

**MINUTES OF MEETING OF ROADMAP DEPLOYMENT PLAN TECHNICAL
COMMITTEE FOR GEF 5: UNIDO MAEESTA PROJECT**

No: 1/2019

PROJECT GEF5 : GHG EMISSIONS REDUCTIONS IN TARGETED INDUSTRIAL SUB-SECTORS THROUGH ENERGY EFFICIENCY (EE) AND APPLICATION OF SOLAR THERMAL SYSTEMS IN MALAYSIA

Date: 4 th March 2019	Time: 3.00 am – 4.30pm	Venue: PSM Meeting Room, Level 5, Block C4, MESTECC
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Agenda

1. Welcoming remarks by Chairman
2. Presentation on the summary of the draft roadmap
3. Presentation on the roadmap deployment plan
4. Adjourn

Attendees	Organisation	Absent
1. Mrs Nordina Idris (Chairperson)	MESTECC	Representative from SEDA
2. Mrs Hartini Mohd Nasir	MESTECC	
3. Mrs Siti Zulaikha Mohd Zobir	MEA	
4. Mr Mohamad Zamani Mohamad Said	MITI	
5. Mrs Zabidah Daud	MIDA	
6. Mr Mohamad Faiz Mohd Yusoff	ST	
7. Mrs Norhasliza Mohd Mokhtar	MGTC	
8. Tn Hj Mohd Fauzi Ismail	SIRIM	
9. Prof Dr Sohif Mat	SERI	
10. Dr Ir Philip Tan	FMM	
11. Dr Azmi Hj Idris	PMU	
12. Mr Ahmad Zafuan Mohamed Kassim	PMU	
13. Prof Madya Dr Nofri Yenita Dahlan	UiTM	
Secretary		
14. Mrs. Hasimah Hasan	PMU	

Agenda

1 Welcoming remarks by Chairman

The Chairperson welcomed all the members to the first Roadmap Deployment Plan Technical Committee (RDPC) meeting.

Action: Information

2. Presentation on the summary of the draft roadmap

The Secretary of the Meeting presented the summary of the draft roadmap as follows;

2.1 Status of the roadmap development document

The roadmap development document is at the final stage. PMU, UNIDO and international consultant from AEE INTEC are ensuring that all the comments and inputs from experts and stakeholders been addressed in the roadmap by PwC.

Action: Information

2.2 Summary of the potentials

2.2.1 The market potential of solar thermal has been estimated at 4.86 GWth. with 4.39 GWth for heating and 0.47GWth for space cooling purpose.

2.2.2 The total targeted installation of solar thermal by year 2025 is 939MWth which are contributed by industries (860MWth), hotels (46 MWth) and hospitals (33 MWth). The potential collector areas estimated about 1.35 million square meter (m²).

2.2.3 The solar thermal technology contributions towards national target on GHG reductions by year 2025 is as in the table below.

Action Plan	Annual GHG Reduction Targets (kilotons)	Proportion of GHG reduction target covered by proposed solar thermal deployment (%)
COP21	395,000	0.29%
NREPAP Malaysia (RE 2025)	14,680	7.80%
NREPAP Malaysia (Solar PV-2025)	456	250%
NEEAP (2016-2025)	9,170	12.44%

2.2.4 The total estimated cost of investment is RM 1.54 billion (0.11% of the GDP) to complete the deployment of the entire 939 MWth by 2025. A yearly reduction cost of the system is 4% per annum.

2.2.5 The workforce requirement for the targeted installation is 6120 persons until year 2025.

- 2.2.6 The market growth of the solar thermal technology was projected by 3 different scenarios as follows:
- Business as Usual- Existing scenario (10% heating +5% cooling); achieved 470MWth by 2025.
 - Focused Campaign- Awareness centric (15% heating +7.5% in coming cooling); achieved 704MWth by 2025.
 - Accelerated Deployment- Target Scenario with proactive efforts (20% Heating + 10% cooling); achieved 939MWth by 2025

Action: Information

2.3 Key recommendations by focus area

2.3.1 There are 5 focus areas proposed for the solar thermal roadmap which are i) Financing ii) Policy and Regulatory iii) Technology and R&D iv) Testing, Certification & Standardization, and v) Awareness and Capacity Building

2.3.2 The key recommendations will be presented and discussed in the Workshop 1 Solar Thermal Deployment Plan scheduled on 12th March 2019.

Action: Information

3. Presentation on the Roadmap Deployment Plan

The UNIDO Policy Consultant presented the summary of the roadmap deployment plan as follows;

3.1 The outcomes of the roadmap deployment plan activities is to prepare policy briefs documents for five focus areas highlighted in the Roadmap; i) Financing ii) Policy and Regulatory iii) Technology and R&D iv) Testing, Certification & Standardization, and v) Awareness and Capacity Building

3.2 The methodology of the roadmap deployment plan will covers on:

- i. Get consent from MESTECC as the holder of the solar thermal roadmap
- ii. Establish Roadmap Deployment Plan Technical Committee (RDPC)
- iii. Workshop 1 - Setting up the scene
- iv. Workshop 2 - Analyzing the data
- v. Workshop 3 - Formulating strategies
- vi. Workshop 4 – Final presentation by working groups
- vii. Report and Documentation - Policy brief paper presentation

3.3 The workshop 1 will be held on 12th March 2019. All the four (4) workshops will be conducted from March to June. The exercise targeted to be completed by July 2019.

Action: Information

3.4 The meeting agreed on the Term of Reference (TOR) for RDPC as follows:

- i. To provide advice and supervise the implementation and progress of the roadmap deployment plan by UNIDO MAEESTA project.
- ii. To identify and nominate the related staff from their respective ministry/agency to be the member of the Working Group.

3.5 The RDTC will have a scheduled meeting to update and discuss on the outcomes of the workshops.

Action: Information

3.6 Relevant ministries/agencies have been identified to lead the Working Groups for the 5 focus areas namely:

- i. Policy and Regulatory (Leader : MESTECC-Energy)
- ii. Financing (Leader : MITI)
- iii. Technology and R&D (Leader : MESTECC-STI)
- iv. Testing, Certification & Standardization (Leader : SIRIM)
- v. Awareness and Capacity Building (Leader : SEDA)

3.7 The meeting also discussed on the agencies to be invited to participate in the workshop for working group discussions. Refer to Attachment 1 for the list of the agencies identified to be in the working groups.

Action: Information

4. Adjourn
The meeting was adjourned at 4.30 pm

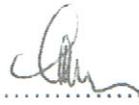
Prepared by:



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Mrs. Hasimah binti Hasan
Secretary of Roadmap Deployment Plan
Technical Committee (RDPC)

Date: 19th March 2019

Approved by:



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Mrs. Nordiaa binti Idris
Chairman of Roadmap Deployment Plan
Technical Committee (RDPC)

Date: 22/4/2019