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| MINUTES OF MEETING: NATIONAL PROJECT STEERING COMMITTEE (NPSC) PROJECT GEF5 : GHG EMISSIONS REDUCTIONS IN TARGETED INDUSTRIAL SUB-SECTORS THROUGH ENERGY EFFICIENCY (EE) AND APPLICATION OF SOLAR THERMAL SYSTEMS IN MALAYSIA | | | No: 1/2018 |
| Minuted By: Hasimah Hasan | Date: 18 th October 2018 | Time: 9.30am – 12.30pm | Venue: Transformation Room, MESTECC |
| Agenda | | | |
| 1. Welcoming remarks by Chairman 2. Confirmation of previous minutes of NPSC meeting no.1/2017 3. Matters arising from previous meeting 4. Project Progress Updates 5. Project mid-term evaluation and extension 6. Proposal for the demonstration project 7. Other matters 8. Adjourn | | | |
| Attendee | | | Absent with Apology |
| 1. | Mrs. Hartini Mohd Nasir (Chairman) | MESTECC | Representative from MIDA Representative from SEDA Representative from MGTC Representative from FMM |
| 2. | Mrs. Nik Munerahanim Nik Muhammad | MESTECC | |
| 3. | Mrs. Nur Zawani Ibrahim | MESTECC (GEF Focal Point) | |
| 4. | Mr. Muhammad Fareez Jamali | EPU | |
| 5. | Mr. Mohamed Nadhir Zainal Abidin | ST | |
| 6. | Mr. Wong Wai Khuen | MITI | |
| 7. | Tn. Hj. Mohd Fauzi Ismail | SIRIM | |
| 8. | Mrs. Yang Akma Jaafar | SME Corp | |
| 9. | Prof. Dr. Sohif Mat | SERI UKM | |
| 10. | Mr. Shrestha Sanjaya | UNIDO | |
| 11. | Ms. Marlene Sayer | UNIDO | |
| 12. | Dr. Azmi Hj. Idris | PMU | |
| 13. | Mr. Ahmad Zakuan Ahmad Dahalan | PMU | |
| 14. | Mrs. Hasimah Hasan | PMU-Secretary | |

| NO. | ITEM |
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| 1.0 | <p>WELCOMING REMARKS BY CHAIRMAN</p> <p>The Chairperson welcomed and thanked all NPSC members for being able to attend the NPSC meeting for the year 2018.</p> |
| 2.0 | <p>CONFIRMATION OF PREVIOUS MINUTES OF NPSC MEETING NO.1/2017</p> <p>No comments on the previous meeting were addressed.</p> <p>Tn. Hj. Mohd Fauzi Ismail from SIRIM proposed the minutes to be confirmed and supported by Prof. Dr. Sohif Mat.</p> |
| 3.0 | <p>MATTERS ARISING FROM PREVIOUS MEETING</p> <p>3.1 Item 4.1 and 4.2: The NPM updated on the demonstration projects and feasibility studies that were approved in the last NPSC meeting held in August 2017. Out of the 3 companies, approved for demonstration projects, MIWA Manufacturing Sdn Bhd is still in procurement process, Perusahaan Perkayuan Wan Feng Sdn Bhd is still considering the financial options while Advanced Chicken Processing Sdn Bhd there was a changed in the top management who decided not to proceed with the proposal. For the 3 companies approved for the feasibility studies, only NB Poultry Processing Sdn Bhd completed the energy audit. For Secret Recipe Manufacturing Sdn Bhd the energy audit is still in progress and Ban Seng Hin Co. Sdn Bhd was dropped for the energy audit since the company was not interested to proceed.</p> <p>Looking into the performance of the companies, the representative from UNIDO suggested that the proposals should have a strict timeline in order to ensure the project is completed on time.</p> <p style="text-align: right;">Action: PMU</p> <p>3.2 Item 4.4: PMU updated that a potential solar cooling project has been identified which is Tawau General Hospital. Further discussion and negotiation will be carried out after November 2018.</p> <p>The Chairperson requested PMU to present the progress of the Tawau Hospital project on solar cooling in the next NPSC meeting</p> <p style="text-align: right;">Action: PMU</p> <p>3.3 Item 4.7: SERI updated that SERI-UKM, JKR and Radicare had initial discussion and installed the monitoring system to measure the utilization of hot water from Serdang Hospital. SERI suggested the application of the PVT</p> |

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| | <p>technology to generate both electric and hot water for the hospital with a combined funding of AAIBE (MESITA) and the UNIDO fund.</p> <p>Representative from UNIDO responded that it is difficult for GEF to approve the project since the aims of MAEESTA project is to promote the solar thermal technology, not the PVT. Representative from UNIDO suggested that the government should take ownership for the project since it is proposed by the government research institute.</p> <p>Chairperson suggested to have a different session to discuss on the proposal for Hospital Serdang. MITI suggested to include officer from MOF to join the discussion.</p> <p style="text-align: right;">Action: PMU, SERI</p> <p>3.4 Item 6.3: PMU updated that future proposals to include the financial model under different scenarios, considering the factors such as ITA, tax, loan and fund.</p> <p>Chairperson suggested PMU to provide a platform for all financial providers to meet and discuss on which financial model is suitable for the solar thermal project. MITI offered to share their expertise and contacts for the financial model.</p> <p style="text-align: right;">Action: PMU</p> |
| 4.0 | <p>PROJECT PROGRESS UPDATE</p> <p>The National Project Manager presented the progress updates as follows:</p> <p>4.1 Component 1: Development of regulatory framework, support programme and financial incentive mechanism to facilitate solar thermal energy utilization</p> <p>4.1.1 PMU and international experts are in progress of reviewing the final draft of the Solar Thermal Roadmap to ensure that all the comments have been addressed by PwC. The presentation of the final draft to the stakeholders will be scheduled once the final version of the document is received.</p> <p>4.1.2 On 12th Oct 2018, PMU held a meeting with MESTECC, UiTM and UNIDO to discuss on the roadmap deployment. The members of the meeting agreed that a committee for solar thermal deployment will be established. The MAEESTA project action plan will take into consideration all the suggestion given under the focus area activities.</p> <p style="text-align: right;">Action: Information</p> |

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

4.2.1 From August 2017 until September 2018, 6 awareness seminars and 9 trainings have been conducted. In total 17 awareness seminars had been organized throughout the project implementation, which covers all regions within Malaysia except from the East Coast of Peninsular Malaysia. A total of 630 participants attended the seminars.

| Seminar | Date | Location | No. of participants |
|----------------------|------------|--------------------------|---------------------|
| Awareness Seminar 12 | 23/8/2017 | Seberang Jaya, Penang | 19 |
| Awareness Seminar 13 | 25/9/2017 | Bintulu, Sarawak, | 16 |
| Awareness Seminar 14 | 3/10/2017 | Johor Bahru | 25 |
| Awareness Seminar 15 | 27/10/2017 | Ipoh, Perak | 32 |
| Awareness Seminar 16 | 7/11/2017 | Shah Alam, Selangor | 67 |
| Awareness Seminar 17 | 29/3/2018 | Subang Jaya, Subang Jaya | 39 |
| Total | | | 198 |

Action: Information

4.2.2 MITI suggested PMU to approach the SME Association under the SME Corp

Action: PMU

4.2.3 From August 2017 until September 2018, the numbers of participants that attended the trainings were:

- i) 198 for user training;
- ii) 82 for Expert Training Course 1;
- iii) 50 for Expert Training Course 2; and
- iv) 33 for the financial trainings.

| Trainings | Date | Place | No. of participants |
|-------------------------|---------------|--------|---------------------|
| Expert Batch 2/Course 2 | 20-23/11/2017 | Melaka | 32 |

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|--------------------------------------|---------------|------------|-----|
| Two Day User Training 4/2017 | 27-28/11/2017 | Melaka | 71 |
| Financial Training | 18/12/2017 | Shah Alam | 33 |
| One Day User Training 1 | 7/2/2018 | Shah Alam | 26 |
| One Day User Training 2 | 8/2/2018 | Shah Alam | 39 |
| One Day User Training 3 | 5/3/2018 | FMM Johor | 27 |
| One Day User Training 4 | 19/3/2018 | FMM Penang | 35 |
| Expert Batch 3/Course 1 | 10-13/4/2018 | Penang | 82 |
| Training on the Solar Thermal Design | 17-18/4/2018 | Shah Alam | 18 |
| Total | | | 363 |

4.2.4 In summary, the total numbers of participants attended the trainings were:

- i) 212 for user training;
- ii) 167 for Expert Training Course 1;
- iii) 83 for Expert Training Course 2; and
- iv) 33 for the financial trainings.

4.2.5 In terms of category, the percentage of the participants attended was:

- i) 39% from industry;
- ii) 32% consultant;
- iii) 22% from institute of higher learning/research institute; and
- iv) 7% from government agencies.

Action: Information

4.2.6 UNIDO suggested PMU to share the financial training by FMM with the top management of the industry. The objective is to give an idea to the top management on the different scenarios to consider for the project investment

Action: PMU

4.2.7 MITI suggested PMU to invite Ministry of Health (MOH) for the expert training as the ministry is targeting more of its employee to become professional engineers (Ir.)

Action: PMU

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| | <p>4.2.8 SERI suggested to look into the solar thermal for TVET curriculum for the installer under the Ministry of Human Resources. PMU will look into the issues under the roadmap deployment plan. Action: MESTECC, PMU</p> <p>4.2.9 NRE suggested PMU to include JKR in the training because JKR is the regulator for the government building. Action: PMU</p> <p>4.3 Component 3: Demonstration and scaling up of sector specific EE and solar thermal energy utilization in targeted industrial sub-sector</p> <p>4.3.1 Four (4) companies implemented the energy efficiency measures namely, Toyo Tires Sdn Bhd, JB Cocoa Sdn Bhd, Top Glove Sdn Bhd and Perusahaan Perkayuan Wan Feng Sdn Bhd.</p> <p>4.3.2 As progress to date, the total implemented energy efficiency saving is 28,832.10 MWh with a value of MYR 4,080,488.00/year. The lifetime of CO₂ emissions reductions is 147,889 tonne. This represents about 5% of the total target of 2,735 ktCO₂.</p> <p>4.3.3 The GEF Focal Point inquired about the PMU's strategy to achieve 40 companies for EE measures and 10 companies for the solar thermal project. PMU responded that apart from the training mode, PMU also used the fast track process to support the energy audit at the industry. Action: Information</p> <p>4.3.4 MITI offered to provide support on the list of potential industries for the energy audit. Action: PMU, MITI</p> <p>4.3.5 SERI suggested to provide some incentive for the company which reduces the CO₂ emissions. UNIDO representative supported the idea and suggested that the government can tide-up the enforcement through EECA by asking the company to comply with the ISO 50001. The meeting suggested the issue to be further discussed in the future.</p> <p>4.3.6 In 2017, NPSC has approved the UNIDO fund for the companies MIWA Manufacturing Sdn Bhd and Perusahaan Perkayuan Wan Feng Sdn Bhd. The updates for both companies are as follows:</p> |
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| | <p>4.3.6.1 MIWA Manufacturing Sdn Bhd: The company made the 20% payment to SIRIM in June 2018. The procurement process is currently in progress and expected to complete the solar thermal system installation by January 2019.</p> <p>4.3.6.2 Perusahaan Perkayuan Wan Feng Sdn Bhd: PMU revised the design by reducing the size to 40m². The proposed design was revised taking into account the thermal demand that can be optimised with proper scheduling which required less area of solar collector. PMU had proposed EPC financing to the company as well as applying for SIRIM SME Development Fund.</p> <p style="text-align: right;">Action: Information</p> <p>4.3.7 NPSC requested PMU to come out with strategies on how to achieve the demonstration project targets for EE and solar thermal.</p> <p style="text-align: right;">Action: PMU</p> <p>4.4 Project Expenditure and Co-Financing</p> <p>4.4.1 From July 2017 until September 2018, USD 577,117.03 was spent for this project. The total expenditure of the project (from July 2014 until September 2018) was USD 1,486,942.13. The balance of the project fund was USD 2,513,057.87.</p> <p>4.5 The updates of the project progress were accepted without any amendments from the NPSC members.</p> <p style="text-align: right;">Action: Information</p> |
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| 5.0 | <p>PROJECT MID-TERM EVALUATION AND EXTENSION</p> |
| 5.1 | <p>The project mid-term evaluation was conducted by UNIDO appointed International and National Evaluators from 23rd July until 4th August 2018. Based on the Mid Term Evaluation Report that was presented to the stakeholder on 3rd August 2018, the project has performed well with fair number of expected outcomes have been achieved. Around 65% of funds remaining, which is sufficient for the remaining extended timeframe. The recommendations given for the project timeframe are as follow:</p> <p>5.1.1 utilization of remaining funds within the given time limits;</p> <p>5.1.2 'redesigning' of project with realistic and appropriate timeframe; or</p> <p>5.1.3 closing of project in the given time without utilising all funds.</p> |
| 5.2 | <p>UNIDO suggested the MAEESTA project to be extended from July 2019 to December 2020 (18 months). The project activity implementation will be from July 2019 until June 2020 (12 months) and the project reporting and evaluation will be from July 2020 until Dec 2020 (6 months).</p> |
| 5.3 | <p>The reasons for the project extension are mainly due to none/low number of the demonstration projects implemented and the delay in the execution of the solar thermal roadmap.</p> <p style="text-align: right;">Action: Information</p> |
| 5.4 | <p>NPSC members agreed with the suggestion for project extension with comments:</p> <p>5.4.1 GEF Focal Point agreed for the no cost project extension; and</p> <p>5.4.2 MITI requested that the project timeline for the project extension is shared with NPSC members. GEF Focal Point suggested for the project to revamp their activities to achieve the target.</p> |
| 5.5 | <p>In respond to the queries, PMU will send the quarterly progress report to the NPSC members as well as the project timeline for the extension.</p> <p style="text-align: right;">Action: PMU</p> |
| 5.6 | <p>In order to attract more industries to invest in solar thermal projects, UNIDO proposed to increase the project fund from 20% to 30% per solar thermal system cost with keeping the ceiling of the fund at MYR400k. NPSC members agreed to the proposal and the Chairperson suggested for the ceiling to be considered based on case to case basis especially if the system cost is greater than MYR2.0 million.</p> <p style="text-align: right;">Action: Information</p> |

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| 6.0 | <p>PROPOSAL FOR THE DEMONSTRATION PROJECT</p> <p>6.1 PMU presented two proposals for the demonstration project which are IOI Pan Century Oleochemicals Sdn Bhd and NB Poultry Processing Sdn Bhd for NPSC approval. The details of the project proposal are:</p> <p>i) <u>IOI Pan Century Oleochemicals Sdn Bhd</u> Location : Pasir Gudang, Johor Subsector : Chemicals & Chemicals Products</p> <p>Solar thermal system: To preheat Soft Water Tank at 50°C. The design consist of the 376m² solar collector with using existing storage tank</p> <p>Cost: MYR385,000 with payback period of 6.6 years. UNIDO funding is MYR70,000 (20%)</p> <p>ii) <u>NB Poultry Processing Sdn Bhd</u> Location : Pontian, Johor Subsector : Agriculture (Poultry)</p> <p>Solar thermal system: To supply hot water (61°C) for the scalding process. The design consist of the 491m² solar collector with 20 tonne storage tank.</p> <p>Cost: MYR1,243,000 with payback period of 5.2 years. UNIDO funding is MYR248,600 (20%)</p> <p style="text-align: right;">Action: Information</p> <p>6.2 Both NB Poultry Processing Sdn Bhd and IOI Pan Century Oleochemicals Sdn Bhd shall provide proof of commitment to invest for the fund approval. PMU need to do correction on the financial evaluation of both proposals and return to NPSC. The UNIDO representative raised the issue that in order to fund the NB Poultry project, SIRIM has to agree to share the data of the project with the PMU.</p> <p style="text-align: right;">Action: PMU</p> <p>6.3 NPSC agreed to approve NB Poultry Processing Sdn Bhd and IOI Pan Century Oleochemicals Sdn Bhd for the funding on provisional basis, i.e. after the financial evaluation is corrected.</p> <p style="text-align: right;">Action: PMU</p> |
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| | <p>6.4 In order to release the fund for the demonstration project the NPSC Chairman's office shall issue a letter of request to UNIDO. PMU will support the Chairman's office to prepare the letter based on the actual invoice issued by the respective company.</p> <p style="text-align: right;">Action: PMU</p> | | |
| 7.0 | <p>OTHER MATTERS</p> <p>No issues was discussed.</p> | | |
| 8.0 | <p>ADJOURNMENT OF THE MEETING</p> <p>The meeting was adjourned at 12.30 pm</p> | | |
| <table border="1" style="width: 100%;"> <tr> <td style="width: 50%; vertical-align: top;"> <p>Prepared by:</p> <p></p> <p>Hasimah Hasan Secretary</p> <p>31st December 2018</p> </td><td style="width: 50%; vertical-align: top;"> <p>Approved by:</p> <p></p> <p>Mrs. Hartini Mohd Nasir on behalf of NPSC Chairman</p> </td></tr> </table> | | <p>Prepared by:</p> <p></p> <p>Hasimah Hasan Secretary</p> <p>31st December 2018</p> | <p>Approved by:</p> <p></p> <p>Mrs. Hartini Mohd Nasir on behalf of NPSC Chairman</p> |
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