

UNIDO GEF Annual Monitoring Report FY 2018

Response ID:117 Data

1. UNIDO GEF Annual Monitoring Report II FY 2018

1. GEF ID:

5741

New Analysis Question

2. UNIDO SAP ID:

120309

3. GEF Replenishment Cycle:

GEF-5

4. GEF Focal area:

Climate Change (CC)

5. Integrated Approach Pilot (IAP) Programs (only for GEF-6 projects, if applicable)

6. UNIDO PTC Department:

Department of Energy (ENE)

7. Project Title: (*as per approved CEO Endorsement document*)

ENERGY EFFICIENT LOW CARBON TRANSPORT

8. UNIDO Project Manager:

First name : Katarina

Last name : Barunica

9. Project Manager's email:

K.BARUNICA@unido.org

10. Please state the geographical location(s) of the project:

Please select one:

Country. Please state:: MALAYSIA

11. Please provide a project summary: (*approx. 300 words*)

Objectives:

The Energy Efficient Low Carbon Transport Project is administered by the Ministry of Energy, Science, Technology, Environment and Climate Change (MESTECC) Malaysia (formerly known as the Ministry of Energy, Green Technology and Water-KETTHA). The general objective is to promote energy efficient low carbon transport in Malaysia. However, it is good to take note that the project document specific aim is to accelerate widespread use of electric vehicles (EVs) as part of energy efficient low carbon transport and low carbon initiatives in Malaysia. This would be achievable by development of a combination of interventions at policy and institutional level combined with market instruments by taking into cognizant the need to direct the land transport vision to shift towards low carbon mobility in a holistic manner. This will help to chart the implementation of EV will be developed under policy development and action-plan of low carbon mobility.

Baseline:

The Energy Efficient Low Carbon Transport is a pioneering initiative for the transport sector unlike the Industrial and Building Sectors in Malaysia, which have embarked on energy efficiency over the last decade. The transport sector share of final energy consumption was the highest at 36.8%, followed by the industrial sector at 29.8%, the non energy sector at 16%, the residential and commercial sectors at 15.1% and agriculture sector at 2.3%. Therefore, the GEF intervention will make a change to this situation via incremental costs coverage via development of a holistic policy and action plan related to low carbon mobility of land transport in Malaysia.

Target results:

The project will catalyze widespread replication of low carbon mobility initiatives by the Government and private sector via two main project components which are i. Improvement of policy and regulatory framework which seek to mitigate through improvement and development of a national-level enabling policies in close coordination with national partners and building of institutional awareness and capacity to aid adoption and implementation of the new policies. and ii. Development and demonstrations of infrastructure which seek to aid infrastructure standard development via design, installation and testing of PV-based charging stations and help to raise awareness and increased adoption of EVs in Malaysian market.

2. Global Environmental Objectives (GEOs) / Development Objectives (DOs)

12. Please state the progress made in FY 2018 in achieving the intended Global Environmental Objectives / Development Objectives.

Please state the **progress rating of GEOs/DOs** (as per the rating filled in AMR Part I):

Satisfactory (S)

Please state the **progress made in the current FY in achieving the outlined GEOs/DOs**.

The project focal area objective is to promote energy efficient, low carbon transport and urban system in Malaysia. The expected outcomes are two prongs which are as follows:

1. Sustainable transport and urban policy and regulatory frameworks adopted and implemented which will result in cities adopting in low-carbon programs
2. Increase investment in less-GHG intensive transport and urban systems which will result in investment mobilized.

For item 1 the sustainable transport and policy regulatory framework is currently under development. UNIDO HQ has approved a proposal of USD 400,000 for the Development of a Low Carbon Mobility and Action Plan for land transportation in Malaysia. Greentech Malaysia has been appointed as project implementer and administered by the Ministry of Energy, Science, Technology, Environment and Climate Change (MESTECC) Malaysia. This project also requires strong engagement of private sectors to spur greater mobilization of investment by the sector. Several incentives will be proposed to encourage investment and greater adoption of low carbon initiatives in the sector.

At the moment, two pilot demonstration projects for PV-based EV Charger at the PLUS Highway and PV-based electric BRT Charger at Sunway Depot has managed to convince direct beneficiaries of the potential of the system for higher capacity replication. The PLUS Highway will see immediate replication within the project time-frame whereas the BRT Sunway Depot is keen for GEF-7 funding.

3. Implementation progress

13. Project Objectives and Progress

Please state the **implementation progress rating** (as per the rating filled in AMR Part I):

Highly satisfactory (HS)

Please state the **implementation progress** made for this FY.

The project objective is to catalyze and accelerate the widespread use of electric vehicles (EVs) as part of energy efficient low carbon transport and low carbon cities initiatives of Malaysia. This project comprised of two main technical components and an M&E which are:

Component 1: Improvement of policy and regulatory framework for EV use and local manufacturing, strengthened capacity of concerned institutions and awareness raising

The expected outputs of this component calls for a National policy and regulatory framework to be developed inclusive of strategy and road-map, incentive schemes for local manufacturing as well as safety standards improvement.

Outputs 1.1.1 and 1.1.2 : The local PMU has initiated a proposal development with advice from the Ministry of Energy which calls for development of a holistic policy and action plan for Low Carbon Mobility in Malaysia which is not limited to EVs but also cleaner fuel technology for wider land transportation including commercial transport. A proposal development workshop was initiated in March 2018 and participated by key ministries and agencies, transport associations, fuel suppliers and car manufacturers in Malaysia. Greentech Malaysia have been appointed as implementer of the project. A steering committee meeting was conducted in July 2018 to approve the project inception report. An inception workshop sharing session, Focus Group Discussions and meetings have been conducted involving industry players to solicit specific inputs related to barriers removal for each of the sub-sector identified in the project scope. An interim report presentation to the Steering Committee is plan in Mid-December 2018.

MESTECC has also commissioned the baseline study for Langkawi Low Carbon Island which was initiated in end 2017 and UMPEDAC of University Malaya was selected by UNIDO HQ to implement the development work. The project has since been completed and final report endorsed by MESTECC in November 2018. The findings will be used to develop a Low Carbon Langkawi Island plan.

Component 2: Development and demonstration of infrastructure for EVs and local EV manufacturing capacity. The project involved three outputs as mentioned in 2.1.1, 2.1.2 and 2.1.3 and 2.1.4 of the project document.

Output 2.1.1. involved installation of 6 PV-based charging stations (fast and off-grid) for EVs. The project has since been revised to:

i. Installation of PV-based grid-connect 1 fast and 1 slow charger at PLUS Highway Air Keroh OBR. The project has been completed and commissioned in December 2017. PLUS Highway (PLUS) is planning for a launching ceremony in December 2018 which will involve Minister level involvement. In the plan ceremony, PLUS is expected to announce additional charger plant-up along the 600 km stretch North-South highway to replicate success from the demonstration project. Greentech Malaysia will also add the newly installed charger in their ChargeEV programme promotion for the benefit of ChargeEV users in the Peninsular Malaysia.

ii. Installation of 1 PV-based charger at the electric BRT Sunway depot. The project has since been completed and commissioned. The certificate handover was done between Mr Stein Hansen (Regional Director of UNIDO Bangkok) and the group COO of Rapid Bus. The demonstration project has attracted the attention of Rapid Bus management for replication under GEF-7 funding.

iii. Installation of 30 electric slow chargers at Langkawi Island. Ten chargers have since been completed and commissioned. The remaining 20 electric slow chargers installation will be decided soon subject to UNIDO HQ approval.

Output 2.1.2 Enhanced standards and regulations for EV infrastructure, including charging stations, safety and support applications developed.

The local PMU had developed related proposal and presented to the National Steering Committee (NSC) in July 2018 and UNIDO HQ has obtained a waiver for Greentech Malaysia to execute development of the standards and regulations starting December 2018.

Output 2.1.3 involved local manufacturing of e-bus and e-motorcycle components supported through development of enabling support programme and incentives.

The enabling support programme and incentive will now be developed under the Low Carbon Mobility Action Plan policy work as described in Component 1 progress above.

Output 2.1.4 involved effective capacity building and technology transfer to enable EV manufacturing facilitated.

The enabling support programme and incentive will now be developed under the Low Carbon Mobility Action Plan policy work as described in Component 1 progress above. An inception and an interim workshops including Focus Group engagement has been organised by Greentech Malaysia to solicit input on the likely support programme to be developed. The newly approved Standard and Regulation development project will also prepare a roadmap on EV training to build capacity for EV manufacturing.

Component 3: Monitoring and Evaluation

Output 3.1.1 Regular monitoring exercise conducted and tracking tools prepared according to GEF requirement. The local PMU has organised two National Steering Committee Meetings in 2018 to track project progress and solicit committee endorsement on key decisions related to project extension until end 2019. The committee has also endorsed decision related to Low Carbon Mobility TOR scope change and budget increased and development of proposal for standard and regulation for EVs. Project progress meetings were organised to endorse progress report payment to UNIDO HQ.

During the period the local PMU has developed the Annual Work Plan (AWP) 2018 / 2019 which presented the Project Objectives and its corresponding projects implemented in Malaysia to ensure project outputs are duly addressed and monitored according to declared budget and schedule. The AWP 2018/2019 has been endorsed by the NSC in July 2018.

4. Risk management

14. Please indicate the overall risk management: (i) as identified in the CEO Endorsement document, and (ii) progress to-date.

****Risks identified as per CEO Endorsement document. Please indicate in the "Risks" column if some are new/additional risks.***

	(i) Risks	(i) Risk level	(i) Mitigation measures	(ii) Progress to-date
1	Management priorities in the participating public and private sector organisations change over time, before and during project implementation, resulting in reduced participation or even termination of collaboration	Low risk (L)	PMU has established closed project monitoring via project progress meeting chaired at MESTECC. Project implementer are required to update MESTECC directly on progress and project performance	Three projects have been completed until end 2018 with proper handover certification and plan launching.
2	Key stakeholders, namely government institutions, the private sector and end-users show a lack of interest in the project's interventions	Low risk (L)	Low Carbon Transport project is very new in Malaysia. Workshops will be organised to sustain awareness among key stakeholders.	Up to date three workshops have been organised in 2018 involving the Low Carbon Mobility and Action Plan project. Each of these workshops events received more than 50 participants from various background and received encouraging feedback to move the agenda forward
3	Delays in the proposed improvements to the institutional and regulatory framework by public institutions	Modest risk (M)	Close cooperation of project partners in the NSC will be sought with clear delineation of project stakeholders roles outlined in this document	Three projects have been completed and two under implementation progress.
4	Incentives and the financial support systems are insufficient	Low risk (L)	The private sector's involvement in the development of policies strategies under Component 1 help ensure they are in line with investors and manufacturers needs	The Low Carbon Mobility and Action plan development is already on-going. The private sectors are directly engaged in each of the workshops and discussions organised.
5	Uptake by cities and institutions is limited due to lack of interest and incentives	Low risk (L)	Relevant public bodies agreement will be secured in order to guarantee the project continuation	Likely incentives will be developed in the on-going Low Carbon Mobility and Action Plan project
6	Infrastructure developed is vulnerable to climate change risks	Low risk (L)	Any required environmental impact assessments, inline with national buildings regulations will be conducted	The infrastructure development will also be subjected to the outcome of the newly approved standard and regulation framework for EV chargers
7	Low participation rates of suitable female candidates due to lack of interest, inadequate project activity or missing qualified female population within engineering sector	Low risk (L)	Malaysia is a pro-gender equality society. The project design has clearly mainstreamed gender issues in its design	This project is lead by an NPD which is a female and a senior officer in the Ministry. The NSC is represented by committee members which are equally represented by males and females from selected ministries and agencies.
8				
9				
10				

15. If the project received a **sub-optimal risk rating (H, S)** in the previous PIR FY, please state the **actions taken** since then to mitigate the relevant risks.

Not applicable

5. Implementation and Execution issues

16. Please state any **implementation issues** occurred in overseeing and supervising during FY 2018:

Project approval delays have been overcome with holistic project design which addresses multiple project outcome in a single proposal. The Low Carbon Mobility and Action Plan project testifies to this statement. A single project which delivers multiple project outcome.

17. Please state any **execution issues** faced during FY 2018:

Execution issues faced by the project are as follows:

1. The installation of the PV-based E-bus charger at BRT Sunway were solved when a local partner was recruited to serve as project implementer and ensure compliance to local regulations
2. The installation of 30 EV chargers at Langkawi Island will require 20 of the remaining charges to be relocated in view of difficulty in developing a pool of EV users other than taxis.

6. Environmental and Social Safeguards (ESS)

As part of the requirements for projects, and based on the screening as per the UNIDO Environmental and Social Safeguards Policies and Procedures (ESSPP), which category is the project?

As required for all projects, please report on activities undertaken in FY 2018 to meet the ESS monitoring/management commitments made in the Project Document and/or the Environmental and Social Management Plan (ESMP).

	E&S risk	Mitigation measures undertaken in FY 2018	Monitoring methods and procedures used in FY 2018
(i) Risks identified during PIF and verified during PPG (as per the submitted ESMP)			
(ii) New risks identified during project implementation (if not applicable, please insert 'NA' in each box)			

7. Gender mainstreaming

18. Please describe the **gender considerations** mainstreamed into the CEO Endorsement:

Guiding principle of the project will be to ensure that both women and men are provided equal opportunities to access, participate in, and benefit from the project, without compromising the technical quality of the project results. In practical terms,
→ Gender-sensitive recruitment will be practiced at all levels where possible, especially in selection of project staff. Gender responsive TORs will be used to mainstream gender in the activities of consultants and experts. In cases where the project does not have direct influence, gender-sensitive recruitment will be encouraged. Furthermore, whenever possible existing staff will be trained and their awareness raised regarding gender issues.

→ All decision-making processes will consider gender dimensions. At project management level, Project Steering Committee meetings will invite observers to ensure that gender dimensions are represented. Also at the level of project activity implementation, effort will be made to consult with stakeholders focusing on gender equality and women's empowerment issues. This is especially relevant in policy review and formulation.

→ To the extent possible, efforts will be made to promote participation of women in training activities, both at managerial and technical levels, as participants and trainers. This can include advertising of the events to women's technical associations, encouraging companies to send women employees, adjusting TORs for the selection of trainers, etc.

→ When data-collection or assessments are conducted as part of project implementation, gender dimensions will be considered. This can include sex-disaggregated data collection, performing gender analysis as part of ESMPs, etc.

19. Please state the **measures taken so far, and the **results achieved** in FY 2018 against the intended gender mainstreaming actions (refer to question above):**

1. Gender-sensitive recruitment at all levels especially in selection of project staff: the project staff supporting this project at the local PMU level is equally gender represented.
2. Decision making processes will consider gender dimensions at project management level, project steering committee meetings: the chair to the National Steering Committee is a woman with a senior position level of Deputy Secretary General at MESTECC. She also represented MESTECC for project steering committee endorsement of project progress report.
3. Efforts will be made to promote participation of women in training activities: workshops are conducted by both gender and participated by both gender too. The attendance list of workshops is good testimony of equal participations.
4. Gender dimension will be considered during data collection and or assessment: GreenTech Malaysia has appointed a majority represented local woman consultant to undertake data collection and survey work and naturally women respondent will be considered during data collection exercise.

8. Stakeholders consultation

20. Please describe the stakeholders consultations that have taken place for FY 2018?

1. The local PMU attended and presented the EELCT project progress at the National Operational Focal Point (NOFP) Technical Working Group hosted by the Ministry of Natural Resources, Environment and Climate Change (NRE) in March 2018. The meeting is a progress update to the NOFP for all GEF funded projects in Malaysia.
2. The EELCT project under the Low Carbon Mobility and Action Plan project organised three stakeholders consultation workshops involving Government Ministries, agencies, project partners and public private stakeholders. The first workshop was organised in March 2018 at Pulse Grande Hotel in Putrajaya, The second was organised in July 2018 again at the Pulse Grande Hotel in Putrajaya and third was organised in August 2018 at the International Green Technology Exhibition Malaysia at the KL Convention Centre.

21. Please upload the relevant consultation documents:

(Eg: Project Steering Committee minutes, Aide Memoire, Meeting Agenda, etc.)

[GEFID_5741_NRE_TWIG_GEF_Fund_Report_No_1-2018_29.3.2018_\(REV_2\)_\[Autosaved\].pdf](#)
[GEFID_5741_LCMB_Report_TOR_Development_Workshop_Report_13.3.18.pdf](#)
[GEFID_5741_2nd_National_Steering_Committee_Meeting_MoM_12_2017.pdf](#)
[LCMB_Report_Inception_Workshop_200818_final.pdf](#)
[5741_2nd_National_Steering_Committee_Meeting_December_2017_Presentation.pdf](#)
[GEFID_5741_LCMB_Report_TOR_Development_Workshop_March_2018.pdf](#)

9. Knowledge Management

22. Please list the titles of knowledge management or publicity materials that have been produced for the project.

(i.e. online information exchange/sharing platforms, technical reports, project website or video links, publications, posters, flyers, etc.)

- 1 : Final Report Baseline Study and Data Collection on Energy, Environment and Socio-economics on Langkawi, Malaysia
- 2 : Final Report PV- Grid Connect e - BRT charger at Sunway BRT Depot
- 3 : Final Report PV-Based EV Charging Station with Energy Storage System at OBR Ayer Keroh, Malaysia
- 4 : Final Report PB Based EV Charging Station with ESS at OBR Ayer Keroh
- 5 : PV Based Charging Station with ESS at OBR Ayer Keroh Pictures

23. Please upload the materials mentioned above.

(i.e. photos, brochure, flyer, leaflet, feasibility studies... up to 10 files)

[GEFID_5741_Final_Report_PV-Grid_Connect_e-BRT_Charger_at_Sunway_BRT_Depot.pdf](#)
[GEFID_5741_LCMB_Report_TOR_Development_Workshop_March_2018.pdf](#)

[5741_Final_Report_PV_Based_EV_Charging_Station_with_ESS_at_OBR_Ayer_Keroh.pdf](#)
[5741_PV_Based_EV_Charging_Station_with_ESS_at_OBR_Ayer_Keroh_Pictures.pdf](#)
[GEFID_5741_Final_Report_Langkawi_Baseline_Study.pdf](#)
[5741_Handover_Meeting_Solar_PV_ESS_BRT_Pictures.pdf](#)

24. Please share a story on how the project has benefitted the environment and communities.

The UNIDO-GEF funded project under the Energy Efficient Low Carbon Transport at the Sunway BRT Depot is a PV Based Energy Storage System Grid Connect e-BRT Charger. The system is a demonstration on the application of Renewable Energy sources for e-buses, a first for Malaysia. The system stored the electricity from the solar PV during the day in the battery storage system and will be used to partially charge the buses at night. On scaling-up the system has the potential to reduce the monthly maximum demand charges on the client beside reducing the daily energy consumption in charging the buses. The maximum saving to the client on-scaling-up could be as high as US 50,000 per year.

Due to the proximity of the pilot installation at Sunway's Monash University Branch Campus in Kuala Lumpur, the students have used the system as reference in their Renewable Energy related courses.

10. Files upload (Required for PIR, MTR and TE)

25. The following information is filled as part of the:

Project Implementation Report (PIR)

26. GEF Project size:

Medium-Sized Project (MSP)

27. Please upload the **Project Progress Update Report** showing progress by output-level for FY 2018 (1 July 2017 to 30 June 2018):

[GEFID_5741_Project_Progress_Update_Report_2018.docx](#)

28. Please upload the **updated work plan** for FY 2018:

[GEFID_5741_workplan_FY_2018.pdf](#)

29. Please upload any other materials you wish to share from the project:

(i.e. feasibility study reports, technical reports, etc) For PTC/ENV projects with SCD requirements, please upload it here.

Please name your file "GEFID_document name".

11. Project Implementation Report (PIR)

30. Please insert information on progress, challenges and outcomes on **project implementation activities**:

Project Implementation Report

The project objective is to catalyze and accelerate the widespread use of electric vehicles (EVs) as part of energy efficient low carbon transport and low carbon cities initiatives of Malaysia. This project comprised of two main technical components and an M&E which are:

Component 1: Improvement of policy and regulatory framework for EV use and local manufacturing, strengthened capacity of concerned institutions and awareness raising

The expected outputs of this component call for a National policy and regulatory framework to be developed inclusive of strategy and road-map, incentive schemes for local manufacturing as well as safety standards improvement.

Outputs 1.1.1 and 1.1.2: The local PMU has initiated a proposal development with advice from the Ministry of Energy which calls for development of a holistic policy and action plan for Low Carbon Mobility in Malaysia which is not limited to EVs but also cleaner fuel technology for wider land transportation including commercial transport.

A proposal development workshop was initiated in March 2018 and participated by key ministries and agencies, transport associations, fuel suppliers and car manufacturers in Malaysia. Greentech Malaysia have been appointed as implementer of the project. A steering committee meeting was conducted in July 2018 to approve the project inception report. An inception workshop sharing session, Focus Group Discussions and meetings have been conducted involving industry players to solicit specific inputs related to barriers removal for each of the sub-sector identified in the project scope. An interim report presentation to the Steering Committee is plan in Mid-December 2018.

Challenges: Data owned by respective Ministry and agencies can be confidential and not readily available for public consumption.

Outcomes: The workshop sessions attracted good attendance and feedback from the stakeholders. A list of action plan will be propose in the interim report to be presented soon

MESTECC has also commissioned the baseline study for Langkawi Low Carbon Island which was initiated in end 2017 and UMPEDAC of University Malaya was selected by UNIDO HQ to implement the development work. The project has since been completed and final report endorsed by MESTECC in November 2018. The findings will be used to develop a Low Carbon Langkawi Island plan.

Component 2: Development and demonstration of infrastructure for EVs and local EV manufacturing capacity. The project involved three outputs as mentioned in 2.1.1, 2.1.2 and 2.1.3 and 2.1.4 of the project documents.

Output 2.1.1. involved installation of 6 PV-based charging stations (fast and off-grid) for EVs. The project has since been revised to:

i. Installation of PV-based grid-connect 1 fast and 1 slow charger at PLUS Highway Air Keroh OBR. The project has been completed and commissioned in December 2017. PLUS Highway (PLUS) is planning for a launching ceremony in December 2018 which will involve Minister level involvement. In the plan ceremony, PLUS is expected to announce additional charger plant-up along the 600 km stretch North-South highway to replicate success from the demonstration project. Greentech Malaysia will also add the newly installed charger in their ChargeEV programme promotion for the benefit of ChargeEV users in the Peninsular Malaysia.

ii. Installation of 1 PV-based charger at the electric BRT Sunway depot. The project has since been completed and commissioned. The certificate handover was done between Mr Stein Hansen (Regional Director of UNIDO Bangkok) and the group COO of Rapid Bus. The demonstration project has attracted the attention of Rapid Bus management for replication under GEF-7 funding.

iii. Installation of 30 electric slow chargers at Langkawi Island. Ten chargers have since been completed and commissioned. The remaining 20 electric slow charger installation will be decided soon subject to UNIDO HQ approval.

Challenges: The project for installation of PV-based grid connect 1 fast and 1 slow charger at PLUS Highway does not get good publicity on its use.

Outcomes: PLUS Highway will organize a launching of the charger plan in December 2018, and Highway signboard with charging icon will notify highway users on the availability of charging facilities ahead of the locations.

Output 2.1.2 Enhanced standards and regulations for EV infrastructure, including charging stations, safety and support applications developed.

The local PMU had developed related proposal and presented to the National Steering Committee (NSC) in July 2018 and UNIDO HQ has obtained a waiver for Greentech Malaysia to execute development of the standards and regulations starting December 2018.

Output 2.1.3 involved local manufacturing of e-bus and e-motorcycle components supported through development of enabling support programme and incentives.

The enabling support programme and incentive will now be developed under the Low Carbon Mobility Action Plan policy

work as described in Component 1 progress above.

Challenges: There isn't any business model that will support market expansion under the current business environment

Outcomes: Enabling regulations and incentives will be proposed in the Low Carbon Mobility and Action Plan work in progress

Output 2.1.4 involved effective capacity building and technology transfer to enable EV manufacturing facilitated.

The enabling support programme and incentive will now be developed under the Low Carbon Mobility Action Plan policy work as described in Component 1 progress above. An inception and an interim workshop including Focus Group engagement has been organized by Greentech Malaysia to solicit input on the likely support programme to be developed. The newly approved Standard and Regulation development project will prepare a roadmap on EV training to build capacity for EV ecosystem.

Challenges: There isn't any dedicated outfit which are focus in assembling EV in Malaysia, technologies are imported and were based on foreign standard

Outcomes: The Low Carbon Mobility and Action Plan and the Development of Standard and Regulation will propose necessary eco-system to support EV in Malaysia.

Component 3: Monitoring and Evaluation

Output 3.1.1 Regular monitoring exercise conducted, and tracking tools prepared according to GEF requirement.

The local PMU has organized two National Steering Committee Meetings in 2018 to track project progress and solicit committee endorsement on key decisions related to project extension until end 2019. The committee has also endorsed decision related to Low Carbon Mobility TOR scope change and budget increased and development of proposal for standard and regulation for EVs. Project progress meetings were organized to endorse progress report payment to UNIDO HQ. During the period the local PMU has developed the Annual Work Plan (AWP) 2018 / 2019 which presented the Project Objectives and its corresponding projects implemented in Malaysia to ensure project outputs are duly addressed and monitored according to ProDoc. The AWP 2018/2019 has been endorsed by the NSC in July 2018. The updated version is as enclosed in the GEFID work plan FY 2018 document.

Challenges: It is quite difficult to implement consolidated reporting portal for local project because PMU are without resources to develop an online portal; this is an incremental work that need regular updating.

Outcomes: Local PMU will have to rely on MESTECC or Greentech portal for posting of knowledge and promotional materials in the world wide web. This could be a better choice instead.

31. Please insert information on progress, challenges and outcomes on stakeholder engagement (based on the description of the Stakeholder engagement plan included at CEO Endorsement/Approval):

Stakeholder engagement role as defined in page 23 of the ProDoc are as follows:

1. Ministry of Energy, Science, Technology Environment and Climate Change (MESTECC).

MESTECC is the chair of the National Steering Committee (NSC) Meeting. Project proposals are developed in closed consultation with the guidance of MESTECC too. For the year 2018 two National Steering Committee Meetings have been conducted as plan.

2. Ministry of International Trade and Industry

MITI is a member of the NSC Meeting and attended the meeting regularly and responsible providing input related to policy and investment. MITI is in the process of making statement for Malaysia third National car project and input on low carbon mobility should be timely.

3. Ministry of Transport (MoT)

MoT is a regular member of the NSC meeting and have been instrumental in sharing transport related policy in this GEF-5 funded project. The on-going Low Carbon Mobility development is an action plan for MoT Transportation Plan in greening the sector

4. Ministry of Natural Resources and Environment (MNRE)

MNRE has been restructured under MESTECC division responsible for environment and climate change issues.

5. Ministry of Science, Technology and Innovation (MoSTI) has been restructured under MESTECC division responsible for science and technology.

6. Malaysian Industry - Government Group for High Technology (MiGHT) is expected to support the project activities under Component 2. The newly approved standard and regulation development and related training project will see greater involvement of MiGHT in the activity.

7. Melaka City is expected to partner with the project on Output 2.1.1 hosting 3 demonstration charging stations to be installed under the project as well as awareness raising. Up to 2018, a charging facility with two charging modes; fast and slow chargers have been installed at PLUS Highway Air Keroh OBR in Melaka. The launching of the facility is plan in Decemebr 2018.

8. Malaysian Automotive Institute is expected to provide support to the project and GreenTech Malaysia in particular relating to the promotion of local EV manufacturing. So far their engagement is limited to providing input related to Energy Efficient Vehicle (EEV) agenda under the NAP. A revision to the NAP is expected to be announce soon. However, MAI has been an active member in the Low Carbon Mobility workshops organised by Greentech Malaysia.

9. Banks/Financial Institutions have not been seen instrumental in promoting EVs in Malaysia. However, they have been in constant engagement in the Low Carbon Mobility workshops organised by Greentech Malaysia. There is also plan for banks to syndicate soft loan facility for rental service in Langkawi Island pilot project involving EVs.

10. Industries which comprises of EV manufacturers, e-motorcycles and e-buses, charging station manufacturers etc have been in close consultation with GreenTech Malaysia in the development of Low Carbon Mobility and Action Plan Policy work. It is expected recommendation will be made towards facilitating growth in the industry.

11. Civil Society Organisations and Non-Governmental Organisations are regular invitees to the workshops organised by GreenTech Malaysia on Low Carbon Mobility and Action Plan. They present a group of unbiased opinions which would benefit the nations as a whole.

32. Please insert information on progress on gender-responsive measures as documented at CEO Endorsement/Approval in the gender action plan or equivalent:

Guiding principle of the project will be to ensure that both women and men are provided equal opportunities to access, participate in, and benefit from the project, without compromising the technical quality of the project results. The project already implement responses to the following:

1. Gender-sensitive recruitment at all levels especially in selection of project staff; the project staff supporting this project at the local PMU level is equally gender represented.
2. Decision making processes will consider gender dimensions at project management level, project steering committee meetings; the chair to the National Steering Committee is a woman with a senior position level of Deputy Secretary General at MESTECC. She also represented MESTECC for project steering committee endorsement of project progress report.
3. Efforts will be made to promote participation of women in training activities; workshops are conducted by both gender and participated by both gender too. The list can be proven in the list of attendance in workshops conducted.
4. Gender dimension will be considered during data collection and or assessment; Greentech Malaysia has appointed local woman consultant to undertake data collection and survey work and naturally women respondent will be considered during data collection exercise.

33. Please outline knowledge activities / products (when applicable), as outlined in knowledge management approved at CEO Endorsement / Approval:

The knowledge activities / products developed as per the project objectives outlined in the ProDoc are as follows:

1. The Low Carbon Mobility Blueprint and Action Plan (Component 1)

This is a development of a national policy and regulatory framework which also encompasses on the use of electric vehicles in Malaysia. The development also include identification of institutional capacity to capitalize and accelerate widespread use of EVs, strategy roadmap and business models, favorable tax incentives scheme for capacity building and local manufacturing of EVs.

2. Baseline Study and Data Collection on Energy, Environment and Socio-Economics on Langkawi, Malaysia (Component 1)

This is a provision to perform a baseline study on Low Carbon Langkawi, through obtaining data from past and existing sources covering energy, environment and socio-economics to perform data mining for primary data related to energy usage and carbon emission in various sectors in Langkawi, Malaysia

3. Supply, Installation, Testing and Commissioning of Thirty (30) Electric Vehicle Charging Infrastructure in Langkawi, Malaysia (Component 2)

This is a service project related to the supply, installation, testing and commissioning of thirty (30) units of 22 kW (AC fast Charger) electric vehicle charging infrastructure with full chargeEV features at the Langkawi Island in Malaysia under the project titled "Energy-Efficient Low Carbon Transport i Malaysia"

4. Integration, Installation and Commissioning of PV and Energy Storage System at an Existing Electric Bus Charging Station at Sunway BRT Depot (Component 2)

The project is to provide services and supply equipment, materials and parts required, for integration, installation and commissioning of a PV and energy storage system demonstration project at an existing electric bus charging station at Sunway BRT Depot station in Bandar Sunway.

5. Supply, Installation, Testing and Commissioning of one PV-Based Electric Vehicle Charging Station with Energy Storage in Malaysia -OBR Ayer Keroh, Melaka Southbound (Component 2)

The project is to provide services related to the supply, installation, testing and commissioning of one rapid charging station for electric cars with a CHAdemo DC 30kW -50kW output capacity, partially supplied with 20kWp solar PV abd equipped with 50kWh battery storage capacity, including O&M training in Malaysia

12. Mid-Term Review (MTR)

Please indicate the committed co-finance at **CEO Endorsement (Table C)*** and the materialized co-finance** as of FY 2018. If additional sources of co-finance have been added during project implementation, please add as appropriate.

	Sources of co-finance* (i.e. National government)	Name of co-financier* (i.e. Ministry of Finance)	Type of co-financing*	Amount confirmed at CEO (USD)*	Amount materialized at MTR (USD)**
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
Total					

Please upload the relevant Tracking Tool (*optional for MSP*):

Please upload the relevant Core Indicators numbers / figures as of the date of the MTR.

If there has been commitment in the CEO Endorsement document to submit a [Mid-Term Evaluation \(MTE\)](#), please upload:

Please insert information on progress, challenges and outcomes on **stakeholder engagement** (based on the description of the Stakeholder engagement plan included at CEO Endorsement/Approval):

Please insert information on progress on **gender-responsive** measures, indicators and intermediate results as documented at CEO Endorsement/Approval in the gender action plan or equivalent:

Please outline **knowledge activities / products** (based on the Knowledge management approach approved at CEO Endorsement / Approval) and lessons learned (if available):

Please outline **main findings** of the **Mid-Term Review (MTR)**, i.e. key findings, recommendations and lessons learned:

13. Terminal Evaluation (TE)

Please indicate the (a) committed co-finance at **CEO Endorsement (Table C)** and (b) the materialized co-finance as of FY 2018. If additional sources of co-finance have been added during project implementation, please add as appropriate.

	(a) Sources of co-finance* (i.e. National government)	(a) Name of co-financier* (i.e. Ministry of Finance)	(a) Type of co-financing*	(a) Amount confirmed at CEO (USD)*	(b) Amount materialized at MTR (USD)**	(b) Amount materialized at TE (USD)**
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
Total						

Please upload the relevant Tracking Tool (TT):

Please upload the relevant **Core Indicators numbers / figures** as of the date of the TE.

Please upload the **Terminal Evaluation (TE)**:

Please insert information on progress, challenges and outcomes on **stakeholder engagement** (as evolved from the time of MTR):

Please insert information on progress on **gender-responsive** measures, indicators and intermediate results (as evolved from time of MTR), lesson learned if available:

Please outline **knowledge activities / products** (as evolved from time of MTR) and lessons learned:

Please outline **main findings** of the **Terminal Evaluation (TE)**, i.e. key findings, recommendations and lessons learned:

15. Thank You!

AMR II submission confirmation 5741