 	0	0	0	20 kWp	0	0
	<ul style="list-style-type: none"> BIPV showcase “residential property” installed capacity 	0	0	20 kWp	36 kWp	0	0

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		BASELINE	2006	2007	2008	2009	2010
2.4. Evaluation of demonstration sites							
24)	• No. of BIPV demonstration applications received	0	2	4	6	8	8
2.5. Design and evaluation of technical and commercial viability for the demonstration projects							
25)	• No. of BIPV demonstration projects evaluated and approved	0	0	3	5	6	6
2.6. BIPV demonstration implementation and operation at government and private buildings							
26)	• No. of BIPV demonstration installed capacity	0	5 kWp	20 kWp	50 kWp	65 kWp	65 kWp
2.7. Review and promotion of national PV program "Suria 1000"							
27)	• No. of review/assessment reports prepared	0	1	1	1	1	1
28)	• No. of adverts published	0	1	2	2	2	2
	• No. of launching/calls for "bidding" announced	0	0	2	2	2	2
2.8. Implementation and operation of "Suria 1000"							
29)	• No. of BIPV systems awarded	0	0	8	18	86	40
30)	• Awarded installed capacity under Suria 1000	0	0	40 kWp	235 kWp	600 kWp	340 kWp
31)	• Cumulative of awarded BIPV installed capacity under Suria 1000 capacity (inclusive of awarded Suria 1000 capacity but not yet commissioned)	0	0	40 kWp	275 kWp	875 kWp	1,215 kWp
2.9. Monitoring and evaluation of BIPV projects							
32)	• No. of PV monitoring centre established	0	0	1	0	0	0
33)	• No. of BIPV systems monitored	0	0	3	8	20	35
34)	• No. of evaluation reports published	0	0	0	1	1	1
2.10. Dissemination and promotion of demonstration program results							
35)	• No. of information (BIPV system and results) disseminated	0	0	0	1	1	1
36)	• No. of workshop participants	0	0	0	0	0	50

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		BASELINE	2006	2007	2008	2009	2010
2.11. Sustainable follow-up program design							
37)	• No. of follow-up program submitted to EPU	0	0	0	0	0	1
Objective 3: BIPV Policies and Financing Mechanisms Program							
3.1. Techno-economic analysis for grid-connected BIPV							
38)	• No. of reports submitted to NSC	0	0	1	0	0	0
3.2. Design and implementation of government incentives to utility and manufacturing industry							
39)	• No. of reports on proposal and recommendation submitted to NSC	0	0	2	0	0	0
3.3. Analysis on existing and new financial mechanism and fiscal incentives							
40)	• No. of assessment reports submitted to NSC	0	0	1	0	0	0
41)	• No. of proposal and recommendation submitted to NSC	0	0	2	0	0	0
3.4. Implementation of a fiscal and financial framework for a sustainable follow-up program							
42)	• No. of policy formulated and proposed to NSC	0	0	0	1	0	0
43)	• No. of policy recommendations endorsed by Government	0	0	0	0	0	1
3.5. Study on past experience and impact on international regulatory schemes							
44)	• No. of assessment report submitted to NSC	0	0	1	0	0	0
3.6. Review and integration of BIPV in existing regulatory schemes							
45)	• No. of assessment report submitted to NSC	0	0	1	0	0	0
46)	• No. of BIPV systems registered under SREP	0	0	16	21	36	84
47)	• No. of reports on proposal and recommendation submitted to MEWC	0	0	1	0	0	1
3.7. Implementation of an institutional and policy framework for a sustainable follow-up program							
48)	• No. of policy formulated and proposed to MEWC	0	0	0	0	1	0
49)	• No. of policy endorsed by Government in the 10 th Malaysia Plan	0	0	0	0	0	1 post-2010

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		BASELINE	2006	2007	2008	2009	2010
3.8. Policy and financial framework implementation, monitoring and impact assessment							
50)	• No. of annual policy impact assessment conducted during 10 th Malaysia Plan.	0	0	0	0	0	5 post-2010
51)	• No. of annual policy impact assessment completed and reviewed by MEWC	0	0	0	1	1	1
3.9. Government liaison and dissemination of results							
52)	• No. of workshop participants	0	0	0	0	0	50
Objective 4: BIPV Industry Development and Technology Localization Program							
4.1. Activities on cost reduction of local BIPV products and system optimization for local condition							
53)	• No. of MoA signed for product development activity	0	1	0	0	0	0
54)	• No. of pre-commercialize inverter produced	0	0	0	2	4	4
	• No. of pre-commercialized inverter pilot tested	0	0	0	0	2	2
	• No. of industry collaboration (MoU) established	0	0	0	0	0	1
4.2. International collaboration and transfer technology program							
55)	• No. of industry missions completed	0	1	1	0	1	0
	• No. of international collaborative program materialized	0	0	0	1	0	1
56)	• No. of business opportunity meetings organized	0	0	3	3	3	3
	• No. of MoUs generated between local & international parties	0	0	0	0	1	1
4.3. Upgrading local industry capabilities							
57)	• No. of industry research conducted	0	0	1	0	0	0
	• No. of business plans developed	0	0	6	0	0	0
58)	• No. of company assisted (industry growth program)	0	0	0	2	2	2
4.4. Establishment of BIPV Quality Control Centre							
59)	• No. of quality control centre (testing facility) established	0	0	1	1	0	0
60)	• No. of international collaboration established.	0	0	0	0	0	1