

**MINUTES OF MEETING OF 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: 7 th March 2019	Time: 9.30 am – 12.30pm	Venue: Bilik Mesyuarat Utama, Tingkat 1, SIRIM
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Agenda

1. Welcoming remarks by Chairman
2. Confirmation of previous minutes of TC meeting No.1/2018
3. Matters Arising
4. Project progress updates
 - o Outcomes from NPSC No.1 2018
 - o Demo project
5. Other matters
 - o MAEESTA Project Fund
 - o Roadmap Deployment Plan
6. Adjourn

Attendees	Organisation	Absent
1. Dr. Zanariah Ujang (Chairperson)	SIRIM	Representative from SERI UKM
2. Tn. Hj Mohd Fauzi Ismail	SIRIM	Representative from MESTECC
3. Mr. Syed Mahathir Syed Azman Shah	NOSS	Representative from ST
4. Mr. Haniff Ngadi	SEDA	
5. Mr. Hammad Ahmad Ainuddin	MGTC	
6. Ir. Dr. Philip Tan	FMM	
7. Dr Azmi Idris	PMU	
8. Mohamad Iskandar Majidi	PMU	
9. Ahmad Zakuan Ahmad Dahalan	PMU	
10. Mohd Arief Firdaus Yusof	PMU	
Secretary		
11. Mrs. Hasimah Hasan	PMU	

Agenda

1 Welcoming remarks by Chairman

- 1.1 The Chairperson welcomed all the TC members to the first Technical Committee meeting in year 2019.

Action: Information

2 Confirmation of previous minutes of TC meetings No.2/2017

The confirmation of previous minutes meeting was proposed by Mr Haniff Ngadi from SEDA and supported by Mr. Mohd Fauzi Ismail from SIRIM without any changes.

Action: Information

3 Matters Arising

- 3.1 Item 2.1 is regarding the awareness seminar. Chairperson suggested for PMU to invite the SME companies under the SIRIM Franhoufer Programme. Hospitals and Hotels shall also be invited for the seminars.

Action: PMU

- 3.2 Item 2.2: The representative from JPK suggested to include JPK and CIAST on the UNIDO training programme as CIAST itself is the centre to train the trainer for the JPK's programmes.

Action: PMU, JPK

4 Project Progress Updates

The Assistant National Project Manager presented the progress updates as follows:

4.1 Outcomes from NPSC Meeting No.1 2018

- 4.1.1 Demo projects fund increase from 20% to 30% to the company
- 4.1.2 The project proposed to be extended from 2nd July until Dec 2020 (18 months)
- 4.1.3 Two demo projects approved with 30% UNIDO funding which are NB Poultry Processing Industries Sdn Bhd (MYR 372,900) and IOI Pan-Century Oleochemicals Sdn Bhd (MYR 115,500)
- 4.1.4 Financial calculations was revised and below template will be used for NPSC approval

Integration Options	Investment Cost (RM)	Annual Savings (RM)	Simple Payback (years)	LCOE (RM/MWh)	Solar Fraction (%)	CO ₂ Reductions (tonne)
Solar Thermal Collector	1,243,000	236,814	5.2	206	81	257.66

Action: Information

- 6.1.1 Representative from FMM suggested for MAEESTA to build up a mini plant for solar thermal in SIRIM. The mini plant will be useful for public to get the information on the solar thermal and cooling technology project. The suggested location is at SIRIM which is situated at the centre of Klang Valley and accessible by the public. The Chairperson suggested for SIRIM representative to identify suitable location and work with PMU on the design. The suggestion will be further discuss in the NPSC meeting for approval.

Action: PMU, SIRIM

4.2 Demonstration Project Progress Updates

The Technical Expert of the MAEESTA project presented the progress updates as follows:

4.2.1 The updates on the solar thermal demonstration projects is as follows:

i. MIWA Manufacturing Sdn Bhd: The installation will begin on 3rd week of March 2019

ii. NB Poultry Processing Sdn Bhd: The company is in progress of improving the roof structure. SIRIM is awaiting for the company to make down payment to start the procurement.

iii. IOI Pan Century Oleochemicals Sdn Bhd: The company completed the tendering procedure. The company is awaiting approval from MIDA on ITA before proceed with the procurement.

4.2.2 There are 4 project proposals been rejected with reasons as follows:

Company	Sector	Energy Saving (MYR)	System Cost (MYR)	SPB	GHG (MT)	Remark
Wan Feng	Wood	32500	103000	3.2	51	Rejected. Long pay back
Advance Chicken	Food	79000	400000	5.1	58	Back out. The new management of the company decided not to participate in the programme
Wipro	Chemical	24800	220000	8.9	35	Rejected due to long pay back
Nexus Karambunai	Hospitality	26700	220000	8.2	57	Rejected preferred low up front cost

Action: Information

4.3 Presentation on the proposal for Ampang Hospital

4.3.1 PMU presented the proposal for Ampang Hospital to the Technical Committee for review and comment. The proposal will be further presented to Radicare, a concession company for Ampang Hospital on 7th March 2019 afternoon.

Details on the project proposal is as follows:

i. Ampang Hospital

Location : Ampang, Kuala Lumpur

Subsector : Hospitality

Solar thermal system:

The hybrid system of solar thermal and heat pump is used to provide hot water at 60°C. The design consist of the 232m² solar collector with 16m³ storage tank

Cost:

MYR 642,000 with payback period of 4.8 years.

UNIDO funding is MYR 192,600 (30%)

Action: PMU

5 Other matters

5.1 Workplan for year 2019-2020

There is about USD 2.5 million of MAEESTA fund left to be spent for year 2019 until 2020. PMU has presented the work plan as follows:

Component 1: Development of regulatory framework, support programme and financial incentive mechanism to facilitate solar thermal energy utilization

- 5.1.1 The workplan for Component 1 will be focused on the roadmap deployment workshops and implementations some activities of its outcomes.

Action: Information

Component 2: Awareness raising and capacity building program relating to process heating and cooling optimization, and solar thermal energy utilization

- 5.1.2 The MAEESTA project will continue to organize the awareness seminars and user trainings. The Expert Batch 4 is expected to be held in mid of year 2019.
- 5.1.3 The MAEESTA project plan to groom the certify experts to be the trainers on EE and solar thermal technology trainings under the Train the Trainer Programme.
- 5.1.4 A conference on EE and Solar Thermal Technology was planned to be held on year 2020 to provide platform for the technology awareness and matching projects for the related stakeholders and industries.
- 5.1.5 PMU can join the ISES organized by SEDA for the project promotion

Action: Information

Component 3: Demonstration and scaling up of sector specific EE and solar thermal energy utilization in targeted industrial sub-sector

- 5.1.6 The MAEESTA project targeted that about 100 companies to be contacted and visited and at least 50% proceed with the energy audit and presented to their top management.
- 5.1.7 The project will utilize the certified experts under the training programmes to support PMU to carry out the energy audit under the Frontrunners Programme for Certified Experts.
- 5.1.8 The updates of the project progress were accepted without any amendments from the NPSC members.

Action: Information

5.2 Roadmap Deployment Plan

- 5.2.1 PMU and international experts are in progress of reviewing the final draft of the Solar Thermal Roadmap to ensure that all the comments been addressed by PwC. Several revisions been made between October 2018 until February 2019.

5.2.2 On 21st February 2019, PMU held a meeting with MESTECC to discuss on the roadmap deployment plan. The meeting was to get consent from MESTECC to form the Roadmap Deployment Technical Committee (RDTC) and chair the committee.

5.2.3 The first Roadmap Deployment Technical Committee (RDTC) meeting was held on 4th March 2019. The meetings was to define the TOR of the committee and to confirm the participation of each ministry/agency in the working group for the workshop. The TOR for RDTC is as follows:

- i. *To supervise and provide advice on the progress of the roadmap deployment plan by UNIDO MAEESTA project.*

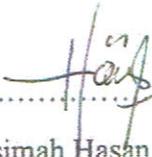
5.2.4 Total of 4 workshops will be organized until May 2019 and draft of policy briefs will be completed by June 2019.

Action: Information

6 Adjourn

The meeting was adjourned at 12.00 pm

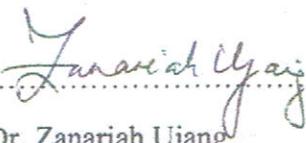
Prepared by:


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Hasimah Hasan

Secretary of Technical Committee

Date: 2nd July 2019

Approved by:


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Dr. Zanariah Ujang

Chairperson of Technical Committee

Date: 17th July 2019