

# Accelerating the adoption and scale-up of climate-smart transport in Malaysia

Review CEO Endorsement and Make a recommendation

## Basic project information

**GEF ID**

10739

**Countries**

Malaysia

**Project Name**

Accelerating the adoption and scale-up of climate-smart transport in Malaysia

**Agencies**

UNIDO

**Date received by PM**

2/9/2022

**Review completed by PM**

5/27/2022

**Program Manager**

Satoshi Yoshida

**Focal Area**

Climate Change

**Project Type**

## PIF ☐

### CEO Endorsement ☐

#### Part I ? Project Information

##### Focal area elements

**1. Does the project remain aligned with the relevant GEF focal area elements as presented in PIF (as indicated in table A)?**

Secretariat Comment at CEO Endorsement Request

Yes, the structure is the same as PIF.

Agency Response

**Project description summary**

**2. Is the project structure/design appropriate to achieve the expected outcomes and outputs as in Table B and described in the project document?**

Secretariat Comment at CEO Endorsement Request Yes, the structure is the same as PIF.

Agency Response

**3. If this is a non-grant instrument, has a reflow calendar been presented in Annex D?**

Secretariat Comment at CEO Endorsement Request

Agency Response

**Co-financing**

**4. Are the confirmed expected amounts, sources and types of co-financing adequately documented, with supporting evidence and a description on how the breakdown of co-financing was identified and meets the definition of investment mobilized, and a description**

**of any major changes from PIF, consistent with the requirements of the Co-Financing Policy and Guidelines?**

#### Secretariat Comment at CEO Endorsement Request

May 26, 2022: Technical comments cleared.

Feb 9, 2022: The co-financing amount has been increased. However, please revise and clarify the below points.

1. Some co-financing letters refer to local currency as opposed to USD and there seems no supporting document of conversion. Please revise letters or provide the details of conversion.
2. IRDA: the letter refers to \$350,000 allocation to IRDA as well, while only in-kind co-financing of \$20,540,000, which seems not confirmed is described in CER. Please clarify along with the confirmation status.
3. MARii: the letter says \$4,950,000 in addition to GEF- co-financing commitment minimum \$550,000. Please clarify the minimum commitment. Also it says inclusive of in-kind support and contribution, which indicates there is another type of co-financing. Please clarify if there is only in-kind co-financing .
4. MOT: the letter says \$78 million for investment while the co-financing amount in CER is 15.6 million. Please clarify.

#### Agency Response

**1. Some co-financing letters refer to local currency as opposed to USD and there seems no supporting document of conversion. Please revise letters or provide the details of conversion.**

- ? Table C on Confirmed Sources of Co-Financing for the Project in the CEO Endorsement Document has been updated to reflect revised letters and updated figures based on currency exchange as indicated below.
- ? Additional co-financing letter from Ministry of Environment and Water (KASA) has been received and included in Table C. KASA's letter indicated USD 401,912 in Grant and USD 329,016 in In Kind co-financing.
- ? Additional co-financing letter from Perusahaan Otomobil Nasional SDN. BHD. (Proton) has been received with letter indicating In Kind contribution of USD 236,000.
- ? Letter by Henz Pacific Sdn Bhd has been revised to USD 6,150,000 (similar to CER)
- ? Letters by Danajamin and MOT are subjected to the following conversion:

#### Currency Equivalents

Currency Unit = Malaysian Ringgit, MYR

1 USD = MYR4.23, rounded to the nearest million

Source: UN Operational Rates of Exchange, Effective Date: 01 Dec 2021

Name of Co-financier	Co-financing	
	Amount (RM)	Amount (USD)
Malaysia Green Technology and Climate Change Corporation (MGTC)	-	850,000
Green Technology Financing Scheme (Danajamin Nasional Berhad)	43,000,000	10,165,000 (Unrounded figure 10,165,485)
Malaysia Automotive, Robotics and IoT Institute (MARii)	-	4,950,000
Ministry of Transport (MOT)	330,000,000	15,600,000 (20% of total ? see explanation below) (Total value 78,014,184)
Iskandar Regional Development Authority (IRDA)	-	20,540,000
Henz Pacific Sdn Bhd	26,000,000	6,150,000
Perusahaan Otomobil Nasional SDN. BHD. (Proton)	1,000,000	236,000 (unrounded figure 236,406)

Above text on currency conversion has been added below in Table C. Tables A and B have also been updated to reflect adjustment in co-financing.

**2. IRDA: the letter refers to \$350,000 allocation to IRDA as well, while only in-kind co-financing of \$20,540,000, which seems not confirmed is described in CER. Please clarify along with the confirmation status.**

- ? IRDA is the project delivery partner for Activity 2.1.1.2 and 2.1.1.3. The project title for these activities is ?Renewable Energy Smart Charging Demonstration Project for Iskandar Malaysia Bus Rapid Transit (IRT) in Skudai, Johor?. The total budget allocation from the GEF Grant from the project is \$350,000 and confirmed co-financing from IRDA amounting \$20,540,000 based on the GEF funding allocated.
- ? Co-financing letter by IRDA has been amended to reflect the accurate type of co-financing

**3. MARii: the letter says \$4,950,000 in addition to GEF- co-financing commitment minimum \$550,000. Please clarify the minimum commitment. Also it says inclusive of in-kind support and contribution, which indicates there is another type of co-financing. Please clarify if there is only in-kind co-financing .**

- ? MARii is the project delivery partner for Output 1.1.1, 1.1.3, 2.1.1, 2.1.2 with a total allocation of \$550,000 from the GEF grant which was described as the minimum commitment from GEF financing in MARii's letter because MARii might also be involved in other Output such as Output 2.1.3 due to their role for Output 1.1.3. Their involvement will be determined later by the Project Steering Committee which might lead to additional allocation from other Output to MARii. Proportionately to the activities that MARii will deliver, the co-financing will also higher and adjusted accordingly later.

- ? Co-financing letter by MARii has been amended to reflect the accurate type of co-financing

**4. MOT: the letter says \$78 million for investment while the co-financing amount in CER is 15.6 million. Please clarify.**

- ? Co-financing from Ministry of Transport in six electric cars will be based on the study completed under Output 1.1.2 on shift from road to rail.
- ? Although there is confidence that full Ministry of Transport co-financing will be provided, a conservative 20% of their total contribution has been included to a risk mitigating measure to avoid the executing partner being accountable for a significant amount of co-financing.
- ? Based on this, the difference to the project in terms of Global Environmental Benefits between the USD 59,421,928 co-financing amount which includes 20% of MOT's total contribution and the USD 121,821,928 amount which includes 100% of MOT's co-financing amount is 5,724 tCO<sub>2</sub>e that would be directly mitigated from purchase of electric train cars.
- ? Aside from the GHG reduction, all project activities can be completed in the project document.
- ? It has been calculated that 5,724 tCO<sub>2</sub>e direct GHGs would be mitigated from the purchase of electric train purchase. This not included in Table E - however it has been noted that this can materialize in the description under Table E on GEB and under Table C on co-financing.

**GEF Resource Availability**

**5. Is the financing presented in Table D adequate and does the project demonstrate a cost-effective approach to meet the project objectives?**

Secretariat Comment at CEO Endorsement Request Yes.

**Agency Response**

**Project Preparation Grant**

**6. Is the status and utilization of the PPG reported in Annex C in the document?**

Secretariat Comment at CEO Endorsement Request

June 3, 2022: Comment cleared.

June 2, 2022: Additional comment on the utilization of PPG: please elaborate and provide some level of details on what contractual services entail to ensure that the expenditures are eligible under PPG (as per guidelines, there are ineligible expenditures for PPG).

## Agency Response

**Agency Response: June 3, 2022**

As part of the PPG activities, a contract was issued to the identified executing agency, namely the Malaysian Green Technology and Climate Change Corporation (MGTC), to support the development and stakeholder consultations for the CEO Approval document, the environmental and social management plan and the stakeholder engagement plan (Budget Line 2100 - Contractual Services). International consultants have also been engaged in developing key annexes (Environmental and Social Management Plan, Gender Action Plan, Stakeholder Engagement Plan) to ensure international best practices are incorporated (Budget Line 1100 - International Consultants). The annexes have been developed by international consultants with support from MGTC as the local executing agency. Committed amounts include consulting stakeholders on further steps to implement existing plans.

Please find attached an updated breakdown of PPG utilization:

Activities	Verification of CEO Submission	Budget
<b>1100 - International consultants</b>		
Development of the Environmental and Social Management Plan (ESMP)	Completed. ESMP is developed and shared along with the submission package.	
Development of Gender Analysis and Action Plan based on best international practice.	Done. Gender analysis and action plan is developed and shared along with the submission package.	
Development of Stakeholder Engagement Plan	Completed. Stakeholder Engagement plan is developed and shared along with submission package.	
Calculations of Emissions avoided, energy saved and increase in installed RE energy capacity targets based on best international practice.	Done.	
<b>2100 - Contractual Services</b>		
Collecting and verifying the baseline data on transport and RE, on other relevant sectors/technologies and ongoing/planned initiatives, policies etc.	Completed and integrated into project document	

Stakeholder consultations and workshops to verify the CEO approval document and finalization of project document and annexes.	Consultations with all the relevant stakeholders conducted and the outcomes are integrated into project design. Done. The project team conducted inception and validation workshop along with bilateral meetings with national stakeholders.	
Establishment of the precise nature of the pilot demonstrations.	Investment plan and description of pilot demonstrations integrated into CEO Approval document	
Development of the Environmental and Social Management Plan (ESMP)	Completed. ESMP is developed and shared along with the submission package.	
Development of Gender Analysis and Action Plan based on best international practice.	Done. Gender analysis and action plan is developed and shared along with the submission package.	
Development of Stakeholder Engagement Plan	Completed. Stakeholder Engagement plan is developed and shared along with submission package.	
Calculations of Emissions avoided, energy saved and increase in installed RE energy capacity targets based on best international practice.	Done.	
Description of the project implementation/execution modalities and agencies (including drafting TOR for contractual arrangement on the role of the executing agency)	Done. TOR for national execution is developed, the internal comments integrated.	
Obtaining of co-financing letters through consultations	Completed. All the co-financing letters are collected.	
Total		

#### Core indicators

7. Are there changes/adjustments made in the core indicator targets indicated in Table E?  
Do they remain realistic?

Secretariat Comment at CEO Endorsement Request

May 27, 2022: We note the idea of separated accounting timelines. However, the start year of accounting is 2022 and the end year of accounting is 2037. Thus the duration (overall) should be 15 years in this document.

May 26, 2022: While noting the response with direct and secondary direct emissions are now 29 times higher than at PIF, this is not a child project of Global E-mobility Program and rather a stand-alone e-mobility project. Please make sure that progresses made against all targets (direct, secondary direct, and indirect) will be captured at both mid-term and terminal evaluation with concrete evidence and real data if such approaches are used.

Please correct duration of accounting, which stays the same - 10 years, while GEB calculation uses 2022-2037 timelines.

Feb 9, 2022: The indicators have significantly increased (more than 23 times for direct emissions reduction) since PIF while the project structure remains the same. Please see the detailed comments on GEB section.

#### Agency Response

All of UNIDO's originally submitted electric mobility project's applied a 'bottom-up' GHG methodology at the PIF stage that was consistent with the GEF's Manual for Calculating GHG Benefits of GEF Transportation Projects. Per the request of UNEP as the lead agency on the GEF Global E-Mobility Program, all of UNIDO's electric mobility projects have had their GHG's recalculated for CEO Endorsement stage applying the same 'Top-Down' methodology used for projects under the Global Program. This is to ensure greater consistency in monitoring and reporting of electric mobility project across the programme. The result across all projects has been an increase in estimated GHG emission reductions. Please see additional response under GEB section.

An updated excel with consolidated calculations has been provided (Roadmap -> Documents section) and GHG figures have been adjusted accordingly for consistency and clarity in the CEO Endorsement document (Core Indicators, Section E, Section F, and Annex A).

**May 26, 2022: While noting the response with direct and secondary direct emissions are now 29 times higher than at PIF, this is not a child project of Global E-mobility Program and rather a stand-alone e-mobility project. Please make sure that progresses made against all targets (direct, secondary direct, and indirect) will be captured at both mid-term and terminal evaluation with concrete evidence and real data if such approaches are used.**

**Please correct duration of accounting, which stays the same - 10 years, while GEB calculation uses 2022-2037 timelines.**



Noted and we ensure that the GEBs are calculated at the mid and terminal evaluation.

The following text has been added below core indicators and under Section F on GEBs:

The project will generate multiple global environmental benefits, building on a series of baseline initiatives currently being undertaken. The GHG emission reduction is calculated using a top-down model developed by UNEP for the Global E-Mobility programme using the GHG calculation tool - Electric Mobility Calculator developed by United Nations Environment Programme for national assessment of energy use, emissions and costs of light duty vehicles, two wheelers and buses until the year 2050. This approach differs from the bottom-up methodology that was applied during the PIF stage. The top-down methodology has been adopted in support of greater consistency across GEF electric mobility projects.

For emission reduction estimation:

? Direct emission reduction is calculated using technical lifetime of vehicles (5 to 10 years, depending on vehicle/equipment type)

? Secondary direct and indirect emission reductions are calculated for the project implementation time (5 years) and additional 10 years accounted for the investment lifetime of vehicles/equipment after project implementation.

Secondary direct and indirect GHG emission reductions are calculated using 40% causality factor. These emission reductions are a result of wider changes in the country reflecting projects policy work and stakeholder engagement which are reflected in increased number of electric vehicles in the country.

In line with GEF guidance "Calculating Greenhouse Gas Benefits of Global Environment Facility Transportation Projects", a standard project influence period for GEF effects has been assumed to be 10 years. This means that a typical project will exert some influence on local market development for about 10 years. Thus, investments that happen within 10 years after the project?that were not projected in the baseline? can be counted toward indirect impacts. The GHG reductions of each subsequent investment are summed over their respective lifetimes for a cumulative measurement.

## **Part II ? Project Justification**

**1. Is there a sufficient elaboration on how the global environmental/adaptation problems, including the root causes and barriers, are going to be addressed?**

Secretariat Comment at CEO Endorsement Request

Yes.

#### Agency Response

**2. Is there an elaboration on how the baseline scenario or any associated baseline projects were derived?**

#### Secretariat Comment at CEO Endorsement Request

Feb 9, 2022: Yes. We note that described electric vehicles plans are up to 2030, which may provide indicative target numbers of such vehicles.

#### Agency Response

**3. Is the proposed alternative scenario as described in PIF/PFD sound and adequate? Is there sufficient clarity on the expected outcomes and components of the project and a description on the project is aiming to achieve them?**

#### Secretariat Comment at PIF/Work Program Inclusion

May 26, 2022: Comments cleared.

Feb 9, 2022: The project policy/technical interventions mainly focus on charging and batteries. Please explain how the project and the co-financing supports (or other governmental efforts) will actually increase the number of electric vehicles on roads, which will ultimately impact GEBs. Please emphasize how the project will make sure deliverables will be fully utilized by the government endorsement (as new regulations or guidelines).

Please also clarify if the interventions will update the national targets of usage of electric vehicles, and if so, please provide timeframes.

Please correct numbering under Comp 4.

#### Agency Response

**The project policy/technical interventions mainly focus on charging and batteries. Please explain how the project and the co-financing supports (or other governmental efforts) will actually increase the number of electric vehicles on roads, which will ultimately impact GEBs. Please emphasize how the project will make sure deliverables will be fully utilized by the government endorsement (as new regulations or guidelines). Please also clarify if the interventions will update the national targets of usage of electric vehicles, and if so, please provide timeframes.**

- ? Relating to the experience from previous engagement under GEF5 project on Energy Efficient Low-Carbon Transport in Malaysia (EELCT) implemented in 2016-2020, the deliverables have been endorsed by the Government as policy documents (LCMB) and standards/guidelines. Therefore, there is a high confidence that the project deliverables will be fully utilised by the Government as this project

is prepared to follow similar route. The deliverables are also highly relevant to support existing National Policies and Plans which will ultimately lead to endorsement of policies/standards/guidelines/regulations.

- ? There is also strong Government support and buy-in as demonstrated through the high co-financing commitment including investment mobilised. Public-private collaboration in the project will also lead to the increase in EV on roads.

Further to the above points, the following text has been added under Component 1:

In the transport sector, EV is widely accepted as the next technology paradigm, capable of solving the environmental problems associated with conventional internal combustion engine (ICE) vehicle. However, there are gaps in policy, regulation and technical challenges to the scale-up of EVs in Malaysia, specifically with respect to ensuring charging infrastructure is supporting by sustainable energy, enabling the electrification of public transport and freight, the sustainable use of batteries and supporting a national ecosystem for EV manufacturing and value chain development.

In Malaysia, EV charging infrastructure is mainly supported by fossil fuel sources of energy. There is also no electricity tariff for transport and the relatively affordable price of gasoline in Malaysia for ICE vehicles provides less economic incentive for consumers to shift to EVs. Therefore, there are urgent needs to ensure that the charging infrastructure is supported by sustainable clean energy, the growth does not place drastic burden on national and local grids, and the co-benefits of bi-directional charging are recognized.

There is also a need to ensure that the safe reuse and disposal of EV batteries is accounted for as the EV sector grows. There is potential for second life EV battery storage system to support the RE-based charging infrastructure. Technologies such as battery swapping need to be explored for Malaysia. This project will specifically be addressing these gaps.

Component 1 of the project will lead to policy intervention based the deliverables (studies, guidelines and standards) that will accelerate the adoption of EV in the country and eventually update the national targets of usage of EV. This project will also have opportunity to contribute to new national targets to be set during midterm review of the Malaysian Low Carbon Mobility Blueprint, of which, the identified Executing Partner, Malaysian Green Technology and Climate Centre (MGTC), is responsible for implementing.

Adoption of EV will also be accelerated through pioneering the development of Electric Vehicle Interoperability Centre (EVIC) in Malaysia as a tool for combating climate change and enabling the circular economy in Malaysia.

**Please correct numbering under Comp 4.**

Numbering under Comp 4 has been corrected.

**4. Is there further elaboration on how the project is aligned with focal area/impact program strategies?**

Secretariat Comment at CEO Endorsement Request

Yes.

## Agency Response

**5. Is the incremental reasoning, contribution from the baseline, and co-financing clearly elaborated?**

## Secretariat Comment at CEO Endorsement Request

May 26, 2022: Comments cleared.

Feb 9, 2022: Yes. Please briefly summarize co-financing contributions, in particular on investments on electric vehicles and solar power stations which will be a basis for component 2 investment.

## Agency Response

? The summary of co-financing contributions are as follows:

### Component 2: Investment

Project Outputs	Sub-Component Project	Activity	GEF Budget (USD)	Co-financing Amount (USD)
2.1.1 Development of business models and deployment of renewable energy based smart charging.	Proof of Value for Electric Vehicle Inter-operability Center (EVIC): Vehicle-to-Infrastructure (V2I) in Cyberjaya	Activity 2.1.1.1 Demonstration of EV smart-charging proof of concept for electric vehicles (for passenger vehicle) linked to renewable energy	200,000	4,950,000*  ? Location of the demonstration units at new EV Interoperability Centre

	Renewable Energy Smart Charging Demonstration Project for Iskandar Malaysia Bus Rapid Transit (IRT) in Skudai, Johor	Activity 2.1.1.2 Study on inventory of carbon emissions before and after deployment of e-bus and smart charger, including Solar Smart Charging specification (with possibility for multi-use charging)	50,000	20,540,000
		Activity 2.1.1.3 Installation of Solar Smart Charging demonstration units with three main components: solar PV panels (capacity to be determined by the space), battery storage (the battery to utilize EV second life) and fast chargers (plug in for multi-use other than for the e-buses)	300,000	? Location of the demonstration units at new bus depot ? At least 20 new electric buses to be introduced

	Solar Smart Electric Bus Charging Infrastructure and Depot Demonstration for Metro Kuching at Demak Laut Industrial Park, Kuching, Sarawak	Activity 2.1.1.4 Study on Solar Smart Charging specification for Electric Bus	15,000	6,150,000
		Activity 2.1.1.5 Installation of Solar Smart Charging demonstration units with three main components: solar PV panels (capacity to be determined by the space), battery storage (the battery to utilize EV second life) and fast chargers (plug in for multi-use other than for the e-buses)	155,000	? Location of the demonstration units at new bus depot ? At least 20 new electric buses to be introduced

2.1.2 Demonstration of EV battery repurposing and recycling. At least 1 demonstration of battery remanufacturing to be conducted in Cyberjaya.	Development of EV Battery Repurposing and Recycling Value-Chain and Demonstration Project on Remanufacturing of EV Battery	Activity 2.1.2.1 Develop Standards and Guideline for EV Battery Recycling and Repurposing in Malaysia	50,000	*subsumed under MARii's co-financing  ? Location of the demonstration project
		Activity 2.1.2.2 Deployment of Technology Solutions	75,000	
		Activity 2.1.2.3 Deployment of prototypes for EV battery second life applications	75,000	
2.1.3 Development of business models and deployment of electric vehicle battery swapping technology integrated with renewable energy.	Deployment of Electric Vehicle Battery Swapping Technology	Activity 2.1.3.1 Demonstration on EV Battery Swapping Technology for Motorcycle Activity	70,000	? Location of the demonstration units at new bus depot
		Activity 2.1.3.2 Development of Standards and Guideline for EV Battery Swapping	10,000	? At least 60 new electric motorcycles to be introduced
Total			1,000,000	36,794,000

There are other co-financings for Component 2 such as Green Technology Financing Scheme by Danajamin Nasional Berhad and Malaysia Green Technology and Climate Change Corporation (MGTC).

**6. Is there further and better elaboration on the project's expected contribution to global environmental benefits or adaptation benefits?**

#### Secretariat Comment at CEO Endorsement Request

May 26, 2022: We note responses. Please see comments in core indicators.

Feb 9, 2022: Please address the below points.

1. Timeframe: CER document (indicator section) says duration of accounting GHG emissions reduction is 10 years and it starts from 2022.

However, GEB section indicates direct emissions reduction will be accounted 2021-2027 while secondary direct emissions reduction and indirect emissions reduction will be accounted 2021-2036. GHG calculation sheet in Annexes also indicates 2021-2036 timeline.

The start year should be 2022 across the calculations. 15 years of secondary direct and indirect emissions reduction can be reasonable while we note that the current targets of the government is up to 2030, which is more plausible in estimating such emission reductions.

## 2. Estimation of "top-down" approach

While we note that secondary and indirect emission reductions are estimated based on "top-down" approach, while how the total emissions reduction was derived is not clear for each category of transport. Cumulative emissions reduction vis-à-vis BAU scenario in the GHG calculation sheet seems different from top-down emissions reduction volume. Please clarify and also clarify if they are consistent with the relevant national plans.

## 3. Passenger cars

There seems no direct intervention on passenger cars by this project except charging station related technical assistance while estimated secondary direct and indirect emission reductions are very high. Please provide additional detailed justifications on this category.

## 4. Indirect emissions reduction

Please provide the rationale of multiplication factor of 5 given the project design and the roles of the private sector and public financial mechanism, and clarify if this is in line with relevant national plans of the usage of electric vehicles in the given timeline.

## Agency Response

**1. Timeframe: CER document (indicator section) says duration of accounting GHG emissions reduction is 10 years and it starts from 2022.**

**However, GEB section indicates direct emissions reduction will be accounted 2021-2027 while secondary direct emissions reduction and indirect emissions reduction will be accounted 2021-2036. GHG calculation sheet in Annexes also indicates 2021-2036 timeline.**

**The start year should be 2022 across the calculations. 15 years of secondary direct and indirect emissions reduction can be reasonable while we note that the current targets of the government is up to 2030, which is more plausible in estimating such emission reductions.**

? Years for GEBs have been updated to 2022-2026 for direct (five years of project) and 2022-2037 for secondary direct and indirect, in line with UNEP's methodology.



## **2. Estimation of "top-down" approach**

**While we note that secondary and indirect emission reductions are estimated based on "top-down" approach, while how the total emissions reduction was derived is not clear for each category of transport. Cumulative emissions reduction vis-à-vis BAU scenario in the GHG calculation sheet seems different from top-down emissions reduction volume. Please clarify and also clarify if they are consistent with the relevant national plans.**

- ? Cumulative emissions is a result of three different calculations (for buses, LDVs and 3W) for which BAU and e-mobility scenario has been developed separately, acknowledging the difference in vehicles types and to avoid double counting.
- ? An updated excel with consolidated calculations has been provided and GHG figures have been adjusted accordingly for consistency and clarity in the CEO Endorsement document (Core Indicators, Section E, Section F, and Annex A).
- ? The BAU scenario is in line with relevant national plans and strategies.

## **3. Passenger cars**

**There seems no direct intervention on passenger cars by this project except charging station related technical assistance while estimated secondary direct and indirect emission reductions are very high. Please provide additional detailed justifications on this category.**

- ? This project is adopting UNEP methodology to calculate the estimated GHG emission mitigated.
- ? The lack of charging infrastructure especially those connected to renewable energy was found as one of major barriers to wider adoption of EV in the country. By addressing the barriers through Component 1 of the project, the implementation of guidelines and standards for smart charging to maximize renewable energy for charging and harmonization of electric vehicle supply equipment will ensure that necessary policy, institutional and regulatory framework are enabled and under this assumption, the impact of passenger car will be very high and subsequently result in high secondary direct and indirect emission reduction.
- ? Additionally, co-financing from Ministry of Transport in six electric cars will be based on the study completed under Output 1.1.2 on shift from road to rail. The six electric trains is assumed to be similar specification to Malaysia's ETS Class 93 (electric train with capacity of 312 seats) is equivalent to 100 cars of 1 three-persons small family taken off the road due to shift to rail).
- ? Although there is confidence that full Ministry of Transport co-financing will be provided, a conservative 20% of their total contribution has been included to a risk mitigating measure to avoid the executing partner being accountable for a significant amount of co-financing.
- ? Therefore, the project will contribute to the mitigation of greenhouse gases in the Malaysia transport sector with an estimated reduction of 10,332,478 tones of CO<sub>2</sub>eq direct, contributing to nearly 5% of the Malaysia Low Carbon Mobility Blueprint target on CO<sub>2</sub> reduction for land transportation by 2030 (165,000,000 tones of CO<sub>2</sub>eq), or higher should the six electric trains materialised.

## **4. Indirect emissions reduction**

**Please provide the rationale of multiplication factor of 5 given the project design and the roles of the private sector and public financial mechanism, and clarify if this is in line with relevant national plans of the usage of electric vehicles in the given timeline.**

- ? Reference to the multiplication factor of 5 was included in error and has now been removed. This was the case for the "bottom-up" methodology applied for the PIF.

This is not the case using the 'top-down' methodology in line with the Global Programme.

? New text reads as follows:

Indirect emissions reductions are the result of larger changes in mobility due to the combined effect of factors such as policy changes, industry development, capacity building and behavioural changes occurring during the project period. These have been estimated at 19,650,532 million tonnes.

**May 26, 2022: We note responses. Please see comments in core indicators.**

Comments under core indicators have been responded to.

**7. Is there further and better elaboration to show that the project is innovative and sustainable including the potential for scaling up?**

Secretariat Comment at CEO Endorsement Request

May 26, 2022: Comment cleared.

Feb 9, 2022: Largely yes. Please add a role of KM for sustainability (and scaling up if applicable).

Agency Response

Following text has been added to this section:

Under Component 3 on capacity building and scale-up, training of trainers will also be undertaken to develop a pool of competent pool of instructors who will be able to conduct knowledge sharing with other people in the future. This will enable sustainability through knowledge management (please see section on knowledge management for further elaboration).

**Project Map and Coordinates**

**Is there an accurate and confirmed geo-referenced information where the project intervention will take place?**

Secretariat Comment at CEO Endorsement Request

Yes.

Agency Response

**Child Project**

**If this is a child project, is there an adequate reflection of how it contributes to the overall program impact?**

Secretariat Comment at CEO Endorsement Request

Agency Response

**Stakeholders**

**Does the project include detailed report on stakeholders engaged during the design phase?  
Is there an adequate stakeholder engagement plan or equivalent documentation for the implementation phase, with information on Stakeholders who will be engaged, the means of engagement, and dissemination of information?**

Secretariat Comment at CEO Endorsement Request

Yes, and detailed stakeholders plan is attached.

Agency Response

**Gender Equality and Women's Empowerment**

**Has the gender analysis been completed? Did the gender analysis identify any gender differences, gaps or opportunities linked to project/program objectives and activities? If so, does the project/program include gender-responsive activities, gender-sensitive indicators and expected results?**

Secretariat Comment at CEO Endorsement Request

Yes, detailed analysis and action plan are attached.

Agency Response

**Private Sector Engagement**

**If there is a private sector engagement, is there an elaboration of its role as a financier and/or as a stakeholder?**

Secretariat Comment at CEO Endorsement Request

Yes.

Agency Response  
Risks to Achieving Project Objectives

**Has the project elaborated on indicated risks, including climate change, potential social and environmental risks that might prevent the project objectives from being achieved? Were there proposed measures that address these risks at the time of project implementation?**

Secretariat Comment at CEO Endorsement Request

May 27, 2022: Comment cleared.

May 26, 2022: Risks have been added while mitigation measures to address them are not provided. Please address.

Feb 9, 2022: Yes. Please consider adding COVID-19 risk of mobilizing/materialize co-financing during the project, which would impact the GEBs and other outcomes. Also, environmental risks should include impacts of building solar and other charging stations, used batteries and so on.

Agency Response

? Please refer to Section on Risks in the CEO Endorsement Document on these updates.

? The following text has been added on Environmental and social risks:

The installation of solar panel for the EV charging demonstration and repurposing of used EV batteries might pose environmental risks without proper management and safe disposal of the materials after the shelf life has ended.

? The following text has been added on COVID-19 risks:

The challenges from COVID-19 pandemic to Malaysia is constraining the implementation of planned climate change actions as many resources are being diverted for urgent needs to overcome the disease. Therefore, there are risks to mobilise/materialise co-financing during the project.

**May 26, 2022: Risks have been added while mitigation measures to address them are not provided. Please address.**

The following mitigation measures have been added to Table 24.

Environmental and social risk mitigation measure for PV installation and batteries:

Through the development of Output 1.3, Development of Electric Vehicle and Sustainable Battery Ecosystem and Value Chain Roadmap, consideration for lifecycle issues related to PV and batteries including safe collection, recycling and disposal, will

be taken into account. A set of guiding policies, regulations and standards considering the sustainable battery ecosystem will be proposed. Additionally, the project will also support building capacity of local stakeholders and operators to manage and safely dispose of batteries after their shelf life has ended.

Risk mitigation for mobilization of co-financing with competing COVID-recovery priorities:

Considering the development of the pandemic, it is anticipated that investment priorities will be evolving as communicated in the updated NDC. Stakeholder engagement will be critical to ensure wide-range buy-in and ownership for the project. As a mitigation measure, a detailed stakeholder engagement plan (see attached) has been developed and will be consistently reviewed and revised during implementation to ensure the project evolves with nationally needs and co-financing is secured.

#### **Coordination**

**Is the institutional arrangement for project implementation fully described? Is there an elaboration on possible coordination with relevant GEF-financed projects and other bilateral/multilateral initiatives in the project area?**

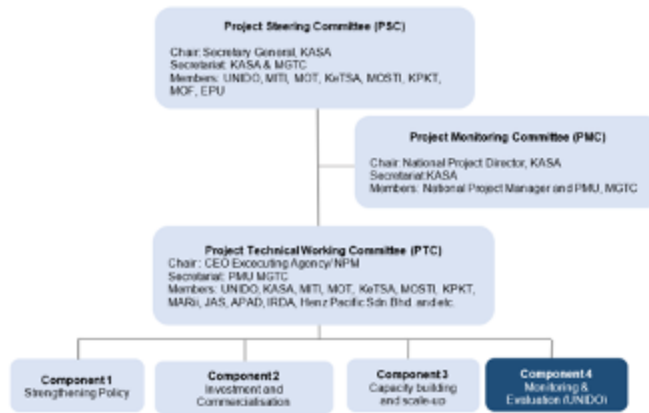
Secretariat Comment at CEO Endorsement Request

May 26, 2022: Comments cleared.

Feb 9, 2022: On monitoring, UNIDO is not the only institution to handle this part. Please add executing entity as well.

#### **Agency Response**

- ? The M&E will also be managed by the Project Executing Entity and project delivery partners for relevant activities.
- ? M&E will be under the responsibility of Project Monitoring Committee (PMC) under PEE ? a new Project Management Framework is proposed and the ToRs for PTC is outlined below and updated in the Coordination section.



The text below has also been added for further clarification:

The National Project Director (NPD) will be appointed by KASA. The NPD will be responsible for project monitoring in order to achieve project's objectives through the endorsement of all project reporting including submission of Annual Work Plans (AWP), APR/PIRs and financial reports by PMU. The NPD will oversee the effective communications and coordination with all parties involved in the project and will verify that resources committed to the project are available. This includes in-kind commitments, which will be monitored and reported during project reviews. The NPD will report to the NSC any issues, internal or external to the project, which are likely to effect the delivery of results.

The National Project Manager (NPM) will be the custodian of the Project Document and as such will be responsible for overseeing compliance with the agreed work plan and budget. The NPM will ensure that subsequent revisions to the Project Document are verified and approved by the PSC and in accordance with the requirements of the Government and GEF. The NPM will be responsible for the day-to-day delivery of the project activities in accordance with the agreed Project Document. The NPM will be appointed by executing agency and will report programmatically to the NPD and administratively to the UNIDO. The NPM establishes the project team, maintains the project management plan and facilitates procurement and scheduling of activities. The NPM prepares all project management and financial reports, and; ensures effective communication and coordination of the project team and partners; establishes the result monitoring systems and facilitates all project evaluations and reviews; and keeps track of project risks and issues in the project's risk and issues log.

#### Project Monitoring Committee (PMC)

PSC shall be supported by a Project Monitoring Committee (PMC) to monitor the physical and financial progress of the project. PMC will be monitored by NPD and Climate Change Division of KASA. PMC will be held monthly and shall provide:

1. Review of project progress report to ensure the objective of the projects been achieved and resources are deployed to their most productive use and comply the Annual Work Plans (AWP), APR/PIRs and financial procedure
2. Identifying difficulties impacting the community or project and finding solutions and assuring that all actions are completed correctly, on time, and by the appropriate persons.

Advise PMU the best approach to ensure project be implemented effectively and efficiently.

**Consistency with National Priorities**

**Has the project described the alignment of the project with identified national strategies and plans or reports and assessments under the relevant conventions?**

Secretariat Comment at CEO Endorsement Request

Yes.

Agency Response

**Knowledge Management**

**Is the proposed ?Knowledge Management Approach? for the project adequately elaborated with a timeline and a set of deliverables?**

Secretariat Comment at CEO Endorsement Request

May 26, 2022: Comment cleared.

Feb 9, 2022: Please briefly summarize knowledge deliverables by this project components with timelines.

Agency Response

The following table has been added to this section:

Component	Materials
Component 1	? Study on standard document/guideline ? Study on Mode Shift from Road to Rail ? Study on the Landscape of EV Battery Ecosystem ? Roadmap for implementation of sustainable EV battery ecosystem ? Policy papers
Component 2	? Technical reports ? Publicity in the media
Component 3	? Awareness raising materials ? Workshop proceedings ? Publicity in media ? List of participants (gender disaggregated) ? Minutes of Meeting ? Event Reports

<b>Component 4</b>	<b>?</b>	<b>Annual Project Implementation Report</b>
	<b>?</b>	<b>Progress reports</b>
	<b>?</b>	<b>Mid -term project review (MTR) document</b>
	<b>?</b>	<b>Project terminal evaluation</b>

#### **Environmental and Social Safeguard (ESS)**

**Are environmental and social risks, impacts and management measures adequately documented at this stage and consistent with requirements set out in SD/PL/03?**

Secretariat Comment at CEO Endorsement Request

Yes.

Agency Response

**Monitoring and Evaluation**

**Does the project include a budgeted M&E Plan that monitors and measures results with indicators and targets?**

Secretariat Comment at CEO Endorsement Request

Yes.

Agency Response

**Benefits**

**Are the socioeconomic benefits at the national and local levels sufficiently described resulting from the project? Is there an elaboration on how these benefits translate in supporting the achievement of GEBs or adaptation benefits?**

Secretariat Comment at CEO Endorsement Request

Yes.

Agency Response

**Annexes**

**Are all the required annexes attached and adequately responded to?**

Secretariat Comment at CEO Endorsement Request

May 27, 2022: Comment cleared.



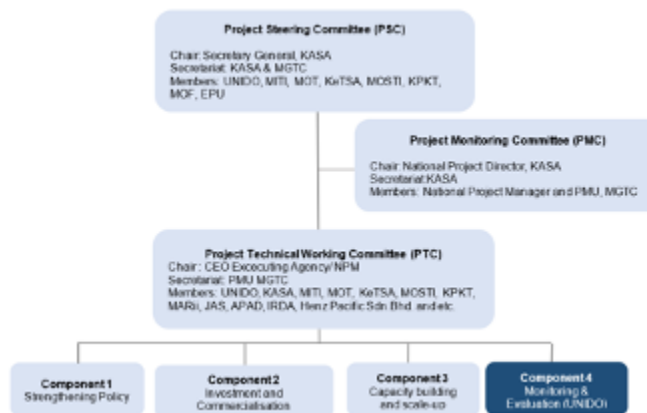
May 26, 2022: The budget format is close to the template. The table is, however, beyond the document screen and cannot be captured when posted online. Please correct (as well as the border of the column of component 1 is not clearly shown).

Feb 9, 2022: On the budget table, this is not compatible to the template in the guidelines of the project and program cycle policy 2020. Please use the template and resubmit. While budget lines in PMCs are not shown, if project management staff take technical roles, detailed ToRs are necessary.

### Agency Response

- ? In line with the GEF Policy, we will provide a contract to the executing agency that will report at the expenditure level as part of annual financial reports. The indicative budget table reflects that given execution will be completed by the executing agency, all of UNIDO's budget expenditures for the project will be as contractual services.
- ? Updated indicative budget has been attached and split based on project activities. We take note of requirements on expenditure based budgets. Financial reporting during the project's implementation will be conducted using expenditure lines.
- ? The project management staff will not take on technical roles as the staffs will be on planning and organisation of resources to implement the project.
- ? The technical aspects will be managed by Project Technical Working Committee (PTC) ? a new Project Management Framework is proposed and the ToRs for PTC is outlined below. The technical components of the project are budgeted under the allocation for technical.

Please refer to Section on Coordination in the CEO Endorsement Document on these updates with the below text added:



### Project Technical Committee (PTC)

Due to the cross-cutting nature of implementing the adoption and scaling-up of Climate-Smart Transport in Malaysia, the PSC shall be supported by a Project Technical Committee (PTC) which will include multi-domain technical and policy specialist from participating ministries, project delivery partners and key stakeholder groups. This will include senior technical specialist from private sectors, universities, KASA, MOT, MITI, MOT, KeTSA, MOSTI, and KPKT. The PTC is not a decision-making body but

will be called upon to provide objective and independent technical expertise to the PSC to support project oversight and monitoring. The PTC will do this by providing the PSC with an informed review of project management reports, technical reports and other outputs of the project. The PTC will meet biannually, prior to the PSC meetings and as otherwise required by PSC.

The PTC shall provide :

1. Strategic management and technical advice to project activities, including corrective actions required, alternative project strategies or implementation plans and resolve amicably any dispute as to the interpretation of the project document and the implementation of the project
2. Review and acceptance of project work plan and budget, ensuring that resources are deployed to their most productive use;
3. Oversee project progress against mandatory results and agreed time schedule of activities and reviewing the results of project evaluations that will take place periodically;
4. Provide necessary political support to the project implementation, assuring coordination between this project and other ongoing government activities and programs;
5. Perform other duties to ensure effective and efficient implementation of the project.

**May 26, 2022: The budget format is close to the template. The table is, however, beyond the document screen and cannot be captured when posted online. Please correct (as well as the border of the column of component 1 is not clearly shown).**

The budget has been reposted and the column should now be visible.

#### **Project Results Framework**

##### **Secretariat Comment at CEO Endorsement Request**

May 26, 2022: As in a comment on core indicators, please make sure to capture progresses made against all targets during the projects and after. It is required to report at mid and terminal evaluations with evidence and real data.

Feb 9, 2022: Yes. Please explain how the Agency will record indirect emissions reduction and how long it will record after the project cycle.

##### **Agency Response**

- ? The Project Executing Entity, will be introducing mechanism to measure direct and indirect emissions for land transport in Malaysia including EV. This will be

part of LCMB and EV Roadmap's Monitoring, Verification and Monitoring (MRV) activities for the action plans under LCMB.

- ? This project will be part of the national MRV on EV and thus the indirect emissions reduction will be recorded until 2030. The calculation used in this project will be taken into consideration for consistency in reporting to GEF.

**May 26, 2022: As in a comment on core indicators, please make sure to capture progresses made against all targets during the projects and after. It is required to report at mid and terminal evaluations with evidence and real data.**

Noted and will be considered at the mid and terminal evaluation.

**GEF Secretariat comments**

Secretariat Comment at CEO Endorsement Request

Agency Response

**Council comments**

Secretariat Comment at CEO Endorsement Request

Agency Response

**STAP comments**

Secretariat Comment at CEO Endorsement Request

Agency Response

**Convention Secretariat comments**

Secretariat Comment at CEO Endorsement Request

Agency Response

**Other Agencies comments**

Secretariat Comment at CEO Endorsement Request

Agency Response

**CSOs comments**

Secretariat Comment at CEO Endorsement Request

Agency Response

**Status of PPG utilization**

Secretariat Comment at CEO Endorsement Request Yes.

Agency Response

**Project maps and coordinates**

Secretariat Comment at CEO Endorsement Request Yes.

Agency Response

**Does the termsheet in Annex F provide finalized financial terms and conditions? Does the termsheet and financial structure address concerns raised at PIF stage and that were pending to be resolved ahead of CEO endorsement? (For NGI Only)**

Secretariat Comment at CEO Endorsement Request

Agency Response

**Do the Reflow Table Annex G and the Trustee Excel Sheet for reflows provide accurate reflow expectations of the project submitted? Assumptions for Reflows can be submitted to explain expected reflows. (For NGI Only)**

Secretariat Comment at CEO Endorsement Request

Agency Response

**Did the agency Annex H provided with information to assess the Agency Capacity to generate and manage reflows? (For NGI Only)**

Secretariat Comment at CEO Endorsement Request

Agency Response

**GEFSEC DECISION**

**RECOMMENDATION**

**Is CEO endorsement recommended? (applies only to projects and child projects)**

Secretariat Comment at CEO Endorsement Request

June 3, 2022: Comment cleared.

June 2, 2022: Please address the comment on PPG usage.

May 26, 2022: The project has been returned today, three and half months after the first review. Please resubmit urgently taking into account possible policy related comments to meet the deadline.

Feb 9, 2022: Please address the comments above.

**Review Dates**

**Secretariat Comment at  
CEO Endorsement**

**Response to  
Secretariat  
comments**

<b>First Review</b>
<b>Additional Review (as necessary)</b>
<b>Additional Review (as necessary)</b>
<b>Additional Review (as necessary)</b>
<b>Additional Review (as necessary)</b>

**CEO Recommendation**

**Brief reasoning for CEO Recommendations**