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**UNITED NATIONS DEVELOPMENT PROGRAMME**

**GLOBAL ENVIRONMENT FACILITY**

**Government of Malawi**

**Increasing Access to Clean and Affordable Decentralised**

**Energy Services in Selected Vulnerable Areas of Malawi**

GEF ID: 5587

Atlas Award ID 00086833

Project ID 00094026

UNDP PIMS No. 5270

**Mid Term Review Draft Final Report**

**Review Team Members**

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The analysis and recommendations of this report do not necessarily reflect the opinions of UNDP, its Executive Board or of the Members of the United Nations. This publication only reflects the opinion of the author.

Acknowledgement

This report has been prepared by Alfredo Caprile, President of Sustainable Development Advisors S.A.([www.sd-advisors.com.ar](http://www.sd-advisors.com.ar)) in his capacity as International Consultant and Magi Matinga as the Local Consultant

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# Abbreviations and Acronyms

ADC Area Development Committee

AWP Annual Work Plan

BAU Business as usual

BIF Business Innovation Facility

CEM Community Energy Malawi

CES Community Energy Scotland

CONREMA Cooperation Network for Renewable Energy in Malawi

COOPI Cooperazione Internazionale

CSOs Civil Society Organisations

DAPP Development Aid from People to People

DEA Department of Energy Affairs

DEC District Executive Committee

DFID Department for International Development

EGENCO Electricity Generating Company

ESCOM Electricity Supply Corporation of Malawi

GEF Global Environment Facility

GIZ Deutsche Gessellschaft für Internatinale Zusammenarbeit

GREVA Green Valley Action

IEA Increasing Access to Clean and Affordable Decentralised Energy Services to Selected Vulnerable Areas of Malawi

JICA Japan International Cooperation Agency

LF Logical framework

M&E Monitoring and evaluation

MAREP Malawi Rural Electrification Programme

MCC Millennium Challenge Corporation

MEGA Mulanje Electricity Generation Agency

MERA Malawi Energy Regulatory Authority

MGDS II Malawi Growth and Development Strategy II

MHPP Micro-Hydro Power Plant

MIRTDC Malawi Industrial Research and Technology Development Centre

MMCT Mulanje Mountain Conservation Trust

MoNREM Ministry of Natural Resources, Energy and Mining

MTR Mid Term Review

NB National Bank

OIBM Opportunity International Bank of Malawi

PA Practical Action

PIR Project Implementation Review

PRODOC Project Document

PSC Project Steering Committee

REA Rural Electrification Act

REF Rural Electrification Fund

RENAMA Renew´Náble Malawi

SB Standard Bank

SEM Sustainable Energy Management

SMART Specific, Measurable, Attainable, Relevant and Time-bound

TAC Technical Advisory Committee

UNDP United Nations Development Programme

VDC Village Development Committee

WB World Bank

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# Executive Summary

## Project Information

The following table summarizes the Project information

Table 1 Project Information

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Project Name** | **“Increasing access to clean and affordable decentralised energy services in selected vulnerable areas of Malawi”** | | | |
| UNDP Project ID (PIMS#): | 5270 | PIF Approval date: | | 25 October 2013 |
| GEF Project ID (PMIS#): | 5587 | CEO Endorsement date: | | 29 December 2014 |
| ATLAS Business Unit,  Award # Project ID | 00086833 | Project Document (PRODOC) Signature Date: | | 26 May 2015 |
| Country | Malawi | Date Project Coordinator hired: | | October 2015 |
| Region | Africa | Inception Workshop date: | | 9 June 2015 |
| Focal Area | Climate Change | Mid Term Review completion date: | | April 2018 |
| GEF Focal Area Strategic Objective: | CCM-3  Promote investment in renewable energy technologies | Planned closing date: | | 26 May 2019 |
| Trust Fund | GEF | If revised, proposed closing date | | n.a |
| Executing Agency / Implementation Partner | Department of Energy Affairs / Ministry of Natural Resources, Energy and Mining | | | |
| Other executing partners: | Ministry of Energy - Department of Energy Affairs (DoE), Mulanje Electricity Generation Agency (MEGA), Malawi Energy Regulatory Authority (MERA), Ministry of Environment and Climate Change Management, Selected District Councils (Mulanje, Karonga and/or Chitipa), Practical Action (NGO) | | | |
| **Project Financing** | *At CEO Endorsement*  *(US$)* | | *At Mid Term Review*  *(US$)* | |
| [1] GEF financing: | 1,725,000 | | 1,725,000 | |
| [2] UNDP Contribution: | 1,845,000 | | 1,845,000 | |
| [3] Government of Malawi: | 1,290,000 | | 1,290,000 | |
| [4] Other partners: | 1,870,000 | | 1,870,000 | |
| [5] Total co-financing [2 + 3+ 4]: | 22,785,000 | | 22,785,000 | |
| TOTAL PROJECT COST [1+ 5] | 24,510,000 | | 24,510,000 | |

## Project Description

The project “Increasing Access to Clean and Affordable Decentralised Energy Services in Selected Vulnerable Areas of Malawi” hereafter IEA is a Global Environment Facility (GEF) – supported project, with the United Nations Development Programme (UNDP) as the Implementing Agency (IA). It falls under the GEF-5 System of Transparent Allocation of Resources (STAR) to the Government of Malawi. The main objective of the IEA project is to increase access to energy in selected remote, rural areas in Malawi by promoting innovative, community‐based mini‐grid applications in cooperation with the private sector and civil society. The project has three main components:

* **Component 1:** Expansion of the Mulanje Electricity Generation Agency (MEGA) Micro‐Hydro Power Plant (MHPP)
* **Component 2:** Replication of MEGA model via piloting of new clean energy mini‐grid schemes in other areas of Malawi, and
* **Component 3:** Institutional strengthening and capacity building for promotion of decentralised mini‐grid applications across the country.

The project is implemented in Mulanje district in the Southern part of Malawi, Mchinji district in the Central region of Malawi, and Nkhata Bay in the Northern region. The project is supported by the Government of Malawi through the Ministry of Natural Resources, Energy and Mining (MoNREM). The general modality of implementation is through NGOs operating as social enterprises, being responsible for building, owning, and operating the mini-grids, and MonREM as the implementing partner (IP), responsible for the overall project management through the function of Project Management Unit (PMU). UNDP supports the project through quality assurance function and supporting procurement of hardware. The project implementation period is from 2015 to 2020.

## Project progress summary

While the project is generally on track, there are areas where it is lagging, particularly in outputs and outcomes of Component 2. Mini-grid operators that are key to the replication of the MEGA model are yet to secure adequate co-financing to enable them to implement their targeted generation capacities. While it is likely that the targeted savings will be reached as generation capacity and grid extension are increased, there is a significant risk that this achievement will not be within the project’s currency timeframe, especially given that co-financing has not yet been secured and this can r take time.

However, the project has some key strengths including the fact that it is highly relevant to Malawi’s development goals and growing demand in rural areas for clean energy. Below is a summary of key findings of the Mid Term Review (MTR):

Project design is robust except for the fact that it was originally designed to promote private sector involvement where in fact it ended up only with NGOs:

* Private sector will only participate in financially viable investments
* Proposed mini-grids for Malawi are not yet at a scale that could guarantee financial return
* Private sector organisations that showed interest in the RFPs had no track record (i.e., mostly start-ups applied)

The project had a slow start primarily due to severe floods that took place during early 2015 in Malawi that affected 14 out of the 28 districts including the hydro-electric infrastructure that generates electricity for the MEGA´s mini-grid, damaging part of its generating infrastructure. The Inception Workshop took place in June 9, 2015 which marked the actual Project Launch and the first Project Board meeting was held in September 16, 2015.

As at the time of the MTR the project has achieved some but not all of its intended objectives.

## MTR Ratings[[1]](#footnote-2) and Achievement Summary Table

The following presents the summary of the MTR Ratings and Achievements

Table 2 MTR Ratings and Achievement Summary Table

| **Measure** | **MTR rating** | **Achievement description** |
| --- | --- | --- |
| Project strategy | N/A | The original design strategy of using private-public partnerships was not feasible since the private sector in the renewable energy sector in Malawi is in infancy and did not meet the criteria for selection in part due to problems with securing co-financing and the lack of audited accounts. The current design of public and Civil Society Organisation (CSOs) partnerships is optimal for the Malawi context given the above reasons and acts to prime the sector for private sector in the near future. |
| Progress towards results | **Objective:** To increase access to energy in selected remote, rural areas of Malawi by promoting innovative, community-based mini-grid applications in cooperation with the private sector and civil society.  **Satisfactory**  **(MS)** | The installed and operational cumulative renewable energy investment capacity remains at the baseline level of 56kW and the average renewable energy generation as of June 30, 2017 was 154,000 kWh/year since only Unit 1 of MEGA was operational and an estimated US$ 104,816 of household savings haven been realised in 6 months of 2017 which is about 30% of the 2018 target. However, it is likely that the targeted savings will be reached as generation capacity and grid extension are increased. |
| **Component 1:** Increasing the installed capacity of the Mulanje Electricity Generation Agency (MEGA) MHPP scheme  **Satisfactory**  **(S)** | Only Unit 1 (56kW) is operational at this time. Unit 2 (60kW) suffered extensive damage due to flooding in 2015 and should be operational in about 4 months while construction of Unit 3 (100kW) is expected to be completed in May 2018. As a result, MEGA is likely to exceed its targets by project completion. Furthermore, MEGA has potential to install up to 1MW over time and hence the feasibility of interconnecting this mini-grid to the ESCOM grid which is only 5 Km away should be explored. The generation license application is being prepared but the level of bureaucracy to grant the license is an issue that needs to be resolved.  Mini-grid deployment is in progress with 570 houses connected (up from 189 at project start). However, a critical mass of 1,000 customers is needed for MEGA to become financially sustainable. |
| **Component 2:** Replication of MEGA model via piloting of new mini-grid schemes in other areas of Malawi  **Moderately Satisfactory**  **(MS)** | Installation of two mini-grids plus the upgrading of an existing mini-grid are being planned but it is not certain that these mini-grids will be operational by the project end date since adequate financing has not yet been secured. Due to these delays, an extension of 12 to 18 months might be required to allow for the achievement of Outcome 2. |
| **Component 3:** Institutional strengthening and capacity building for promotion of decentralized mini-grid applications across the country  **Satisfactory**  **(S)** | Most of the planned activities under Component 3 have been completed with the exception of the website which needs to be made more functional with relevant and adequate information than can help stakeholders make decisions. Multiple legislation and regulations are being formulated but there is a risk that they may not be fully coherent and there is still no procedure by which the Rural Electrification Fund can finance mini-grids. |
| Implementation and adaptive management | **Satisfactory**  **(S)** | Project implementation has suffered some delays which largely affect progress of Components 1 and 2. Most of the US$ 22,785,000 of committed co-financing has not materialised and it is unclear what are they for since they have not been included in the project budget / work plan. Such amount of co-financing exceeds the amount of financing that would be required to implement all of the project components but a portion will be needed to install the additional generating capacity planned under Components 1 and 2 and deployment / extension of the respective mini-grids.  In terms of stakeholder engagement, Electricity Supply Corporation of Malawi (ESCOM) appears not to be fully engaged and has not revised its policy nor its responsiveness towards the integration of mini-grids into the main grid. Also, the engagement of local communities needs to be strengthened to get rid of certain village politics which are likely to negatively affect project implementation. |
| Sustainability | **Moderately Likely[[2]](#footnote-3)**  **(ML** | In terms of sustainability, there is a financial risk associated with Component 2 since co-financing for the deployment of the proposed mini-grid has not yet been secured. stakeholders. Another risk is that some legislation and regulations that support clean mini-grids are not yet in place and the Malawi Rural Electrification Programme (MAREP) is not fully engaged in the project. Environmental risks are perceived as being negligible and it is likely that the project will end up benefiting the local environment. The project does not pause any climate change risks and in fact contributes to reducing GHG emissions by reducing the use of kerosene for lighting, and to a lesser extent, the use of diesel generators (by richer households, maize mills and entertainment ventures). In the long term, there is a minor risk that Malawi becomes drier due to climate change which may negatively affect the generation capacity of small hydro plants. |

## Summary of Conclusions

The project design is simple – but not simplistic - and straight forward and many of the targets are reasonable.

The project has had no major changes to its design, strategy or log-frame except to add two components; M&E and Project Management.

The project was designed based on highly optimistic timelines and there have been delays especially with respect to the delivery of outputs and outcomes in Component 2. Most importantly, delays in securing co-financing (which is still pending), and in procuring hardware for replication of MEGA, and delays in engaging the Rural Electrification Fund (REF) put the project at the risk of not delivering all its objective by the planned close date. There is however a chance to catch up if much of these delays are addressed within the next six months (by August 2018).

Another delay is with respect to Component 3 and specifically the establishment of local, government-supported mechanisms for financing clean energy mini-grids. Without this local, government-supported funding the implementation of clean energy mini-grids in Malawi will be compromised as they will continue to be dependent on support from development partners.

As of December 31, 2017, the project had spent 35% of its US$1.725 million GEF budget, in line with the delays in the implementation milestones. The unspent portion is mostly due to delays in procurement and is likely to be spent in the next 6 months.

Table 3 presents the summary of recommendations of the MTR

Table 3 Summary of Recommendations

|  |  |  |
| --- | --- | --- |
| **Rec # Recommendation Responsible Entity** | | |
| **A** | **Outcome 1: Expansion of the MEGA micro hydro power plant** |  |
| A.1 | *Key recommendation:* Explore the feasibility of interconnecting the MEGA mini-grid into the ESCOM grid. | MEGA /ESCOM/UNDP/DEA |
| A.2 | Use MEGA license application to streamline the application procedure for obtaining generation licenses from MERA. | MEGA/MERA/UNDP/DEA |
| **B** | **Outcome 2: Replication of MEGA model via piloting of new Mini-grid schemes in other areas of Malawi** |  |
| B.1 | *Key recommendation:* New mini-grids should have an on-site technician to assist with O&M to enhance sustainability | UNDP/REF/MAREP/DEA |
| B.2 | Promote the concept of having a separate entity to procure energy efficient equipment to households and small businesses in villages. | UNDP/REF/MAREP/DEA |
| B3 | Consider including the cost of house wiring into the electricity tariff to speed up mini-grid deployment while ensuring that wiring and safety standards are met. | UNDP/MAREP/DEA |
| B4 | Involve third party(ies) with mini-grid expertise in Kavuzi since it does not have sufficient technical knowledge and financial backing to implement the mini-grid there and ensure the sustainability of its operation | UNDP/DEA/KAVUZI |
| B5 | Clarify the extent to which the co-financing pledge amounting to US$ 22,785,000 have materialised and what they are intended for | UNDP/GEF |
| **C** | **Outcome 3: Institutional strengthening and capacity building for Promotion of decentralised mini-grid applications across the country** |  |
| C.1 | *Key recommendation:* The regulatory environment for mini-grids has improved but more (for details go to section 4) is needed to ensure the long-term sustainability. | UNDP/MAREP/ESCOM/DEA |
| C.2 | Speed up the preparation of case studies on mini-grids and take advantage of the work that CEM is doing in conjunction with Community Energy Scotland on lessons learned from their experiences on mini-grid implementation and operation in other parts of the world. | UNDP/DEA/CEM |
| C.3 | Enhance the dissemination of knowledge products and systematisation of lessons learned by organising national / regional workshops jointly with other donors. | UNDP/DEA |
| C.4 | Local District Council (LDCs) need additional technical support and financial assistance to get involved in the planning and supervision of mini-grids as envisioned by the decentralisation policy that the government is currently pursuing. Energy should be a line item in the LDC budgets. | UNDP/DEA/LDCs |
| C5 | Provide mini-grid operators with access to Constituency Development Funds to co-finance mini-grids development | UNDP/DEA |
| C6 | Community Based Organisations (CBOs) that get involved in mini-grids should have board members with sufficient technical knowledge on the design, deployment and O&M of mini-grids and that are able to enhance financial sustainability as an anchor customer and / or shareholder. | UNDP/DEA/CBOs |
| C7 | More training on house wiring and mini-grid deployment is needed at the local level and sequencing of such training needs to be logical. | UNDP/MINI GRID OPERATORS |
| **F** | **Implementation and adaptive management** |  |
| F.1 | *Key recommendation:* Extend the end date of the Project by 12 months to allow for the completion of the mini-grids being implemented by Community Energy Malawi (CEM) and Practical Action (PA) and also finalize the upgrading of the Kavuzi mini-grid. | UNDP/DEA/GEF |
| **G** | **Sustainability** |  |
| G.1 | *Key recommendation:* Ensure that additional co-financing is secured shortly – preferably by August 2018 - to allow for the implementation of the PA and CEM mini-grids and the upgrading of the Kavuzi mini-grid before the end date of the project. | UNDP/DEA |

# Introduction

In December 2017, the United Nations Development Program (UNDP) of Malawi contracted Alfredo Caprile[[3]](#footnote-4), as International consultant, and Magi Matinga as Local consultant to conduct the Mid Term Review (MTR) of the project entitled***: “Increasing Access to Clean and Affordable Decentralised Energy Services in Selected Vulnerable Areas of Malawi (IEA)”***. The project started on 9 June, 2015 and the project end date is set for May 26, 2019.

In accordance with the Global Environment Facility (GEF) Monitoring and Evaluation Policy, Mid-Term Reviews (MTRs) are a mandatory requirement for all United Nations Development Programme (UNDP) supported, GEF-financed full size projects.

The IEA project is being implemented by the Government of Malawi through the Ministry of Natural Resources, Energy and Mining with the support of the GEF and UNDP. The project started in May 2015[[4]](#footnote-5) and is in its fourth year of implementation.

The main objective of the IEA project is to increase access to energy in selected remote, rural areas in Malawi by promoting innovative, community-based mini-grid applications in cooperation with the private sector and civil society. The IEA project consists of three main components as follows:

* **Component 1:** Expansion of the Mulanje Electricity Generation Agency (MEGA) Micro-Hydro Power Plant (MHPP),
* **Component 2:** Replication of MEGA model via piloting of new clean energy mini-grid schemes in other areas of Malawi, and
* **Component 3:** Institutional strengthening and capacity building for promotion of decentralised mini-grid applications across the country.

According to the PRODOC, this UNDP-GEF project was developed before the end of the implementation of the UNDP-supported project on Sustainable Energy Management (SEM) which was concluded in December 2016. The SEM project provided advisory support, assisted in updating policies, developed standards, and established coordination mechanisms and implementation arrangements. Among other interventions, the SEM project had planned to build institutional capacity to mainstream innovative renewable energy and energy efficiency considerations into District Development Plans and Actions in vulnerable districts, activities which were not fully achieved. Hence the formulation of the IEA project provided an opportunity to close this gap.

## 1.1 Evaluation Objective

This report presents the findings of the MTR of the project and has the following objective:

* Analyse the relevance of the project strategy,
* Evaluate the progress made in the achievement of the objectives and the results of the Project in accordance with what has been established in the Logical Framework,
* Examine the management arrangements
* Identify possible risks to the sustainability of the project, and
* Generate constructive recommendations to support the success of the project.

1.2 Scope and Evaluation Methodology

The MTR has been conducted in accordance with the Terms of Reference (see Annex I) and UNDP/GEF policies and procedures for monitoring and evaluation included in the “Guidance for Conducting Mid-Term Reviews of UNDP Supported GEF-Financed Projects[[5]](#footnote-6)”. The review is based on the five criteria defined in such guide which are:

* Relevance
* Effectiveness
* Efficiency
* Results
* Sustainability

Annex II presents the Glossary of Terms included in such Guide.

The techniques used to collect data for the MTR included document reviews, interviews of stakeholders during a mission in Malawi, use of the evaluation matrix to rate results, and information analysis.

* **Document reviews**

The team of consultants reviewed several documents prior to the start of the mission to Malawi. The list of the documents reviewed before the mission together with other documents collected and reviewed during the mission are listed in Annex III. In addition, the Evaluation Team has reviewed the baseline GEF focal area Tracking Tool submitted to the GEF at CEO endorsement and reviewed and completed the midterm GEF focal area Tracking Tool.

* **MTR Evaluation Matrix** with a list of the evaluation criteria, questions, success indicators, and data sources was used to organise and analyse data (see Annex IV)
* **Mission to Malawi (7-16 February 2018)[[6]](#footnote-7)**

The mission to Malawi started with a formal kick-off meeting of the MTR and consultations with members of the Project team and representatives of UNDP Malawi in charge of the project. In addition, face-to-face meetings with the key Project stakeholders, beneficiaries and other interested parties were held. At the end of the mission, a mission wrap-up meeting and presentation of initial findings was organized (see Annex V). A list of persons met during the mission and the meeting dates is presented in Annex VI and examples of the questionnaires used for data gathering, the MTR rating scales are presented in Annex VII.

* **Information analysis**

The documents gathered before and during the mission were analysed and compared together with the information that was obtained during the meetings with UNDP, the Project Manager and the key stakeholders, beneficiaries and other interested parties for triangulation purposes.

The progress of the Project in achieving its objectives and each of the outputs were assessed across 3 categories: progress towards results, project implementation and Adaptive Management, and sustainability. The following scale has been used to value the progress made (See **¡Error! No se encuentra el origen de la referencia.**Annex V for more details on the ratings):

* Highly Satisfactory (HS)
* Satisfactory (S)
* Moderately Satisfactory (MS)
* Moderately Unsatisfactory (MU)
* Unsatisfactory (U)
* Highly Unsatisfactory (HU)

In accordance with the UNDP Guidance for Conducting Midterm Reviews of UNDP-Supported GEF Financed Projects Sustainability has been rated as follows:

* Likely (L)
* Moderately Likely (ML)
* Moderately Unlikely (MU)
* Unlikely (U)

The principal limitation of the review is that visits to the project sites in Mchinji and Nkhatabay districts did not take place because roads were not accessible due to heavy rains. Even so, based on their experience, and the stages at which the projects are, the Evaluators consider that the level of detail contained in the gathered information and the opinions of the interviewees is sufficient to constitute a comprehensive MTR in accordance with the guidelines established by UNDP and GEF.

## 1.3 Structure of the MTR

The MTR report is structured in accordance with UNDP and GEF requirements. The summary of the key sections is presented below:

* **Executive Summary** with a brief description of the MTR objectives and an overview of the key findings and recommendations
* **Section 1 – Introduction**. In this section the objectives and scope of the MTR are described together with the methodology used to undertake the MTR.
* **Section 2. Context and Project Description** including the description of the background context and the key barriers which are faced for the market transformation. It also describes the Project scope and strategy, the Project time line and the key stakeholders that participated in the project implementation.
* **Section 3 – Findings**. The findings of the MTR are presented starting with an assessment of the Project strategy and followed by an analysis of the logical framework and an evaluation of the progress towards results. Next, aspects related to Project implementation and adaptive management are discussed, as are the mechanisms for monitoring and evaluation (M&E), and the Project sustainability.
* **Section 4 - Conclusions**. In this section the key conclusions are presented.
* **Section 5 - Recommendations** detailing the evaluators’ key recommendations

# 2 The project and its development context

This section of the report summarizes the project development context and the problems that the project sought to address followed by a description of the project, implementation arrangements

## 2.1 Development context

Malawi has low levels of rural electrification with 96% of rural population without access to electricity. Until 2012, rural areas depended on kerosene for lighting and diesel for mechanical and electrical power. Increasingly, since 2012, kerosene for lighting has been replaced by battery powered torches and candles[[7]](#footnote-8). The electricity grid only reaches 10% of the population[[8]](#footnote-9), has a total installed capacity of just over 360MW and electricity demand is in excess of supply leading to widespread power outages. Over 96% of the current generating capacity comes from hydro schemes on the Shire river which leads to seasonal variability in power supply during the dry season resulting in even more severe outages.

Over 40 years of electrification efforts in Malawi have primarily focused on urban areas where 37% of households have electricity access although the country has substantial potential for renewable energy development and use. On-grid and off-grid electrification approaches have been tried for rural electrification with limited efforts at mini-grid based electrification. Malawi with its strong renewable energy resource base has the potential to use clean energy mini-grids to electrify its rural areas, producing both local development benefits and global environmental benefits. However, a number of policy and regulatory; institutional capacity and informational; and financial barriers currently constrain the development of clean energy mini-grids and the role they could play in rural electrification in Malawi.

There is some existing clean energy mini-grid experience with Mulanje Energy Generation Agency (MEGA) in Mulanje which has demonstrated a social business approach to electrifying rural Malawi. The experiences of MEGA offers an opportunity to build on and replicate similar rural electrification efforts based on mini-grids in Malawi. It also demonstrated a need for technical assistance to remove the policy and regulation, business and finance, capacity, and information barriers.

## 2.2 Problems that the project sought to address

Based on the progress made so far on rural electrification, government’s efforts to extend the national grid through the Malawi Rural Electrification Programme (MAREP) and efforts by private sector, NGOs and international development partners to provide portable solar lighting systems and solar home and kiosk systems will not be enough to meet the government target of 30% electricity coverage by 2030. Clean energy mini-grids operating on similar principles to MEGA could provide an additional option to supplement the current ‘on-grid’ and ‘off-grid’ efforts to achieve electrification targets with added global benefits of GHG mitigation by displacing kerosene and diesel.

The central problem that the project sought to address is therefore to remove the key barriers to rural electrification using clean and affordable decentralised energy services in rural areas of Malawi where 96% of the population does not have electricity access.

The key barriers that have been preventing access to clean and affordable decentralised energy services in vulnerable areas of Malawi, and specifically through the use of mini-grids, include:

* **Policy and regulations.** The Rural Electrification Act (REA) only considers two technology options – grid extension and solar home systems or on-grid and off-grid options and does not include Clean Energy Mini-grids as an option. In addition, the Rural Electrification Fund (REF) is also limited to financing these two rural electrification alternatives, and until recently rural electrification investments by the Malawi Rural Electrification Programme (MAREP) was not open to NGO and private entities. Furthermore, according to the Energy Regulation Act, clean energy mini-grids irrespective of their scale, are treated in a manner similar to the large national grid operator and need to obtain a generation and distribution licence which poses a major barrier for their deployment.
* **Institutional capacity and information.** Institutional capacity is largely absent and access to information is poor at the district and village levels. This makes local level planning and decision-making on electrification difficult and often electrification is generally not considered at all in local level planning.
* **Business and finance.** Lack of interest from banks coupled with lack of expertise in developing the so-called bankable proposals (from the energy community in Malawi) is a major challenge for the implementation of clean energy mini-grids. In this regard, it should be noted that so far, MEGA has relied on development assistance for the initial capital investment and its experience has shown that even with electricity tariffs at twice the levels of those charged by the national utility, Electricity Supply Corporation of Malawi (ESCOM) tariffs, rural households that connect to MEGA are able to make significant savings on energy expenditures compared to their business-as-usual scenarios. This shows that there is some untapped potential for financially sustainable clean energy mini-grids in the country.

## 2.3 Project Description and Strategy

The IEA project is aimed at *‘increasing access to energy in selected remote, rural areas in Malawi by promoting innovative, community-based mini-grid applications in cooperation with the private sector and civil society’*. The project has three Components as follows:

* **Component 1 - Expansion of the Mulanje Electricity Generation Agency (MEGA) Micro Hydro Power Plant (MHPP) and mini-grid scheme**: This Component will directly support the implementation of a second 80 kWp micro-hydro powered mini-grid operated by MEGA at Namainja (the Lujeri Micro-hydro power plant - MHPP) and provide institutional support for the development of several other MEGA MHPPs, bringing the installed capacity of their power production up to 216 kWp by end of project. This Component will also support the institutional capacity of MEGA to help establish it as a self-sustaining entity.
* **Component 2 - Replication of MEGA model via piloting of new mini-grid schemes in other areas of Malawi:** This Component will initiate an open competitive-based mechanism to select and support the establishment of Public-Private-Partnership (PPP) service delivery platforms for clean energy mini-grids with an emphasis on business models such as Build-Own-Operate (BOO). It is envisaged that Clean Energy Mini-grids with an installed capacity of at least 84 kWp will be supported.
* **Component 3 - Institutional strengthening and capacity building for promotion of decentralized mini-grid applications across the country:** This Component will carry out training and capacity building at sub-national and national levels on Clean Energy Mini-grids, and establish a national information clearing house to facilitate mini-grid based rural electrification. The Component will also support policy and regulatory changes to mainstream Clean Energy Mini-grids into rural electrification activities and show-case the lessons from the clean energy mini-grid based rural electrification experience in Malawi by developing a Toolkit for policy makers.

The project outcomes are presented in Table 4 below:

Table 4 Project Outcomes

|  |  |
| --- | --- |
| **Component** | **Outcomes** |
| 1. Expansion of the Mulanje Electricity Generation Agency (MEGA) Micro Hydro Power Plant (MHPP) and mini-grid scheme | 1.1 Increasing the installed capacity of the Mulanje Electricity Generation Agency’s (MEGA) MHPP scheme  1.2 Achieving MEGA’s business plan target of increasing the aggregate household energy savings among the customer base |
| 1. Replication of MEGA model via piloting of new mini-grid schemes in other areas of Malawi | 2.2 Increased aggregate household energy savings among the customer base |
| 1. Institutional strengthening and capacity building for promotion of decentralized mini-grid applications across the country | 3.1 Increased capacity of key stakeholders, especially at the sub-national levels to effectively plan and implement clean energy mini-grids  3.2 Increased awareness about relevant business models, policy/ regulatory issues, and financing of mini-grids in the Malawian context  3.3 Improved policy and regulatory environment to facilitate the sustainable development of mini-grids in Malawi |

## 2.4 Project implementation arrangements

Figure 1 presents the Project organisation as it has been presented in the PRODOC and which has been maintained during the implementation of the Project.

Figure 1 Project Organisation



## 2.5 Project timing and milestones

The Project was designed to be implemented within 4 years. The PIF was approved on October 25, 2013 and the CEO Endorsement took place in December 29, 2014. The PRODOC was signed on May 26, 2015 which, for the purposes of this MTR, has been considered as the project start date. The Project Manager was hired on October 8, 2015 and the Inception Workshop was held in the same month.

The end date of the Project is scheduled for May 26, 2019.

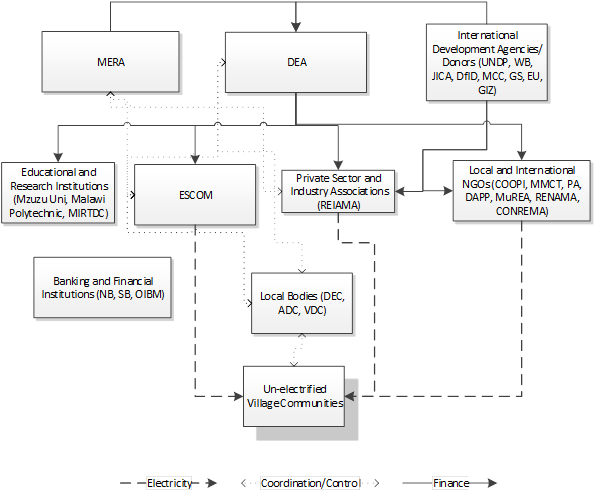
## 2.6 Key Stakeholders

The key stakeholders of the IEA project consist of:

* **Department of Energy Affairs** (DEA) is responsible for energy sector policy making, renewable energy and rural electrification. It is also in charge of setting the targets for rural electrification and renewable energy and coordinating the MAREP and guiding the rural electrification and renewable energy development plans for ESCOM,
* **Local Government Bodies** including District Executive Committees (DEC), Area Development Committees (ADC), and Village Development Committees (VDC) headed by the Group Village Headman or woman, are according to MAREP and DEA guidance, are responsible for coordinating electrification but in practice, due to lack of financial and technical capacity, have a limited role.
* **Malawi Energy Regulatory Agency** (MERA) is responsible for implementing the electricity regulatory framework for generation, transmission and distribution of electricity, approving electricity tariffs and developing regulation to encourage private sector participation in the electricity sector.
* **ESCOM**, the national electricity utility which has recently been unbundled into two utilities: the newly created Electricity Generation Company (EGENCO) focuses on electricity generation, while ESCOM (residual) focuses on electricity transmission and distribution.
* **International Development Agencies and Donors** such as the Japanese International Cooperation Agency (JICA), World Bank (WB), Millennium Challenge Corporation (MCC), DfiD, Government of Scotland (GofS), and the German technical assistance agency Deutsche Gessellschaft für Internatinale Zusammenarbeit (GIZ) support a range of interventions in the Malawi electricity sector and in rural electrification.
* **Local and International NGOs** active in Malawi such as Practical Action (PA), Cooperazione Internazionale (COOPI), Community Energy Scotland (CES), MMCT, Development Aid from People to People (DAPP), Renew´Náble Malawi (RENAMA) and the Cooperation Network for Renewable Energy in Malawi (CONREMA). Many of these support, through lobbying and demonstration, creation of markets for renewable energy solutions, and an enabling environment for investments.
* **Education and Research Institutions** including Mzuzu University, Malawi Polytechnic and the Malawi Industrial Research and Technology Development Centre (MIRTDC), are responsible for energy-related capacity building.
* **Private Sector and Industry Associations** such as the Renewable Energy Industry Association (REIAMA), support the development of a robust market for renewable energy.
* **Banking and Financial Institutions** which so far have not played any significant role and include National Bank (NB), Standard Bank (SB) and Opportunity International Bank of Malawi (OIBM).

Figure 2 below depicts the stakeholders and institutional arrangements for rural electrification and clean energy in Malawi

Figure 2 Key Stakeholders for Rural Electrification and Clean Energy in Malawi

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# 3 Findings

This section presents the findings of the MTR. First, the Project strategy is examined followed by a critical analysis of the logical framework and an evaluation of the progress towards results. Finally, aspects related to Project execution and adaptive management and to the Project sustainability are examined.

## Project Design and Strategy

The Project strategy is based on creating partnerships between public entities (government, UNDP) and Civil Society Organisations (CSOs). The original design strategy of using private-public partnerships (PPPs) was not feasible since the private sector in the RE sector in Malawi is in infancy and did not meet the criteria for selection in part due to problems with securing co-financing and the lack of audited accounts. The current design of public and CSO partnerships is optimal for the Malawi context given the above reasons and acts to prime the sector for private sector in the near future.

As it stands, the project strategy also remains relevant to the country context and aligns to the country priorities. Specifically, the project is well aligned with the objective of the Malawi Growth and Development Strategy II (MGDS II) covering the period 2011-2016, which aim to reduce poverty through sustainable economic growth and infrastructure development. Among other priorities, the MGDS II aims to enhance rural electrification by promoting the rural electrification programme and promoting decentralization in the provision of services to rural communities. The project is also aligned with the objectives of the MGDS III (2017- 2022) which continues to focus on improved access to reliable and sustainable energy supply and investment in affordable alternative sources of energy through enhanced use of renewable and clean energy in the underserved rural and urban communities.

The project seeks to remove key barriers to establishing clean energy mini-grids for rural electrification in Malawi by:

* expanding on the MEGA project which has had successes and lessons;
* replicating the MEGA model of build, own and operate (BOO);
* addressing the lack of technical capacities for development and operations of clean mini-grids through capacity building; and
* supporting an enabling policy and regulatory environment through lobbying for supporting clean mini-grids policies.

The development and design of the project which took on a consultative approach – both nationally and locally – has also contributed to a well-developed strategy, especially in terms of partnerships, as demonstrated by the composition of the project’s Technical Advisory Committee (TAC) which includes representatives from government, the national utility, the energy regulator, project developers etc. The project strategy also attempts to mainstream gender issues, mainly through enhancing women’s participation in the project, through among other things, their targeted inclusion in training and capacity building activities.

In general terms, the Evaluators consider that the project design that has been adopted by the Project to achieve the proposed outcomes is robust except for the fact that it was originally designed to promote private sector involvement but ended up only with the participation of NGOs due to the following reasons:

* Private sector will only participate in financially viable investments,
* Proposed mini-grids for Malawi are yet not at a scale that could guarantee financial return nor is there an adequate regulatory framework in place and financial mechanisms that would facilitate the participation of private sector investors, and
* Private sector organisations that showed interest in the RFPs for the implementation of pilot mini-grids had no track record and were mostly start-ups.

The characterization of the current situation and expected results, as well as the identification and definition of the different barriers that need to be removed are well-defined and the project concept is aligned with the country development priorities.

### 3.1.2 Logical Framework

The PRODOC and the logical framework (LF) are based on the first project concept as presented in the PIF[[9]](#footnote-10) which was approved in October 25, 2013, whereas the PRODOC was approved in May 26, 2015. No major changes to the original LF have been made except of the adding of two Components (i.e., M&E and Project Management). The outputs and activities are well described and both the PRODOC design and the logical framework meet the SMART[[10]](#footnote-11) criteria requiring that indicators ought to be:

* Specific,
* Measurable,
* Achievable,
* Relevant and
* Time-bound

However, the evaluators noted the following:

* Certain indicators are inappropriate and need to be rephrased,
* Some baseline situations have changed,
* The proposed gender targets are highly ambitious for Malawi,
* Gathering gender data has been a challenge but it has improved lately, and
* Numbering of outcomes in the PIRs should be changed to be consistent with the numbering of outcomes of the PRODOC.

The proposed changes to existing indicators, targets and baselines are presented in

Table 5 below.

Table 5 Proposed changes to existing indicators, targets and baselines.

|  |  |  |  |
| --- | --- | --- | --- |
| **What to measure** | **Existing Indicator / target** | **Proposed indicators/targets** | **Justification for changing indicator/target** |
| * Investments in installed capacity of mini-grids schemes replicating the MEGA model using BOO / PPP model | * Household energy expenditure savings among customer base (US$) | * Investments in installed capacity of mini-grid schemes do not necessarily tell about the number of households reached and their savings. This is especially important based n the fact that MEGA dumps excess energy generated since they do not have enough subscribers to use up all of the energy that is being generated | * Baseline situation has changed from kerosene to torches and candles (baseline needs to be adjusted as of 2013 to account for reality |
| * Increase capacity of stakeholders especially at sub-national levels to effectively plan and implement clean energy mini-grids | * Target of at least 30% female representation in all training | * A target of 15% appears to be more realistic | * Target is too high based on current situation in Malawi (women´s literacy levels and interest in technical issues are low) |

## Progress toward Results

This section analyses the progress towards results for the Project objectives and each of the outcomes with their corresponding ratings in accordance with the rating scales that have been established for the MTR.

### 3.2.1 Progress towards results analysis

The project had a slow start primarily due to severe floods that took place during early 2015 in Malawi that affected 14 out of the 28 districts including the hydro-electric infrastructure that generates electricity for the MEGA´s mini-grid, damaging part of its generating infrastructure. The Inception Workshop took place in June 9, 2015 which marked the actual Project Launch and the first Project Board meeting was held in September 16, 2015.

Table 6 below presents the Results Matrix with colour coding, illustrating how the various indicators for progress have been judged.

Table 6 Progress towards results matrix

Indicator assessment code

|  |  |  |
| --- | --- | --- |
| **Green= Achieved** | **Yellow= On target to be achieved** | **Red= Not on target to be achieved** |

|  | **Indicator** | **Baseline Level** | **End of Project Targets** | **Mid-Term Level Assessment** | **Achievement Rating** | **Justification for Rating** |
| --- | --- | --- | --- | --- | --- | --- |
| **Project Objective**[[11]](#footnote-12) **: To increase access to energy in selected remote, rural areas in Malawi by promoting innovative, community-based mini-grid applications in cooperation with the private sector and civil society**. | Tons of CO2 equivalent avoided | Negligible [[12]](#footnote-13) | 33,183 tCO2e | n.a. | MS | * Indications are that INV supported MEGA will achieve their targets by project close as they are already at advanced stage of construction. * The mini-grids being implemented by PA and CEM are behind schedule and they may not be fully operational by the project end date * Proposed mini-grids in Malawi are not yet at scale that could guarantee financial return and thus private sector participation is unlikely at this stage |
| Cumulative renewable energy capacity installed and operational (kWp) | 56kW[[13]](#footnote-14) | 164 kWp (only mini-grids directly supported by INV)  300 kWp[[14]](#footnote-15) (all mini-grids) | * Only Unit 1 of MEGA is operational at this stage but in a few months additional capacity will come on line (see below Outcome 1.1) |
| Cumulative renewable electricity generation (kWh/year) | 220,752 kWh/Year [[15]](#footnote-16) | 1,145,808 kWh/Year (both Component #1 and #2) | * An average of 154,000 kWh per year has been generated. This is below the end-of-project target. However, it is expected that this generation will increase as other generation plants come online and the grid is extended. However, to reach the end-of-project target, this generation will have to increase by 7.4 times which at the current rate, is unlikely. |
|  | Household energy expenditure savings among customer base (US$) | $65,969 | $352,271/Year by 2018 | * An estimated US$104,816.47 of household savings have been realised in 6 months of 2017. This is about 30% of the target by 2018. It is likely that the targeted savings will be reached when generation capacity is increased, and more importantly, grid extended. However, the savings need to be adjusted in accordance to new realities of source of energy for lighting in Malawi |
| **Component 1: Expansion of the Mulanje Electricity Generation Agency(MEGA) Micro Hydro Power Plant** | | | | | | |
| **Outcome 1.1**[[16]](#footnote-17)  **Increasing the installed capacity of the Mulanje Electricity Generation Agency’s (MEGA) MHPP scheme** | Cumulative installed power generation capacity - kWp | 56 kW[[17]](#footnote-18) | 168[[18]](#footnote-19) kWp (from mini-grids directly supported by project INV i.e. Lujeri)  216 kWp (all new MEGA MHPPs supported by the project plus the baseline) | * Unit 1 (56kW) is still operational while Unit 2 (60kW) which suffered extensive damage due to flooding in 2015 is being repaired and should be operational in about 4 months * Construction of Unit 3 (100kW) is underway (design, procurement and staff recruitment has been completed) Unit 3 should be operational in about 2 months * MEGA has submitted a Concept Note to the Scottish Government for additional funding to install a 80 Kw mini-hydro and is evaluating the feasibility of installing a 100-150kWp solar plant * MEGA is also exploring options for the installation of biomass gasifiers with All Power Labs (20Kw). | S | * A considerable amount of time has been invested into the feasibility study of the infrastructure generation as lower water flows were found. Consequently, the selected site at the Lujeri river had to be moved to the Lichenya river with no real impact. * Indications are that MEGA is likely to exceed its targets by project close as they are already at an advanced stage of construction. * Total installed capacity is likely to reach the estimated 226 kW during the second half of 2018. * MEGA has potential to install up to 1 MW over time and the feasibility of interconnecting the MEGA mini-grid needs to be explored since it is about 5Km from the ESCOM grid. * Working with a local contractor who happens to be one of the village headmen has proven to be a highly positive experience * Also, a number of women have been recruited and proven to be reliable and dependable workers. * The generation license application is being prepared but government regulators and state authorities´ bureaucracy is an issue that should not be underestimated. There is a need to streamline the license application process. |
| Cumulative renewable electricity generation (kWh/year) | 220,752 kWh/Year | 851,472 kWh/Year | * Mini-grid deployment is in progress with 570 houses connected (up from 189 at project start) * According to the PIR 2017over 300,000 kWh have been generated from June 2015 through June 2017. However, only 60,000 kWh were generated during the period under review and of this only 32,000 kWh was actually consumed due to the low number of houses connected at the time. |
| **Outcome 1.2**  **Achieving MEGA’s business plan target of increasing the aggregate household energy savings among the customer base** | Household energy expenditure savings among customer base (US$) | $65,969 | $296,560/Year by 2018 | * Mini-grid deployment is in progress with 570 houses connected (up from 189 at project start) | MS | * Tariff structure   + Domestic users US$0.09/kWh   + Social users 50%   + Commercial 150% * An automatic tariff adjustment formula (ATF) is not being honoured by MERA in spite of the fact that MEGA customers have capacity to pay higher tariffs. * With the application of the ATF tariff for domestic users would become US$.012/kWh * A critical mass of about 1,000 customers is needed for MEGA to be financially sustainable and hence taking into account the upcoming capacity it is important to increase support to continue extending the mini-grid. * There is potential to connect an existing maize mill (currently running on diesel) |
| **Component 2: Replication of MEGA model via piloting of new Mini-grid schemes in other areas of Malawi** | | | | | | |
| **Outcome 2.1 Investment in Installed capacity of mini-grid schemes established, replicating the MEGA model and using a Build-Own-Operate (BOO) Public Private Partnership (PPP) model** | Cumulative installed renewable energy mini-grid capacity (kWp) | 0[[19]](#footnote-20) | 84 kWp greenfield mini-grid(s)established | * Installation of two mini-grids plus the upgrading of an existing mini-grids are being planned. * 2nd mini-grid operator (PA)´s initial proposal called for the installation of a 100kW mini-grid pilot at Usingini through hydro power generated at the Nyakatali Falls on the Zulunkhuni river * Based on the initial assessment two options have been identified:   + Option 1: 150 kW / US$ 750K   + Option 2: 300kW / US$ 955K with potential to upgrade to 400.500 kW * Technical Advisory Committee recommended Option 2 * Additional funds are needed to pursue either option * 3rd Mini-grid operator (CEM) proposal calls for installation of 45kWp solar to connect up to 100 houses plus village businesses (US$250K) plus connecting another 200 houses plus irrigation for 10ha (US$ 300-400K) during a second phase in Sitolo Village, Mchinji. * Land acquisition is completed and approved by District Council and local chief * Power house technician recruited * Environmental Management plan is done * Detailed design has been submitted for approval to UNDP * Procurement should take 3 months * 4th Mini-grid- Upgrading of the Kavuzi mini-grid and installation of a new generation unit is also being investigated due to the risks posed by the existing installations. | MS | * Installation of the two / three proposed greenfield mini-grids are not assured by the end of the project since for both PA and CEM, procurement is yet to start major works. Moreover, neither of them have secured adequate financing to support the planned targets * The roads to the site are problematic in both cases. This makes it even more prudent for the operators, especially in Usingini to have an onsite, trained technician who can maintain the plant at all times * The two proposed mini-grids are still under planning stages. At the time of the MTR no procurement has been done for either of these, and the operators are still seeking financing. Given these delays, an extension of 12 to 18 months might be required |
| Cumulative renewable electricity generation (kWh/year) | Nil[[20]](#footnote-21) | 294,336 kWh/Year | n.a. |
| No. of new mini-grid operators replicating MEGA model | 0 | 2 mini-grid operations established through a BOO mode. | * 2 mini-grids installations are in progress at Nakhata Bay and Mchinji * Upgrading of the Kavuzi mini-grid is also being investigated |
| **Outcome 2.2 Increased the aggregate household energy savings among the customer base** | Household energy expenditure savings among customer base (US$) | 0 | $55,711/Year | * Baseline studies are being undertaken at the two sites of Sitolo Village in Mchinji and at Usingini in Nkhata Bay. | MU | * As a result of the delays in securing funding for the installation of the proposed mini-grids by PA and CEM it appears unlikely that the project will be able to achieve the proposed target of generating $55,711/year savings in household energy expenditures by the project end date |
| **Component 3: Institutional Strengthening and Capacity Building for promotion of decentralized mini-grid applications across the country** | | | | | | |
| **Outcome 3.1 Increased capacity of key stakeholders, especially at the sub-national levels to effectively plan and implement clean energy mini-grids** | Number of districts where sub-national training and capacity building programmes on clean energy mini-grids conducted | 0 | 28 districts covered by clean energy mini-grid training programmes. | * Activities have been completed. * 28 Districts been trained and capacity building programmes on clean energy mini-grids conducted | S | * There is need to scrutinise the selection of participants to ensure sustainability of capacity building efforts rather than simply meeting numbers. * There is also a need to be attentive to content and sequencing of training modules e.g. starting from basics to advanced, as well as relevance for the various groups of trainees. |
| Number of people trained on planning and implementing clean energy mini-grids. | 0 | At least 300 people | * 100% completed * At least 300 people trained on Planning and implementing clean energy mini-grids |
| % share of women recipients of the capacity building | 0 | At least 30% female representation in all trainings | * 21% of women have received capacity building as of June 30, 2017. This is the only target under capacity building that has not been 100% met as at MTR. * However, given the context, is relatively high (a good achievement). It is likely that the target of 30% will be met by the end of the project. |
| No. of area-based electrification plans that include mini-grids developed and adopted | Area based electrification plans do not consider electrification through mini-grids | 5 area-based electrification plans that include clean energy mini-grids, prepared and adopted | * For the time being only two new area based electrification plans including mini-grids are being developed |
| **Outcome 3.2 Increased awareness about relevant business models, policy/ regulatory issues, and financing of mini-grids in the Malawian context** | Number of web-sites in Malawi which stakeholders could use to plan and implement clean energy mini-grids. | Web-sites on renewable energy and rural electrifications do not provide much information on mini-grid options. | Information Clearing house on clean energy mini-grids with a GIS interface available to all stakeholders. | * At least one website - <https://energy.gov.mw/index.php> has been set up which has a minigrid page. However, it is yet to be made more functional with relevant and adequate information that can help stakeholders make decisions | MS | * It would have been prudent for these toolkits and case studies to be developed earlier so that developers can draw lessons from them. There is an urgent need to finalise and disseminate these toolkits and case studies to ensure that the developers can take advantage of the lessons they might offer. |
| Number of case studies and toolkits on Malawi on clean energy mini-grids | Toolkits focus on community energy, energy kiosks etc. or are not specific to Malawi. No case study on mini-grids in Malawi. | Malawi mini-grids toolkit with case studies published and presented in a national workshop and available to all stakeholders. | * Two toolkits and case studies are under development and it is likely that this target will be met by the end of the project period |
| **Outcome 3.3 Improved policy and regulatory environment to facilitate the sustainable development of mini-grids in Malawi** | Extent to which current energy policies and regulations consider or promote clean energy mini-grids for rural electrification i | Policies do not consider or recognize mini-grids as a viable electrification option nor allow for funding under the REF | Recommendations put forth to government for the Rural Electrification Act, 2004 and Energy Regulation Act 2004 to be amended to include clauses promoting clean energy mini-grids | * There are multiple legislations and regulations being formulated. The project specifically supported the development of the Malawi Renewable Energy Strategy that among other things promulgated new energy policy provisions as well as promotion of targets for clean energy mini-grids as adopted in the SE4ALL Action Agenda for Malawi and project partners have generally been involved in stakeholder consultations and in providing some inputs to these. | MS | * There is a risk that with so much legislation, policy and regulation coming up, they might not be coherent which can create more confusion. It is therefore important that project partners ensure that there are no contradictions e.g. through the TAC. * There is still no procedure by which the Rural Electrification Fund (REF) can finance mini-grids even though these are largely in rural areas and therefore contributing to rural electrification, which is the mandate of MAREP. Effecting this procedure is of outmost importance and will contribute to accelerating mini-grids in the country |
| Number of local (government supported) financing mechanisms for clean-energy mini-grids | REF is not presently funding mini-grids | Rural Electrification Fund able to finance clean energy mini-grids as a rural electrification option, through policy and regulatory changes. | * The project has been lobbying for the use of REF for funding Clean Energy Mini-grids * This has not been implemented at all and there is a real risk that without concerted efforts, it will not be achieved during the project period |

### 3.2.2 Remaining barriers to achieve Project objectives

While various aspects of the project are on track, there are a number objectives that are unlikely to be met during the original project implementation period, and a few key barriers – not necessarily part of the original project design - exist that are a threat to the project objectives. These include:

* **Lack of enabling policy and legal framework:** Much of the legislation and policy is either new and not being fully implemented or is under development. Even when these are effected within the project period, there will be a lag between implementing them and their impact. This means that at least in the short to medium term, the historic weak policy and legal framework will continue to affect the deployment of clean-mini-grids in Malawi. Expansion of clean mini-grids will therefore be initially slow and requiring support from a range of non-private stakeholders, and demonstration-style initiatives will continue to be needed and play an important role.
* **Local financing mechanism for clean mini-grids:** The project envisioned that the Rural Electrification Fund (REF) would provide a local financing mechanism for clean mini-grids in Malawi. However, the REF is still not undertaking this function. This is a major remaining barrier to the development and expansion of clean mini-grids in Malawi because without this financing, clean mini-grids in Malawi will continue to depend on intermittent, unpredictable support from development partners, and private sector participation in clean energy mini-grids will remain stunted.
* **Institutional capacity:** Institutional technical capacity remains a barrier although training activities are addressing this. This is especially true for sub-national level stakeholders (Districts, Villages etc.) since there was hardly any capacity at all, at the project baseline. However, there should be expected a lag between training activities and personnel using that training in their decision making.
* **Information Clearing House:** The project has, as one of its outputs, the establishment of an information clearing house that will act as a one-stop shop for information on clean energy mini-grids in Malawi. While a website has been developed and is live, it is not yet fully developed into an information clearing house. Thus, for all intents and purposes, no information clearing house has been established by the project yet
* **Gender**: Malawi’s gender equality index is heavily skewed with women being highly disadvantaged compared to men. Moreover, social norms mean that women’s involvement in technical training and technical jobs is very low. This will remain a long-term barrier that will need to be continually addressed with training as well as incentives for women’s sustained participation in technical fields.
* **Low incomes and low electricity consumption:** Due to high levels of poverty in rural areas, tariffs have been kept low and cannot be at a level to recover all costs including capital and operations and maintenance costs. Additionally, household consumption is rather low so that operational plants such as MEGA have excess capacity, and this situation is likely to remain in the short to medium term. Thus, for mini-grids to be viable, there needs to be a mechanism (including using REF) to support recovery of capital costs (at a minimum) and operational costs so as not to excessively burden consumers.
* **Potential for higher consumption and better revenue:** Despite low consumption and high levels of poverty, there are consumers that desire to consume more electricity e.g. in Mulanje or that have the potential to do so. However, electrical appliances are not readily available in the rural areas, and potential buyers have to travel 60km to 100km to purchase these, which adds to the cost of electricity use. Making efficient electrical appliances available for purchase through either local project technicians, local ESCOM offices, or other widely available shops (e.g. agricultural produce buyers or distributors) could help improve the utility of electricity and in turn consumption levels and viability of mini-grid operations.
* **Social issues (Village politics):** At all three sites, there are tensions between beneficiary communities and the surrounding communities that are not direct beneficiaries. The surrounding communities’ feelings of being left out pose a risk to the project’s sustainability especially for micro-hydro where river sources and/or catchment areas may be in non-beneficiary communities. These social issues must be addressed, meaning that project teams must engage beyond the beneficiary communities. The consultants were told about this by the environmental Officer for Usingini and by CEM officer for Sitolo. While the consultants could not triangulate this fact with people in the field, given that such tensions emerged in MEGA, and given the accusations in Mchinji regarding the failed installation before, the consultants think that social issues should be address. That way mitigation measures can be put in place rather than be surprised. Indeed, there are few if any development projects in Malawi without community tensions.

## Project Implementation and Adaptive Management

At this point of the project implementation timeline, not much can be deduced on the extent to which adaptive management has been used in the project since core aspects of the project, especially related to Components 1 and 2 are in their infancy. However, a few changes have been made in response to the reality of the ground. These include:

* Certain incomplete activities from the SEM project have been incorporated in the IEA project
* The project-supported DoEA decision to include the upgrade of the Kavuzi mini-grid as part of Component 2 as a result of MERA´s intention to shut down poorly wired and dangerous, personal installations in the area
* The generation infrastructure of the MEGA mini-grid had to be moved from the Lujeri river to the Lichenya river since flow measurements showed extremely low water flows for the Lujeri river which would not be sufficient to operate the plant during the dry season.
* The proposal for the Usingini Micro Hydro Mini Grid was revised and based on these revisions and a site visit, the Technical Advisory Committee recommended that the PSC award Practical Action a micro (capital) grant of US$125,000 which was approved by the UNDP. Further, a Technical Assistance grant of US$ 100,000 was made in recognition of the revised needs for Usingini.

### 3.3.1 Management arrangements

The project is being implemented according to the initial design, in accordance to the arrangements specified in the Project Document and under the National Implementation Modality (NIM). The project manager took up his post in October 2015. The project is further supported by an international expert and a local consultant who have also provided support on some aspects of the project, specifically, the development of the mini-grid toolkit and case studies. The international expert has been contracted to work on a part-time basis for 20 days a year.

A TAC has been set up which supports the project through technical advice and has worked well in ensuring that key stakeholders have buy in. A good example is the inclusion of the Malawi Energy Regulatory Authority (MERA) as a TAC member which has ensured their support in development of legislation and regulatory framework supportive of clean mini-grids in Malawi. However, it is crucial that other TAC members, specifically ESCOM and the Department of Energy Affairs also take on the concerns of the project to effect the changes that their organisations need to make to support the project and the broader clean mini-grids landscape in Malawi.

### 3.3.2 Work planning

The project has suffered some delays, mainly due to operators’ need to carefully design how their sub-components would function. These have since been – to a large extent – established but have had a knock-on effect that has delayed hardware procurement. As of February 2018, much of the preparatory work including environmental impact assessments and other surveys have been completed and bills of quantities are being submitted to UNDP for procurement to proceed. These delays largely affect Component 1 and 2. Given these delays, it is unlikely that the project objectives will be fully met by the scheduled project end-date. An extension of at least 12 months will be required.

### 3.3.3 Finance and co-finance

According to the PRODOC, total allocated financial resources to the project and budgeted application of GEF funds are presented in Table 7 and Table 8 provides a breakdown of how the GEF funds were to be allocated across different project components over the 4-year life of the project.

Table 7 Total allocated financial resources

|  |  |
| --- | --- |
| **Source** | **Allocated amount in US$** |
| Regular UNDP | 1,845,000 |
| GEF | 1,725,000 |
| World Bank | 11,000,000 |
| Practical Action | 4,050,000 |
| MEGA | 1,700,000 |
| Scottish Government | 1,110,000 |
| Malawi Government | 1,290,000 |
| Other donors: BIF / DfID, JICA, MMCT, Green Valley Action (GREVA) | 1,790,000 |
| **Total** | **24,510,000** |

Table 8 provides a breakdown of how the funds are allocated across different project components over the 4-year life of the project.

Table 8 Budgeted application of GEF funds

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Project /Component /Atlas Activity** | **Responsible Party/ Implementing Agent** | **Amount Year 1 (US$)** | **Amount Year 2 (US$)** | **Amount Year 3 (US$)** | **Amount Year 4 (US$)** | **Total (US$)** |
| Component 1:  Expansion of the Mulanje Electricity Generation Agency (MEGA) Micro Hydro Power Plant | MEGA | 160,000 | 210,000 | 90,000 | 40,000 | 500,000 |
| Component 2:  Replication of MEGA model via piloting of new Mini-grid schemes in other areas of Malawi | DEA, MoNREM, UNDP | 150,000 | 150,000 | 130,000 | 33,000 | 463,000 |
| Component 3:  Institutional Strengthening and Capacity Building for promotion of decentralised mini-grid applications across the country: | DEA, MoNREM, UNDP | 150,000 | 145,000 | 85,000 | 155,000 | 535,000 |
| Outcome 4: Monitoring, Learning, Adaptive Feedback & Evaluation (as per the results framework and M&E Plan and Budget) | UNDP | 8,000 | 38,000 | 3,000 | 38,000 | 87,000 |
| Project management (This does not to appear as an Outcome in the Results Framework) | DEA, MoNREM, UNDP | 37,000 | 33,500 | 36,000 | 33,500 | 140,000 |
| **TOTAL** |  | **505,000** | **576,500** | **344,000** | **299,500** | **1,725,000** |

The breakdown of GEF funds executed as of December 31, 2017 are presented in Table 9. These figures that these ae based on the CDRs provided by UNDP.

Table 9 Breakdown of executed GEF funds as of December 31, 2017

|  |  |  |  |
| --- | --- | --- | --- |
| **Component** | **Total budgeted value PRODOC** | **Amount of funds executed** | |
|  | **(US$)** | **(US$)** | **(%)** |
| 1 | 500,000 | 119,135 | 23.83% |
| 2 | 463,000 | 112,470 | 24.29% |
| 3 | 535,000 | 280,970 | 52.52% |
| 4 | 87,000 | 18,304 | 21.04% |
| 5 | 140,000 | 70,742 | 50.53% |
| **Total** | **1,725,000** | **601,621** | **34.88%** |

As can be deduced from Table 9, much of the GEF project funds spent as of December 31, 2017 have been on Component 3, and reflects delays experienced in the implementation of Components 1 and 2. Only 34.88% of the GEF funds allocated to the project have been disbursed as of the end of 2017.

Table 10 below shows the amount of co-financing contributed by each of the co-financing entities as of December 31, 2017. It is not clear the extent to which these co-financing pledges amounting to US$ 22,785,000 have materialized nor is it clear what they are for since they have not been included in the project budget / work plan. No detailed explanation of the extent to which all of this co-financing would apply to the project has been obtained other than that this co-financing that has been promised / agreed for the Malawi government to use in energy projects in general.

Table 10 Co-financing table

|  |  |  |  |
| --- | --- | --- | --- |
| **Co-financing Entity** | **Type of co-financing** | **Co-financing amount at CEO endorsement (US$)** | **Co-financing contributed at the time of the MTR (US$)** |
| UNDP | Cash | 1,845,000 | n.a. |
| World Bank | Cash | 11,000,000 | n.a. |
| Practical Action | Cash | 4,050,000 | n.a. |
| MEGA | Cash | 1,700,000 | n.a. |
| Scottish Govt. | Cash | 1,110,000 | n.a. |
| Malawi Govt. | Cash | 1,290,000 | n.a. |
| Other donors[[21]](#footnote-22) | Cash | 1,790,000 | n.a, |
| **Total** | | 22,785,000 |  |

According to the Project Manager, who is regularly updated on the project’s finances and expenditures, the project has had a “clean audit” every year, meaning that no financial irregularities or problems have been identified.

### 3.3.4 Project level monitoring and evaluation systems, and reporting

The project-level monitoring and evaluation is done using GEF mandated protocols and tools. These protocols and tools including an inception report, Project Implementation Reports, Periodic Progress Reports through quarterly project progress reports, annual project implementation reviews, and the GEF Climate Change Mitigation Tracking Tool. The Project Manager is responsible for overall M&E while project developers and operators submit their reports for inclusion in the overall reports. A budget of US$87,000 was allocated for M&E and this appears adequate. The project is also mandated to carry out midterm (this) and end term evaluation, and periodic financial audits.

One aspect of the reporting of results is that there needs to be clarity in the terms used to ensure meaningful interpretation of progress and results. Additionally, as indicated earlier, some indicators do not accurately reflect what is measured. Changes to these indicators are needed to better reflect the measures needed to track the project progress.

Key monitoring and reporting of project activities are summarized in Table 11 below.

Table 11 Monitoring and reporting of project activities

|  |
| --- |
| **Monitoring and reporting of project activities** |
| Inception report |
| Project Implementation Reports (PIRs) |
| Quarterly Progress Reports |
| Annual Progress Reports |
| Annual Work Plans |
| Annual budgets and budget reviews |
| Technical Advisory Committee and other meetings minutes |
| Informal reporting through emails etc |
| Back to office mission reports from field visits |
| Studies |
| Operators’ progress reports to UNDP Malawi |
| Training evaluation reports |
| Mid-term Review |
| Terminal Project Evaluation and Report |
| Project auditing reports |

### 3.3.5 Stakeholder engagement

The project has included stakeholders from conception and continues to do so. In interviews, stakeholders reported that their inclusion has been full and meaningful. In particular, the openness of UNDP to engage stakeholders, and UNDP’s flexibility in addressing their needs and concerns were cited as having been excellent and useful. The evaluators however, noted that there are gaps in information sharing especially with respect to project related reports. For example, project operators and local government stakeholders were unaware of the social assessments that the DEA had facilitated in their areas, and the DEA acknowledged that they did have the results but had not yet shared them with their stakeholders. While reports might still be in draft versions, it would have been prudent for these stakeholders to have participated even in the process of the studies themselves rather than just receiving the end-product.

ESCOM, despite the organisation having representation on the TAC, appears not to be fully engaged and has not revised its policy nor is it responsive towards the integration of mini-grids into the main grid. It is crucial that this be addressed and particularly that ESCOM sees and makes use of the opportunity presented by deployment of mini-grids which can improve the availability of its own supply which has been extremely poor over the last 8 years.

Similarly, the engagement of communities needs to be strengthened as there are already “village politics” related feelings of being left out of the project (e.g. for villages outside the project catchment area) and these are likely to negatively affect the project. Additionally, upcoming presidential elections, scheduled for 2019 with campaigns starting in 2018, pose a challenge and projects will have to carefully negotiate these so as not to be overly politicised which can worsen village politics. More and timely community engagement is therefore required to ensure that communities are aware that there are not partisan initiatives.

### 3.3.7 Communications

While communications between implementing stakeholders have been relatively satisfactory – with a short fall of lack of sharing of reports - external communications have been less successful. In terms of communications between implementing stakeholders, the stakeholders have described communications as regular, open, and effective. However, for external communications, the project had planned to use a communications expert who is already a staff member within UNDP. However, at the beginning of the project, this expert was said to be busy with other projects and so very little was achieved in terms of a communication strategy or outputs for the IEA project. Further, during field visits, the Evaluators noted that several projects had signposts or billboards communicating the projects in the area but there was not a single signpost or billboard communicating the IEA project. This is a lost opportunity in communicating the project to the target communities, and to others – beyond irregular community meetings that the project holds. Additionally, there are as of yet, no communication materials such as posters, leaflets or brochures etc., and no project website. Even the Department of Energy website developed under the project does not have information specific to the project. In addition, the information clearing house that is supposed to be one of the project outputs is still not fully deployed.

**Project implementation & Adaptive Management is rated as Satisfactory (S)**

## 3.4 Sustainability

Sustainability entails determining the extent to which the Project benefits will continue to accrue after the GEF financing support is over, and the risks that could jeopardize project outcomes, and the likelihood of such risks being materialised.

### 3.4.1 Financial risks

There is a financial risk especially for Component 2 because project operators, CEM and Practical Action are yet to secure co-financing to enable them to reach their optimal generation capacity and execute all project activities. In the medium term, it is unlikely that the rural, vulnerable populations that are the target of these mini-grids can afford cost-recovery tariffs. A local financing mechanism as proposed in the project design is therefore critical for financial sustainability in the long term. Thus, unless MAREP through REF operationalises the funding for clean energy mini-grids, long term sustainability of these will be threatened.

MEGA’s experience has also shown that there is desire among some households to use more electricity, yet current use of the installed capacity is suboptimal. This suboptimal use of capacity undermines financial sustainability given that revenue is low. Local availability of affordable, efficient, and good quality appliances could help improve the financial sustainability.

### 3.4.2 Socio-Economic Risks

Socio-economic risks, political and cultural factors that threaten sustainability of a project could include level of stakeholder ownership (over project planning, resources, project benefits, etc.). In this project, there is a good level of ownership among implementing stakeholders given that they have been involved from the start. For areas under component 2 (Replication of MEGA model via piloting of new mini-grid schemes in other areas of Malawi), stakeholder ownership among target communities (customers) cannot be assessed at this stage since it is too early and stakeholder engagement has just started. However, the consultants noted that in Kavuzi the expectations for the project were very high. For example, there is an expectation that the project will finance businesses (three salons and 3 maize mills), which is not part of the original project design. It is important that such expectations are managed from the start to avoid misunderstandings and conflict later in the project. In the same Kavuzi area, another micro-hydro project failed, the infrastructure vandalised, and has remain in a vandalised state. Members of the community that were interviewed during the mission reported that this was in part because the community was not fully involved. It is therefore crucial that the community be fully engaged to reduce such socio-economic risks. In both areas of Component 2 (Kavuzi and Usingini), there is some tensions with neighbouring communities that will not be electrified which is understandable. These tensions will need to be managed throughout the project.

For Component 1 (Expansion of the MEGA Micro Hydro Power Plant (MHPP) and establishment of mini-grid scheme) there have been village politics – due to changes in project design - that have delayed the project. However, these are unlikely to have any long-term impact on the socio-economic sustainability of the project but need to be managed throughout the project.

A more concerning threat to the project’s socio-economic sustainability is that for all components but especially components 1 and 2, it is likely that much of the construction, connections and first operations will occur during the presidential and parliamentary elections scheduled for 2019 (with the campaign period starting in 2018). This can complicate stakeholder ownership issues as political parties are likely to try to claim credit for the project which can alienate other stakeholders. It is therefore important that early on, and after the elections, the community engagement efforts ensure inclusiveness and be sensitive to political pitfalls.

### 3.4.3 Institutional Framework and Governance Risks

There are delays in some legislation and regulations that support clean mini-grids. It also appears that from a policy perspective, MAREP which would be a natural home for clean mini-grids given that they are targeting rural areas, is not fully engaged in the project. Bringing in MAREP to be more involved will help reduce institutional and governance risks. Otherwise, there is low probability that legislation and regulation will not be in place by the end of the project since final reviews are underway.

### 3.4.4 Environmental Risks

Environmental risks are not only negligible, but it is likely that the projects will be beneficial to the local environment. For example, Usingini is planning to reforest the catchment area and enhance awareness of importance of forests in the area. MEGA has already planted over 80,000 trees and 1.3 Ha of grass and a further 80,000 seedlings have been reared in the communities nurseries. The project will generate the additional benefits of reducing GHG emissions due to reductions in use of kerosene for lighting, and to a lesser extent, reduced use of diesel generators for maize mills, entertainment ventures such as bars, and in few well-to-do households.

Also, the project is expected to generate additional benefits in terms of reducing GHG emissions due to reducing the amount of kerosene that would be used for lighting and social benefits that will be generated as a result of having access to clean energy

**Sustainability is rated as Moderately Likely (ML)**

# Conclusions

The project design is simple – but not simplistic - and straight forward and many of the targets are reasonable. The only target that might be overly ambitious is the gender target of having 30% women participate in all trainings. Given the social norms around women in technical areas, and the few women in this field, such an ambitious target risks the inclusion of women that will not use the skills, just to meet targets rather than effect meaningful change. This could have negative long-term impacts on women’s engagement in such projects and in efforts to change attitudes.

The project has had no major changes to its design, strategy or log-frame except to add two components; M&E and Project Management.

The project was designed based on highly optimistic timelines. Consequently, there. There have been delays especially with respect to the delivery of outputs and outcomes in Component 2, including delays in procurement of hardware. Most importantly, delays in securing co-financing (which is still pending), and in procuring hardware for replication of MEGA, and delays in engaging REF put the project at the risk of not delivering all its objective by the planned close date. There is however a chance to catch up if much of these delays are addressed within the next six months (by August 2018).

Another delay is with respect to Component 3 and specifically the establishment of local, government-supported mechanisms for financing clean energy mini-grids as the REF is presently not funding mini-grids despite the fact that they contribute to rural electrification. It is important to recognise that without this local, government-supported funding the implementation of clean energy mini-grids in Malawi will be compromised as they will continue to be dependent on support from development partners, which is often short term, intermittent and not guaranteed. This will not create the market certainty that is needed for investors to enter the market.

As of December 31, 2017, the project had spent 35% of its US$1.725 million GEF budget, in line with the delays in the implementation milestones. The unspent portion is mostly due to delays in procurement and is likely to be spent in the next 6 months.

# 5. Recommendations

The following table presents the Recommendations of the MTR.

Table 12 Recommendations

|  |  |  |
| --- | --- | --- |
| **Rec # Recommendation Responsible Entity** | | |
| **A** | **Outcome 1: Expansion of the MEGA micro hydro power plant** |  |
| A.1 | *Key recommendation:* Explore the feasibility of interconnecting the MEGA mini-grid into the ESCOM grid. MEGA has excess power and additional potential to generate up to 1 MW and is only about 5 Km from the ESCOM grid and its installations are grid compatible. | MEGA /ESCOM/UNDP/DEA |
| A.2 | Use MEGA license application to streamline the application procedure for obtaining generation licenses from MERA. | MEGA/MERA/UNDP/DEA |
| **B** | **Outcome 2: Replication of MEGA model via piloting of new Mini-grid schemes in other areas of Malawi** |  |
| B.1 | *Key recommendation:* New mini-grids should have an on-site technician to assist with O&M as CEM is proposing for the Sitolo mini-grid to ensure proper operations and maintenance and enhance sustainability. | UNDP/REF/MAREP/DEA |
| B.2 | Promote the concept that CEM is using of having a separate entity to assist with the procurement of energy efficient equipment to households and small businesses in villages. Consider if this is something that ESCOM could do (as a complement to its efficient lighting programme). | UNDP/REF/MAREP/DEA |
| B3 | Consider including the cost of house wiring into the electricity tariff to speed up mini-grid deployment while ensuring that wiring and safety standards are met. | UNDP/MAREP/DEA |
| B4 | Involve third party(ies) with mini-grid expertise in Kavuzi since it does not have sufficient technical knowledge and financial backing to implement the mini-grid there and ensure the sustainability of its operation. | UNDP/DEA/KAVUZI |
| B5 | Clarify the extent to which the co-financing pledge amounting to US$ 22,785,000 have materialised and what they are intended for since they have not been included in the project budget / work plan. | UNDP/GEF |
| **C** | **Outcome 3: Institutional strengthening and capacity building for Promotion of decentralised mini-grid applications across the country** |  |
| C.1 | *Key recommendation:* The regulatory environment for mini-grids has improved but more is needed to ensure the long-term sustainability.  MAREP should:   * Play a more active role providing an adequate financing mechanism(s) that will guarantee the financial sustainability of emerging mini-grids up until break-even is achieved, * Ensure that the current review of the rural electrification policy prioritises mini-grids, * Prioritise mini-grids with high potential for productive uses and thus help enhance the financial sustainability of the mini-grid during the early years, * Concentrate in allocating funding for the installation of mini-grids while letting the Renewable Energy department be responsible for the design and implementation of the mini-grids, and * Planning of mini-grids should be done by the Policy and Planning Department in coordination with ESCOM and the Renewable Energy Department. | UNDP/MAREP/ESCOM/DEA |
| C.2 | Speed up the preparation of case studies on mini-grids and take advantage of the work that CEM is doing in conjunction with Community Energy Scotland on lessons learned from their experiences on mini-grid implementation and operation in other parts of the world. | UNDP/DEA/CEM |
| C.3 | Enhance the dissemination of knowledge products and systematisation of lessons learned by organising national / regional workshops jointly with other donors. | UNDP/DEA |
| C.4 | Local District Council (LDCs) need additional technical support and financial assistance to get involved in the planning and supervision of mini-grids as envisioned by the decentralisation policy that the government is currently pursuing. Energy should be a line item in the LDC budgets. | UNDP/DEA/LDCs |
| C5 | Provide mini-grid operators with access to Constituency Development Funds to co-finance mini-grids development | UNDP/DEA |
| C6 | Community Based Organisations (CBOs) that get involved in mini-grids should have board members with sufficient technical knowledge on the design, deployment and O&M of mini-grids and that are able to enhance financial sustainability as an anchor customer and / or shareholder. | UNDP/DEA/CBOs |
| C7 | More training on house wiring and mini-grid deployment is needed at the local level and sequencing of such training needs to be logical. | UNDP/MINI GRID OPERATORS |
| **F** | **Implementation and adaptive management** |  |
| F.1 | *Key recommendation:* Extend the end date of the Project by 12 to 18 months to allow for the completion of the mini-grids being implemented by CEM and PA and also finalize the upgrading of the Kavuzi mini-grid. This is based on the fact that hardware procurement and therefore installation has not been done for Usingini and Sitolo, and partners CEM, and PA have not secured co-financing yet nor have they even identified promising sources of co-financing | UNDP/DEA/GEF |
| **G** | **Sustainability** |  |
| G.1 | *Key recommendation:* Ensure that additional co-financing is secured shortly – preferably by August 2018 - to allow for the implementation of the PA and CEM mini-grids and the upgrading of the Kavuzi mini-grid before the end date of the project. | UNDP/DEA |
| G.2 | *Key recommendation:* MAREP needs to get involved in providing co-financing to enhance sustainability of this and other mini-grid projects in rural areas. This will reduce dependence on donor financing which can often be ad-hoc and time limited. The involvement of MAREP in co-financing can be justified on the basis that these are mini-grids for electrifying rural areas, and the mandate for MAREP is to support rural electrification |  |

Annex I

MTR Terms of Reference

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| --- | --- | --- |
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**TERMS OF REFERENCE**

**For the procurement of a Consultant for Midterm Review of the Project on Increasing Access to Clean and Affordable Decentralised Energy Services in Selected Vulnerable Areas of Malawi**

**BASIC CONTRACT INFORMATION**

|  |
| --- |
| **Location:** Malawi  **Application Deadline:** 15th September 2017  **Category:** Energy and Environment  **Type of Contract:** Individual Contract  **Assignment Type:** International Consultant  **Reports to:** RSG Portfolio Manager  **Duty Station:** Home-based with field visit  **Languages Required:** English  **Starting Date:** 9th October 2017  **Expected Duration of Assignment:** 20 working days between 9th October – 17th December 2017 |

**BACKGROUND**

**A.** **Project Title**

|  |
| --- |
| Increasing Access to Clean and Affordable Decentralized Energy Services in Selected Vulnerable Areas of Malawi (PIMS#5270) |

**B. Project Description**

|  |
| --- |
| This is the Terms of Reference (ToR) for the UNDP-GEF Midterm Review (MTR) of the full-sized project titled *Increasing Access to Clean and Affordable Decentralized Energy Services in Selected Vulnerable Areas of Malawi(PIMS#5270).* The project is implemented by the Government of Malawi, through the Ministry of Natural Resources Energy and Mining with support from Global Environment Facility (GEF) and United Nations Development Programme (UNDP), which is to be undertaken in year 2017. The project started on January 2016 and is in its third year of implementation. In line with the UNDP-GEF Guidance on MTRs, this MTR process was initiated before the submission of the second Project Implementation Report (PIR). This ToR sets out the expectations for this MTR. The MTR process must follow the guidance outlined in the document; [*Guidance for Conducting Midterm Reviews of UNDP-Supported, GEF-Financed Projects*](http://web.undp.org/evaluation/documents/guidance/GEF/mid-term/Guidance_Midterm%20Review%20_EN_2014.pdf).  The project was designed to: To increase access to clean energy in selected remote, rural areas in Malawi by promoting innovative, community-based mini-grid applications in cooperation with the private sector. The project’s outcomes are as follows:  **Outcome** 1: Expansion of the Mulanje Electricity Generation Agency (MEGA) Micro-Hydro Power Plant.  Outcome 1.1 Increasing the installed capacity of the Mulanje Electricity Generation Agency’s (MEGA) MHPP scheme.  Outcome 1.2 Achieving MEGA’s business plan target of increasing the aggregate household energy savings among its customer base.  **Outcome 2**: Replication of MEGA model via piloting of new clean energy mini-grid schemes in other areas of Malawi.  Outcome 2.1 Investment in installed capacity of clean energy mini-grid schemes established, replicating the MEGA model and using a Build-Own-Operate (BOO) Public Private Partnership (PPP) model.  Outcome 2.2 Increased the aggregate household energy savings among the customer base.  **Outcome 3**: Institutional strengthening and capacity building for promotion of decentralized clean energy mini-grid applications across the country.  Outcome 3.1 Increased capacity of key stakeholders, especially at the sub-national levels to effectively plan and implement clean energy mini-grids.  Outcome 3.2 Increased awareness about relevant business models, policy and regulatory issues, and financing of mini-grids in the Malawian context.  Outcome 3.3 Improved policy and regulatory environment to facilitate the sustainable development of mini-grids in Malawi.  The UNDP-GEF project was developed soon after the start of implementation of the UNDP-supported project on Sustainable Energy Management (SEM), which was concluded in December 2016. The SEM project provided advisory support; assisted in updating policies; developed standards; and established coordination mechanisms and implementation arrangements. Another feature of the SEM project was the capacity building and training activities at the district level. In course of the MTR for the UNDP-GEF initiative, the consultants are expected to assess the SEM with regard to the activities which has direct bearing on the UNDP-GEF initiative. |

**DUTIES AND RESPONSIBILITIES**

**C. Scope of Work and Key Tasks**

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| The MTR team will consist of **two independent consultants** that will conduct the MTR - one team leader (with experience and exposure to projects and evaluations in other regions and globally) and one national technical expert.  The MTR team will first conduct a literature review of project documents (i.e. PIF, UNDP Initiation Plan, Project Document, ESSP, Project Inception Report, PIRs, Finalized GEF focal area Tracking Tools, Project Appraisal Committee meeting minutes, Financial and Administration guidelines used by Project Team, project operational guidelines, manuals and systems, etc.) provided by the Department of Energy Affairs and UNDP. The MTR team will participate in a MTR inception workshop to clarify their understanding of the objectives and methods of the MTR, producing the MTR inception report thereafter. The MTR mission will then consist of interviews with key informants and site visits to Mulanje and other districts as required.  The MTR team will assess the following four categories of project progress and produce a draft and final MTR report. See the [*Guidance for Conducting Midterm Reviews of UNDP-Supported, GEF-Financed Projects*](http://web.undp.org/evaluation/documents/guidance/GEF/mid-term/Guidance_Midterm%20Review%20_EN_2014.pdf) for requirements on ratings. No overall rating is required.  **1. Project Strategy**  *Project Design:*   * Review the problem addressed by the project and the underlying assumptions. * Review the effect of any incorrect assumptions or changes to the context to achieving the project results as outlined in the Project Document. * Review the relevance of the project strategy and assess whether it provides the most effective route towards expected/intended results. * Review how the project addresses country priorities and took stock of linkages with the SEM project. * Review decision-making processes   *Results Framework/Log frame:*   * Undertake a critical analysis of the project’s log frame indicators and targets, assess how “SMART” the midterm and end-of-project targets are (Specific, Measurable, Attainable, Relevant, Timebound), and suggest specific amendments/revisions to the targets and indicators as necessary. * Examine if progress so far has led to, or could in the future catalyse beneficial development effects (i.e. income generation, gender equality and women’s empowerment, improved governance etc...) that should be included in the project results framework and monitored on an annual basis.   **2. Progress Towards Results**   * Review the log frame indicators against progress made towards the end-of-project targets; populate the Progress Towards Results Matrix, as described in the [*Guidance for Conducting Midterm Reviews of UNDP-Supported, GEF-Financed Projects*](http://web.undp.org/evaluation/documents/guidance/GEF/mid-term/Guidance_Midterm%20Review%20_EN_2014.pdf); colour code progress in a “traffic light system” based on the level of progress achieved; assign a rating on progress for the project objective and each outcome; make recommendations from the areas marked as “not on target to be achieved” (red). * Compare and analyse the GEF Tracking Tool at the Baseline with the one completed right before the Midterm Review. * Identify remaining barriers to achieving the project objective. * By reviewing the aspects of the project that have already been successful, identify ways in which the project can further expand these benefits.   **3. Project Implementation and Adaptive Management**  Using the [*Guidance for Conducting Midterm Reviews of UNDP-Supported, GEF-Financed Projects*](http://web.undp.org/evaluation/documents/guidance/GEF/mid-term/Guidance_Midterm%20Review%20_EN_2014.pdf); assess the following categories of project progress:   * Management Arrangements * Work Planning * Finance and co-finance * Project-level monitoring and evaluation systems * Stakeholder Engagement * Reporting * Communications   **4. Sustainability**   * Assess overall risks to sustainability factors of the project in terms of the following four categories: * Financial risks to sustainability * Socio-economic risks to sustainability * Institutional framework and governance risks to sustainability * Environmental risks to sustainability   The MTR team will include a section in the MTR report setting out the MTR’s evidence-based conclusions and recommendations, in light of the findings.  Additionally, the MTR consultant/team is expected to make recommendations to the Project Team. Recommendations should be succinct suggestions for critical intervention that are specific, measurable, achievable, and relevant. A recommendation table should be put in the report’s executive summary. The MTR consultant/team should make no more than 15 recommendations total. |

**D. Expected Outputs and Deliverables**

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| The MTR consultant/team shall prepare and submit:   * MTR Inception Report: MTR team clarifies objectives and methods of the Midterm Review no later than 2 weeks before the MTR mission. To be sent to the UNDP/DOE project management by 13th October 2017 * Presentation: Initial Findings presented to project management at the end of the MTR mission by 27th October 2017 * Draft Final Report: Full report with annexes within 3 weeks of the MTR mission by 3rd November 2017 * Final Report\*: Revised report with annexed audit trail detailing how all received comments have (and have not) been addressed in the final MTR report. To be sent to the UNDP/EAD within 1 week of receiving UNDP comments on draft by 1st December 2017     \*The final MTR report must be in English. |

**E. Institutional Arrangement**

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| The principal responsibility for managing this MTR resides with the UNDP Malawi Country Office. UNDP will contract the consultants and ensure the timely provision of per diems and travel arrangements within the country for the MTR team. The Project Team will be responsible for liaising with the MTR team to provide all relevant documents, set up stakeholder interviews, and arrange field visits. |

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| The MTR consultancy will be for 20 days, with 14 days in Malawi, for the international consultant, over a time period of approximately 3 months starting on 9th October 2017, and shall not exceed 3 months from when the consultant(s) are hired.  The tentative MTR timeframe is as follows:   * 15th September 2017: Application closes * 6th October 2017: Selection of MTR Team * 9th October 2017: Prep the MTR Team (handover of project documents) * 9th October 2017: 2017: Document review and preparing MTR Inception Report * 9th -13th October 2017: Finalization and Validation of MTR Inception Report- latest start of MTR mission * 23rd – 25th October 2017: MTR mission: stakeholder meetings, interviews, field visits * 26th - 27th October 2017: wrap-up meeting & presentation of initial findings- earliest end of MTR mission * 30th – 3rd October 2017: Preparing draft report * November 6th, 2017: Submission of draft report to UNDP * November 7th, 2017: Circulation to DEA by UNDP * November 7th, 2017: Preparation & Issue of Management Response * November 10th, 2017: Circulation by UNDP to Evaluation Reference Group * November 16th, 2017: MTR reference group meeting (virtual participation by international consultant) * 27th November 2017: MTR reference group concluding meeting * 1st December 2017: Submission of final MTR report |

**F. Duration of the Work**

**G. Duty Station**

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| Travel:   * International travel will be required for the MTR mission; * Field travel will be within project sites as needed. * Consultants are required to comply with the UN security directives set forth under <https://dss.un.org/dssweb/>; * All related travel expenses will be covered and will be reimbursed as per UNDP rules and regulations upon submission of an F-10 claim form and supporting documents. All travels must be pre-approved by UNDP prior to undertaking any field visits. |

**REQUIRED SKILLS, EXPERIENCE AND COMPETENCIES**

**H. Qualifications of the Successful Applicants**

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| The selection of consultants will be aimed at maximizing the overall “team” qualities in the following areas:   * Recent experience with result-based management evaluation methodologies (15%); * Experience applying SMART indicators and reconstructing or validating baseline scenarios (10%); * Competence in adaptive management, as applied to Increasing access to renewable energy (10%); * Experience working with the GEF or GEF-evaluations (5%); * Experience working in Southern Africa/Malawi (15%); * Work experience in relevant technical areas for at least 7 years (15%); * Demonstrated understanding of issues related to gender and climate change vulnerability and adaptation; experience in gender sensitive evaluation and analysis (5%). * Excellent communication skills (5%); * Demonstrable analytical skills (10%); * Project evaluation/review experiences within United Nations system will be considered an asset; * A Master’s degree in Environment, Engineering, Social Sciences, or other closely related field (10%).   **Evaluator’s competencies:**   * Organizational Development and Management; * Strategic thinking; * Team work skills; * Results oriented; * Excellent communication skills.   **Consultant Independence:**  The consultants cannot have participated in the project preparation, formulation, and/or  implementation (including the writing of the Project Document) and should not have a conflict of  interest with project’s related activities. |

**APPLICATION PROCESS**

I. Scope of Price Proposal and Schedule of Payments

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| **Financial Proposal:**  Financial proposals must be “all inclusive” and expressed in a lump-sum for the total duration of the contract. The term “all inclusive” implies all cost (professional fees, travel costs, living allowances etc.);  **Note**: Payments will be based on invoices on achievement of agreed milestones i.e. upon delivery of the services specified in the TOR and certification of acceptance by the UNDP. The applicant must factor in all possible costs in his/her “All Inclusive Lump Sum Fee/Daily Fee” financial proposal including his/her consultancy and professional fee, honorarium, accommodation, communication cost such as telephone/internet usage, printing cost, ad-hoc costs, stationery costs, and any other foreseeable costs in this exercise. UNDP (project) will provide transportation for field travel, however the consultant is responsible for covering their accommodation/meals/incidental expenses for such travel. No costs other than what has been indicated in the financial proposal will be paid or reimbursed to the consultant.  The lump sum is fixed regardless of changes in the cost components. No costs other than what has been indicated in the financial proposal will be paid or reimbursed to the consultant.  **Schedule of Payments:**   * 20% of payment upon approval of the MTR Inception Report * 30% upon submission of the draft MTR Report * 50% upon finalization of the MTR Report |

**J. Recommended Presentation of Offer**

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| 1. Completed Letter of Confirmation of Interest and Availability using the template provided by UNDP; 2. Personal CV or a P11 Personal History form, indicating all past experience from similar projects, as well as the contact details (email and telephone number) of the Candidate and at least three (3) professional references; 3. Brief description of approach to work/technical proposal of why the individual considers him/herself as the most suitable for the assignment, and a proposed methodology on how they will approach and complete the assignment; (max 1 page) 4. Financial Proposal that indicates the all-inclusive fixed total contract price, supported by a breakdown of costs, as per template provided. If an applicant is employed by an organization/company/institution, and he/she expects his/her employer to charge a management fee in the process of releasing him/her to UNDP under Reimbursable Loan Agreement (RLA), the applicant must indicate at this point, and ensure that all such costs are duly incorporated in the financial proposal submitted to UNDP. See Letter of Confirmation of Interest template for financial proposal template.   Incomplete applications will be excluded from further consideration. |

**K. Criteria for Selection of the Best Offer**

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| The award of the contract will be made to the Individual Consultant who has obtained the highest  Combined Score and has accepted UNDP’s General Terms and Conditions. Only those applications  which are responsive and compliant will be evaluated. The offers will be evaluated using the “Combined Scoring method” where:   1. The educational background and experience on similar assignments will be weighted a max. of 70%; 2. The price proposal will weigh as 30% of the total scoring. |

**L. Annexes to the MTR ToR**

Please see ToR Annexes in Annex 3 of [*Guidance for Conducting Midterm Reviews of UNDP-Supported, GEF-Financed Projects*](http://web.undp.org/evaluation/documents/guidance/GEF/mid-term/Guidance_Midterm%20Review%20_EN_2014.pdf);

* List of documents to be reviewed by the MTR Team
* Guidelines on Contents for the Midterm Review Report
* UNEG Code of Conduct for Evaluators/Midterm Review Consultants
* MTR Required Ratings Table and Ratings Scales
* MTR Report Clearance Form
* Sample MTR Evaluative Matrix
* Progress Towards Results Matrix and MTR Ratings & Achievement Summary Tables (in Word)

**M. How to apply**

Please submit your complete proposal including all supporting documents and financial proposal to [procurement.mw@undp.org](mailto:procurement.mw@undp.org) by 15th September 2017. Please include “Increasing Access to Energy Services-UNDP-GEF Mid Term Review - 2017” in the subject line of the email. The UNDP will not accept proposals via printed hardcopy.

**N. Prospective consultants should understand** the [Individual Consultant General terms and Conditions](https://intranet.undp.org/global/popp/cap/Pages/mgmt-ic.aspx)

Prepared by: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Etta M’mangisa - Programme Analyst

Approved by: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Andrew Spezowka - RSG Portfolio Manager

Annex II

Glossary of Terms

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| **Term** | **Definition** |
| Activities | Actions taken through which the project inputs are mobilized to produce specific outputs |
| Adaptive Management | The project’s ability to adapt to changes to the project design (project objective, outcomes, or outputs) during implementation resulting from: (a) original objectives that were not sufficiently articulated; (b) exogenous conditions that changed, due to which a change in objectives was needed; (c) the project’s restructuring because the original objectives were overambitious; or (d) the project’s restructuring because of a lack of progress. |
| Conclusions | Point out the factors of success and failure of the evaluated intervention, with special attention paid to the intended and unintended results and impacts, and more generally to any other strength or weakness. A conclusion draws on data collection and analyses undertaken, through a transparent chain of arguments. |
| Co-financing | Includes Grants, Loans/Concessional (compared to market rate), Credits, Equity investments, in-kind support, other contributions mobilized for the project from other multilateral agencies, bilateral development cooperation agencies, NGOs, the private sector and beneficiaries. Refer to Council documents on co-financing for definitions, such as GEF/C.20/6 and GEF/C.46/09. |
| Cost Effectiveness | Assesses the achievement of the environmental and developmental objectives as well as the project’s outputs in relation to the inputs, costs, and implementing time. It also examines the project’s compliance with the application of the incremental cost concept. |
| Country Ownership | Relevance of the project to national development and environmental agendas, recipient country commitment, and regional and international agreements where applicable |
| Environmental risks to  sustainability | Environmental factors that threaten sustainability of project outcomes (i.e. biodiversity-related project gains or water quality-related project gains that may be at risk due to frequent severe storms) |
| Evaluation | Project evaluations assess the efficiency and effectiveness of a project in achieving its intended results. They also assess the relevance and sustainability of outputs as contributions to medium-term and longer-term outcomes. Projects can be evaluated during the time of implementation, at the end of implementation (Terminal Evaluation), or after a period of time after the project has ended (ex-post evaluation). |
| Executing Agency | An entity or agency that receives GEF Funding from a GEF Partner Agency in order to execute a GEFproject, or parts of a GEF project, under the supervision of a GEF Partner Agency. May also be referred to as “project executing agency.” See “Implementing Partner” for equivalent UNDP terminology. |
| Financial Planning | Includes actual project cost by activity, financial management (including disbursement issues), and co-financing |
| Financial risks to sustainability | Financial factors that threaten sustainability of project outcomes. Factors to be considered are whether financial and economic resources are likely to be available after GEF grant assistance ends, or if macroeconomic conditions in the country/region are likely to affect future funding. |
| GEF Agency | GEF Agencies are the 10 institutions that are entitled to receive GEF Trust Fund resources directly from the GEF Trustee for the design, implementation, and supervision of GEF Projects as of November 2010. They include the following organizations: AfDB, ADB, EBRD, FAO, IADB, IBRD, IFAD, UNDP, UNEP, and UNIDO. |
| GEF Partner Agencies | Those agencies eligible to request and receive GEF resources directly for the design, implementation, and supervision of GEF Projects. This category includes both GEF Agencies and GEF Project Agencies. It does not include agencies designated by countries that request resources from the GEF Secretariat for the execution of activities under GEF direct access modalities (implemented by the GEF Secretariat), including for Convention reports and National Portfolio Formulation Exercises. |
| GEF Project Agencies | Any of the institutions that the GEF has accredited to receive GEF resources to design, implement and supervise GEF-financed projects apart from the ten GEF Agencies. |

Source: Guidance for Conducting Midterm Reviews of UNDP-Supported, GEF-Financed Projects

Annex III

List of documents reviewed

1. **List of documents reviewed before mission**

* Project PRODOC,
* SEM PRODOC
* IEA project work plans and progress reports
  + Annual Work Plans (AWPs) 2015, 2016 and 2017
  + Project Implementation Reviews (PIRs): 2016, 2017
  + Annual Progress Report for Component 1 implemented by MEGA July 2016 to June 2017
* IEA project Management Minutes of Meeting
  + Minutes for Project Management Meeting held on April 21, 2016
* IEA Progress Reports
  + IEA Quarterly Progress report January to March 2016
  + IEA Quarterly Progress report April to June 2016
  + IEA Progress report January to June 2017
  + IEA Quarterly Progress report July to September 2017
* SEM project Board Minutes of Meeting
  + Minutes of Project Board SEM project July 18, 2014
* SEM and IEA project Steering Committee (PSC) Minutes of Meeting
  + Minutes of the CEM PSC Meeting held on October 7, 2015
  + Minutes of the 3rd CEM and IEA PSC Meeting held on February 4, 2016
  + Minutes of the 4th CEM and IEA PSC Meeting held on February 3, 2017 including invitation documents
  + Minutes for the 5th CEM and IEA PSC Meeting held on June 23, 2017
* Community Energy Malawi (CEM) Agreements (2nd mini-grid operator)
  + CEM Mini-grid proposal (May16, 2017)
  + Cover letter from CEM on Revised Proposal dated April 13, 2017
  + Signed CEM Grant Agreement (Micro Capital Agreement) for Non-Credit Related Activities (May 17, 2017)
  + Technical and Financial Viability Analysis of the Photovoltaic Powered Micro-grid for the Sitolo Village in Mchinji, Malawi (undated)
  + Project Brief for Sitolo Solar PV Mini-grid Project (June 2017)
  + Sitolo Solar PCV Mini-grid Technical Assessment Review (August 2017)
  + VG Sitolo letter offering land (December 10, 2017)
* Practical Action (3rd mini-grid operator)
  + Map of project site in Usingini-Nhkata Bay at Luzunkhuni River (undated)
  + Stakeholder support letter for the Katalika Mini-grid operation (undated)
  + Signed Practical Action Grant Agreement (Micro-Capital Grant Agreement) for Non-Credit Related Activities (June 30, 2017)
  + UNDP Award letter to Practical Action for the Installation and Operation of a Mini-grid at Usingini Nkhata Bay (June 30, 2017)
  + Usingini Project Management Practical Action letter (May 24, 2017)
  + Practical Action Proposal for the Usingini Micro-Hydro power project (undated)

1. **List of documents acquired during and after the mission** 
   * Component 1 Report: Implemented by MEGA Progress Report (November 2017)
   * Co-financing letter from Green Valley Action (GREVA) (August 15,2014)
   * Co-financing letter from the Scottish Government (August 20, 2014)
   * Co-financing letter from the Mulanje Mountain Conservation Trust (MMCT) (July 30, 2014)
   * Co-financing letter from Business Innovation Facility (BIF) / Department for International Development (DFID) (July 22,2014)
   * Co-financing letter from the MEGA (July 23, 2014)
   * Co-financing letter from the World Bank (August 12, 2014)
   * Co-financing letter from Japan International Cooperation Agency (JICA) (August 4, 2014)
   * Co-financing letter from Practical Action (July 25, 2014)
   * Co-financing letter from Malawi Energy Regulatory Agency (MERA) (August 18, 2014)
   * Co-financing letter from DEA (August 5, 2014)
   * Mini-grid case studies for Kavuzi, Mulanje, Likoma and Mchinji (undated)
   * MOU Malawi Energy Partnership Group (February 8,2017)
   * Malawi Grid Code (February 2016)
   * Malawi IPP Framework (November 7, 2017)
   * Malawi Renewable Energy Strategy (March 2017)
   * Market Rules for the Malawi Electricity Market (February 2016)
   * Malawi New Tariff Methodology (February 2015)
   * Usingini Progress Report (February 2018)

Annex IV

Evaluation Matrix Relevance, Efficiency and Effectiveness

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| **Evaluative Criteria** | **Questions** | **Indicators** | **Sources** | **Methodology** | |
| **Relevance: How does the objectives of the project relate to the main objective of the GEF focal area and UNDP, and to the environment and development priorities of the local beneficiaries?** | | | | | |
| Is the project Relevant  to GEF priorities? | * How does the project support the GEF focal area and strategic priorities | * Existence of a clear relationship between the project objectives and GEF priorities | * Project Documents * GEF focal areas strategies and documents *  Expert’s Interview reports. | | * Documents analyses * GEF website * Interviews with UNDP and project partners |
| Is the project Relevant to UNDP priorities? | * To which extent does the project correspond with the Country Project Action Plan? | * Priorities and work areas are incorporated | * Project Documents * UNDP Country Action Plan for Malawi * National policies and strategies | | * Documents analyses * UNDP website * Interviews with UNDP and project partners |
| Is the project relevant to Malawi environment and sustainable development objectives including the need to increase access to energy in rural areas? | * How does the project support the environment and sustainable development objectives of the Country? * Does the project support Malawi´s objectives in terms of increasing access to energy in rural areas by promoting innovative, community-based mini-grid applications in cooperation with the private sector and civil society? * Is the project Country‐driven? * What was the level of stakeholder participation in project design? * What is the level of stakeholder ownership (government and community) in   implementation?   * Does the Project adequately take into account the national realities, both in terms of institutional capacity, market dynamics, and legal and policy frameworks? | * Degree to which the project supports National environmental objectives * Degree of coherence between the project and national priorities, policies and strategies in particular for those associated with rural electrification * Appreciation from national stakeholders with respect to adequacy of project design and Implementation to national realities and existing capacities * Level of Involvement of government officials and other partners in the project design process *  Coherence between needs expressed by national stakeholders and UNDP‐GEF Criteria | * Project documents * National policies and strategies * Key project * Partners. | | * Documents analyses * Interviews with UNDP and project partners |
| Is the project addressing the specific needs of target beneficiaries at the local and national levels? | * How does the project support the specific needs of relevant stakeholders? * Has the Implementation of the project been inclusive of all relevant Stakeholders? * Were local beneficiaries and stakeholders adequately involved in project design and implementation? | * Strength of the link between expected results from the project and the needs of relevant * stakeholders * Degree of involvement and inclusiveness of stakeholders in project design and implementation | * Project partners and stakeholders * Needs assessment studies * Project documents | | * Document analysis * Interviews with all relevant stakeholders |
| Is the project internally coherent in its design? | * Are there Logical linkages between expected results of the project (log frame) and the project design (in terms of project components, choice of partners, structure, delivery mechanism, scope, budget, use of Resources etc.)? * Is the length of the project sufficient to achieve Project outcomes? | * Level of coherence between project * Expected results and project design internal   logic   * Level of coherence between project Design and project implementation approach | * Program and Project documents * Key project stakeholders | | * Document analysis * Key interviews |
| How is the project  relevant with respect to other UNDP / GEF‐supported Activities? | * Are the GEF funding support activities and objectives not being addressed by other donors? * How do GEF‐funds help to fill gaps (or give additional stimulus) that are necessary but are not covered by other donors? * Is there coordination and complementarily between donors? | * Degree to which program was coherent and complementary to other donor programming nationally and regionally | * Documents from other donor supported activities * Other donor representatives * Project documents | | * Documents analyses * Interviews with project partners and relevant stakeholders |
| Does the project provide relevant lessons and experiences for other similar projects in the future? | * Has the experience of the project provided relevant lessons for other future projects targeted at similar objectives? | * Lessons learned from activities that have been implemented so far | * Data collected throughout the MTR | | * Data analysis |
| **Effectiveness: To what extent have/will the expected outcomes and objectives of the project been/be achieved?** | | | | | |
| Has the project been effective in achieving the expected outcomes and objectives? | * Has the project been effective in achieving its expected outcomes? | * Extent to which indicators in project document results framework and log frame have been achieved | * Project documents * Project team and relevant stakeholders * Data reported in project reports | | * Document analysis * Interviews |
| How have and are risks and risk mitigation being managed? | * How well are risks, assumptions and impact drivers being managed? * What was the quality of risk mitigation strategies developed? Were these sufficient? Are they institutionalized for future learning and cooperation? * re there clear strategies for risk mitigation related with long‐term sustainability of the project? * Have willingness and ability of users to pay for electricity needs been taken into account? * Have issues related to project siting been examined? * Is there an agreement on how the government will prioritize locations? * Has planned grid expansions been taken into account in determining where to install minigrids? | * Completeness of risk identification and assumptions during project planning and Design * Quality of existing information systems in place to identify emerging risks and other issues * Quality of risk mitigations strategies developed and followed | * Project documents * UNDP, project team, and relevant stakeholders | | * Document analysis * Interviews |
| What lessons can be drawn regarding effectiveness for other similar projects in the future and in particular with regard to support that the EU is planning to offer to Malawi ? | * What lessons have been learned from the project regarding achievement of outcomes? * What changes could have been made (if any) to the design of the project in order to improve the achievement of the project’s expected results? | * Lessons learned from activities that have been implemented so far | * Data collected throughout the MTR | | * Data analysis |
| How effectively funds from the programme have been transferred to local partners and / or government? | * Timely and transparent information on available funds * Timely disbursement * Correspondence between information on funds released and received amounts * Well defined (and respected) payment triggers * Relation to other (government) funds | * Information from financial report | * Department of Energy, * Local partners / governments * Associations of NGOs | | * Data analysis |
| **Efficiency: Was the project implemented efficiently, in‐line with international and national norms and standards?** | | | | | |
| Was project support provided in an efficient way based on national ownership and demand? | * Was adaptive management used or needed to ensure efficient resource use? * Did the project logical framework and work plans and any changes made to them use as management tools during implementation? * Were the accounting and financial systems in place adequate for project management and producing accurate and timely financial information? * Have progress reports been produced accurately, timely and responded to reporting requirements including adaptive management changes? * Was project implementation as cost effective as originally proposed (planned vs. actual) * Did the leveraging of funds (co financing) happen as planned? * Were financial resources utilized efficiently? * Could financial resources have been used more efficiently? | * Availability and quality of financial and progress reports * Timeliness and adequacy of reporting provided * Level of discrepancy between planned and utilized financial expenditures * Planned vs. actual funds leveraged * Cost in view of results achieved compared to costs of similar projects from other organizations * Adequacy of project choices in view of existing context, infrastructure and cost * Quality of results‐based management reporting (progress reporting, monitoring and evaluation) * Occurrence of change in project design/implementation approach (i.e. restructuring) when needed to improve project efficiency | * Project documents and Evaluations * UNDP * Project team | | * Document analysis * Key interviews |
| How efficient are partnership arrangements for the project? | * To what extent partnerships/ linkages between institutions/ organizations were encouraged and supported? * Which partnerships/linkages were facilitated? Which ones can be considered sustainable? * What was the level of efficiency of cooperation and collaboration arrangements? * Which methods were successful or not and why? | * Specific activities conducted to support the development of cooperative arrangements between partners, * Examples of supported partnerships * Evidence that particular partnerships / linkages will be sustained * Types / quality of partnership cooperation methods utilized | * Project documents and reviewa * Project partners and relevant stakeholders * UNDP * Beneficiaries | | * Document Analysis * Interviews |
| Did the project efficiently utilised local capacity in implementation? | * Has an appropriate balance struck between utilization of international expertise as well as local capacity? * Has the project taken into account local capacity in design and implementation of the project? * Has there been an effective collaboration between institutions responsible for implementing the project? | * Proportion of expertise utilized from international experts compared to national Experts * Number/quality of analyses done to assess local capacity potential and absorptive capacity | * Project documents and reeviews * UNDP * Beneficiaries | | * Document analysis * Interviews |
| What lessons can be drawn regarding efficiency for similar projects in the future? | * What lessons can be learnt from the project   regarding efficiency?   * How could the project have more efficiently carried out implementation (in terms of management structures and procedures, partnerships arrangements etc.)? * What changes could have been made (if any) to the project in order to improve its efficiency? | * Lessons learned from activities implemented so far | * Data collected throughout the MTR | | * Data analysis |
| How effectively has program management implemented the work plans / updated plans to match modified conditions? | * Rate of delivery on the annual work plans? * Achievements against targets (as set‐out in the ProDoc and in the modified work plans if any) | * Document analysis * Interviews | * Program reports, * Work plans * Project staff * NGOs | | * Document analysis * Interviews |
| To what extent have the GEF /UNDP country / regional offices ensured oversight and guidance functions? | * Number of visits to project sites * Existence of clear mechanisms / instruments to share information and provide feedback * Sharing of lessons learnt * Responsiveness to requests for TA | * The role played by UNDP country and regional offices and its effects on project performances * Levels of effectiveness of their performance | * Program reports, * Project staff, * Regional office * staff * • NGOs | | * Document analysis * Interviews |
| How well has monitoring and evaluation been linked to the management processes? | * Existence of baseline data * Evidence that an ME systems are set‐up and updated * Evidence that the EMIS system is shared with NGOs * Availability of up to date indicators of progress, regular and informative reports | * Document analysis * Interviews | * Data sources of M&E unit, reports, * Project staff, * NGO staff | | * Data sources of M&E unit, reports, * Project staff, * NGO staff |
| Are M&E data and reporting used to share / disseminate information and/or to inform strategic decisions? | * Quality, comprehensiveness and timeliness of reporting * Degree of use of data from M&E to inform investment decisions * Degree of use of data and reports to enhance knowledge base of local and national policy makers | * The structure of M&E systems * Specific contribution of M&E structures to the overall project efficiency. | * Data system used by M&E unit; * M&E reports; * Interviews with M&E and Project staff * NGOs | | * Data system used by M&E unit; * M&E reports; * Interviews with M&E and Project staff * NGOs |
| How effective has Technical Advice been in supporting the program? | * Quality of technical reports * Responsiveness of reports to program needs | * Documentary analysis * Interviews | * Program documents | | * Document analysis * Interviews |
| **Sustainability: How do the objectives of the project relate to the main objective of GEF focal area and UNDP, and to the environment and development priorities at the local beneficiaries?** | | | | | |
| Has the program been conducive to replicating the MEGA model in other areas of Malawi? | * Are investments being planned to replicate the MEGA model in other areas of the country? * How many new mini-grid projects have been implemented in other areas of the country? * Has UNDP supported a conducive business environment? * Is the energy policy & regulatory framework conducive to the implementation of RE projects in Malawi? * Has the project been successful in promoting market approaches for the installation of new mini-grid schemes across the country? * Does the type and amount of RE resources in Malawi allow for the implementation of profitable RE generation projects? * Has the economic analysis has been well integrated into the project design? | * Documentary analysis * Interviews | * Program documents | | * Document analysis * Interviews |
| Strategy | * Which actions has the project put in place to guarantee the sustainability of the results? * Which are the key challenges and risks that the project is facings to ensure the sustainability of the results? | * Documentary analysis * Interviews | * Program documents | | * Document analysis * Interviews |
| Financial sustainability | * How did the project address its financial and economic sustainability in the medium to long run? | * Documentary analysis * Interviews | * Program documents | | * Document analysis * Interviews |
| Institutional sustainability | * Is the institutional framework capacity adequate to support the implementation of third party renewable electricity generation investments in Malawi? * Is the business model based on social enterprises the optimal approach? * Are institutional options for commercial viability being fully pursued / explored? * Which are the key considerations that may influence institutional sustainability and are they being addressed by the project? | * Documentary analysis * Interviews | * Program documents | | * Document analysis * Interviews |
| **Catalytic Role: To which extent has the project demonstrated having a catalytic role in Malawi or in other geographic areas?** | | | | | |
| Scalability and replicability | * Have the results of the project been applied across the country or in other geographic areas? * How can the country benefit from the results and lessons learned from the project? | * Documentary analysis * Interviews | * Program documents | | * Document analysis * Interviews |
| **Impact: To which extent did the project achieve impact or advanced in achieving the expected results and impacts? Has there been unexpected situations?** | | | | | |
| Impact | How is the project contributing to the expected impact with regard to:   * Environment * Economic wellbeing of the country * Other socio-economic aspects | * Documentary analysis * Interviews | * Program documents | | * Document analysis * Interviews |

Annex V

MTR rating scales

|  |  |  |
| --- | --- | --- |
| **Ratings for Progress Towards Results:** (one rating for each outcome and for the objective) | | |
| 6 | Highly Satisfactory  (HS) | The objective/outcome is expected to achieve or exceed all its end-of-project targets, without major shortcomings. The progress towards the objective/outcome can be presented as “good practice”. |
| 5 | Satisfactory (S) | The objective/outcome is expected to achieve most of its end-of-project targets, with only minor shortcomings. |
| 4 | Moderately  Satisfactory (MS) | The objective/outcome is expected to achieve most of its end-of-project targets but with significant shortcomings. |
| 3 | Moderately  Unsatisfactory (HU) | The objective/outcome is expected to achieve its end-of-project targets with major shortcomings. |
| 2 | Unsatisfactory (U) | The objective/outcome is expected not to achieve most of its end-of-project targets. |
| 1 | Highly  Unsatisfactory (HU) | The objective/outcome has failed to achieve its midterm targets, and is not expected to achieve any of its end-of-project targets. |

|  |  |  |
| --- | --- | --- |
| **Ratings for Project Implementation & Adaptive Management:** (one overall rating) | | |
| 6 | Highly Satisfactory  (HS) | Implementation of all components – management arrangements, work planning, finance and co-finance, project-level monitoring and evaluation systems, stakeholder engagement, reporting, and communications is leading to efficient and effective project implementation and adaptive management. The project can be presented as “good practice”. |
| 5 | Satisfactory (S) | Implementation of most of all the components is leading to efficient and effective project implementation and adaptive management except for only few that are subject to remedial action. |
| 4 | Moderately  Satisfactory (MS) | Implementation of some of the components is leading to efficient and effective project implementation and adaptive management, with some components requiring remedial action. |
| 3 | Moderately  Unsatisfactory (MU) | Implementation of some of the components is not leading to efficient and effective project implementation and adaptive, with most components requiring remedial action |
| 2 | Unsatisfactory (U) | Implementation of most of the components is not leading to efficient and effective project implementation and adaptive management. |
| 1 | Highly  Unsatisfactory (HU) | Implementation of none of the components is leading to efficient and effective project  implementation and adaptive management. |

|  |  |  |
| --- | --- | --- |
| **Ratings for Sustainability:** (one overall rating) | | |
| 4 | Likely (L) | Negligible risks to sustainability, with key outcomes on track to be achieved by the project’s closure and expected to continue into the foreseeable future |
| 3 | Moderately Likely  (ML) | Moderate risks, but expectations that at least some outcomes will be sustained due to the progress towards results on outcomes at the Midterm Review |
| 2 | Moderately Unlikely  (MU) | Significant risk that key outcomes will not carry on after project closure, although some outputs and activities should carry on |
| 1 | Unlikely (U) | Severe risks that project outcomes as well as key outputs will not be sustained |

Source: Guidance for Conducting Midterm Reviews of UNDP-Supported, GEF Financed Projects.

Annex VI

List of persons interviewed

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Date** | **Organisation** | **Position** | **Email address** |
| Andrew Spesowka | Feb 7, 2018 | UNDP | Portfolio Manager  Resilience and Sustainable Growth | [andrew.spesowka@undp.org](mailto:andrew.spesowka@undp.org) |
| Etta Mmangisa | Feb 7, 2018 | UNDP | Programme Manager  Resilience and Sustainable Growth | [Etta.mmangisa@undp.org](mailto:Etta.mmangisa@undp.org) |
| Pauline Kawonga | Feb 7, 2018 | UNDP | Programme Associate RSG Portfolio | [Pauline.kawonga@undp.org](mailto:Pauline.kawonga@undp.org) |
| Emmanuel Mjimapemba | Feb 8, 2018 &  Feb 14, 2018 | UNDP | Programme Manager GEF Energy Access | [Emanuel.mjimapemba@undp.org](mailto:Emanuel.mjimapemba@undp.org) |
| Silvestre Gawamadzi | Feb 8, 2018 | Ministry of Local Government and Rural Development | Deputy Director – M&E | [sgawamadzi@gmail.com](mailto:sgawamadzi@gmail.com) |
| Steven Mbewe | Feb 8, 2018 | Department of Energy Affairs | Alternative Energy Engineer | [mbewe@yahoo.com](mailto:mbewe@yahoo.com) |
| Andrew Nkoloma | Feb 8, 2018 | Renewable Energy Industries Association of Malawi | President | [andrew.nkoloma@reiama.org](mailto:andrew.nkoloma@reiama.org) |
| Saidi Banda | Feb 8, 2018 | Department of Energy Affairs | Chief Engineer Officer | [saibanda@hotmail.com](mailto:saibanda@hotmail.com)  [bandasaida@yahoo.co.uk](mailto:bandasaida@yahoo.co.uk) |
| Charles Kagona | Feb 9, 2018 | ESCOM | System Planning Chief Engineer | [ckagona@escom.mw](mailto:ckagona@escom.mw) |
| Daniel Kloser | Feb 9, 2018 | MEGA | General Manager | [gm@mega.mw](mailto:gm@mega.mw) |
| Simon Master | Feb 12, 2018 | Nkhata Bay Local District Council | Environmental Officer | [Mbsimon001@gmail.com](mailto:Mbsimon001@gmail.com) |
| Radford Phiri | Feb 12, 2018 | Kavuzi Electricity Company | Chairperson |  |
| Morton Kaunda | Feb 13, 2018 | Community Energy Malawi (CEM) | Trading Manager | [morton.kaunda@yahoo.com](mailto:morton.kaunda@yahoo.com) |
| Chawezi Gondwe | Feb 13, 2018 | Community Energy Malawi (CEM) | Development Officer | [chawagee@gmail.com](mailto:chawagee@gmail.com) |
| Edgar Kapiza Bayani | Feb 14, 2018 | Community Energy Malawi (CEM) | Country Director | [edgarkbayani@communityenergymalawi.org](mailto:edgarkbayani@communityenergymalawi.org) |
| Admore Chiumia | Feb 14, 2018 | Practical Action (PA) | Energy Consultant | [admore.chiumia@practicalaction.org.zw](mailto:admore.chiumia@practicalaction.org.zw) |
| Victor Chambayika Mhango | Feb 14, 2018 | Practical Action (PA) | Country Representative Malawi | [victor.mhango@practicalaction.org.zw](mailto:victor.mhango@practicalaction.org.zw) |
| Josephine Mapila | Feb 14, 2018 | Practical Action (PA) | Finance and Administration Officer | [josephine.mapila@practicalaction.org.zw](mailto:josephine.mapila@practicalaction.org.zw) |
| Ed Phillips | Feb 14, 2108 | Practical Action (PA) | International Energy Consultant | [Ed.phillips@practicalaction.org.zw](mailto:Ed.phillips@practicalaction.org.zw) |
| Wifred Kasakula | Feb 14, 2018 | Malawi Energy Regulatory Authority (MERA) | Senior Engineer – Renewable Energy | [wkasakula@yahoo.com](mailto:wkasakula@yahoo.com) |
| Joseph Kalowekamo | Feb 14, 2018 | Department of Energy Affairs | Deputy Director (Renewable Energy) | [jkalowek@gmail.com](mailto:jkalowek@gmail.com) |

Annex VII

Examples of questionnaires

**State your name and position:**

Please answer all questions to the best of your abilities:

1. **Project Formulation /Design**

* Conceptualization /Design: risks and assumptions
  + Explain some of the *inherent assumptions* in the original design. Are they correct? Examples include:
    - Scope of project vs. funding and capacity
    - Scale up possibilities
    - Sustainability- funding mechanisms, etc.
    - Capacities
    - others
  + Please provide an elaboration of the project conceptualization process to the best of your knowledge
  + Is the Log frame still appropriate?
  + Should baselines be added and indicator adjusted?
  + Does the risk matrix make sense and is it appropriate? Should it be upgraded? Is it used as management tool How are risks mitigated?
  + How would you rate the design on a scale of 1-5? (with five being highest)
* Country ownership/ Drivenness
  + How do the government partners engage / interact with this project?
  + Is the project a national priority? Why or Why not?
  + What is the institutional home of this project? Is this the optimal home?
  + What is the status of legislation supportive of the program expected outcomes?
  + Are there enforcement mechanisms?
  + Should the project be housed in another institution?
* Stakeholder participation in design:
  + Who are the key project stakeholders/beneficiaries? Describe how stakeholders were involved in the design process.
  + How would you rate the stakeholder participation on a scale of 1-5? (with 5 being the highest)
* Replication approach:
  + Does this project have a design / approach that can be replicated regionally, nationally or globally? Give evidence. Why or Why not?
* UNDP/GEF role:
  + Describe the UNDP Country office and GEF contribution in management and implementation.
* Linkages between project and other interventions within the sector
  + Describe the linkages between this project and other similar projects in the sector.
* Other aspects:
  + Provide your rating of project design on a scale of 1 – 5 (with five being the highest rating possible)

1. **Implementation/management approach**

* Does the Project management employ the logical framework as a management tool? Provide concrete examples.
* Provide concrete examples of Project management and stakeholders use of adaptive management, i.e. comprehensive and realistic work plans every year?
* Please draw the current project management and implementation arrangements.
* Describe the general operational relationships between the various institutions involved and others and how these relationships have contributed to effective implementation and achievement of project outcomes.
* How would you rate the implementation approach on a scale of 1-5? (Five is the highest rating possible)

1. **Monitoring and Evaluation**

* Did project staff or stakeholders undertake periodic oversight?
* How often does the Project Board and the Steering Committee meet?
* Can you please describe what evaluations and or studies you have conducted on aspects of project?
* Describe the systems and tools employed for M&E, i.e. log frame, baselines established.
* Project indicators: are there results and progress indicators? Describe data analysis process.
* List staff and designation of responsibilities with respect to M&E i.e. capacities and resources for M&E
* How would you rate the M&E on a scale of 1-5? (Five is the highest rating possible)

1. **Partnership strategies**

* Are partnerships appropriate and effective including the range and quality of partnerships and collaboration developed with government, civil society, donors, the private sector and whether these have contributed to improved delivery?
* Which is the degree of stakeholder and partner involvement in the various processes related to the outputs and outcome?
* How could synergies be built with other projects within the sector?

1. **Stakeholder Participation and Implementation**

* How is information generated and disseminated by the project?
* Please comment on the overall strengths and weaknesses of the approach adopted by the project regarding stakeholder participation and implementation.
* Please describe the process and result of the establishment of partnerships and collaborative relationships developed by the project with local, national and international entities. Describe the effect of these on project implementation.
* Describe the involvement of government institutions in project implementation, the extent of government support of the project.
* How would you rate the stakeholder participation and implementation on a scale of 1-5? (Five is the highest rating possible).

**F. Financial planning**

* List activities and provide project cost by activity, outputs and activities (provide information to enable to allow an analysis of delivery by percentage)
* Describe the financial management (including disbursement issues),
* Describe the co-financing arrangements/agreements. Are they suitable?
* Has a project audit been conducted? What are the major findings? Do you agree?

**G. Describe in detail the execution and implementation modalities**

* Does National execution work or not?
* Describe the effectiveness of UNDP counterpart and project coordinators unit inparticipation in selection, recruitment, assignment of experts and national counterpart staff and in the definition of tasks and responsibilities.
* Are there any problems with the implementation i.e. current flow of staff in and out of the project, others?
* Describe the hiring process for Project staff- who is responsible for this? Are the donor and government partners involved?
* Describe the financial officer’s roles? Does this work? Is it strategic and operational support toward project outcomes and for implementation?
* Does the project receive external technical backstopping and support from the wider partner knowledge network – why or why not?
* Do you think the procurement process is streamlined and efficient? What can be done to improve it? How does it affect overall implementation and expected results?
* What are some suggested improvements in the human resources situation?

**Sustainability**

**1. Financial sustainability**

* What is the likelihood of financial and economic resources being available once the UNDP assistance ends?
* What opportunities for financial sustainability have been identified for each country if any?
* What additional factors are needed to create an enabling environment for continued financial sustainability?

**2 Socio economic sustainability**

* Have any social or political risks that may jeopardize sustainability of project outcomes been identified?
* Is government ownership sufficient to allow for project outcomes / benefits to be sustained over the medium to long term?
* Is there sufficient awareness in support of the project objectives both from stakeholders and the public?

1. **Institutional frameworks / governance structures sustainability**

* Do the institutional frameworks / governance structures pose risks that may jeopardize project benefits? If so, how can this be mitigated?
* Has the project developed appropriate institutional capacity in each of the countries which would be sufficient to sustain project outcomes and impacts after the project end date?

1. **Environmental sustainability**

* Are there environmental risks that could affect the project outcomes and results? Please describe

Annex VIII

Signed UNEG Code of Conduct form

**UNEG Code of Conduct for Evaluators/Midterm Review Consultants52**

**Evaluators / Consultants**

1. Must present information that is complete and fair in its assessment of strengths and weaknesses so that decisions or actions taken are well founded.

2. Must disclose the full set of evaluation findings along with information on their limitations and have this accessible to all affected by the evaluation with expressed legal rights to receive results.

3. Should protect the anonymity and confidentiality of individual informants. They should provide maximum notice, minimize demands on time, and respect people’s right not to engage. Evaluators must respect people’s right to provide information in confidence, and must ensure that sensitive information cannot be traced to its source. Evaluators are not expected to evaluate individuals, and must balance an evaluation of management functions with this general principle.

4. Sometimes uncover evidence of wrongdoing while conducting evaluations. Such cases must be reported discreetly to the appropriate investigative body. Evaluators should consult with other relevant oversight entities when there is any doubt about if and how issues should be reported.

5. Should be sensitive to beliefs, manners and customs and act with integrity and honesty in their relations with all stakeholders. In line with the UN Universal Declaration of Human Rights, evaluators must be sensitive to and address issues of discrimination and gender equality. They should avoid offending the dignity and self-respect of those persons with whom they come in contact in the course of the evaluation. Knowing that evaluation might negatively affect the interests of some stakeholders, evaluators should conduct the evaluation and communicate its purpose and results in a way that clearly respects the stakeholders’ dignity and self-worth.

6. Are responsible for their performance and their product(s). They are responsible for the clear, accurate and fair written and/or oral presentation of study limitations, findings and recommendations.

7. Should reflect sound accounting procedures and be prudent in using the resources of the evaluation.

**MTR Consultant Agreement Form**

Agreement to abide by the Code of Conduct for Evaluation in the UN System:

**Name of Consultants** Alfredo Caprile

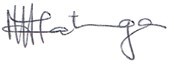
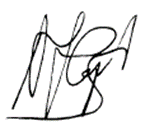
Magi Matinga

**Name of Consultancy Organization** n.a.

I confirm that I have received and understood and will abide by the United Nations Code of Conduct for Evaluation.

**Signed at** Lilongwe February 15, 2018

**Signature**



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Annex IX

MTR final report clearance form

**Midterm Review Report Reviewed and Cleared By:**

**Commissioning Unit**

Name:

Signature:

Date:

**UNDP-GEF Regional Technical Advisor**

Name:

Signature:

Date:

1. MTR ratings are in accordance with the rating scales of the UNDP Guidance for Conducting

   Midterm Reviews of UNDP-Supported GEF Financed Projects, as presented in more detail in Annex V. [↑](#footnote-ref-2)
2. See Annex V for the MTR ratings that apply to Sustainability which are different from the ones used for rating progress toward results [↑](#footnote-ref-3)
3. From here onwards refer to as the “Evaluator”. [↑](#footnote-ref-4)
4. The project had a slow start primarily due to severe floods that took place during early 2015 in Malawi that affected 14 out of the 28 districts which did not spare the hydro-electric infrastructure that generates electricity for the MEGA´s mini-grid, damaging part of its generating infrastructure. The Inception Workshop took place in June 2105 which marked the actual Project Launch and the first Project Board meeting was held in October 2015. [↑](#footnote-ref-5)
5. See <http://web.undp.org/evaluation/documents/guidance/GEF/midterm/Guidance_Midterm%20Review%20_SP_2014.pdf> [↑](#footnote-ref-6)
6. Prior to the start of the mission a virtual kick off meeting via Skype was organized with Etta Mmangisa to agree on the work plan and to adjust the program of interviews to be undertaken during the mission to Malawi. [↑](#footnote-ref-7)
7. Around 2012, most service stations stopped selling kerosene. [↑](#footnote-ref-8)
8. ESCOM 2016 [↑](#footnote-ref-9)
9. PIF *Project Identification Form* [↑](#footnote-ref-10)
10. SMART: *specific, measurable, achievable, relevant and time-bound* [↑](#footnote-ref-11)
11. Objective (Atlas output) monitored quarterly ERBM and annually in APR/PIR [↑](#footnote-ref-12)
12. Since MEGA’s Bondo project is at a testing phase and since the DEA supported wind-PV mini-grids largely defunct, the current emissions avoided is considered negligible. This baseline figure will be updated by the project once Bondo testing phase is over and electricity supply operations from Bondo to target households begin. [↑](#footnote-ref-13)
13. The 88 kW installed at the Bondo site by MEGA is currently at a testing phase and is yet to commence full-fledged electricity service operations to customers. The current generation levels are at a lower level and translates to 56 kW. The other wind-solar hybrid mini-grids developed by DEA are not functional at present – see Section 2.4. [↑](#footnote-ref-14)
14. 216 kW of hydro powered mini-grids under Component 1 and 84 kW of wind/solar powered mini-grids under Component 2. [↑](#footnote-ref-15)
15. The Bondo site by MEGA is yet to commence commercial operations but the electricity production data based on test results is indicated. [↑](#footnote-ref-16)
16. All outcomes monitored annually in the APR/PIR. It is highly recommended not to have more than 4 outcomes. [↑](#footnote-ref-17)
17. Bondo is currently at a testing stage and the capacity is now estimated as 56 kW [↑](#footnote-ref-18)
18. Including 88 kW at Bondo and 80 kW at Lujeri [↑](#footnote-ref-19)
19. Other than installed by MEGA and captured under Component 1. [↑](#footnote-ref-20)
20. The Wind-PV hybrid systems that have been supported by the government are largely defunct and therefore no emissions are being avoided at present. [↑](#footnote-ref-21)
21. Includes BIF/DfID, JICA, MMCT, and GREVA. [↑](#footnote-ref-22)