

# Integrated adoption of electric mobility in the maritime sector through clean technology innovation

Review CEO Endorsement and Make a recommendation

## Basic project information

**GEF ID**

10999

**Countries**

Cabo Verde

**Project Name**

Integrated adoption of electric mobility in the maritime sector through clean technology innovation

**Agencies**

UNIDO

**Date received by PM**

2/14/2023

**Review completed by PM**

11/2/2023

**Program Manager**

Patricia Marcos Huidobro

**Focal Area**

Climate Change

**Project Type**

MSP

**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  
**11/13/2023 PM:**

**Cleared.**

**11/9/2023 PM:**

**No.** The expected implementation start date was amended to 12/1/2023, but the expected completion date is also 12/1/2013. Please amend the expected completion date to make it consistent with the 48-month duration period of the project.

**7/19/2023 PM:**

**No.** Please address the following comments:

- The expected Implementation Start Date has already passed, i.e. 6.1.2023, please amend accordingly;

- As UNIDO is providing some execution support services, please add UNIDO under "Other Executing Partner(s)" in the Project Information section:

**Countries**  
Cabo Verde

**Agency(ies)**  
UNIDO

**Other Executing Partner(s) ⓘ**  
Ministry of Industry, Trade and Energy

**Executing Partner**  
Government

**3/10/2023 PM:**

**Yes, with suggestions.** Please include the Focal Area Outcomes. This field is currently empty.

Agency Response

**UNIDO Response:**

Completion Date has been revised and changed to 12.1.2027.

**UNIDO Response:**

- Amended to 01.12.2023
- Added UNIDO under other executing partner.

**8 June 2023:**

The Focal Area Outcomes are now included.

**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

**11/2/2023 PM:**

**Cleared.**

**7/19/2023 PM:**

**Cleared with suggestions.** It is acknowledged the inclusion in the project objective of road transportation. Please consider removing "and energy sector" from the objective, since "adoption of electric mobility in the energy sector" doesn't seem to be accurate.

#### **Project Objective**

To advance the adoption of electric mobility in the transport (maritime and road) and energy sectors particularly for remote villages integrated with the use of renewable energy (RE) options.

**3/10/2023 PM:**

**No.** In line with the comment provided at PIF stage, it is noted that the project' scope, although it has a focus on maritime transportation (particularly at the policy and institutional level), goes beyond the maritime transportation by piloting other small-format land-base vehicle (i.e. 2 and 3 wheelers). Please consider updating or broadening the objective of the project to reflect these other uses.

#### **Agency Response**

##### **UNIDO Response:**

"and energy sector" removed as suggested.

**8 June 2023:**

The objective of the project is updated and broadened as suggested.

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

Secretariat Comment at CEO Endorsement Request

**3/10/2023 PM:**

**N/A.**

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  
7/19/2023 PM:

**Yes.** The Agency has elaborated further on their efforts to increase the co-financing amount, and has included a reference to on-going discussions with banks and other development institutions.

3/10/2023 PM:

**No.** Please address the following comments:

- The co-financing ratio has significantly decreased from PIF stage, i.e. from a co-financing ratio of 4.7 at PIF stage to 2.7 at CEO Endorsement. It is noted that this is partly due to Caixa Econ?mica de Cabo Verde reluctance to provide a co-financing value until there is greater clarity on the financial needs for the pilots. However, even at PIF stage the co-financing ratio was already low, and most of the current co-financing is in kind, with only US\$80k in cash (i.e. approx. 3% of the US 2.7 million in cash co-financing resources). While we understand the difficulties in raising co-financing in a SDIS for a project in remote areas, please note that the current co-financing level is far from the GEF-7 co-financing aspirational goal. As such, please try to identify new sources of co-financing, and elaborate further on the efforts during PPG stage to bring in co-financing sources and on-going discussions with potential co-financiers.

- The co-financing letter for EMAR indicates US\$200,000 instead of US\$300,000 as per Section C. Please revise the amount accordingly.

Agency Response  
8 June 2023:

- UNIDO tried to identify new sources of co-financing during and after the PPG stage. For example, UNIDO held discussions with such Cabo Verde local banks as BAI Cabo Verde and BCN (Banco Caboverdiano de Neg?cios) to bring in co-financing resources.

1. **BAI Cabo Verde:** the bank showed interest in the project and indicated willingness to provide co-financing, however, in accordance with the bank policy, they are not able to provide a letter of intent before in-depth feasibility study has been completed. Nonetheless, UNIDO requested to provide a letter with a tentative amount on an exceptional basis. The Commercial Director of the Bank stated that the letter is still with the Chairman. UNIDO is still awaiting an update on this.
2. **BCN:** the responsible Director of the bank confirmed their interest in the project and has been considering co-financing the project. UNIDO is still awaiting an update on this.

In addition, UNIDO is consulting with FAO Cabo Verde on potential co-financing for the project. FAO promised to consider it given that it would be mutually beneficial for FAO and UNIDO to strengthen collaboration between GIZ/NAMA and GEF/UNIDO projects and the opportunities within the Blue Economy plan.

The nature of the project precludes potential co-financers from committing potential co-financing amounts at this stage. This may become more feasible, once the feasibility study has been completed. UNIDO would welcome a call with the GEF Project Manager to assess the current status of co-financing commitments and identify a mutually agreeable way forward.

- The co-financing amount of EMAR was revised to US\$200,000.

#### **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  
**3/10/2023 PM:**

**Yes.** As requested at PIF stage, the LoE has been updated so the total GEF financing as per the CEO Endorsement document matches the LoE.

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  
**7/19/2023 PM:**

**Cleared.** Use of the remaining PPG resources has been included in the CEO Endorsement document.

**3/10/2023 PM:**

**Yes.** Please clarify how the remaining resources (i.e. approximately US\$ 4,000) will be used.

Agency Response

**8 June 2023:**

The remaining resources will be used for a national consultant to conduct the feasibility study.

**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

**11/2/2023 PM:**

**Cleared.**

**7/19/2023 PM:**

**No.** There is a discrepancy in reporting the target between core indicator table and the annex a (results framework). The target for CI.11 is different in CI table than annex A.

**3/10/2023 PM:**

**No.** Please clarify the following issues:

- In the GEF Portal the GHG Mitigated at CEO Endorsement have been included under Indicators 6.1 Carbon Sequestered or Emissions Avoided in the AFOLU (Agriculture, Forestry and Other Land Use) sector. Please note this is wrong. The project is expected to generate GHG emissions reductions under indicator Emissions Avoided Outside AFOLU (Agriculture, Forestry and Other Land Use) Sector.
- The calculations have been conducted based on "10 year of the project". Please note the calculations shall be done on the basis of the lifetime of the equipment (i.e. batteries) instead

of the lifetime of the project. Please confirm the lifetime of the batteries and amend the calculations as need be.

- The calculations in the excel sheet are difficult to track, particularly indirect emissions. For instance, we couldn't find in the excel sheet any reference to the indirect 154,820 tCO<sub>2</sub>eq claimed by the project. For direct emissions there are two different values, i.e. 2060 in cell D62 and 2054 in cell C80. Please clarify (by enhancing the excel sheet if possible) and update the GEF Portal as need be.

#### Agency Response

##### **UNIDO Response:**

The discrepancy resolved (Annex A corrected).

##### **8 June 2023:**

- Indicator revised.

- A 10-year project life matches the expected minimum first life of the swap batteries for the intended marine application.

- The excel sheet of GHG calculation is now updated for easier tracking.

#### **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  
**3/10/2023 PM:**

**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  
**11/2/2023 PM:**

**Cleared.**

**7/19/2023 PM:**

**Cleared with comments.** Further information has been included on the GEF SGP and the collaboration between the two projects. The CEO Endorsement document now states that "lessons learnt from the Salamansa Fishing Association project were collected at PPG stage". Please consider providing a list of the preliminary list of lessons learned identified during the PPG.

**3/10/2023 PM:**

**No.** Please provide more information on the GEF SGP project on Co-financing Artisanal Fishing Vessel Electric Mobility Project. Lessons learnt and experiences taken from the design of this project shall be better reflected in the CEO Endorsement Document. For instance, what has been the business model used by this project? Is this project using a battery swap system and a community battery leasing/renting centers? What are the challenges/areas of improvement on the SGP project which will be used to strengthen the design of the proposed project, particularly with regards to the use of a battery swap model?

Agency Response

**UNIDO Response:**

The requested list of preliminary lessons learned has been provided in the Table 8.

**8 June 2023:**

Additional information has been added on the GEF SGP project.

Moreover, please note that the proposed project includes a leasing model with an expert agency that is responsible for the maintenance and upkeep of the batteries. This strengthens the design of the proposed project, given that this additional expertise, along with automated monitoring system of the battery swap stations, is expected to lead to a much longer life for the swap batteries than would be expected if the batteries were under private ownership, and subject to private maintenance regimes. A leasing arrangement also removes the cost of the battery from the original vehicle purchase, removing the high premium cost barrier normally associated with electric vehicles purchase decisions.

**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

**11/2/2023 PM:**

**Cleared.**

**7/19/2023 PM:**

**Cleared with comments.** With many thanks for the clarifications provided below (which are very helpful), please consider strengthen the CEO Endorsement document by providing information on consultations/meetings held with the operators of the electricity network in Sao Pedro and the PV plant in Monte Trigo. Since the charging station could potential operate as virtual power stations (which is indeed a great addition for the stabilization of the local grid), closely coordination with existing operator are key. Please consider adding information on these two operators and how coordination will be ensured, and add them to the Stakeholder's Engagement Plan as need be.

**3/10/2023 PM:**

**No.** Please address the following comments:

- Please clarify how many vessels are expected to benefit from these two pilots (out of the 1,815 vessels in the country). From the current description, the total number is unclear.
- The project claims that the batteries could also be used for other purposes, including ice making for the fish and also home uses. However, as per the info provided in the feasibility analysis, Sao Pedro village is connected to the grid and Monte Targo has electricity access through a solar PV power plant. Since the two cities selected for the pilots have energy access, please elaborate further on the benefits of having access to a Community Batteries Leasing/Renting Centres. What is the expected demand for these batteries and for which sectors other than for the vessels?
- Similarly, in the case of the 2/3 wheelers and since these two selected villages have access to electricity, we are wondering whether the battery-swap business model is the most attractive from both the financial and technical point of view. What are the advantages of a battery-swap business model compared to a vehicle-to-grid (V2G) model?
- The timing for some of the activities seems a bit tight. For instance, the automated battery swap stations to be developed under activity 2.1.2.2 are expected to be in place in the middle of year 2. However, this activity depends on the feasibility study which is expected to be completed by the end of year 1.

**Agency Response**

**UNIDO Response:**

The requested information has been added in the Section 1a. Project Description, Sub-section 3) The Proposed Alternative Scenario.

**8 June 2023:**

- 20 (directly) and 540 (indirectly) vessels are expected to benefit from the two pilots.
  - While Sao Pedro village is connected to the grid and Monte Targo has electricity access through a solar PV power plant, the use of swap batteries is particularly beneficial for integrating with local electricity supply network when the Community Batteries Leasing/Renting Centre are aggregated resulting in a significant amount of storage that can be played in concert with the local supply of electricity to take advantage of any excess electricity available once sufficient or all of the batteries available in the changing station have been fully charged to achieve more stable supply of electricity, reduce energy cost and potential use of batteries for a variety of appliances. For example in Monte Trigo, although a solar PV power plant exists, the capacity of batteries is limited and on low solar radiation days , the power generation is limited to diesel generators, which are more costly and environmentally harmful. Additionally, the capacity of the resulting diesel-generated electricity production is not sufficient to cover potential demand of electricity for ice making and such home appliances as lighting, phone charging, refrigeration, and electric cooking. Through the set-up of a battery swapping station with a solar PV system, the local community can increase their capacity of ice-making that benefits local fishing sector and stabilize the electricity supply for household and tourism sector (hotels) uses. Additionally, proposed system can also potentially meet needs of the desalinization plant which is to be developed. Likewise in Sao Pedro, other than for the vessels, there are significant cooling and ice making system demands for fish conservation/transport, which are currently not developed due to the electricity cost.
  - V2G model does not make practicable sense for in-situ batteries of small-format electric vehicles ? the individual battery sizes are too small to make a significant difference and the integration equipment required for each vehicle is more costly than the electric vehicles themselves. The advantages and the reason why the battery-swap business model is the most attractive from both the financial and technical point of view for integrating with local electricity supply network is that the (small) swap batteries are aggregated when they are in the battery swap station resulting in a significant amount of storage that can be played in concert with the local supply of electricity. The charging rate used can also be increased or decreased according to the availability of local generation, and to export to boost voltages in the local network, for example. All of this is facilitated when dealing with an aggregated amount of electrical energy storage.
- In addition, battery swapping has become standardized in several countries, and this is the reason why it is expected that a short time frame can be met for both developing the feasibility study and deploying a procurement exercise for a battery swap-based project.

Furthermore, the combination of modern battery technologies, and cheap communications and electronics, has introduced battery swapping to small-format electric vehicles such as two- and three-wheelers (e.g. in Taiwan). There are many benefits for battery swapping, especially in environments where the target users are not so familiar with new technologies. These benefits include removing the concern about the cost and durability of the modern battery from the an unformed purchaser and giving this responsibility to an agency that has particular expertise in the operation and maintenance of modern battery systems. This not only removes significant barriers for a potential purchaser (the barrier of unknown performance and unknown durability, and these risks are often too great to surmount; the removal of the upfront cost of the battery and switch to a pay-as-you-go battery service model is also normally more affordable where the vehicles involved have high utilization), it is also expected to return far longer service lives for the batteries, and assign one agency to the responsibility of end-of-life management of the batteries (also noting that having one agency looking after mini batteries provides many more opportunities for refurbishment, repurposing and reuse of batteries).

Moreover, rather than a V2G model, battery swapping enables multidimensional projects that integrate e-mobility with electricity supply. For example, the battery swap stations (where multiple batteries are charged at one time) can be operated as virtual power stations with the charging rate used increased or decreased according to the available power in the local network, or even to export electricity from the batteries to the local network to maintain voltages in the grid, etc., and all this this done in concert with intermittent electricity supply from renewable energy generation. Therefore, deployment of battery swapping stations in this way can support the local grid network, including supporting a higher proportion of renewable energy on that local network than would otherwise be possible.

On top of that, the expanding flexibility of battery swapping is also advantageous (e.g. in India there are many new models of battery swap capable two- and three-wheeled electric vehicle). Plus, the availability of a battery swap station will enable access to modern battery technologies for household electricity distribution, and open up other opportunities; enabling a far wider electrification of the local community than just vehicles.

Finally, it is noteworthy that the proposed battery swapping model is not a repeat of the battery swapping programmes that were used for passenger cars around 10 years ago - experience that seems to still haunt modern battery swapping projects. Battery swapping of small-format vehicles has become established and has proved to be commercially attractive in Taiwan, Indonesia, Cambodia, and India to name the countries with the most prolific battery swap programmes already in place. The use of electric outboards for small craft is also becoming an established market sector.

- The activity 2.1.2.2 is now shifted to the end of year 2.

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

Secretariat Comment at CEO Endorsement Request  
3/10/2023 PM:

Yes.

Agency Response

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

Secretariat Comment at CEO Endorsement Request  
7/19/2023 PM:

Yes.

3/10/2023 PM:

No. On co-financing please see comments above in Part I, 4.

Agency Response

8 June 2023:

Please see answers above in Part I, 4.

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  
3/10/2023 PM:

Yes.

Agency Response

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  
3/10/2023 PM:

Yes.

Agency Response

**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

**11/2/2023 PM:**

**Cleared.**

**7/19/2023 PM:**

**Yes, with suggestions.** On Project Map and Coordinates, please consider inserting the geographic location of the site directly under the dedicated data entry field. This includes the Location Name, Latitude and Longitude.

**3/10/2023 PM:**

**Yes.**

Agency Response

**UNIDO Response:**

The geographic location has been inserted.

**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

**3/10/2023 PM:**

**N/A.**

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  
3/10/2023 PM:

**Yes.** A separate document with the list of all the meetings conducted and their minutes has been uploaded into the GEF Portal.

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  
7/19/2023 PM:

**Cleared.**

3/10/2023 PM:

**Yes, with suggestions.** The team welcomes the separate gender analysis report uploaded in the GEF Portal. However, please upload a clean final version (the one in the GEF Portal has track changes and unresolved comments).

Agency Response Clean final version uploaded.  
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

**3/10/2023 PM:**

**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

**7/19/2023 PM:**

**Cleared.**

**3/10/2023 PM:**

**No.** Please revise and provide a justification for the following risks, which have been rated a low but may merit a higher rating for the reasons highlighted below:

- **Financial risk.** The fact that the co-financing of the project is relatively low, it is a signal that securing financing could be an issue for the project and therefore a potential risk for the scale up of the project.

- **Technology risk.** This risk seems higher for us given that the battery swap model hasn't been tested yet in the country. The same applied with the modules batteries for the vessel.

- **Inadequate battery disposal risk.** This risk may also merit a higher rating given that safely disposal of the batteries is more complex in an island setting. Also, the CEO Endorsement document has not elaborated further on the how the batteries will be disposed, i.e., are there a system in the country for the collection of these batteries or alternatively hazardous materials?

- **Lack of participation by villagers.** The fact that the two selected villages already have access to electricity may pose a risk on the level of participation and interest from the villagers, particularly with regards to the use of the swap batteries for other uses than maritime transport.

## Agency Response

**8 June 2023:**

Justifications have been provided and the risk levels have been adjusted in the CEO ER document.

On the battery swapping, please kindly note that the battery swapping has become standardized in several countries. The project aims to replicate the successful models. One of the risks is the relatively small number of swap batteries involved, making the project less attractive to established, global service providers. Some of these providers are providing access to their solutions through licensing, enabling access to proven technologies, despite the small size projects involved, and this also enables local entities to establish themselves in the business, supported by the global established companies (and also supported by the standardized hardware available).

The use of swap batteries in the marine sector is not new as this is the method that has been used for electric outboards almost since small electric outboards were first used. The difference on this occasion is that the batteries have been standardized with those normally used with two-wheelers and fitting them into marinized containers. This is now also becoming standard practice for marine applications, especially for open boat craft such as those involved in the project. Hence this marinized container method is simply applying what has become best practice for the sector globally (and hence reason for selecting this option as the project is meant to direct the country's industry).

## 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

**7/19/2023 PM:**

**Cleared.** The request for execution of support services was approved by the GEF on 7/7/2023. The total estimated budget for the execution support to be provided by UNIDO is US\$ 187,000, i.e. 18.5% of the total GEF funding for this project excluding PPG and fees.

**3/10/2023 PM:**

**No. Request for approval of execution support services by the implementing agency hasn't been submitted to the GEF SEC yet.** The Agency has attached a letter requesting execution support services to be provided by UNIDO. However, as per GEF Guidelines *?Before obtaining the GEF OFP's letter of support, the Agency should contact the Secretariat to explore the feasibility of such request?.* The GEF Sec has reached out to the Agency asking for a formal email with this request, including a more detailed justification on why this execution support is needed and the total estimated budget for the support to be provided.

## Agency Response

**8 June 2023:**

A formal email with the request with detailed justification on support and the total estimated budget for the support is provided as follows.

### Detailed justification on why this execution support is needed

The UNIDO's execution support is necessary because:

? Gaps were identified during the PPG phase in the administrative and technical capacity of the MICE and no alternative Project Executing Entity could be identified;

? The self-assessment under the Harmonized Approach to Cash Transfers (HACT) Framework conducted by MICE as well as the implementation partner assessment report developed by UNIDO found that MICE still does not have enough experience and capacity to execute the project, particularly on planning and preparation of procurement and recruitment; as well as specific technical expertise notably for the design of battery swapping technologies and e-mobility solutions, which are essential part of the project. For example we found that MICE does not have formal written policies and procedures on different processes and functions such as Contract Management and post-facto actions on procurement contract.

? As such, MICE confirmed that they are counting on a close cooperation with UNIDO and its support to acquire the experience and knowledge to achieve the results of this particular project.

? In this context, following UNIDO's **Policy Implementation and Execution of GEF Projects** (DGB/2019/04), consultation meetings were held with the MICE and GEF Operational Focal Point (OFP) for Cabo Verde. The consultations concluded that it is essential for the success of the project that UNIDO provides administrative and technical execution support in order to achieve smooth project execution, while ensuring that planned outputs are delivered at the right level of quality and within the allocated budget.

? Consequently, an official request for the provision of the administrative and technical executing services was communicated to UNIDO in writing by the government of Cabo Verde through the GEF OFP;

? In accordance with the above-mentioned UNIDO policy, whenever UNIDO provides executing services in respect of a GEF-financed project for which it is the responsible GEF Implementing Agency, it is mandatory to maintain an appropriate segregation between the Organization's implementing and executing functions. In particular, separate organizational units, each having distinct lines of responsibility, reporting and accountability, must be assigned to provide project-specific implementing functions, on the one hand, and executing services, on the other. In this particular case the segregation of functions between the UNIDO Implementing Department (Directorate of Global Partnerships and External Relations, Regional Bureaus and Field Offices, Africa (GLO/RFO/AFR)) and the UNIDO Executing Office (Directorate of Technical Cooperation and Sustainable Industrial Development, Decarbonization and Sustainable Energy (TCS/DSE)) will be observed, each of the assigned divisions has its own and distinct lines of responsibility, reporting and accountability, reporting to two separate Managing Directors (see organigram).

? When it comes to budgeting the related UNIDO administrative and technical execution support services, the costs incurred by UNIDO in connection with the provision of administrative services for the procurement of goods and services and the recruitment of project personnel under individual service agreements will be charged against the GEF portion of the Project Management Costs (PMC) budget, while the costs associated with UNIDO's technical assistance services including the design of battery swapping systems and e-mobility solutions will be charged against the respective GEF grant Project Component Financing.

#### **Estimated budget for the UNIDO support**

The total estimated budget for the UNIDO support provided is USD 187,000. (See the details below):

1. UNIDO administrative support service to be charged against the GEF portion of the PMC budget: USD 67,000

This is to provide the execution services including:

- ? Preparation of procurement and recruitment plans;
- ? Terms of reference and procurement packages
- ? Management of output deliverables

2. UNIDO Technical support services to be charged against the GEF project components financing budget: USD 120,000

This is to provide the technical assistance services including:

? Design of battery swapping systems and e-mobility solutions.

**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  
3/10/2023 PM:

**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  
7/19/2023 PM:

**Cleared.**

3/10/2023 PM:

**No.** Please address the following commentsL

- At PIF the GEF had suggested the project proponents to conduct a feasibility analysis of battery swapping for fishing vessels in Cabo Verde. The feasibility study conducted provided a limited assessment of the most suitable technical requirements and the benefits and challenges of the technical considerations for the small fishing boats. Given that the battery swap business model hasn't been tested globally and there are very few successful cases worldwide, please consider including a project deliverable focus on assessing the results of

the project, successes and challenges with the implementation of a battery swap business models, and lessons learned and recommendations for potential future projects.

- Please could clarify the overall budget allocated to KM and communications activities as well as the timeline for the implementation of KM and communications related activities mentioned in all components of the project (not just in component 4). This can be done by adding a budget column in the table provided in the KM section and making sure all key KM and communications deliverables of the project are included there, such as training workshops, training materials, creation/operation of the online platform, etc.

#### Agency Response

**8 June 2023:**

- An assessment of the results of the project focusing on a battery swap business model is now included as a project deliverable as suggested.

- Clarification on the overall budget allocated to KM and communications activities added.

#### 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

**3/10/2023 PM:**

**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

**11/13/2023 PM:**

**Cleared.** The M&E budget has been updated and reduce to \$66,000, i.e. 6.2% of sub-total project costs. Still slightly above the 5% recommended by the GEF policies, but this can be justified given that is an SIDS.

**11/9/2023 PM:**

**No.** The M&E budget has been reduced from \$108,000 (12% of sub-total project costs) to \$98,000 (10.6% of sub-total project costs). However, the updated M&E budget is still well above (double) the recommended threshold of 5% for projects of similar size as per the GEF Project Cycle Guidelines. The agency has provided an explanation for the higher M&E costs. However, the reason for the higher costs is not specific to this project and doesn't seem to merit a higher allocation for M&E. As such, please revise the M&E budget so it is closer to the recommended threshold as per the GEF Project Cycle Guidelines.

**7/19/2023 PM:**

**No.** M&E budget as indicated in table B is \$108,000, i.e. 12% sub-total project costs. This amount is higher than the recommended threshold of 5% for projects of similar size as per the GEF Project Cycle Guidelines. Please consider adjusting the budget. However, M&E budget under section 9 of the Portal entry and in the budget table only indicates \$98,000. Please correct and ensure consistency through out the project template.

**3/10/2023 PM:**

**No.** The total amount provided in section 9, i.e. US\$ 70,000, does not match the total amount for M&E provided in the overall project budget in Annex E, i.e. US\$ 98,000. Please review and correct where necessary in all budget tables.

#### Agency Response

##### **UNIDO Response:**

M&E budget has been reduced from \$98,000 to \$66,000. The revised M&E budget is 6.2% of sub-total project costs, which is still slightly above the of 5%, but this is the minimum budget needed to be able to properly conduct M&E activities

##### **UNIDO Response:**

M&E budget has been updated to \$98,000 in Table B. While it represents 10.6 % of the financing which is higher than recommended threshold, that amount is necessary for the effective monitoring of the project, as well as for Mid-term review and independent terminal evaluation. For example the continuous process of collecting data on the agreed indicators to provide information on the extent of progress and achievements made would require

dedicated personnel, but generally costs for consultations, evaluations and monitoring have been rising, therefore proportionally these activities comprise increased costs. Indeed, inflation increased from 1.9% in 2021 to 8.0% in 2022 due to higher food and energy prices induced by the Ukraine crisis, and is projected to remain high, at 7.8% in 2023 and 6.5% in 2024, driven by imported energy prices (African Economy Outlook 2023). It leads also to the increase of transportation and employment costs in Cabo Verde (IMF Country Report 2023), therefore conducting M&E activities requires a larger portion of budget allocation than it used to be.

**8 June 2023:**

The budget tables were revised.

#### **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  
**3/10/2023 PM:**

**Yes.**

#### **Agency Response**

##### **Annexes**

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

Secretariat Comment at CEO Endorsement Request  
**11/9/2023 PM:**

**Cleared with comments.** For future submissions, kindly note that the GEF budget template shall always be used - <https://www.thegef.org/documents/gef-project-budget-template>

**7/19/2023 PM:**

**Yes, with comments.** In Annex E the budget table is pasted twice. Please remove one.

**3/10/2023 PM:**

**No.** Please address the following comments with regards to the budget table in Annex E:

- Please add to the project budget table a column that includes detail description of each activity /item line. Currently, the GEF team cannot assess the reasonability of charging the different expenditures / activities to the three sources (project's components, M&E, PMC). The GEF's budget template is available at <https://www.thegef.org/documents/gef-project-budget-template>
- 
- Finally, if direct execution is approved, the budget table needs to be updated and add UNIDO in the "Responsible Entity" column as need be.

Agency Response

**UNIDO Response:**

The duplicated budget table has been removed.

**8 June 2023:**

The project budget table revised as suggested.

**Project Results Framework**

Secretariat Comment at CEO Endorsement Request

**7/19/2023 PM:**

**Cleared.**

**3/10/2023 PM:**

**Yes, with suggestions.** For those KPIs which are also GEF Core Indicators (i.e. # of beneficiaries and GHG emission reductions) please indicate so by adding in parenthesis " GEF Core Indicator #6" "GEF Core Indicator #11.

Agency Response

**8 June 2023:**

KPIs revised as suggested.

**GEF Secretariat comments**

Secretariat Comment at CEO Endorsement Request  
**3/10/2023 PM:**

GEF Sec comments have been addressed.

Agency Response  
**Council comments**

Secretariat Comment at CEO Endorsement Request  
**3/10/2023 PM:**

N/A.

Agency Response  
**STAP comments**

Secretariat Comment at CEO Endorsement Request  
**3/10/2023 PM:**

N/A.

Agency Response  
**Convention Secretariat comments**

Secretariat Comment at CEO Endorsement Request  
**3/10/2023 PM:**

N/A.

Agency Response  
**Other Agencies comments**

Secretariat Comment at CEO Endorsement Request  
**3/10/2023 PM:**

N/A.

Agency Response

**CSOs comments**

Secretariat Comment at CEO Endorsement Request  
**3/10/2023 PM:**

N/A.

Agency Response  
**Status of PPG utilization**

Secretariat Comment at CEO Endorsement Request  
**7/19/2023 PM:**

**Cleared.**

**3/10/2023 PM:**

**Yes**, but please clarify how the remaining resources (i.e. approximately US\$ 4,000) will be used.

Agency Response  
**8 June 2023:**

It will be used for national consultant for feasibility study.

**Project maps and coordinates**

Secretariat Comment at CEO Endorsement Request  
**11/2/2023 PM:**

**Cleared.**

**7/19/2023 PM:**

**Yes with suggestion.** On Project Map and Coordinates, please consider inserting the geographic location of the site directly under the dedicated data entry field. This includes the Location Name, Latitude and Longitude.

**3/10/2023 PM:**

**Yes.**

Agency Response

**UNIDO Response:**

The specific site geo location information has been inserted.

**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  
**3/10/2023 PM:**

N/A.

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  
**3/10/2023 PM:**

N/A.

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  
**3/10/2023 PM:**

N/A.

Agency Response

**GEFSEC DECISION**

**RECOMMENDATION**

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

**Secretariat Comment at CEO Endorsement Request**

**11/13/2023 PM:**

**Cleared.**

**11/9/2023 PM:**

**No.** Please address the two pending comments on the expected completion date and the M&E budget.

**7/19/2023 PM:**

**No.** Please address pending comments above.

**3/10/2023 PM:**

**No.** Please address comments above.

**Review Dates**

| <b>Secretariat Comment at<br/>CEO Endorsement</b> | <b>Response to<br/>Secretariat comments</b> |
|---|---|
| <b>First Review</b>                               | <b>5/15/2023</b>                            |
| <b>Additional Review<br/>(as necessary)</b>       |   |
| <b>Additional Review<br/>(as necessary)</b>       |   |
| <b>Additional Review<br/>(as necessary)</b>       |   |

**Secretariat Comment at  
CEO Endorsement**

**Response to  
Secretariat comments**

**Additional Review  
(as necessary)**

**CEO Recommendation**

**Brief reasoning for CEO Recommendations**